DRAFT REPORT
ROUND 10 DAM ASSESSMENT - MAY 31, 2011
ALLIANT ENERGY – EDGEWATER GENERATING STATION
SLAG POND, NORTH POND A, SOUTH POND A, POND B, POND F
SHEBOYGAN, WISCONSIN

PREPARED FOR:

U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

PREPARED BY:

GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, Ma 02062
GZA File No. 01.0170142.30

DRAFT

GZA
GeoEnvironmental, Inc.

Engineers and
Scientists

March 19, 2012
GZA File No. 170142.30

Mr. Stephen Hoffman
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

RE: Assessment of Dam Safety of Coal Combustion Surface Impoundments at the Edgewater Generating Station

Dear Mr. Hoffman,

One Edgewater Drive
Norwood,
Massachusetts 02062
Phone: 781-278-3700
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In accordance with our proposal 01.P0000177.11 dated March 28, 2011, and U.S. Environmental Protection Agency (EPA) Contract No. EP10W001313, Order No. EP-B115-00049, GZA GeoEnvironmental, Inc. (GZA) has completed our inspection of the Edgewater Generating Station Coal Combustion Waste (CCW) Impoundments located in Sheboygan, Wisconsin. The site visit was conducted on May 31, 2011. The purpose of our efforts was to provide the EPA with a site specific inspection of the impoundments to assist EPA in assessing the structural stability of the impoundments under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 104(e). We are submitting one hard copy and one CD-ROM copy of this Draft Report directly to the EPA.

Based on our visual inspection, and in accordance with the EPA's criteria, the Slag Pond, North Pond A, South Pond A, Pond B and Pond F are currently in POOR condition in our opinion. Further discussion of our evaluation and recommended actions are presented in the Task 3 Dam Assessment Report. The report includes: (a) a completed Coal Combustion Dam Inspection Checklist Form for each Basin; (b) a field sketch; and (c) selected photographs with captions. Our services and report are subject to the Limitations found in **Appendix A** and the Terms and Conditions of our contract agreement.

We are happy to have been able to assist you with this inspection and appreciate the opportunity to continue to provide you with dam engineering consulting services. Please contact the undersigned if you have any questions or comments regarding the content of this Task 3 Dam Assessment Report.

Sincerely,

GZA GeoEnvironmental, Inc.

Doug P. Simon, P.E
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PREFACE

The assessment of the general condition of the dams/impoundment structures reported herein was based upon available data and visual inspections. Detailed investigations and analyses involving topographic mapping, subsurface investigations, testing and detailed computational evaluations were beyond the scope of this report.

In reviewing this report, it should be realized that the reported condition of the dams and/or impoundment structures was based on observations of field conditions at the time of inspection, along with data available to the inspection team. In cases where an impoundment is lowered or drained prior to inspection, such action, while improving the stability and safety of the dam, removes the normal load on the structure and may obscure certain conditions, which might otherwise be detectable if inspected under the normal operating environment of the structure.

It is critical to note that the condition of the dam and/or impoundment structures depends on numerous and constantly changing internal and external conditions, and is evolutionary in nature. It would be incorrect to assume that the reported condition of the dam will continue to represent the condition of the dam at some point in the future. Only through continued care and inspection can there be any chance that unsafe conditions be detected.

Prepared by:

GZA GeoEnvironmental, Inc.

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Patrick Harrison, P.E.

License No.: 14164-6
Senior Geotechnical Consultant
GZA GeoEnvironmental, Inc.

EXECUTIVE SUMMARY

This Inspection Report presents the results of a visual inspection of the Alliant Energy (Alliant) – Edgewater Generating Station (EGS) Coal Combustion Waste (CCW) Impoundments located at 3739 Lakeshore Drive, Sheboygan, Wisconsin. These inspections were performed on May 31, 2011 by representatives of GZA GeoEnvironmental, Inc (GZA), accompanied by representatives of Alliant.

The EGS power plant has three coal-fired units with a maximum generating capacity of approximately 825 Megawatts. Commercial operation of the facility began in the 1960s and the Ash Disposal Facility (ADF), Pond C and Pond F were commissioned in 1969 for the purpose of storing and disposing non-recyclable CCW from the EGS facility and clarification of water prior to discharge. North Pond A, South Pond A and Pond B were constructed in 1977 along the eastern edge of, and within the ADF. North Pond A and South Pond A discharged to the western portion of the ADF until a culvert was constructed in 1981 to discharge water directly to Pond B. The Slag Pond was constructed in 1984 within the ADF, north of North Pond A for settling and recovery of slag. The western portion of the ADF was filled with ash, capped, and closed as a landfill.

The Slag Pond, North Pond A, and South Pond A serve as the primary receiving ponds for CCW generated by the facility. Slag is the primary CCW received by the Slag Pond and fly ash is the primary CCW received by North Pond A and South Pond A. Unsettled solids and water are discharged to Pond B and subsequently to Pond C and Pond F. Based on discussions with the EPA, analysis of Pond C and the closed portion of the landfill were judged not to fall within our scope of work as the units do not meet the criteria set forth by the U.S. EPA for further evaluation.

For the purposes of this EPA-mandated inspection, the sizes of the impoundments were based on U. S. Army Corps of Engineers (COE) criteria. Based on the maximum crest height of 18 feet and a storage volume of approximately 13 acre-feet, the Slag Pond is classified as a **Small-**sized structure. Based on the maximum crest height of 19 feet and a storage volume of approximately 27 acre-feet, North Pond A is classified as a **Small-**sized structure. Based on the maximum crest height of 19 feet and a storage volume of approximately 32 acre-feet, the South Pond A is classified as a **Small-**sized structure. Based on the maximum crest height of 18 feet and a storage volume of approximately 34 acre-feet, Pond B is classified as a **Small-**sized structure. Based on the maximum crest height of 10 feet and a storage volume of approximately 17 acre-feet, Pond F is classified as a **Small-**sized structure. According to guidelines established by the COE, dams with a storage volume less than 1,000 acre-feet and/or a height less than 40 feet are classified as Small-sized structures.

Under the EPA classification system, as presented on page 2 of the EPA check list (**Appendix C**) and Definitions section (**Appendix B**), it is GZA's opinion that the Slag Pond, North Pond A, South Pond A, Pond B and Pond F would be considered as having a **Low** hazard potential. Based on the Miller Evaluation, the most likely failure of the impoundments occurs during rapid drawdown. It is not likely for materials to be discharged during a rapid drawdown event and therefore the potential for release of materials outside of the Utility-owned

property is low. The hazard potential rating is based on no probable loss of human life due to failure and the low potential for environmental impacts outside of Utility-owned property.

Assessments

In general, the overall condition of the Slag Pond was judged to be **POOR** and was found to have the following deficiencies:

1. Trees and shrubs were present on the upstream and downstream slopes;
2. Potholes were present along the crest of the embankments;
3. Vertical cracking of one section of the cast-in-place concrete retaining wall; and,
4. Small branches partially blocking inlet structure.
5. The stability of the embankments was not evaluated under seismic loading nor was the stability of the downstream slope of the embankment evaluated with respect to the portion being retained by the cast-in-place retaining wall.

In general, the overall condition of North Pond A and South Pond A were judged to be **POOR** and were found to have the following deficiencies:

1. Trees and shrubs were present on the upstream and downstream slopes;
2. Potholes were present along the crest of the embankments; and,
3. An erosion feature on the downstream slope of the eastern portion of the southern embankment of South Pond A.
4. The stability of the embankments was not evaluated under seismic loading.

In general, the overall condition of the Pond B was judged to be **POOR** and was found to have the following deficiencies:

1. Trees and shrubs were present on the upstream and downstream slopes;
2. Potholes were present along the crest of the embankments; and,
3. Wave action erosion was present along the upstream slope.
4. The stability of the embankments was not evaluated under seismic loading.

In general, the overall condition of the Pond F was judged to be **POOR** and was found to have the following deficiencies:

1. Trees and shrubs were present on the upstream and downstream slopes;
2. Potholes were present along the crest of the embankments; and,
3. The locations of the discharge pipes from Pond C to Pond F were not visible at the time of our inspection.
4. The stability of the embankments was not evaluated under seismic loading.

In GZA's professional opinion, the embankment(s) visually appear to be sound and no immediate remedial action appears to be necessary. However, based on EPA's inspection criteria, the impoundment has been given a **POOR** Condition Rating, because complete geotechnical computations were not provided/available for GZA's for review. Thus, the stability of the embankment(s) under seismic loading could not be independently verified. The following sections describe the recommended approach to address current deficiencies. Prior to undertaking recommended maintenance, repairs, or remedial measures, Alliant should secure applicable permits as necessary.

Studies and Analyses

GZA recommends the following studies and analyses:

1. Perform a stability analysis of the downstream slope of the Slag Pond to account for the section of the embankment being retained by the cast-in-place retaining wall.
2. Evaluate the stability of the impoundment embankments under seismic loading.

Recurrent Operation & Maintenance Recommendations

GZA recommends the following operation and maintenance level activities:

1. Maintain grass cover on the upstream and downstream slope and approximately 15 feet beyond the toe area. USACE recommends vegetation be kept less than 12 inches in height on embankments;
2. Remove trees from the upstream and downstream slopes;
3. Fill potholes, depressions, and animal burrows and reseed as necessary; and,
4. Exercise stoplogs and slide gates.

Minor Repair Recommendations

GZA recommends the following minor repairs which may improve the overall condition of the impoundments, but do not alter their current design. The recommendations may require design by a professional engineer and construction contractor experienced in dam construction.

1. Repair the wave-action erosion along the upstream slope of the western embankment of Pond B.

Remedial Measures Recommendations

1. Determine location of pipes that discharge into Pond F. Generate plan for maintaining access for repair and evaluation.
2. In conjunction with the results of the stability analyses recommended herein, make provisions to address deficiencies if required/as necessary.

SLAG POND, NORTH POND A, SOUTH POND A, POND B AND POND F
ALLIANT ENERGY, INC., EDGEWATER GENERATING STATION
EDGEWATER, WISCONSIN

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1.0 DESCRIPTION OF PROJECT

1.1 General

1.1.1 Authority

The United States Environmental Protection Agency (EPA) has retained GZA GeoEnvironmental, Inc. (GZA) to perform a visual inspection and develop a report of conditions for the Alliant Energy, Inc. (Alliant, Owner) Edgewater Generating Station (EGS, Site) Coal Combustion Waste (CCW) Impoundments in Sheboygan County, Wisconsin. This inspection was authorized by the EPA under the authority of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Section 104(e). This inspection and report were performed in accordance with Request for Quote (RFQ) RFQ-DC-16, dated March 16, 2011, and EPA Contract No. EP10W001313, Order No. EP-B11S-00049. The inspection generally conformed to the requirements of the Federal Guidelines for Dam Safety[1] and this report is subject to the limitations provided in **Appendix A** and the Terms and Conditions of our Contract Agreement.

1.1.2 Purpose of Work

The purpose of this investigation was to visually inspect and evaluate the condition of the impoundments and appurtenant structures (the management unit) to attempt to identify conditions that may adversely affect their structural stability and functionality, to note the extent of any deterioration that may be observed, review the status of maintenance and needed repairs and to evaluate the conformity with current design and construction standards of care.

The investigation was divided into five parts: 1) obtain and review available reports, investigations and data from the Owner pertaining to the impoundment and appurtenant structures; 2) perform a review with the Owner of available design, inspection and maintenance data and procedures for the management unit; 3) perform a visual inspection of the Site; 4) prepare and submit a field assessment checklist; and 5) prepare and submit a draft report presenting the evaluation of the structure, including recommendations and proposed remedial actions.

1.1.3 Definitions

To provide the reader with a better understanding of the report, definitions of commonly used terms associated with dams are provided in **Appendix B**. Many of these terms may be included in this report. The terms are presented under common categories associated with dams, which include: 1) orientation; 2) dam components; 3) size classification; 4) hazard classification; 5) general; and 6) condition rating.

1.2 Description of Project

1.2.1 Location

The EGS is located in the City of Sheboygan in Sheboygan County, Wisconsin. The entrance to the Site is on Lakeshore Drive and the CCW impoundments are located about

[1] FEMA/ICODS, April 2004: http://www.ferc.gov/industries/hydropower/safety/guidelines/fema-93.pdf.

¼-mile south and southwest of the power plant at approximately latitude 43° 42' 46" North and longitude 87° 42' 42" West. A Site locus of the impoundments and surrounding area is shown on **Figure 1**. An aerial photograph of the impoundments and surrounding area is provided as **Figure 2**. The impoundments can be accessed by vehicles from earthen access roads from Lakeshore Drive and the power plant.

1.2.2 Owner/Caretaker

The CCW impoundments are owned by Alliant Energy, Inc. and are operated by the EGS.

	Dam Owner/Caretaker
Name	Alliant Energy, Inc., Edgewater Generating Station
Mailing Address	3739 Lakeshore Drive
City, State, Zip	Sheboygan, Wisconsin 53081
Contact	Eric Sandvig
Title	Plant Manager
E-Mail	ericsandvig@alliantenergy.com
Daytime Phone	920-946-1950
Emergency Phone	911

1.2.3 Purpose of the Impoundments

The EGS power plant has three coal-fired units with a maximum generating capacity of approximately 825 Megawatts. Commercial operation of the facility began in the 1960s and the Ash Disposal Facility (ADF), Pond C and Pond F were commissioned in 1969 for the purpose of storing and disposing non-recyclable CCW from the EGS facility and clarification of water prior to discharge. North Pond A, South Pond A and Pond B were constructed in 1977 along the eastern edge of, and within the ADF. North Pond A and South Pond A discharged to the western portion of the ADF until a culvert was constructed in 1981 to discharge water directly to Pond B. The Slag Pond was constructed in 1984 within the ADF, north of North Pond A for settling and recovery of slag. The western portion of the ADF was filled with ash, capped, and closed as a landfill.

The Slag Pond, North Pond A, and South Pond A serve as the primary receiving ponds for CCW generated by the facility. Slag is the primary CCW received by the Slag Pond and fly ash is the primary CCW received by North Pond A and South Pond A. In addition, the impoundments receive ash transport water, boiler water wash, air heater wash (fly ash), precipitator wash (fly ash), steam grade production wastewaters, storm water runoff from main switch yard, turbine room floor drains after processing through an oil/water separator, boiler room sumps, bottom ash hopper seals and slag tank overflow.

Unsettled solids and water are discharged to Pond B and subsequently to Pond C and Pond F. Therefore, Pond B, Pond C, and Pond F receive slag, fly ash, transport water, boiler water wash, air heater wash (fly ash), precipitator wash (fly ash), steam grade production

wastewaters, storm water runoff from main switch yard, turbine room floor drains after processing through an oil/water separator, boiler room sumps, bottom ash hopper seals and slag tank overflow. Water is discharged from Pond F to Lake Michigan.

During our Site inspection, GZA observed the condition of Pond C, Pond E and the closed Landfill, and subsequently completed the EPA checklists for Pond C and Pond E. However, after further discussion with the EPA, analysis of these structures does not fall within our scope of work as these units do not meet the criteria set forth by the U.S. EPA for coal ash impoundments. Photos of Pond C, Pond E and the closed Landfill are provided in **Appendix F** for reference; however, these structures are not further analyzed in this report.

1.2.4 Description of the Slag Pond and Appurtenances

Alliant Energy and the Wisconsin Department of Natural Resources (WDNR) no longer have information regarding the original design of the ADF, which was commissioned in 1969. However, the partitioning of the Slag Pond in 1984 was designed by Donahue & Associates, Inc (Donahue). The following description of the impoundment is based on information provided in an existing conditions evaluation report performed in early 2011 by Miller Engineers and Scientists[2] (Miller Evaluation), information received from Alliant and observations made by GZA during our Site visit.

The Slag Pond is located southwest of the EGS as shown on **Figure 2**. This impoundment serves as a settling pond for CCW generated by the EGS. Slag, ash transport water, boiler water wash, air heater wash (fly ash), precipitator wash (fly ash), steam grade production wastewaters, storm water runoff from main switch yard, turbine room floor drains after processing through an oil/water separator, boiler room sumps, bottom ash hopper seals and slag tank overflow discharge into this impoundment through two 10-inch diameter pipes, which are located along the southern embankment of the pond. Decanted water and unsettled solids are discharged from the Slag Pond to Pond B through a 24-inch diameter decant structure which is located near the southwest corner of the pond. The location of the discharge pipes and decant structure in the Slag Pond are shown on **Figure 3**. Decanted water is mixed with the discharge from North Pond A and South Pond A prior to flowing into Pond B.

The Slag Pond consists of an earthen embankment with a crest length of approximately 1,350 feet and a general height (from the lowest downstream toe elevation to the crest of the impoundment) of approximately 18 feet along the eastern embankment and a crest elevation of approximately 609.7 feet MSL (Datum). The outer embankments were constructed with 2-foot horizontal to one-foot vertical (2H:1V) upstream and downstream slopes consisting of compacted silty clay and clay. The embankment that is shared with North Pond A may have been constructed from slag (inert, granular bottom ash)[3]. A 3-foot thick compacted clay layer was reportedly placed on the upstream slopes of the Slag Pond. A cast-in-place concrete retaining wall is present along the western portion of the downstream slope of the northern embankment. The retaining wall is approximately 4 feet in height and extends west along the closed Landfill. Gravel was placed on the crest of the embankments to facilitate an access road. A typical section of the embankments as shown in the Miller Evaluation is provided on

[2] "*Edgewater Generating Station Ash Pond Evaluation, Sheboygan, Wisconsin",* dated March 18, 2011 by Miller Engineers and Scientists.
[3] "Field Investigation Report Edgewater Closed Ash Disposal Facility, Wisconsin Power & Light Company, WDNR License #2524 June 1993" by BT^2 Inc.

Figure 4. The locations of the typical sections provided in the Miller Evaluation are shown on **Figure 5**.

1.2.5 Description of the North Pond A Impoundment and Appurtenances

Alliant Energy and the Wisconsin Department of Natural Resources (WDNR) no longer have information regarding the original design of the ADF, which was commissioned in 1969. However, the partitioning of North Pond A in 1976 was designed by Donahue. Typical profiles of the 1976 design are provided as **Figures 6, 7, and 8**. The following description of the impoundment is based on information provided in the Donahue Design Drawings, the Miller Evaluation, information received from Alliant, and observations made by GZA during our Site visit.

North Pond A is located southwest of the EGS and south of the Slag Pond as shown on **Figure 2**. The impoundment serves as a settling pond for CCW generated by the EGS. Fly ash, ash transport water, boiler water wash, air heater wash (fly ash), precipitator wash (fly ash), steam grade production wastewaters, storm water runoff from main switch yard, turbine room floor drains after processing through an oil/water separator, boiler room sumps, bottom ash hopper seals and slag tank overflow discharge into the impoundment through a 10-inch diameter steel pipe located near the northeast corner of the impoundment. Decanted water and unsettled solids are discharged from the North Pond A to Pond B through an 18-inch diameter CMP decant pipe near the southwest corner of pond. The location of the discharge pipe and decant pipe in North Pond A are shown on **Figure 9**. Decanted water is mixed with discharge from the Slag Pond and South Pond A prior to flowing into Pond B.

North Pond A consists of an earthen embankment with a crest length of approximately 1,400 feet and a general height (from the lowest downstream toe elevation to the crest of the impoundment) of approximately 19 feet along the eastern embankment and a crest elevation of approximately 611.8 feet MSL. The outer embankment was constructed with 2-foot horizontal to one-foot vertical (2H:1V) upstream and downstream slopes consisting of compacted silty clay and clay. The interior embankments separating North Pond A from the Slag Pond and South Pond A may consist of slag. Gravel was placed on the crest of the embankments to facilitate an access road. A typical section of the embankments as shown in the Miller Evaluation is provided on **Figure 4.** The locations of the typical sections provided in the Miller Evaluation are shown on **Figure 5**.

Instrumentation near the impoundment includes one monitoring well (36-OW) located as shown on **Figure 9**.

1.2.6 Description of the South Pond A Impoundment and Appurtenances

Information regarding the original design of the ADF which was commissioned in 1969 was not available. However, the partitioning of South Pond A in 1976 was designed by Donahue. The following description of the impoundment is based on information provided in the Donahue Design Drawings, the Miller Evaluation, information received from Alliant, and observations made by GZA during our Site visit.

South Pond A is located southwest of the EGS and south of the Slag Pond as shown on **Figure 2**. The impoundment serves as a settling pond for CCW generated by the EGS. Fly ash,

ash transport water, boiler water wash, air heater wash (fly ash), precipitator wash (fly ash), steam grade production wastewaters, storm water runoff from main switch yard, turbine room floor drains after processing through an oil/water separator, boiler room sumps, bottom ash hopper seals and slag tank overflow discharge into the impoundment through a 10-inch diameter steel pipe located near the northeast corner of the impoundment. Decanted water and unsettled solids are discharged from the South Pond A to Pond B through an 18-inch diameter CMP decant pipe near the northwest corner of pond. The location of the discharge pipe and decant pipe in South Pond A are shown on **Figure 9**. Decanted water is mixed with discharge from the Slag Pond and North Pond A prior to flowing into Pond B.

South Pond A consists of an earthen embankment with a crest length of approximately 1,400 feet and a general height (from the lowest downstream toe elevation to the crest of the impoundment) of approximately 19 feet along the eastern embankment and a crest elevation of approximately 611.6 feet. The embankments were constructed with 2-foot horizontal to one-foot vertical (2H:1V) upstream and downstream slopes consisting of compacted silty clay and clay along the eastern and southern embankments. The embankment separating South Pond A from North Pond A may consist of slag. Gravel was placed on the crest of the embankments to facilitate an access road. Typical sections of the embankments as shown in the Miller Evaluation are provided on **Figures 4 and 7.** The locations of the typical sections provided in the Miller Evaluation are shown on **Figure 5**.

Instrumentation near the impoundment includes four groundwater monitoring wells (20-OW, 36-OW, 7A, and 7-OW) located as shown on **Figure 9**.

1.2.7 Description of the Pond B Impoundment and Appurtenances

Alliant Energy and the Wisconsin Department of Natural Resources (WDNR) no longer have information regarding the original design of the ADF, which was commissioned in 1969. However, the partitioning of Pond B in 1976 was designed by Donahue. The following description of the impoundment is based on information provided in the Donahue Design Drawings, the Miller Evaluation, information received from Alliant, and observations made by GZA during our Site visit.

Pond B is located southwest of the EGS, south of South Pond A and west of Pond C as shown on **Figure 2**. The impoundment serves as a settling pond for CCW generated by the EGS. Decanted water from the Slag Pond, North Pond A, and South Pond A flows into Pond B through a 48-inch diameter concrete pipe located near the northwest corner of the impoundment. Decanted water and unsettled solids are discharged from Pond B to Pond C through a decant structure which is located along the eastern embankment of the impoundment. The locations of the discharge pipe and decant structure in Pond B are shown on **Figure 11**.

Pond B consists of an earthen embankment with a crest length of approximately 1,600 feet and a general height (from the lowest downstream toe elevation to the crest of the impoundment) of approximately 18 feet along the eastern embankment and a crest elevation of approximately 607.9 feet. The embankments were constructed with 2-foot horizontal to one-foot vertical (2H:1V) upstream and downstream slopes generally consisting of compacted silty clay and clay along the eastern and southern embankment. Bottom ash was used to construct a portion of the embankments as shown on cross section I-I' on **Figure 10**. The western and northern embankments may consist of slag. Gravel was placed on the crest of

the embankments to facilitate an access road. A typical section of the embankments as shown in the Miller Evaluation is provided on **Figures 4 and 10.** The locations of the typical sections provided in the Miller Evaluation are shown on **Figure 5**.

Instrumentation near this impoundment includes a staff gauge at the decant structure and six groundwater monitoring wells (29-OW, 29-A, 6R-OW, 6AR, 6B, and 20-OW), located as shown on **Figure 11**.

1.2.8 Description of the Pond F Impoundment and Appurtenances

Alliant Energy and the Wisconsin Department of Natural Resources (WDNR) no longer have information regarding the original design of Pond F. The following description of the impoundment is based on information provided in the Miller Evaluation, information received from Alliant, and observations made by GZA during our Site visit.

Pond F is located south of the EGS as shown on **Figure 2**, was commissioned in 1969, and serves as a settling pond for CCW generated by the EGS. Decanted water from Pond C flows into Pond F through 20-inch diameter and 24-inch diameter pipes located along the western embankment of the impoundment. Water is discharged from Pond F to Lake Michigan through a decant structure along the eastern embankment of the impoundment. The location of the decant structure in Pond F is shown on **Figure 12**.

Pond F consists of an earthen embankment with a crest length of approximately 1,000 feet and a general height (from the lowest downstream toe elevation to the crest of the impoundment) of approximately 10 feet along the eastern embankment and a crest elevation of approximately 590.1 feet. The embankments were constructed with 2-foot horizontal to one-foot vertical (2H:1V) upstream and downstream slopes consisting of compacted fine sand underlain by lean clay. Gravel was placed on the crest of the embankments to facilitate an access road. A typical section of the embankments as shown in the Miller Evaluation is provided on **Figure 10.** The locations of the typical sections provided in the Miller Evaluation are shown on **Figure 5**.

Instrumentation near the impoundment includes a staff gauge at the decant structure and two groundwater monitoring wells (33-OW, 34-OW), located as shown on **Figure 12**.

1.2.9 Operations and Maintenance

The EGS and the impoundments are maintained by Alliant personnel. Maintenance of the EGS facility, including the impoundments, is regulated by the EPA under the National Pollutant Discharge Elimination System (NPDES) Permit No. WI-0001589-07-0. EGS personnel perform visual inspections of the impoundments on a quarterly basis and the inspection results from July 9, 2010 through March 7, 2011 were provided to GZA.

1.2.10 Size Classification

For the purposes of this EPA-mandated inspection, the sizes of the impoundments were based on U. S. Army Corps of Engineers (COE) criteria. Based on the maximum crest height of 18 feet and a storage volume of approximately 13 acre-feet, the Slag Pond is classified as a **Small-**sized structure. Based on the maximum crest height of 19 feet and a storage volume of approximately 27 acre-feet, North Pond A is classified as a **Small-**sized structure. Based on the maximum crest height of 19 feet and a storage volume of approximately 32 acre-feet, the South Pond A is classified as a **Small-**sized structure. Based on the maximum crest height of 18 feet and a storage volume of approximately 34 acre-feet, Pond B is classified as a **Small-**sized structure. Based on the maximum crest height of 10 feet and a storage volume of approximately 17 acre-feet, Pond F is classified as a **Small-**sized structure. According to guidelines established by the COE, dams with a storage volume less than 1,000 acre-feet and/or a height less than 40 feet are classified as Small-sized structures.

1.2.11 Hazard Potential Classification

Under the EPA classification system, as presented on page 2 of the EPA check list (**Appendix C**) and Definitions section (**Appendix B**), it is GZA's opinion that the Slag Pond, North Pond A, South Pond A, Pond B and Pond F would be considered as having a **Low** hazard potential. Based on the Miller Evaluation, the most likely failure of the impoundments occurs during rapid drawdown. It is not likely for materials to be discharged during a rapid drawdown event and therefore the potential for release of materials outside of the Utility-owned property is low. The hazard potential rating is based on no probable loss of human life due to failure and the low potential for environmental impacts outside of Utility-owned property.

1.3 Pertinent Engineering Data

1.3.1 Drainage Area

Based on the Miller Evaluation, approximately 2.9 acres drains into the Slag Pond. North Pond A and South Pond A drain approximately 2.7 acres and 3.7 acres, respectively. A portion of the stormwater runoff from the adjacent closed landfill drains into Pond B and the pond drains approximately 5.5 acres. Approximately 1.3 acres drains into Pond F. The drainage areas for the impoundments is provided on **Figure 5**.

1.3.2 Reservoir

Based on the Miller Evaluation, the Slag Pond, North Pond A, South Pond A, Pond B, and Pond F have surface areas of 0.7, 1.4, 1.7, 1.9 and 1.7 acres, respectively, at the normal operating levels. The pool areas observed on GZA's May 31, 2011 Site visit were generally consistent with those reported in the Miller Evaluation. Based on the impoundment heights, GZA estimated the Slag Pond, North Pond A, South Pond A, Pond B, and Pond F have storage volumes of approximately 13, 27, 33, 34 and 17 acre-feet, respectively.

1.3.3 Discharges at the Impoundment Sites

As discussed previously, unsettled CCW and water from the Slag Pond, North Pond A, and South Pond A discharge to Pond B and then to Pond F prior to discharging to Lake Michigan. Based on the Miller Evaluation, up to 2.4 million gallons per day (MGD) of CCW

and water enters the Slag Pond. Up to 1.2 MGD of CCW and water enters into both the North Pond A and South Pond A. When combined with flow from Pond E, up to 5 MGD is discharged from Pond F into Lake Michigan.

1.3.4 General Elevations (feet – MSL)

Elevations were taken from the Miller Evaluation and data provided by Alliant. Unless otherwise noted, elevations were based on the United States Geological Survey (USGS) topographic map MSL vertical datum.

Slag Pond	
A. Top of Embankment (Minimum)	± 609.7 feet
B. Upstream Water at Time of Inspection	± 605.7 feet
C. Downstream Water at Time of Inspection	± 608.7 feet[4] (North Pond A)
D. Maximum Pond Water Elevation	± 606.3 feet[5]
North Pond A	
A. Top of Embankment (Minimum)	± 611.8 feet
B. Upstream Water at Time of Inspection	± 608.7 feet
C. Downstream Water at Time of Inspection	± 608.2 feet[6] (South Pond A)
D. Maximum Pond Water Elevation	± 609.1 feet
South Pond A	
A. Top of Embankment (Minimum)	± 611.6 feet
B. Upstream Water at Time of Inspection	± 608.2 feet
C. Downstream Water at Time of Inspection	± 586.9 feet[7] (Pond C)
D. Maximum Pond Water Elevation	± 609.1 feet
Pond B	
A. Top of Embankment (Minimum)	± 607.9 feet
B. Upstream Water at Time of Inspection	± 597.3 feet
C. Downstream Water at Time of Inspection	± 586.9 feet[8] (Pond C)
D. Maximum Pond Water Elevation	± 597.8 feet
Pond F	
A. Top of Embankment (Minimum)	± 590.1 feet
B. Upstream Water at Time of Inspection	± 585.1 feet
C. Downstream Water at Time of Inspection	± 577.8 feet[9] (Lake Michigan)

[4] The water level in North Pond A was taken to be the downstream water level south of the Slag Pond. There is no downstream water level west, north, and east of the impoundment.
[5] The maximum pond water elevation for the impoundments was taken to be the calculated elevation of the 100-year rain event as provided in the Miller Evaluation.
[6] The water level in South Pond A was taken to be the downstream water level south of the North Pond A. There is no downstream water level west and east of the impoundment
[7] The water level in Pond C was taken to be the downstream water level along the southeastern portion of South Pond A. The water level in Pond B could be considered the downstream water level along the southwestern portion. There is no downstream water level west or east of the impoundment.
[8] The water level in Pond C was taken to be the downstream water level along the eastern embankment of Pond B. There is no downstream water level west or south of the impoundment.
[9] Based on water level information from the USACE.

D. Maximum Pond Water Elevation ± 585.5 feet

1.3.5 Design and Construction Records and History

The design information available for the impoundments consists of the limited profiles mentioned previously. No construction documentation was available from Alliant with regards to the ash impoundments. The results of the subsurface investigation conducted during the Miller Evaluation provide information regarding the 'as built' condition of the materials that comprise the exterior impoundment embankments. A list of the documents provided to GZA by Alliant is provided in **Appendix D**.

1.3.6 Operating Records

No operating records were available for the impoundments.

1.3.7 Previous Inspection Reports

The impoundments are visually inspected by an Alliant engineer on a quarterly basis in accordance with company policies. Copies of the inspection reports from July 9 and November 2, 2009; February 16, May 26, August 16, and November 1, 2010; and March 7, 2011 and the company policy were reviewed by GZA and are included as **Appendix E**. Generally, the following deficiencies were noted in the inspection reports:

- Trees and woody-type shrubs were observed along the embankments; and
- Animal burrows along the embankments.

Alliant Energy has decided to not remove the trees along the impoundments to help mitigate fugitive dust. Animal burrows are filled with concrete when encountered.

2.0 INSPECTION

2.1 Visual Inspection

The EGS impoundments were inspected on May 31, 2011, by Patrick J. Harrison, P.E., and Douglas P. Simon, P.E., of GZA, and accompanied by Bill Skalitzky of Alliant. The weather was partly sunny with temperatures in the 70°s Fahrenheit. Photographs to document the current conditions of the impoundments were taken during the inspection and are provided in **Appendix F**. The water levels in the impoundments at the time of the inspection were as provided in Section 1.3.4. Underwater areas were not inspected, as this level of investigation was beyond GZA's scope of services. Copies of the EPA Checklists are provided in **Appendix C**.

With respect to our visual inspection, there was no evidence of prior releases, failures, or repairs observed by GZA.

2.1.1 Slag Pond General Findings

In general, the Slag Pond was found to be in **POOR** condition. An overall Site plan showing the impoundments is provided as **Figure 2**. The location and orientation of the Slag Pond photographs provided in **Appendix F** is shown on **Figure 3**.

2.1.2 Slag Pond Upstream Slope (Photos 1 through 8, 11, and 12)

The water surface elevation at the time of our inspection was approximately at elevation 605.7 feet MSL. Therefore, the lower portion of the upstream slope was below the water level and not visible. The upper portion of the upstream slope was covered by slag and also not visible at the time of our inspection. Trees and shrubs were present along portions of the upstream slope. No unusual movement or sloughing was evident through the overlying slag.

2.1.3 Slag Pond Crest of Impoundment (Photos 9 through 12)

The crest of the Slag Pond generally had a gravel access road. The crest of the impoundment had occasional pot holes along its entire length. The alignment of the crest of impoundment generally appeared level with no large depressions or irregularities observed. Based on the Miller Evaluation, the crest elevation of the impoundment is approximately elevation 609.7 feet MSL. No structural settlement was observed and there was approximately 4 feet of free board at the time of our inspection.

2.1.4 Slag Pond Downstream Slope (Photos 13 through 20)

The western side of the Slag Pond is incised and the southern embankment is common to North Pond A. Therefore, the discussion of downstream slopes for the Slag Pond is limited to the northern and eastern embankments. The downstream slope of the impoundment was generally vegetated with grass that had not been recently mowed. Trees and shrubs were present on portions of the slope. No seepage or sloughing was observed on the downstream slope. The cast-in-place concrete retaining wall along the western portion of the northern embankment was generally in good condition with no signs of movement or displacement. One set of vertical cracks that extended from the top of the wall to at least the ground surface was observed at the approximate location shown on **Figure 3**.

2.1.5 Slag Pond Discharge Pipes (Photos 2, 21 and 22)

Water and CCW from the former plant are discharged into the Slag Pond through two 10-inch diameter steel pipes that are located along the southern embankment of the pond. The discharge pipes visually appeared to be in good condition. GZA observed the condition of the approximately 24-inch wide decant structure that transmits water from the Slag Pond to Pond B. The decant structure generally appeared to be in good condition. However, no trash racks were present and small branches and debris were trapped at the inlet.

2.1.6 North Pond A General Findings

In general, North Pond A was found to be in **POOR** condition. An overall Site plan showing the impoundments is provided as **Figure 2**. The location and orientation of photographs provided in **Appendix F** are shown on the Photo Plan in **Figure 9**.

2.1.7 North Pond A Upstream Slope (Photos 23 through 27)

The water surface elevation at the time of inspection was approximately at elevation 608.7 feet MSL. Therefore, the lower portion of the upstream slope was below the water level and not visible at the time of our inspection. The upstream slope above the water level was generally in fair condition. However, trees and shrubs were present along much of the upstream slopes. No unusual movement, depressions, or sloughing was observed on the slope.

2.1.8 North Pond A Crest of Impoundment (Photos 25 through 27)

The crest of North Pond A was generally covered by a gravel access road. The crest had occasional pot holes along its entire length. The alignment of the crest of impoundment generally appeared level with no large depressions or irregularities observed. Based on the Miller Evaluation, the crest elevation was approximately elevation 611.8 feet MSL. No significant settlement was observed at the time of our inspection. There was approximately 3 feet of free board at the time of our inspection.

2.1.9 North Pond A Downstream Slope (Photo 33)

The western side of North Pond A is incised and the northern and southern embankments are common to the Slag Pond and South Pond A, respectively. Therefore, the discussion of the downstream slopes for North Pond A is limited to the eastern embankment. The downstream slope of the impoundment was vegetated with grass that had not been recently mowed. Trees were present along the downstream slope. No seepage or sloughing was observed on the downstream slope.

2.1.10 North Pond A Discharge Pipes (Photos 28 through 32, and 34 through 39)

Water and CCW from the former plant were discharged into North Pond A through a 10-inch diameter pipe which is located near the northeast corner of the impoundment. The discharge pipe and metal support structure appeared to be in good condition. GZA observed the condition of the 18-inch diameter CMP inlet pipe that transmits water from the North Pond A to the concrete flume located near the southwest corner of North Pond A. The decant pipe and concrete flume appeared to be in good condition.

2.1.11 South Pond A General Findings

In general, South Pond A was found to be in **POOR** condition. An overall Site plan showing the impoundments is provided as **Figure 2**. The location and orientation of photographs provided in **Appendix F** are shown on the Photo Plan in **Figure 9**.

2.1.12 South Pond A Upstream Slope (Photos 40 through 44)

The water surface elevation at the time of inspection was approximately at elevation 608.2 feet MSL. Therefore, the lower portion of the upstream slope was below the water level and not visible at the time of our inspection. The upstream slope above the water level was generally in fair condition. However, trees and shrubs were present along much of the upstream slopes. No unusual movement or sloughing was observed on the slope.

2.1.13 South Pond A Crest of Impoundment (Photos 42, 45 through 48)

The crest of South Pond A was generally covered by a gravel access road and had occasional pot holes along its entire length. The alignment of the crest appeared generally level with no large depressions or irregularities observed. Based on the Miller Evaluation, the crest elevation was approximately elevation 611.6 feet MSL. No significant settlement was observed at the time of our inspection. There was approximately 3 feet of free board at the time of our inspection.

2.1.14 South Pond A Downstream Slope (Photos 45 and 48)

The western portion of South Pond A is incised; the northern embankment and western portion of the southern embankments are common to North Pond A and Pond B, respectively. Therefore, the discussion of downstream slopes for South Pond A is limited to the eastern embankment and the eastern portion of the southern embankment. The downstream slope of the impoundment was vegetated with grass that had not been recently mowed. Trees were present along the downstream slope. An erosion feature that was approximately 6-inches wide and traversed most of the length of the embankment was observed along the eastern portion of the southern embankment. No seepage or sloughing was observed on the downstream slope.

2.1.15 South Pond A Discharge Pipes (Photos 44 and 49)

Water and CCW from the plant are discharged into South Pond A through a 10-inch diameter pipe near the northeast corner of the impoundment. The discharge pipe and support structure appeared to be in good condition. GZA observed the condition of the 18-inch diameter CMP inlet pipe that transmits water from the South Pond A to the concrete flume located near the northwest corner of South Pond A. The decant pipe and concrete flume appeared to be in good condition.

2.1.16 Pond B General Findings

In general, Pond B was found to be in **POOR** condition. An overall Site plan showing the impoundments is provided as **Figure 2**. The location and orientation of photographs provided in **Appendix F** is shown on the Photo Plan in **Figure 11**.

2.1.17 Pond B Upstream Slope (Photos 50 through 58)

The water surface elevation at the time of inspection was approximately at elevation 597.3 feet MSL. Therefore, the lower portion of the upstream slope was below the water level and not visible at the time of our inspection. The upstream slope above the water level was generally in fair condition. However, trees and shrubs were present along much of the upstream slopes. Also, wave action erosion was observed along the western and a portion of the southern embankments. No unusual movement or sloughing was observed on the slope.

2.1.18 Pond B Crest of Impoundment (Photos 59 though 62)

The crest of Pond B was generally covered by a gravel access road. The crest of the impoundment had occasional pot holes along its entire length and rutting along the eastern

embankment. The alignment of the crest of the impoundment appeared generally level with no large depressions or irregularities observed. Based on the Miller Evaluation, the crest of the impoundment elevation was approximately elevation 607.9 feet MSL. No significant settlement was observed at the time of our inspection. There was approximately 10.5 feet of free board at the time of our inspection.

2.1.19 Pond B Downstream Slope (Photos 63 though 65)

The western side of Pond B is incised and the western portion of the northern embankment is common to South Pond A. Therefore, the discussion of the downstream slopes for Pond B is limited to the eastern and southern embankments. The downstream slope of the impoundment was vegetated with grass that had not been recently mowed. Trees were present along the downstream slope. No seepage or sloughing was observed on the downstream slope.

2.1.20 Pond B Ash Discharge Pipes (Photos 66 through 69)

Decanted water and CCW from the Slag Pond, North Pond A and South Pond A discharge into Pond B through a 48-inch diameter pipe which is located near the northwest corner of the impoundment. Based on GZA's observations, the discharge pipe appeared to be in good condition. Stormwater from the closed Landfill enters Pond B though a CMP pipe located on the western embankment. Riprap was present downstream of the pipe discharge and appeared to be in good condition. Water is discharged from Pond B through a decant structure located along the eastern embankment. The decant pipe and support structure appeared to be in good condition.

2.1.21 Pond F General Findings

In general, Pond F was found to be in **POOR** condition. An overall Site plan showing the impoundments is provided as **Figure 2**. The location and orientation of photographs provided in **Appendix F** is shown on the Photo Plan in **Figure 12**.

2.1.22 Pond F Upstream Slope (Photos 72 through 76)

The water surface elevation at the time of inspection was approximately at elevation 585.1 feet MSL. Therefore, the lower portion of the upstream slope was below the water level and not visible at the time of our inspection. The upstream slope above the water level was generally in fair condition. However, trees and shrubs were present along much of the upstream slopes. No unusual movement or sloughing was observed on the slope.

2.1.23 Pond F Top of Impoundment (Photos 76 and 77)

The crest of Pond F was generally covered by a gravel access road. The crest had occasional pot holes along its entire length. The alignment of the crest appeared generally level with no large depressions or irregularities observed. Based on the Miller Evaluation, the crest of the impoundment elevation was approximately elevation 590.1 feet MSL. No significant settlement was observed at the time of our inspection. There was approximately 5 feet of free board at the time of our inspection.

2.1.24 Pond F Downstream Slope (Photo 82)

The northern and western sides of Pond F are incised and the southern embankment is common to Pond E. Therefore, the discussion of the downstream slopes for Pond F is limited to the eastern embankment. The downstream slope of the impoundment consisted of stone revetment to protect the slope from erosion by Lake Michigan wave action. The revetment appeared to be in good condition based on our visual inspection. Trees were present along the downstream slope. No seepage or sloughing was observed on the downstream slope.

2.1.25 Pond F Ash Discharge Pipes (Photos 79 through 82)

Decanted water and CCW from Pond C discharge into Pond F through a 20-inch diameter and 24-inch diameter pipes reportedly located along the western embankment of the impoundment. The location of the discharge pipes could not be determined at the time of our inspection and may be located below the water level. Water is discharged from Pond E into Pond F through a 6-inch diameter pipe at the pump house. Decanted water is discharged from Pond F to Lake Michigan through a decant structure located along the eastern embankment. The decant structure and discharge pipe appeared to be in good condition.

2.2 Caretaker Interview

Maintenance of the impoundments is the responsibility of EGS personnel. GZA met with EGS personnel and discussed the operations and maintenance procedures, regulatory requirements and the history of the impoundments since their construction. The observations, descriptions and findings presented herein this report reference these discussions.

2.3 Operation and Maintenance Procedures

As discussed in Section 1.2.5, EGS personnel are responsible for maintenance of the impoundments. No formal maintenance plan has been developed for the impoundments; however as previously discussed, several inspections have been conducted between 2010 and 2011. Based on our discussions with EGS personnel, the impoundments are monitored quarterly in accordance with company policy.

2.4 Emergency Action Plan

The EGS has a general Emergency Action Plan (EAP) for the facility but it is not specific to potential situations that may arise at the impoundments. Note that the hazard potential classification for the impoundments is discussed in Section 1.2.8.

2.5 Hydrologic/Hydraulic Data

A hydrologic/hydraulic analysis of the impoundments was conducted by Miller and the results were provided in the Miller Evaluation. Miller evaluated the effect of the 100-year, 24-hour rain event on the water levels in the impoundments during normal operating conditions. Based on the Miller Evaluation, the impoundments had a minimum free-board of more than 2 feet during the 100-year, 24-hour event.

The impoundments are not subject to the requirements of Wisconsin Administrative Code NR 333.07 – Dam Design and Construction (NR 333), but it provides a comparative tool to evaluate the adequacy of the hydrologic/hydraulic analysis. The analysis conducted as part of the Miller Evaluation indicates the impoundment spillway capacities are consistent with those required for Low Hazard Rating Dams by NR 333. GZA did not perform an independent assessment of the hydraulics and hydrology for the impoundments as this was beyond our scope of services.

2.6 Structural and Seepage Stability

A stability analysis of the impoundments was conducted by Miller and the results were provided in the 2011 Miller Evaluation. Based on the results of the stability analysis, the calculated factor of safety for global stability of the impoundments ranged between 1.8 and 16.2. The calculated factors of safety met or exceeded the generally accepted values during static (1.5) loading. The lowest factors of the safety were calculated for the embankments where Pond C was at the toe. This includes the eastern embankment of Pond B and the eastern portion of the southern embankment of South Pond A.

The potential for liquefaction of the soils beneath the impoundment embankments was also considered in the Miller Evaluation. The result of the Miller Evaluation indicates that a magnitude 5 or greater earthquake (on the Richter Scale) located 20 miles or closer would be required to liquefy the subgrade soils. The annual risk of such an earthquake is 0.03%.

The stability of the interior embankments that divide the Slag Pond, North Pond A and South Pond A was not discussed in the Miller Evaluation. However, it is GZA's opinion that the critical state leading to a potential failure of an interior embankment would be the case of rapid drawdown. Given that the ponds gravity drain through decant structures that cannot be adjusted downward, a rapid drawdown is not probable without failure of the outer embankments leading to a sudden drop in water levels. The Miller Evaluation indicated the outer embankments are stable and it is our opinion that the stability of the interior embankments does not require further analysis.

GZA did not perform an independent assessment of the structural and seepage stability for the impoundments as this was beyond our scope of services.

3.0 ASSESSMENTS AND RECOMMENDATIONS

3.1 Assessments

In general, the overall condition of the Slag Pond was judged to be **POOR** and was found to have the following deficiencies:

1. Trees and shrubs were present on the upstream and downstream slopes;
2. Potholes were present along the crest of the embankments;
3. Vertical cracking of one section of the cast-in-place concrete retaining wall; and,
4. Small branches partially blocking inlet structure.

5. The stability of the embankments was not evaluated under seismic loading nor was the stability of the downstream slope of the embankment evaluated with respect to the portion being retained by the cast-in-place retaining wall.

In general, the overall condition of North Pond A and South Pond A were judged to be **POOR** and were found to have the following deficiencies:

1. Trees and shrubs were present on the upstream and downstream slopes;
2. Potholes were present along the crest of the embankments; and,
3. An erosion feature on the downstream slope of the eastern portion of the southern embankment of South Pond A.
4. The stability of the embankments was not evaluated under seismic loading.

In general, the overall condition of the Pond B was judged to be **POOR** and was found to have the following deficiencies:

1. Trees and shrubs were present on the upstream and downstream slopes;
2. Potholes were present along the crest of the embankments; and,
3. Wave action erosion was present along the upstream slope.
4. The stability of the embankments was not evaluated under seismic loading.

In general, the overall condition of the Pond F was judged to be **POOR** and was found to have the following deficiencies:

1. Trees and shrubs were present on the upstream and downstream slopes;
2. Potholes were present along the crest of the embankments; and,
3. The locations of the discharge pipes from Pond C to Pond F were not visible at the time of our inspection.
4. The stability of the embankments was not evaluated under seismic loading.

In GZA's professional opinion, the embankment(s) visually appear to be sound and no immediate remedial action appears to be necessary. However, based on EPA's inspection criteria, the impoundment has been given a **POOR** Condition Rating, because complete geotechnical computations were not provided/available for GZA's for review. Thus, the seismic stability of the embankment(s) could not be independently verified. The following sections describe the recommended approach to address current deficiencies. Prior to undertaking recommended maintenance, repairs, or remedial measures, Alliant should secure applicable permits as necessary.

3.2 Studies and Analyses

GZA recommends the following studies and analyses:

1. Perform a stability analysis of the downstream slope of the Slag Pond to account for the section of the embankment being retained by the cast-in-place retaining wall.
2. Evaluate the stability of the impoundment embankments under seismic loading.

3.3 Recurrent Operation & Maintenance Recommendations

GZA recommends the following operation and maintenance level activities:

1. Maintain grass cover on the upstream and downstream slope and approximately 15 feet beyond the toe area. USACE recommends vegetation be kept less than 12 inches in height on embankments;
2. Remove trees from the upstream and downstream slopes;
3. Fill potholes, depressions, and animal burrows and reseed as necessary; and,
4. Exercise stoplogs and slide gates.

3.4 Minor Repair Recommendations

GZA recommends the following minor repairs which may improve the overall condition of the impoundments, but do not alter their current design. The recommendations may require design by a professional engineer and construction contractor experienced in dam construction.

1. Repair the wave-action erosion along the upstream slope of the western embankment of Pond B.

3.5 Remedial Measures Recommendations

1. Determine location of pipes that discharge into Pond F. Generate plan for maintaining access for repair and evaluation.

2. In conjunction with the results of the stability analyses recommended herein, make provisions to address deficiencies if required/as necessary.

3.6 Alternatives

There are no alternatives currently recommended.

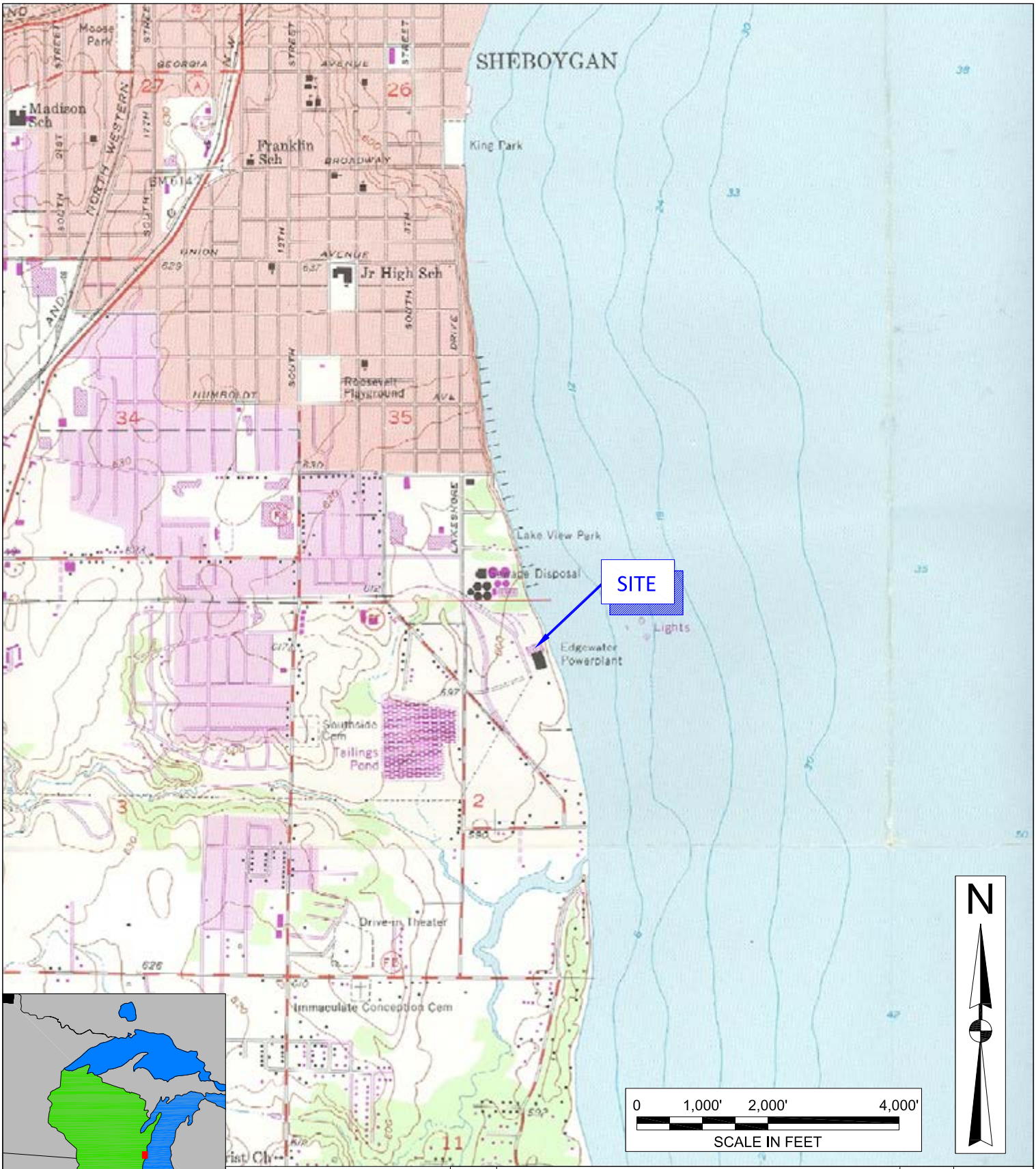
4.0 ENGINEER'S CERTIFICATION

I acknowledge that the management units referenced herein, the Slag Pond, North Pond A, South Pond A, Pond B, and Pond F have been assessed to be in **POOR** condition on May 31, 2011.

Patrick J. Harrison, P.E.
Senior Consultant

J:\170,000-179,999\170142\170142-30 Round 10\Edgewater Generating Station - Alliant\Stability Calc Edits\2nd DRAFT - Edgewater Report.docx

FIGURES



SOURCE: U.S.G.S. QUADRANGLE MAP
SHEBOYGAN SOUTH, WI (1954)
PHOTOREVISED (1973)

NO.	ISSUE/DESCRIPTION	BY	DATE

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
20900 SWENSON DRIVE, SUITE 150
WAUKESHA, WISCONSIN 53186
(262) 754-2560

PREPARED FOR:

SITE LOCATION MAP

EDGEWATER GENERATING STATION
SHEBOYGAN, WISCONSIN

FIGURE 1

SHEET NO.

PROJ MGR:	DPS	REVIEWED BY:	PJH	CHECKED BY:	PAB	DATE	PROJECT NO.	REVISION NO.
DESIGNED BY:	DPS	DRAWN BY:	CLK	SCALE:	1 : 24000	10/6/11	01.0170142.30	

SOURCE: DIGITAL ORTHOPHOTO/AERIAL IMAGERY PRODUCED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) AND RETRIEVED THROUGH USE OF A PROFESSIONAL LICENSE OF THE GOOGLE EARTH MAPPING PROGRAM.
DATA ACCESSED JULY 2011

N
W E
S

300 150 0 300 Feet

SLAG POND
NORTH POND A
SOUTH POND A
LANDFILL
POND B
POND C
POND F
POND E
COUNTY ROAD E EAST
88
86
87

LEGEND

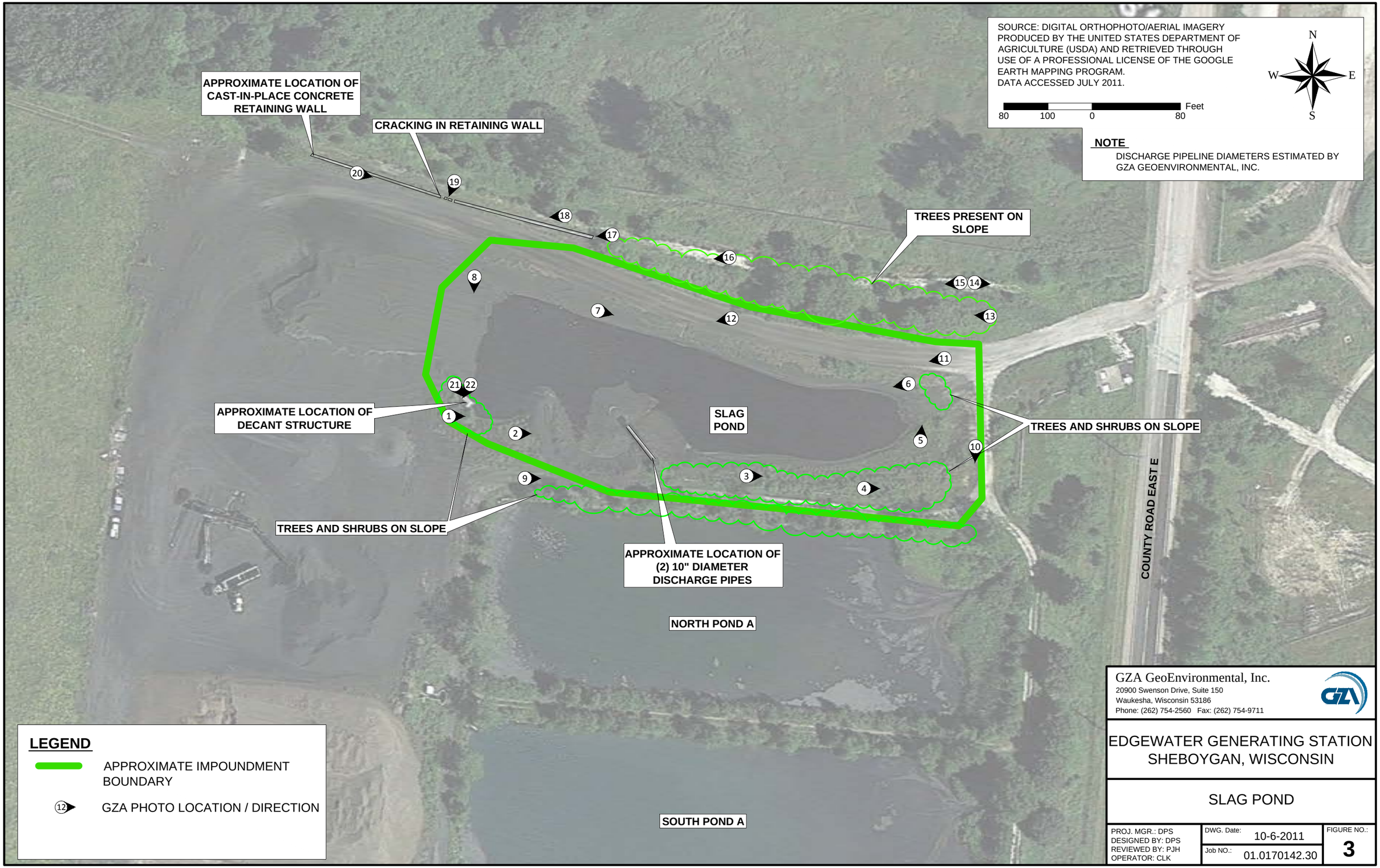
- APPROXIMATE IMPOUNDMENT BOUNDARY
- APPROXIMATE DOWNSTREAM AREA BASED ON ESTIMATION BY GZA
- 12 GZA PHOTO LOCATION / DIRECTION

GZA GeoEnvironmental, Inc.
20900 Swenson Drive, Suite 150
Waukesha, Wisconsin 53186
Phone: (262) 754-2560 Fax: (262) 754-9711

EDGEWATER GENERATING STATION
SHEBOYGAN, WISCONSIN

OVERALL ASH BASIN PLAN

PROJ. MGR.: DPS DESIGNED BY: DPS REVIEWED BY: PJH OPERATOR: CLK	DWG. Date: 10-24-2011 Job NO.: 01.0170142.30	FIGURE NO.: 2



SOURCE: DIGITAL ORTHOPHOTO/AERIAL IMAGERY PRODUCED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) AND RETRIEVED THROUGH USE OF A PROFESSIONAL LICENSE OF THE GOOGLE EARTH MAPPING PROGRAM.
DATA ACCESSED JULY 2011.

N
W E
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80 100 0 80 Feet

NOTE

DISCHARGE PIPELINE DIAMETERS ESTIMATED BY GZA GEOENVIRONMENTAL, INC.

LEGEND

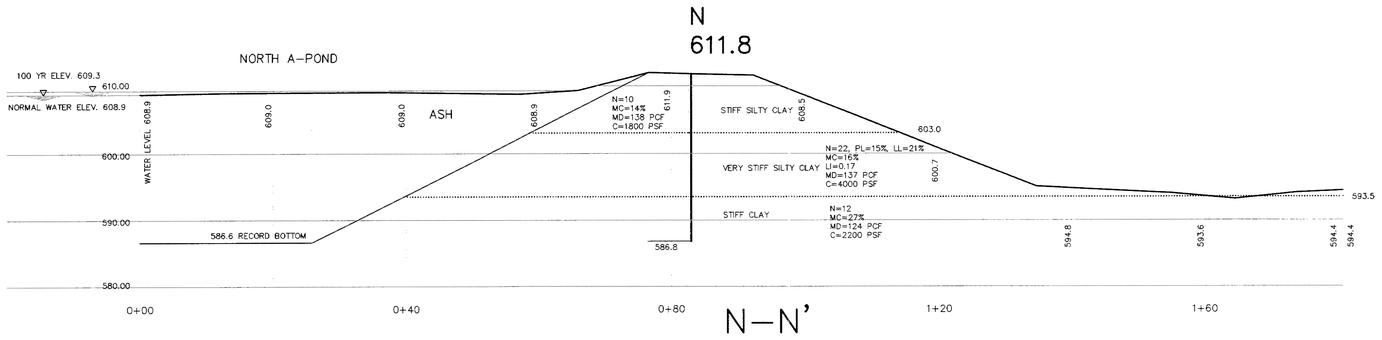
- APPROXIMATE IMPOUNDMENT BOUNDARY
- 12 GZA PHOTO LOCATION / DIRECTION

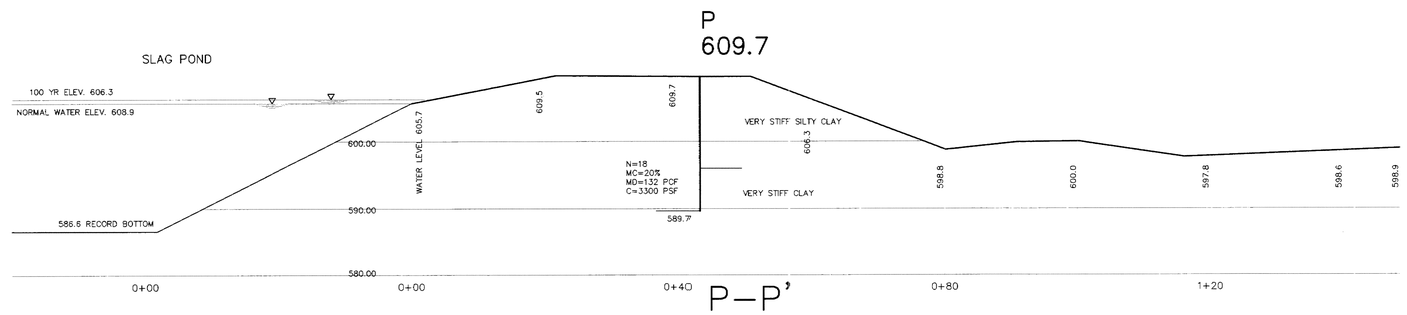
GZA GeoEnvironmental, Inc.
20900 Swenson Drive, Suite 150
Waukesha, Wisconsin 53186
Phone: (262) 754-2560 Fax: (262) 754-9711

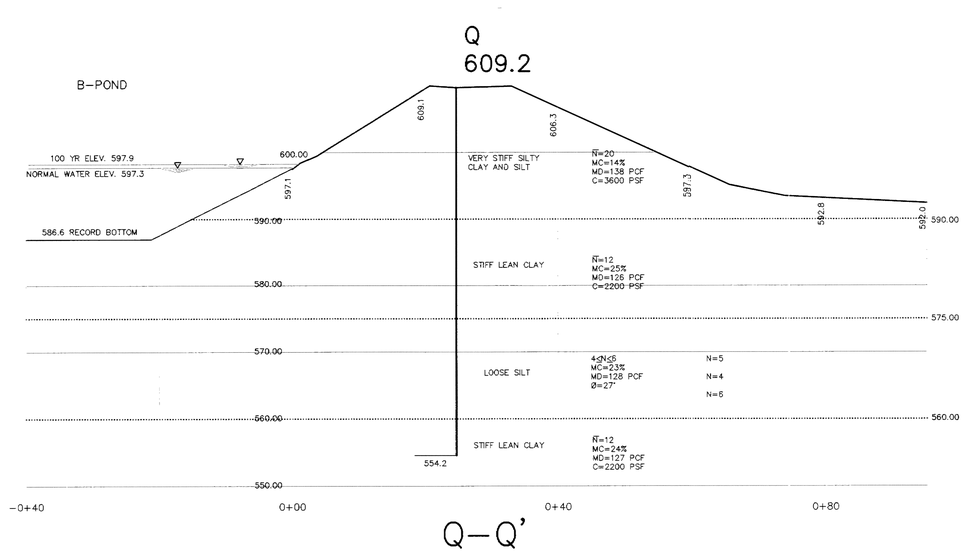
EDGEWATER GENERATING STATION
SHEBOYGAN, WISCONSIN

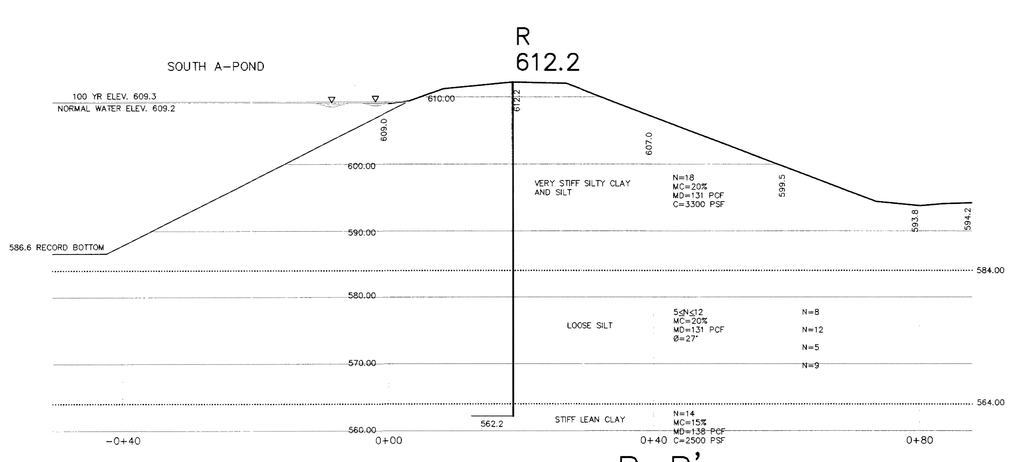
SLAG POND

PROJ. MGR.: DPS DESIGNED BY: DPS REVIEWED BY: PJH OPERATOR: CLK	DWG. Date: 10-6-2011 Job NO.: 01.0170142.30	FIGURE NO.: 3









LEGEND

.....	SOIL LAYER BOUNDARY USED IN STABILITY ANALYSIS
N=	SPT BLOW COUNTS
MC=	SOIL MOISTURE CONTENT
MD=	SOIL MOIST DENSITY
C=	SOIL COHESIVE STRENGTH
Ø =	ESTIMATED SOIL INTERNAL ANGLE OF FRICTION

GRAPHIC SCALE

0 10 0

(IN FEET)
1 inch = 10 ft.

NO.	DATE	DESCRIPTION	BY

CROSS SECTIONS
EDGEWATER GENERATING STATION
IMPOUNDMENT ANALYSIS

MILLER ENGINEERS SCIENTISTS
Celebrating 30 Years
www.StartWithMiller.com
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Sheboygan, WI 53081-8099
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ASH POND SLOPE STABILITY EVALUATION
3739 LAKE SHORE DRIVE
SHEBOYGAN, WISCONSIN

SCALE	DATE	BY	SHEET
HOR. 1"=10'	Mar. 15, 2011	WGF	3
VER. 1"=10'	JOB 10-18634-E	CK RGM	OF 3

NO.	DATE	DESCRIPTION	BY

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Phone (262) 754-2600 ■ Fax (262) 754-9791
www.gza.com

PROJ MGR: DPS
DESIGNED BY: DPS
REVIEWED BY: PJH
OPERATOR: CLK
DATE: 10-13-2011

EDGEWATER GENERATING STATION
SHEBOYGAN, WISCONSIN
CROSS SECTIONS N, P, Q & R

JOB NO.
01.0170142.30

FIGURE NO.
4

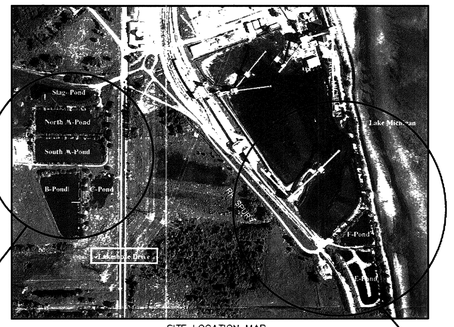
NO.	DESCRIPTION	BY	DATE

GZA Drawing Name: J:\GZA_LIVE\01.0170142.30 Ash Imp. Round 10\01.0170142.30 Task 3 - Edgewater\Drawings\Autocad\Scanned Figures - Edgewater.dwg Last Modified: Oct 24, 2011 - 1:53pm Plotted on: Oct 24, 2011 - 1:53pm by justin.hegarty

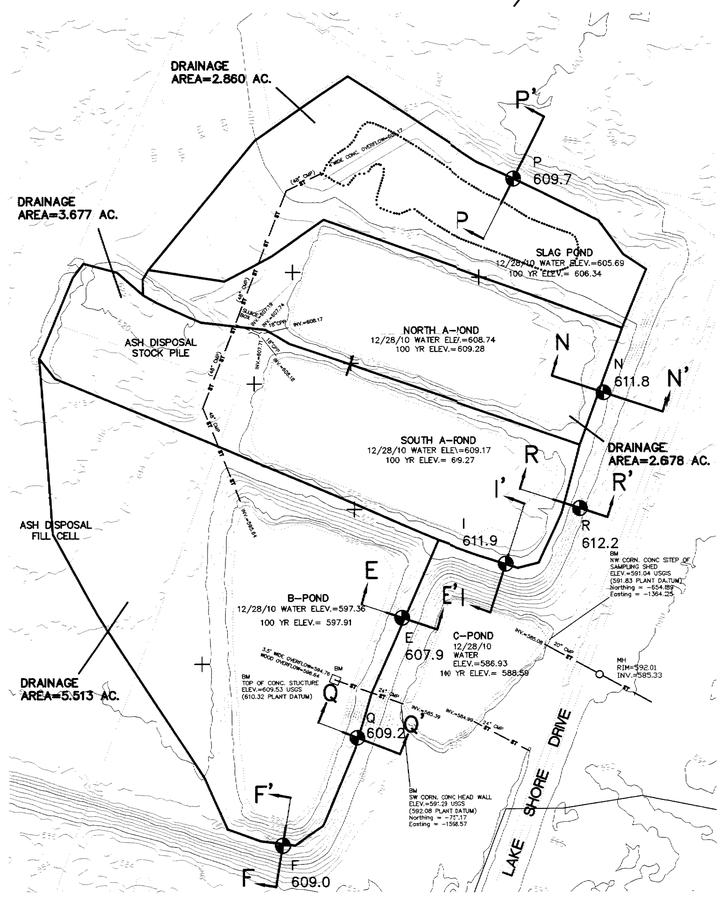
LEGEND

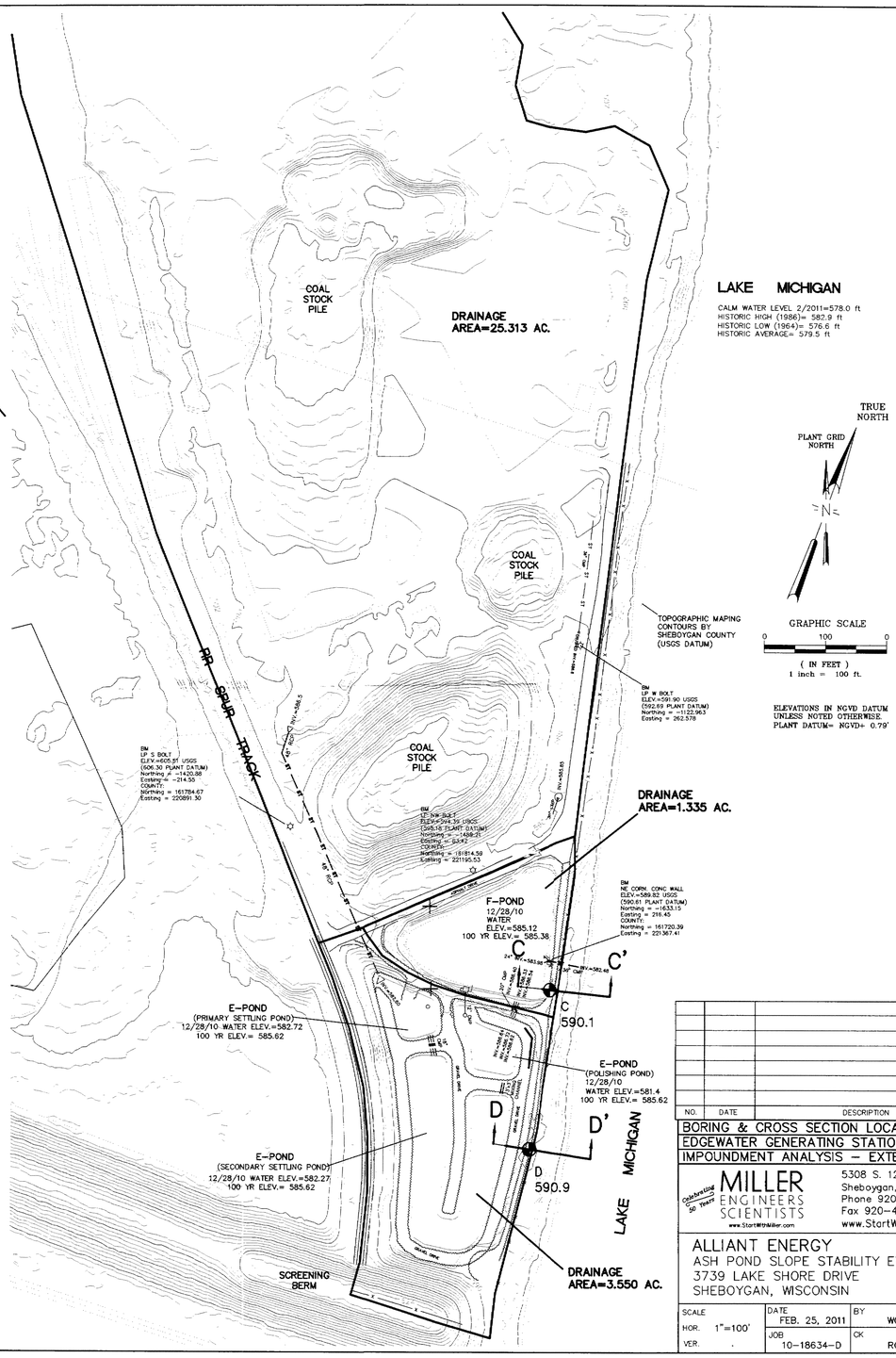
A 589.5 — MILLER ENGINEERS & SCIENTISTS JANUARY AND FEBRUARY 2011 SOIL EXPLORATION BORINGS & GROUND ELEVATION MEASUREMENTS

A A' — BERM CROSS SECTION LOCATION



SITE LOCATION MAP





NO.	DATE	DESCRIPTION	BY

BORING & CROSS SECTION LOCATION PLAN
EDGEWATER GENERATING STATION
IMPOUNDMENT ANALYSIS – EXTERNAL BERMS

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ALLIANT ENERGY
ASH POND SLOPE STABILITY EVALUATION
3739 LAKE SHORE DRIVE
SHEBOYGAN, WISCONSIN

SCALE	DATE	BY	SHEET
HOR. 1"=100'	FEB. 25, 2011	WGF	1 3
VER. .	JOB 10-18634-D	CK RGM	OF

NO.	DATE	DESCRIPTION	BY

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DESIGNED BY: DPS
REVIEWED BY: PJH
OPERATOR: CLK
DATE: 10-13-2011

EDGEWATER GENERATING STATION
SHEBOYGAN, WISCONSIN

BORING AND CROSS SECTION LOCATIONS

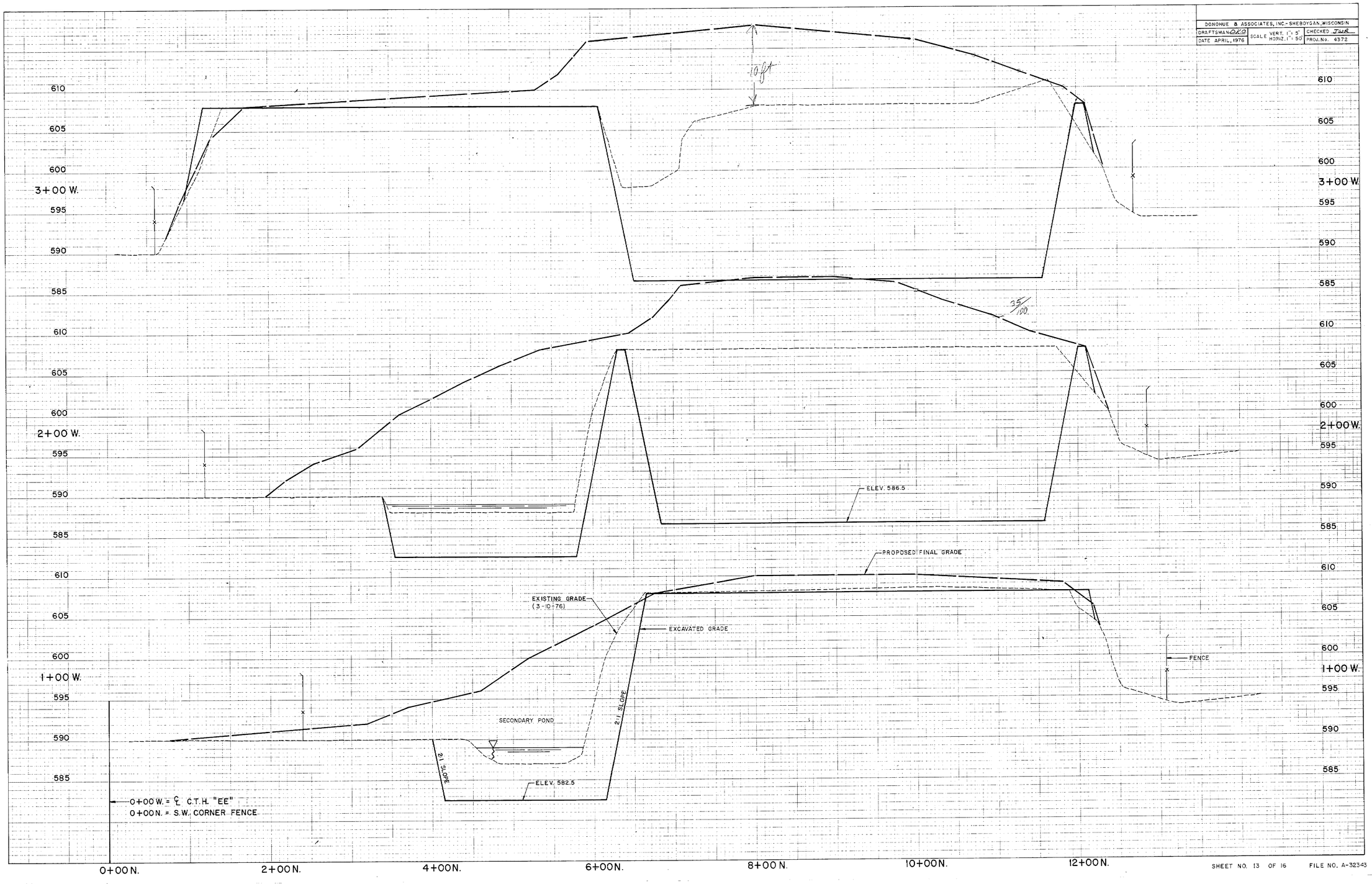
JOB NO. 01.0170142.30

FIGURE NO. 5

GZA Drawing Name: J:\GZA_USA\01.0170142.30 Task 3 - Edgewater\Drawings\AutoCad\Scanned Figures - Edgewater.dwg Last Modified: Oct 20, 2011 - 12:43pm Plotted on: Oct 20, 2011 - 12:45pm by justin.hogarty

CONFIDENTIAL BUSINESS INFORMATION

DONOHUE & ASSOCIATES, INC.- SHEBOYGAN, WISCONSIN
DRAFTSMAN DKO | SCALE VERT. 1"= 5' HORIZ. 1"= 50' | CHECKED JWR
DATE APRIL, 1976 | PROJ. No. 4372



SHEET NO. 13 OF 16 FILE NO. A-32343

FINAL SURVEY NOTE: North Arrow Not

ORIGINAL SURVEY NOTE: North Arrow Not

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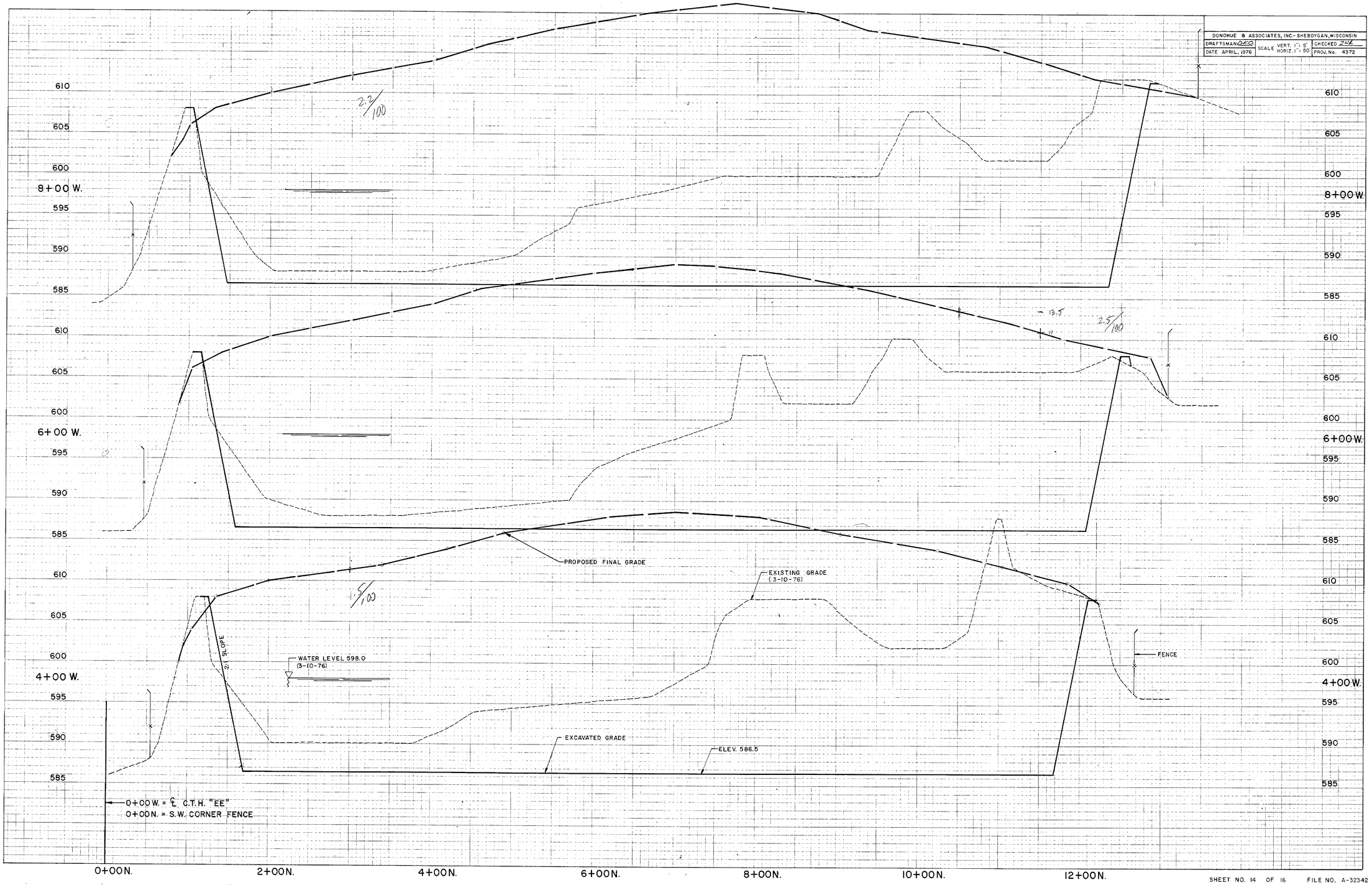
DESIGNED BY: DPS
REVIEWED BY: PJH
OPERATOR: CLK
DATE: 10-13-2011

EDGEWATER GENERATING STATION
SHEBOYGAN, WISCONSIN
1976 PROFILES
1+00W, 2+00W & 3+00W

JOB NO. 01.0170142.30

FIGURE NO. 6



SHEET NO. 14 OF 16 FILE NO. A-32342

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DESIGNED BY: DPS
REVIEWED BY: PJH
OPERATOR: CLK
DATE: 10-13-2011

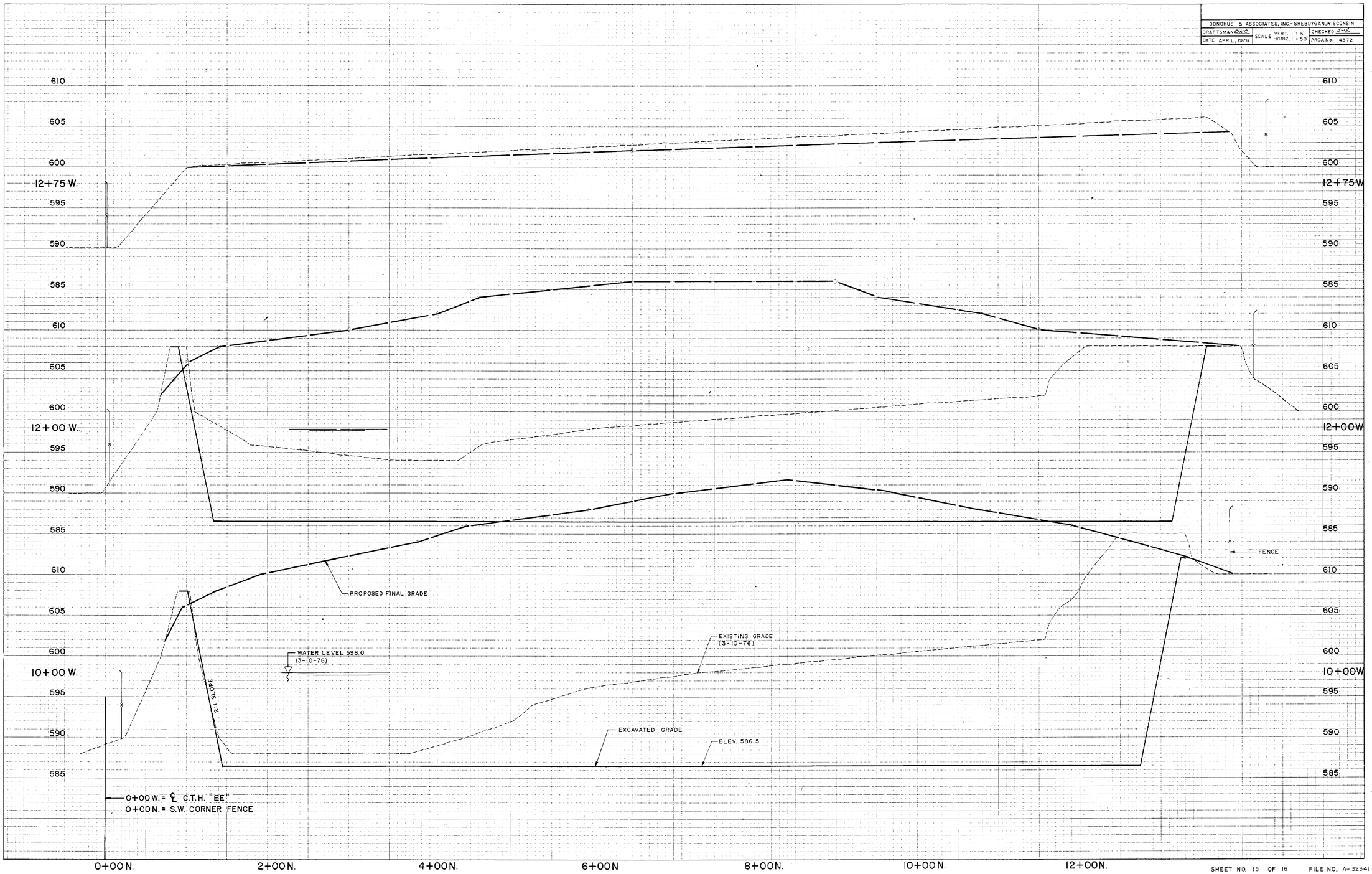
EDGEWATER GENERATING STATION
SHEBOYGAN, WISCONSIN

1976 PROFILES
4+00W, 6+00W & 8+00W

JOB NO.
01.0170142.30

FIGURE NO.
7

CONFIDENTIAL BUSINESS INFORMATION



SHEET NO. 15 OF 16 FILE NO. A-32341

FINAL SURVEY

ORIGINAL SURVEY

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EDGEWATER GENERATING STATION
SHEBOYGAN, WISCONSIN

1976 PROFILES
10+00W, 12+00W & 12+75W

PROJ MGR: DPS
DESIGNED BY: DPS
REVIEWED BY: PJH
OPERATOR: CLK
DATE: 10-13-2011

JOB NO. 01.0170142.30

FIGURE NO. 8

DATE | BY | DESCRIPTION | REV. NO.

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DATA ACCESSED JULY 2011.

N / W / E / S

80 0 80 Feet

NOTE

DISCHARGE PIPELINE DIAMETERS ESTIMATED BY GZA GEOENVIRONMENTAL, INC.

SLAG POND

APPROXIMATE ROUTE OF DISCHARGE PIPE FROM SLAG POND TO POND B

TREES ALONG MUCH OF UPSTREAM SLOPE OF NORTH POND A

TREES ON SLOPE

APPROXIMATE LOCATION OF 10" DISCHARGE PIPE

NORTH POND A

APPROXIMATE LOCATION OF DECANT PIPE

APPROXIMATE LOCATION OF CONCRETE FLUME

L-2

POTHOLES OBSERVED ALONG CREST ACCESS ROADS

APPROXIMATE LOCATION OF DECANT PIPE

POTHOLES OBSERVED ALONG CREST ACCESS ROADS

SOUTH POND A

7A

7-OW

APPROXIMATE LOCATION OF 6" DISCHARGE PIPE

TREES ALONG MUCH OF UPSTREAM SLOPE OF SOUTH POND A

20-OW

COUNTY ROAD EAST E

TREES ON SLOPE

APPROXIMATELY 6" WIDE EROSION FEATURE

POND B

POND C

LEGEND

- APPROXIMATE IMPOUNDMENT BOUNDARY
- 12 GZA PHOTO LOCATION / DIRECTION
- L-2 GROUNDWATER MONITORING WELL LOCATIONS

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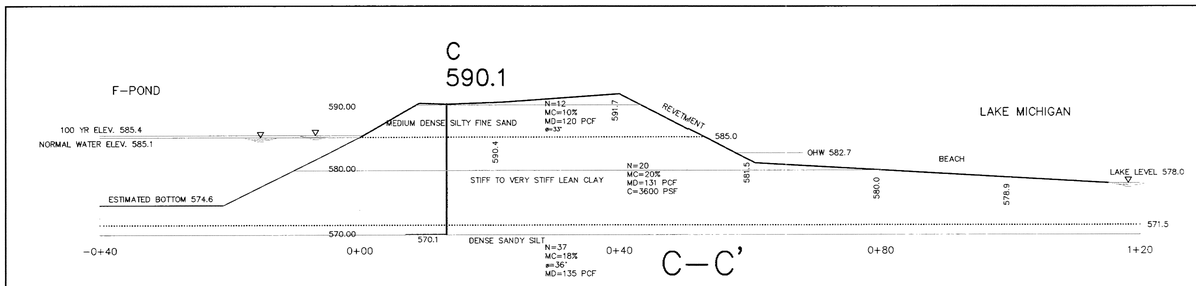
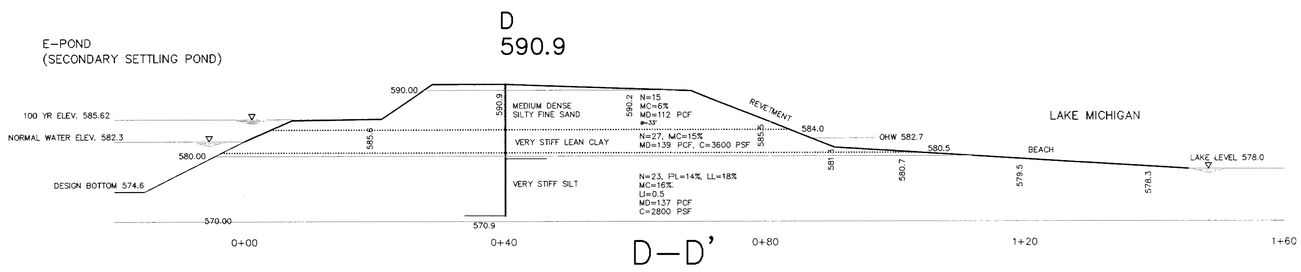
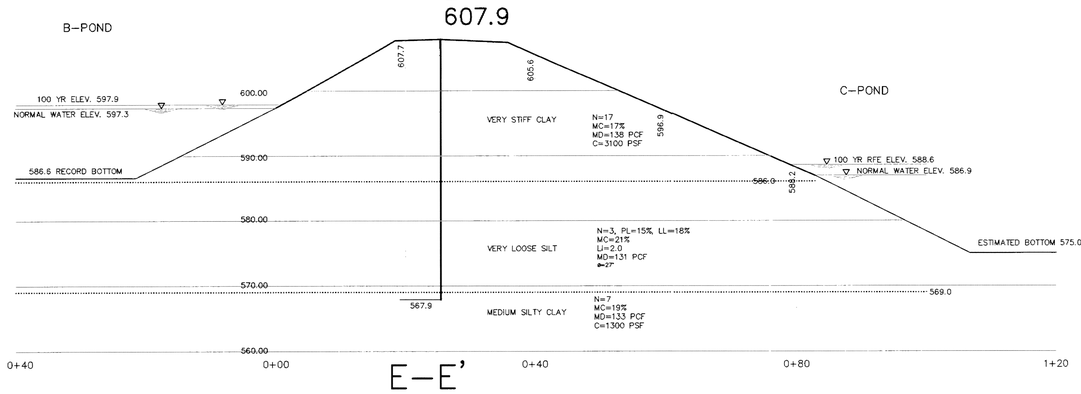
EDGEWATER GENERATING STATION
SHEBOYGAN, WISCONSIN

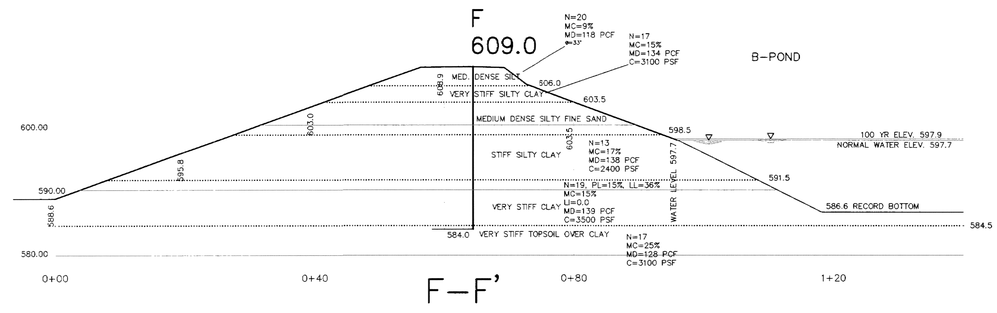
NORTH POND A & SOUTH POND A

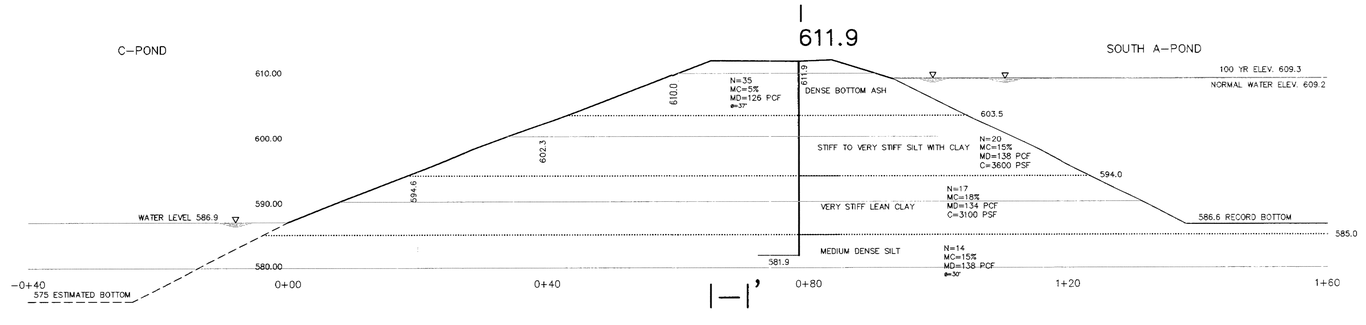
PROJ. MGR.: DPS DESIGNED BY: DPS REVIEWED BY: PJH OPERATOR: CLK	DWG. Date: 10-24-2011 Job NO.: 01.0170142.30	FIGURE NO.: 9











LEGEND

..... SOIL LAYER BOUNDARY USED IN STABILITY ANALYSIS
N= SPT BLOW COUNTS
MC= SOIL MOISTURE CONTENT
MD= SOIL MOIST DENSITY
C= SOIL COHESIVE STRENGTH
ø = ESTIMATED SOIL INTERNAL ANGLE OF FRICTION

GRAPHIC SCALE
0 10 0
(IN FEET)
1 inch = 10 ft.

NO.	DATE	DESCRIPTION	BY

CROSS SECTIONS
EDGEWATER GENERATING STATION
IMPOUNDMENT ANALYSIS

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3739 LAKE SHORE DRIVE
SHEBOYGAN, WISCONSIN

SCALE	DATE	BY	SHEET
HOR. 1"=10'	FEB. 25, 2011	WGF	2 3
VER. 1"=10'	JOB 10–18634–E	CK RGM	OF

NOTE
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REVIEWED BY: PJH
OPERATOR: CLK
DATE: 10–13–2011

EDGEWATER GENERATING STATION
SHEBOYGAN, WISCONSIN
CROSS SECTIONS C, D, E, F & I

JOB NO.
01.0170142.30

FIGURE NO.
10

GZA Drawing Name: J:\GZA\GEA\01.0170142.30 Ash Imp. Round 13\01.0170142.30 Task 3 – Edgewater\Drawings\Autocad\Scanned Figures – Edgewater.dwg Last Modified: Oct 24, 2011 – 1:53pm Plotted on: Oct 24, 2011 – 1:56pm by justin.hegarty

APPROXIMATE LOCATION OF DISCHARGE PIPE FROM THE SLAG POND, NORTH POND A AND SOUTH POND A

TREES ON SLOPE

TREES ON SLOPE

WAVE ACTION EROSION ALONG TOE OF UPSTREAM SCOPE

APPROXIMATE LOCATION OF DECANT STRUCTURE

APPROXIMATE LOCATION OF STORMWATER RUNOFF DISCHARGE PIPE

POND B

POND C

APPROXIMATE LOCATION OF DISCHARGE STRUCTURE FROM POND B TO POND C

RUTTING PRESENT ALONG MUCH OF CREST ACCESS ROAD

TREES ON SLOPE

20-OW

29-OW

29-A

6R-OW

6AR

6B

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DATA ACCESSED JULY 2011.

N
W E
S

80 0 80 Feet

NOTE

DISCHARGE PIPELINE DIAMETERS ESTIMATED BY GZA GEOENVIRONMENTAL, INC.

LEGEND

- APPROXIMATE IMPOUNDMENT BOUNDARY
- 12 GZA PHOTO LOCATION / DIRECTION
- 29-OW GROUNDWATER MONITORING WELL LOCATIONS

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EDGEWATER GENERATING STATION
SHEBOYGAN, WISCONSIN

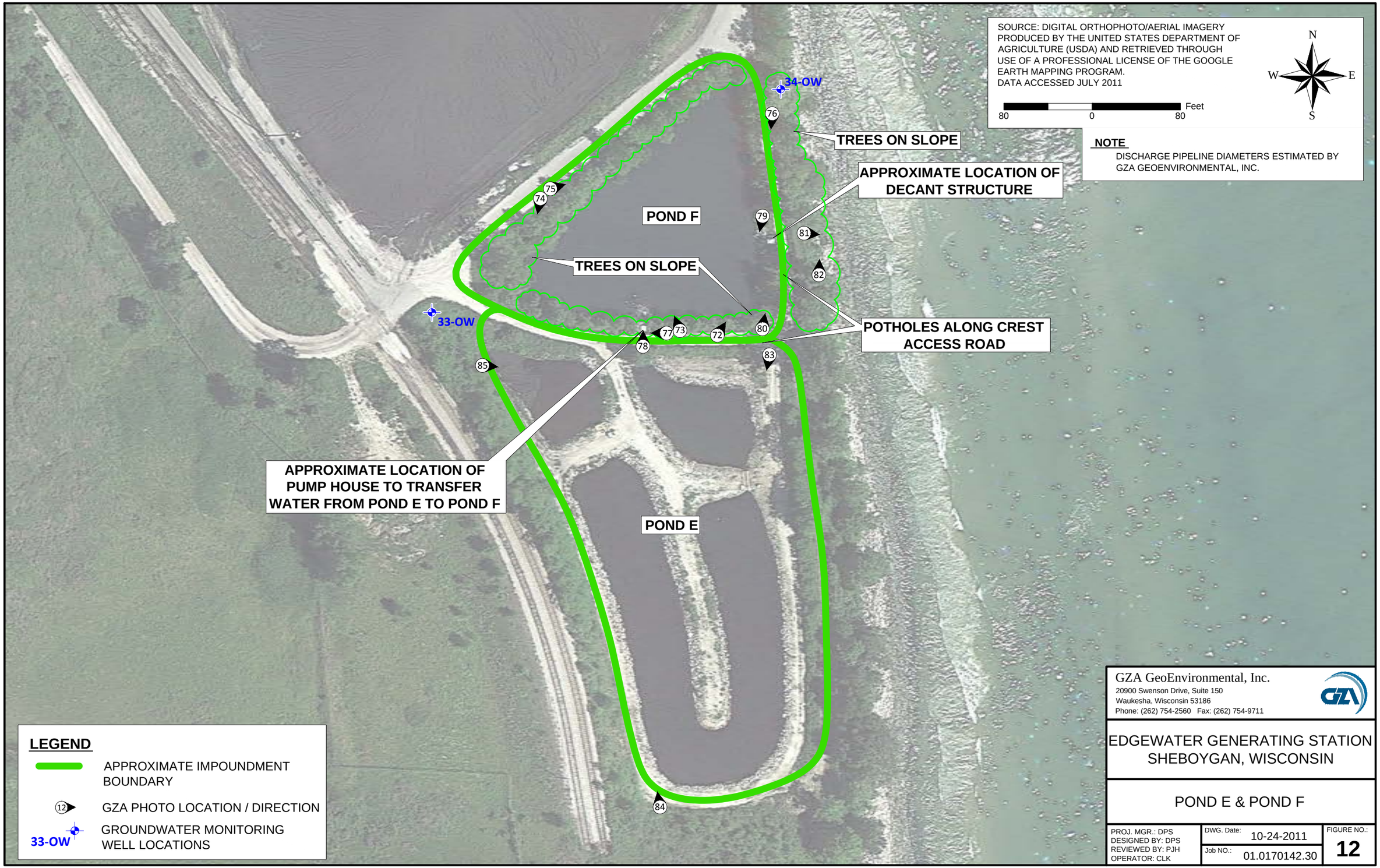
POND B & POND C

PROJ. MGR.: DPS
DESIGNED BY: DPS
REVIEWED BY: PJH
OPERATOR: CLK

DWG. Date: 10-24-2011

Job NO.: 01.0170142.30

FIGURE NO.: 11



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DATA ACCESSED JULY 2011

N
W E
S

80 0 80 Feet

NOTE

DISCHARGE PIPELINE DIAMETERS ESTIMATED BY GZA GEOENVIRONMENTAL, INC.

LEGEND

- APPROXIMATE IMPOUNDMENT BOUNDARY
- 12 GZA PHOTO LOCATION / DIRECTION
- 33-OW GROUNDWATER MONITORING WELL LOCATIONS

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EDGEWATER GENERATING STATION
SHEBOYGAN, WISCONSIN

POND E & POND F

PROJ. MGR.: DPS
DESIGNED BY: DPS
REVIEWED BY: PJH
OPERATOR: CLK

DWG. Date: 10-24-2011
Job NO.: 01.0170142.30

FIGURE NO.: 12

APPENDIX A

LIMITATIONS

DAM ENGINEERING & VISUAL INSPECTION LIMITATIONS

1. The observations described in this report were made under the conditions stated herein. The conclusions presented in the report were based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of described services.

2. In preparing this report, GZA GeoEnvironmental, Inc. (GZA) has relied on certain information provided by Alliant Energy (and their affiliates) as well as Federal, state, and local officials and other parties referenced therein. GZA has also relied on other parties which were available to GZA at the time of the inspection. Although there may have been some degree of overlap in the information provided by these various sources, GZA did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this work.

3. In reviewing this Report, it should be noted that the reported condition of the dam is based on observations of field conditions during the course of this study along with data made available to GZA. The observations of conditions at the dam reflect only the situation present at the specific moment in time the observations were made, under the specific conditions present. It may be necessary to reevaluate the recommendations of this report when subsequent phases of evaluation or repair and improvement provide more data.

4. It is important to note that the condition of a dam depends on numerous and constantly changing internal and external conditions, and is evolutionary in nature. It would be incorrect to assume that the present condition of the dam will continue to represent the condition of the dam at some point in the future. Only through continued care and inspection can there be any chance that unsafe conditions may be detected.

5. Water level readings have been reviewed and interpretations have been made in the text of this report. Fluctuations in the level of the groundwater and surface water may occur due to variations in rainfall, temperature, and other factors different than at the time measurements were made.

6. GZA's comments on the hydrology, hydraulics, and embankment stability for the dam are based on a limited review of available design documentation available from Alliant Energy and the Wisconsin Department of Natural Resources. Calculations and computer modeling used in these analyses were not available and were not independently reviewed by GZA.

7. This report has been prepared for the exclusive use of US EPA for specific application to the existing dam facilities, in accordance with generally accepted dam engineering practices. No other warranty, express or implied, is made.

8. This dam inspection verification report has been prepared for this project by GZA. This report is for broad evaluation and management purposes only and is not sufficient, in and of itself, to prepare construction documents or an accurate bid.

APPENDIX B

DEFINITIONS

COMMON DAM SAFETY DEFINITIONS

For a comprehensive list of dam engineering terminology and definitions refer to references published by the U.S. Army Corps of Engineers, the Federal Energy Regulatory Commission, the Department of the Interior Bureau of Reclamation, or the Federal Emergency Management Agency.

Orientation

Upstream – Shall mean the side of the dam that borders the impoundment.

Downstream – Shall mean the high side of the dam, the side opposite the upstream side.

Right – Shall mean the area to the right when looking in the downstream direction.

Left – Shall mean the area to the left when looking in the downstream direction.

Dam Components

Dam – Shall mean any artificial barrier, including appurtenant works, which impounds or diverts water.

Embankment – Shall mean the fill material, usually earth or rock, placed with sloping sides, such that it forms a permanent barrier that impounds water.

Crest – Shall mean the top of the dam, usually provides a road or path across the dam.

Abutment – Shall mean that part of a valley side against which a dam is constructed. An artificial abutment is sometimes constructed as a concrete gravity section, to take the thrust of an arch dam where there is no suitable natural abutment.

Appurtenant Works – Shall mean structures, either in dams or separate there from, including but not be limited to, spillways; reservoirs and their rims; low level outlet works; and water conduits including tunnels, pipelines, or penstocks, either through the dams or their abutments.

Spillway – Shall mean a structure over or through which water flows are discharged. If the flow is controlled by gates or boards, it is a controlled spillway; if the fixed elevation of the spillway crest controls the level of the impoundment, it is an uncontrolled spillway.

General

EAP – Emergency Action Plan - Shall mean a predetermined plan of action to be taken to reduce the potential for property damage and/or loss of life in an area affected by an impending dam break.

O&M Manual – Operations and Maintenance Manual; Document identifying routine maintenance and operational procedures under normal and storm conditions.

Normal Pool – Shall mean the elevation of the impoundment during normal operating conditions.

Acre-foot – Shall mean a unit of volumetric measure that would cover one acre to a depth of one foot. It is equal to 43,560 cubic feet. One million U.S. gallons = 3.068 acre feet.

Height of Dam – Shall mean the vertical distance from the lowest portion of the natural ground, including any stream channel, along the downstream toe of the dam to the crest of the dam.

Spillway Design Flood (SDF) – Shall mean the flood used in the design of a dam and its appurtenant works particularly for sizing the spillway and outlet works, and for determining maximum temporary storage and height of dam requirements.

Condition Rating

SATISFACTORY - No existing or potential management unit safety deficiencies are recognized. Acceptable performance is expected under all applicable loading conditions (static, hydrologic, seismic) in accordance with the applicable criteria. Minor maintenance items may be required.

FAIR - Acceptable performance is expected under all required loading conditions (static, hydrologic, seismic) in accordance with the applicable safety regulatory criteria. Minor deficiencies may exist that require remedial action and/or secondary studies or investigations.

POOR - A management unit safety deficiency is recognized for any required loading condition (static, hydrologic, seismic) in accordance with the applicable dam safety regulatory criteria. Remedial action is necessary. POOR also applies when further critical studies or investigations are needed to identify any potential dam safety deficiencies.

UNSATISFACTORY - Considered unsafe. A dam safety deficiency is recognized that requires immediate or emergency remedial action for problem resolution. Reservoir restrictions may be necessary.

Hazard Potential

(In the event the impoundment should fail, the following would occur):

LESS THAN LOW HAZARD POTENTIAL: Failure or misoperation of the dam results in no probable loss of human life or economic or environmental losses.

LOW HAZARD POTENTIAL: Dams assigned the low hazard potential classification are those where failure or misoperation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property.

SIGNIFICANT HAZARD POTENTIAL: Dams assigned the significant hazard potential classification are those dams where failure or misoperation results in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or can impact other concerns. Significant hazard potential classification dams are often located in predominantly rural or agricultural areas but could be located in areas with population and significant infrastructure.

HIGH HAZARD POTENTIAL: Dams assigned the high hazard potential classification are those where failure or misoperation will probably cause loss of human life.

APPENDIX C

INSPECTION CHECKLISTS

Coal Combustion Dam Inspection Checklist Form

US Environmental Protection Agency

Site Name:	Edgewater Generating Station	Date:	5/31/11
Unit Name:	North Pond A	Operator's Name:	Wisconsin Power and Light
Unit I.D.:		Hazard Potential Classification:	High Significant Low ✓

Inspector's Name: Patrick J. Harrison, P.E. and Doug P. Simon, P.E.

Check the appropriate box below. Provide comments when appropriate. If not applicable or not available, record "N/A". Any unusual conditions or construction practices that should be noted in the comments section. For large diked embankments, separate checklists may be used for different embankment areas. If separate forms are used, identify approximate area that the form applies to in comments.

	Yes	No		Yes	No
1. Frequency of Company's Dam Inspections?	Quarterly		18. Sloughing or bulging on slopes?		✓
2. Pool elevation (operator records)?	608.7		19. Major erosion or slope deterioration?		✓
3. Decant inlet elevation (operator records)?	608.7		20. Decant Pipes:		
4. Open channel spillway elevation (operator records)?			Is water entering inlet, but not exiting outlet?		✓
5. Lowest dam crest elevation (operator records)?	611.8		Is water exiting outlet, but not entering inlet?		✓
6. If instrumentation is present, are readings recorded (operator records)?	✓		Is water exiting outlet flowing clear?	✓	
7. Is the embankment currently under construction?		✓	21. Seepage (specify location, if seepage carries fines, and approximate seepage rate below):		
8. Foundation preparation (remove vegetation,stumps, topsoil in area where embankment fill will be placed)?			From underdrain?		✓
9. Trees growing on embankment? (If so, indicate largest diameter below)	✓		At isolated points on embankment slopes?		✓
10. Cracks or scarps on crest?		✓	At natural hillside in the embankment area?		✓
11. Is there significant settlement along the crest?		✓	Over widespread areas?		✓
12. Are decant trashracks clear and in place?		✓	From downstream foundation area?		✓
13. Depressions or sinkholes in tailings surface or whirlpool in the pool area?		✓	"Boils" beneath stream or ponded water?		✓
14. Clogged spillways, grass or diversion ditches?		✓	Around the outside of the decant pipe?		✓
15. Are spillway or ditch linings deteriorated?		✓	22. Surface movements in valley bottom or on hillside?		✓
16. Are outlets of decant or underdrains blocked?		✓	23. Water against downstream toe?		✓
17. Cracks or scarps on slopes?		✓	24. Were Photos taken during the dam inspection?	✓	

Major adverse changes in these items could cause instability and should be reported for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, volume, etc.) in the space below and on the back of this sheet.

Inspection Issue # Comments

4. There was no open channel spillway present.
8. No information about foundation preparation was available.
9. Largest tree diameter noted was approximately 24 inches.

U. S. Environmental Protection Agency

Coal Combustion Waste (CCW)
Impoundment Inspection

Impoundment NPDES Permit # WI-0001589-07-0 INSPECTOR Patrick L Harrison, P.E.
Date May 31, 2011 Doug P. Simon, P.E.

Impoundment Name North Pond A
Impoundment Company Wisconsin Power and Light
EPA Region Region V
State Agency (Field Office) Addresss Wisconsin Department of Natural Resources
Plymouth, Illinois
Name of Impoundment North Pond A
(Report each impoundment on a separate form under the same Impoundment NPDES Permit number)

New X Update _____

	Yes	No
Is impoundment currently under construction?	_____	X
Is water or ccw currently being pumped into the impoundment?	X	_____

IMPOUNDMENT FUNCTION: Settlement of CCW prior to water discharge to adjacent impoundment.

Nearest Downstream Town : Name Impoundment along Lake Michigan - No downstream
Distance from the impoundment town present.
Impoundment
Location: Longitude _____ Degrees _____ Minutes _____ Seconds
Latitude _____ Degrees _____ Minutes _____ Seconds
State Wisconsin County Sheboygan

Does a state agency regulate this impoundment? YES X NO _____

If So Which State Agency? The Wisconsin Department of Natural Resources regulates the discharge of water (NPDES Permit).

HAZARD POTENTIAL (In the event the impoundment should fail, the following would occur):

_____ **LESS THAN LOW HAZARD POTENTIAL:** Failure or misoperation of the dam results in no probable loss of human life or economic or environmental losses.

__X__ **LOW HAZARD POTENTIAL:** Dams assigned the low hazard potential classification are those where failure or misoperation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property.

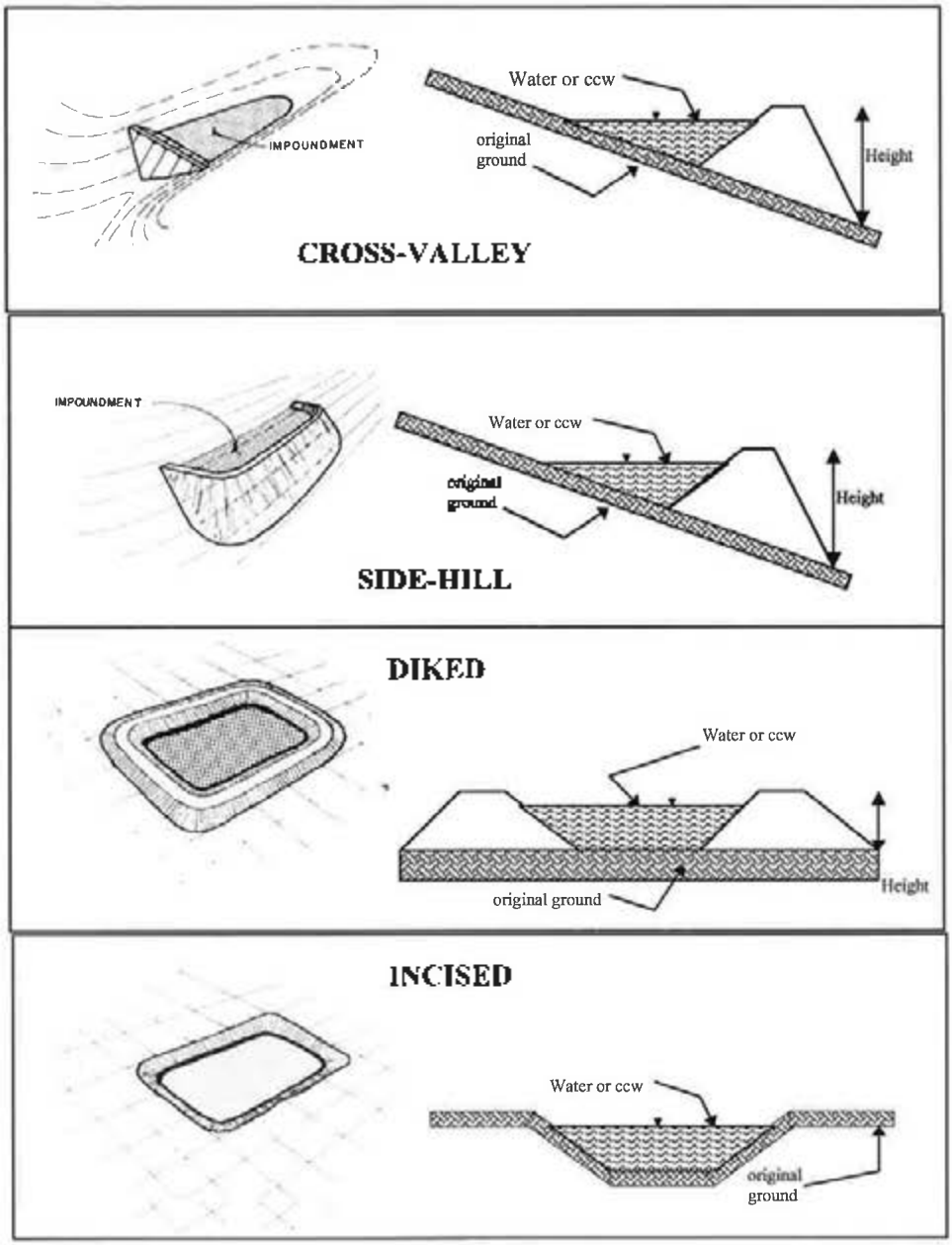
_____ **SIGNIFICANT HAZARD POTENTIAL:** Dams assigned the significant hazard potential classification are those dams where failure or misoperation results in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or can impact other concerns. Significant hazard potential classification dams are often located in predominantly rural or agricultural areas but could be located in areas with population and significant infrastructure.

_____ **HIGH HAZARD POTENTIAL:** Dams assigned the high hazard potential classification are those where failure or misoperation will probably cause loss of human life.

DESCRIBE REASONING FOR HAZARD RATING CHOSEN:

Potential failure of the impoundment embankment would not likely result in loss of human life. Economic and environmental damage would likely be limited to owner's property.

CONFIGURATION:



_____ Cross-Valley
_____ Side-Hill
_____ Diked
_____ Incised (form completion optional)
_X_ Combination Incised/Diked

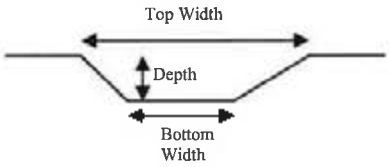
Embankment Height 19 feet
Pool Area ~2.1 acres
Current Freeboard 3.1 feet
Embankment Material Lean Clay
Liner No liner present
Liner Permeability Unknown

TYPE OF OUTLET (Mark all that apply)

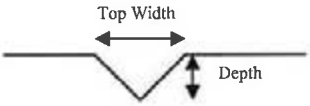
_____ **Open Channel Spillway**
_____ Trapezoidal
_____ Triangular
_____ Rectangular
_____ Irregular

_____ depth
_____ bottom (or average) width
_____ top width

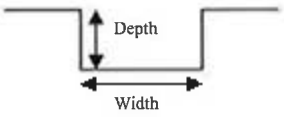
TRAPEZOIDAL



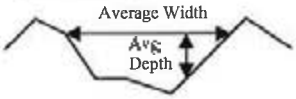
TRIANGULAR



RECTANGULAR

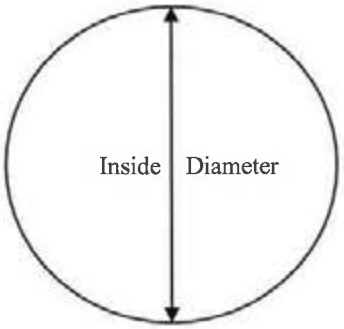


IRREGULAR



__X__ **Outlet**

18 inside diameter
Varies: See Below.



Material
__X__ corrugated metal
_____ welded steel
_____ concrete
_____ plastic (hdpe, pvc, etc.)
___ other (specify) _____

Is water flowing through the outlet? YES __X__ NO _____

_____ **No Outlet**

_____ **Other Type of Outlet** (specify) _____

The Impoundment was Designed By _____

_____

Has there ever been a failure at this site? YES _____ NO ___X_____

If So When? _____

If So Please Describe : _____

Has there ever been significant seepages at this site? YES _____ NO X

If So When? _____

IF So Please Describe: _____

Has there ever been any measures undertaken to monitor/lower Phreatic water table levels based on past seepages or breaches at this site? YES _____ NO N/A

If so, which method (e.g., piezometers, gw pumping,...)? _____

If so Please Describe : _____

Coal Combustion Dam Inspection Checklist Form

US Environmental Protection Agency

Site Name:	Edgewater Generating Station	Date:	5/31/11
Unit Name:	Pond B	Operator's Name:	Wisconsin Power and Light
Unit I.D.:		Hazard Potential Classification:	High Significant Low ✓

Inspector's Name: Patrick J. Harrison, P.E. and Doug P. Simon, P.E.

Check the appropriate box below. Provide comments when appropriate. If not applicable or not available, record "N/A". Any unusual conditions or construction practices that should be noted in the comments section. For large diked embankments, separate checklists may be used for different embankment areas. If separate forms are used, identify approximate area that the form applies to in comments.

	Yes	No		Yes	No
1. Frequency of Company's Dam Inspections?	Quarterly		18. Sloughing or bulging on slopes?		✓
2. Pool elevation (operator records)?	597.3		19. Major erosion or slope deterioration?		✓
3. Decant inlet elevation (operator records)?	597.3		20. Decant Pipes.		
4. Open channel spillway elevation (operator records)?			Is water entering inlet, but not exiting outlet?		✓
5. Lowest dam crest elevation (operator records)?	607.9		Is water exiting outlet, but not entering inlet?		✓
6. If instrumentation is present, are readings recorded (operator records)?	✓		Is water exiting outlet flowing clear?	✓	
7. Is the embankment currently under construction?		✓	21. Seepage (specify location, if seepage carries fines, and approximate seepage rate below):		
8. Foundation preparation (remove vegetation,stumps, topsoil in area where embankment fill will be placed)?			From underdrain?		✓
9. Trees growing on embankment? (If so, indicate largest diameter below)	✓		At isolated points on embankment slopes?		✓
10. Cracks or scarps on crest?		✓	At natural hillside in the embankment area?		✓
11. Is there significant settlement along the crest?		✓	Over widespread areas?		✓
12. Are decant trashracks clear and in place?	✓		From downstream foundation area?		✓
13. Depressions or sinkholes in tailings surface or whirlpool in the pool area?		✓	"Boils" beneath stream or ponded water?		✓
14. Clogged spillways, groin or diversion ditches?		✓	Around the outside of the decant pipe?		✓
15. Are spillway or ditch linings deteriorated?		✓	22. Surface movements in valley bottom or on hillside?		✓
16. Are outlets of decant or underdrains blocked?		✓	23. Water against downstream toe?	✓	
17. Cracks or scarps on slopes?		✓	24. Were Photos taken during the dam inspection?	✓	

Major adverse changes in these items could cause instability and should be reported for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, volume, etc.) in the space below and on the back of this sheet.

Inspection Issue # Comments

4. There was no open channel spillway present.
8. No information about foundation preparation was available.
9. Largest tree diameter noted was approximately 12 inches.

U. S. Environmental Protection Agency

Coal Combustion Waste (CCW)
Impoundment Inspection

Impoundment NPDES Permit # WI-0001589-07-0 INSPECTOR Patrick L. Harrison, P.E.
Doug P. Simon, P.E.
Date May 31, 2011

Impoundment Name Pond B
Impoundment Company Wisconsin Power and Light
EPA Region Region V
State Agency (Field Office) Addresss Wisconsin Department of Natural Resources
Plymouth, Illinois
Name of Impoundment Pond B
(Report each impoundment on a separate form under the same Impoundment NPDES Permit number)

New X Update _____

	Yes	No
Is impoundment currently under construction?	_____	X
Is water or ccw currently being pumped into the impoundment?	X	_____

IMPOUNDMENT FUNCTION: Settlement of CCW prior to water discharge to adjacent impoundment.

Nearest Downstream Town : Name Impoundment along Lake Michigan - No downstream
Distance from the impoundment town present.
Impoundment
Location: Longitude _____ Degrees _____ Minutes _____ Seconds
Latitude _____ Degrees _____ Minutes _____ Seconds
State Wisconsin County Sheboygan

Does a state agency regulate this impoundment? YES X NO _____

If So Which State Agency? The Wisconsin Department of Natural Resources regulates the discharge of water (NPDES Permit).

HAZARD POTENTIAL (In the event the impoundment should fail, the following would occur):

_____ **LESS THAN LOW HAZARD POTENTIAL:** Failure or misoperation of the dam results in no probable loss of human life or economic or environmental losses.

__X__ **LOW HAZARD POTENTIAL:** Dams assigned the low hazard potential classification are those where failure or misoperation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property.

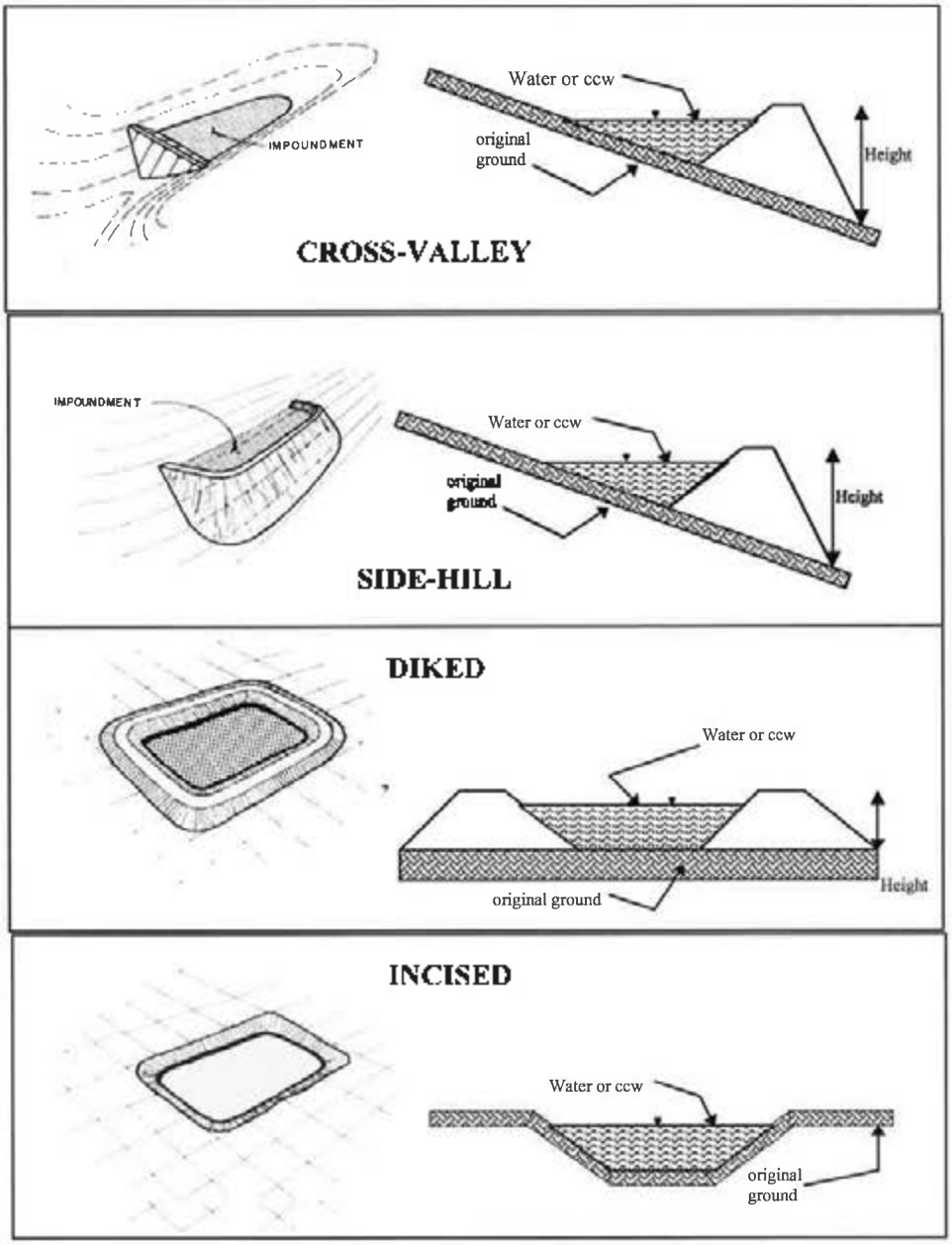
_____ **SIGNIFICANT HAZARD POTENTIAL:** Dams assigned the significant hazard potential classification are those dams where failure or misoperation results in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or can impact other concerns. Significant hazard potential classification dams are often located in predominantly rural or agricultural areas but could be located in areas with population and significant infrastructure.

_____ **HIGH HAZARD POTENTIAL:** Dams assigned the high hazard potential classification are those where failure or misoperation will probably cause loss of human life.

DESCRIBE REASONING FOR HAZARD RATING CHOSEN:

Potential failure of the impoundment embankment would not likely result in loss of human life. Economic and environmental damage would likely be limited to owner's property.

CONFIGURATION:



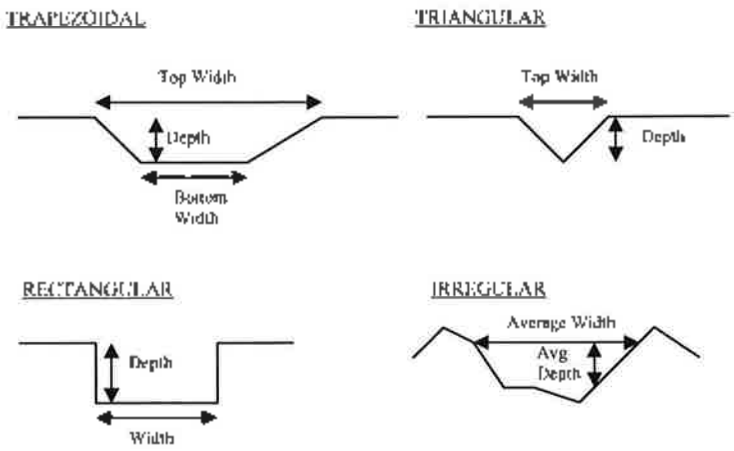
__ __ Cross-Valley
_____ Side-Hill
_____ Diked
_____ Incised (form completion optional)
_X_ Combination Incised/Diked

Embankment Height 18 feet
Pool Area 1.93 acres
Current Freeboard 10.6 feet
Embankment Material Lean Clay
Liner No liner present
Liner Permeability Unknown

TYPE OF OUTLET (Mark all that apply)

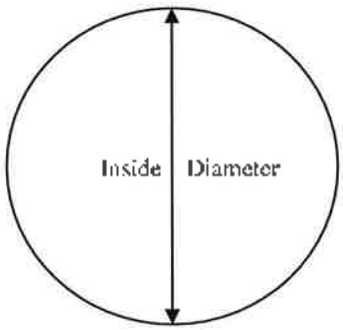
_____ **Open Channel Spillway**
_____ Trapezoidal
_____ Triangular
_____ Rectangular
_____ Irregular

_____ depth
_____ bottom (or average) width
_____ top width
_____



__X__ **Outlet**

__24__ inside diameter
Varies: See Below.



Material
__X__ corrugated metal
_____ welded steel
_____ concrete
_____ plastic (hdpe, pvc, etc.)
_____ other (specify) _____

_____

Is water flowing through the outlet? YES __X__ NO _____

_____ **No Outlet**

_____

_____ **Other Type of Outlet** (specify) _____

The Impoundment was Designed By _____
_____

Has there ever been a failure at this site? YES _____ NO ___X_____

If So When? _____

If So Please Describe : _____

Has there ever been significant seepages at this site? YES _____ NO X

If So When? _____

IF So Please Describe: _____

Has there ever been any measures undertaken to monitor/lower Phreatic water table levels based on past seepages or breaches at this site? YES _____ NO _N/A_

If so, which method (e.g., piezometers, gw pumping,...)? _____

If so Please Describe : _____

Coal Combustion Dam Inspection Checklist Form

US Environmental Protection Agency

Site Name:	Edgewater Generating Station	Date:	5/31/11
Unit Name:	Pond F	Operator's Name:	Wisconsin Power and Light
Unit I.D.:		Hazard Potential Classification:	High Significant Low ✓

Inspector's Name: Patrick J. Harrison, P.E. and Doug P. Simon, P.E.

Check the appropriate box below. Provide comments when appropriate. If not applicable or not available, record "N/A". Any unusual conditions or construction practices that should be noted in the comments section. For large diked embankments, separate checklists may be used for different embankment areas. If separate forms are used, identify approximate area that the form applies to in comments.

	Yes	No		Yes	No
1. Frequency of Company's Dam Inspections?	Quarterly		18. Sloughing or bulging on slopes?		✓
2. Pool elevation (operator records)?	585.1		19. Major erosion or slope deterioration?		✓
3. Decant inlet elevation (operator records)?	585.1		20. Decant Pipes.		
4. Open channel spillway elevation (operator records)?			Is water entering inlet, but not exiting outlet?		✓
5. Lowest dam crest elevation (operator records)?	590.1		Is water exiting outlet, but not entering inlet?		✓
6. If instrumentation is present, are readings recorded (operator records)?	✓		Is water exiting outlet flowing clear?	✓	
7. Is the embankment currently under construction?		✓	21. Seepage (specify location, if seepage carries fines, and approximate seepage rate below):		
8. Foundation preparation (remove vegetation,stumps, topsoil in area where embankment fill will be placed)?			From underdrain?		✓
9. Trees growing on embankment? (If so, indicate largest diameter below)		✓	At isolated points on embankment slopes?		✓
10. Cracks or scarps on crest?		✓	At natural hillside in the embankment area?		✓
11. Is there significant settlement along the crest?		✓	Over widespread areas?		✓
12. Are decant trashracks clear and in place?		✓	From downstream foundation area?		✓
13. Depressions or sinkholes in tailings surface or whirlpool in the pool area?		✓	"Boils" beneath stream or ponded water?		✓
14. Clogged spillways, groin or diversion ditches?		✓	Around the outside of the decant pipe?		✓
15. Are spillway or ditch linings deteriorated?		✓	22. Surface movements in valley bottom or on hillside?		✓
16. Are outlets of decant or underdrains blocked?		✓	23. Water against downstream toe?	✓	
17. Cracks or scarps on slopes?		✓	24. Were Photos taken during the dam inspection?	✓	

Major adverse changes in these items could cause instability and should be reported for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, volume, etc.) in the space below and on the back of this sheet.

Inspection Issue #	Comments
4.	There was no open channel spillway present.
8.	No information about foundation preparation was available.

U. S. Environmental Protection Agency

Coal Combustion Waste (CCW)
Impoundment Inspection

Impoundment NPDES Permit # WI-0001589-07-0 INSPECTOR Patrick J. Harrison, P.E.
Date May 31, 2011 Doug P. Simon, P.E.

Impoundment Name Pond F
Impoundment Company Wisconsin Power and Light
EPA Region Region V
State Agency (Field Office) Addresss Wisconsin Department of Natural Resources
Plymouth, Illinois
Name of Impoundment Pond F
(Report each impoundment on a separate form under the same Impoundment NPDES Permit number)

New X Update _____

	Yes	No
Is impoundment currently under construction?	_____	X
Is water or ccw currently being pumped into the impoundment?	X	_____

IMPOUNDMENT FUNCTION: Settlement of CCW prior to water discharge to adjace impoundment.

Nearest Downstream Town : Name Impoundment along Lake Michigan - No downstream
Distance from the impoundment town present.
Impoundment
Location: Longitude _____ Degrees _____ Minutes _____ Seconds
Latitude _____ Degrees _____ Minutes _____ Seconds
State Wisconsin County Sheboygan

Does a state agency regulate this impoundment? YES X NO _____

If So Which State Agency? The Wisconsin Department of Natural Resources regulates the discharge of water (NPDES Permit).

HAZARD POTENTIAL (In the event the impoundment should fail, the following would occur):

_____ **LESS THAN LOW HAZARD POTENTIAL:** Failure or misoperation of the dam results in no probable loss of human life or economic or environmental losses.

X **LOW HAZARD POTENTIAL:** Dams assigned the low hazard potential classification are those where failure or misoperation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property.

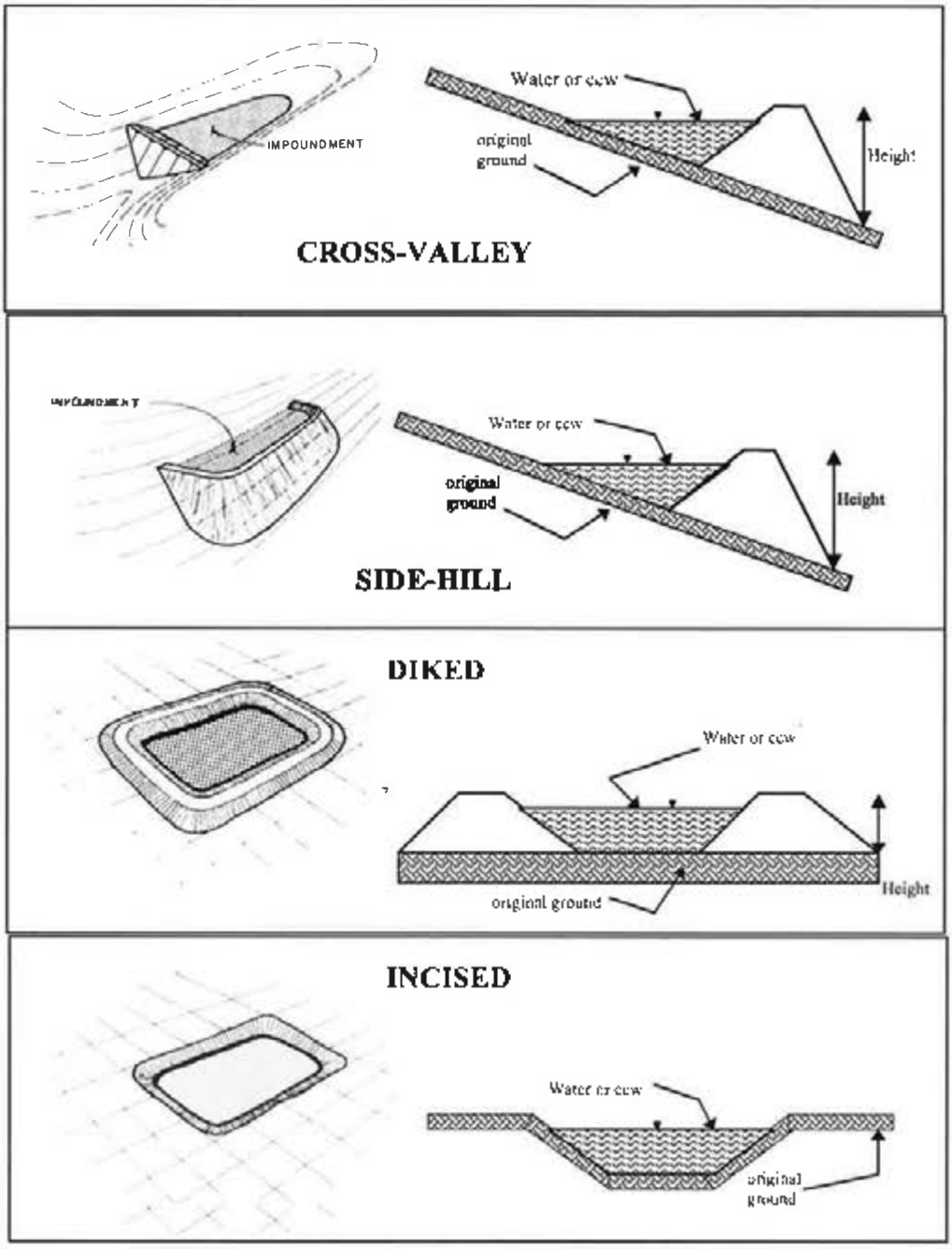
_____ **SIGNIFICANT HAZARD POTENTIAL:** Dams assigned the significant hazard potential classification are those dams where failure or misoperation results in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or can impact other concerns. Significant hazard potential classification dams are often located in predominantly rural or agricultural areas but could be located in areas with population and significant infrastructure.

_____ **HIGH HAZARD POTENTIAL:** Dams assigned the high hazard potential classification are those where failure or misoperation will probably cause loss of human life.

DESCRIBE REASONING FOR HAZARD RATING CHOSEN:

Potential failure of the impoundment embankment would not likely result in loss of human life. Economic or environmental damages would be limited to the owners property.

CONFIGURATION:



___ Cross-Valley
_____ Side-Hill
_____ Diked
_____ Incised (form completion optional)
__X__ Combination Incised/Diked

Embankment Height 10 feet
Pool Area 0.9 acres
Current Freeboard 5.0 feet

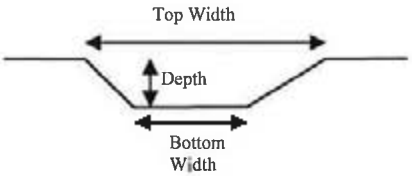
Embankment Material Lean Clay and Fine Sand
Liner No liner present
Liner Permeability Unknown

TYPE OF OUTLET (Mark all that apply)

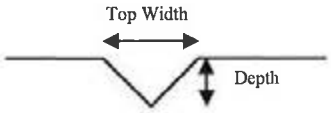
_____ **Open Channel Spillway**
_____ Trapezoidal
_____ Triangular
_____ Rectangular
_____ Irregular

_____ depth
_____ bottom (or average) width
_____ top width
_____

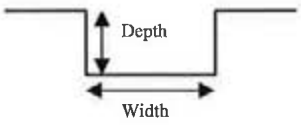
TRAPEZOIDAL



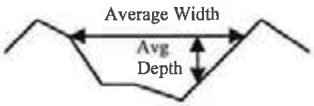
TRIANGULAR



RECTANGULAR

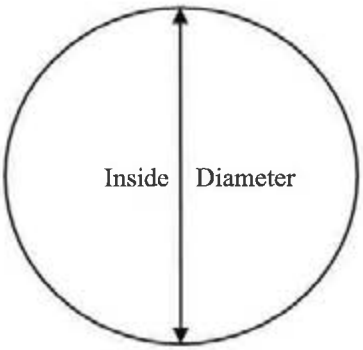


IRREGULAR



X **Outlet**

24 inside diameter
Varies: See Below.



Material
X corrugated metal
_____ welded steel
_____ concrete
_____ plastic (hdpe, pvc, etc.)
_____ other (specify) _____

_____

Is water flowing through the outlet? YES X NO _____

_____ **No Outlet**

_____

_____ **Other Type of Outlet** (specify) _____

The Impoundment was Designed By _____
_____

Has there ever been a failure at this site? YES _____ NO ___X_____

If So When? _____

If So Please Describe : _____

Has there ever been significant seepages at this site? YES _____ NO X

If So When? _____

IF So Please Describe: _____

Has there ever been any measures undertaken to monitor/lower Phreatic water table levels based on past seepages or breaches at this site? YES _____ NO _N/A___

If so, which method (e.g., piezometers, gw pumping,...)? _____

If so Please Describe : _____

Coal Combustion Dam Inspection Checklist Form

US Environmental Protection Agency

Site Name:	Edgewater Generating Station	Date:	5/31/11
Unit Name:	Slag Pond	Operator's Name:	Wisconsin Power and Light
Unit I.D.:		Hazard Potential Classification:	High Significant Low ✓

Inspector's Name: Patrick J. Harrison, P.E. and Doug P. Simon, P.E.

Check the appropriate box below. Provide comments when appropriate. If not applicable or not available, record "N/A". Any unusual conditions or construction practices that should be noted in the comments section. For large diked embankments, separate checklists may be used for different embankment areas. If separate forms are used, identify approximate area that the form applies to in comments.

	Yes	No		Yes	No
1. Frequency of Company's Dam Inspections?	Quarterly		18. Sloughing or bulging on slopes?		✓
2. Pool elevation (operator records)?	605.7		19. Major erosion or slope deterioration?		✓
3. Decant inlet elevation (operator records)?	605.7		20. Decant Pipes.		
4. Open channel spillway elevation (operator records)?			Is water entering inlet, but not exiting outlet?		✓
5. Lowest dam crest elevation (operator records)?	609.7		Is water exiting outlet, but not entering inlet?		✓
6. If instrumentation is present, are readings recorded (operator records)?	✓		Is water exiting outlet flowing clear?	✓	
7. Is the embankment currently under construction?		✓	21. Seepage (specify location, if seepage carries fines, and approximate seepage rate below):		
8. Foundation preparation (remove vegetation,stumps, topsoil in area where embankment fill will be placed)?			From underdrain?		✓
9. Trees growing on embankment? (If so, indicate largest diameter below)	✓		At isolated points on embankment slopes?		✓
10. Cracks or scarps on crest?		✓	At natural hillside in the embankment area?		✓
11. Is there significant settlement along the crest?		✓	Over widespread areas?		✓
12. Are decant trashracks clear and in place?		✓	From downstream foundation area?		✓
13. Depressions or sinkholes in tailings surface or whirlpool in the pool area?		✓	"Boils" beneath stream or ponded water?		✓
14. Clogged spillways, groin or diversion ditches?		✓	Around the outside of the decant pipe?		✓
15. Are spillway or ditch linings deteriorated?		✓	22. Surface movements in valley bottom or on hillside?		✓
16. Are outlets of decant or underdrains blocked?		✓	23. Water against downstream toe?		✓
17. Cracks or scarps on slopes?		✓	24. Were Photos taken during the dam inspection?	✓	

Major adverse changes in these items could cause instability and should be reported for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, volume, etc.) in the space below and on the back of this sheet.

Inspection Issue # Comments

4. There was no open channel spillway present.
8. No information about foundation preparation was available.
9. Largest tree diameter noted was approximately 24 inches.

U. S. Environmental Protection Agency

Coal Combustion Waste (CCW)
Impoundment Inspection

Impoundment NPDES Permit # WI-0001589-07-0 INSPECTOR Patrick J. Harrison, P.E.
Date May 31, 2011 Doug P. Simon, P.E.

Impoundment Name Slag Pond
Impoundment Company Wisconsin Power and Light
EPA Region Region V
State Agency (Field Office) Addresss Wisconsin Department of Natural Resources
Plymouth, Illinois
Name of Impoundment Slag Pond
(Report each impoundment on a separate form under the same Impoundment NPDES Permit number)

New X Update _____

	Yes	No
Is impoundment currently under construction?	_____	X
Is water or ccw currently being pumped into the impoundment?	X	_____

IMPOUNDMENT FUNCTION: Settlement of Slag prior to water transfer to Pond B

Nearest Downstream Town : Name Impoundment along Lake Michigan - No downstream
Distance from the impoundment ____ town present.
Impoundment
Location: Longitude _____ Degrees _____ Minutes _____ Seconds
Latitude _____ Degrees _____ Minutes _____ Seconds
State Wisconsin County Sheboygan

Does a state agency regulate this impoundment? YES X NO _____

If So Which State Agency? The Wisconsin Department of Natural Resources regulates the discharge of water (NPDES Permit).

HAZARD POTENTIAL (In the event the impoundment should fail, the following would occur):

_____ **LESS THAN LOW HAZARD POTENTIAL:** Failure or misoperation of the dam results in no probable loss of human life or economic or environmental losses.

_X_ **LOW HAZARD POTENTIAL:** Dams assigned the low hazard potential classification are those where failure or misoperation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property.

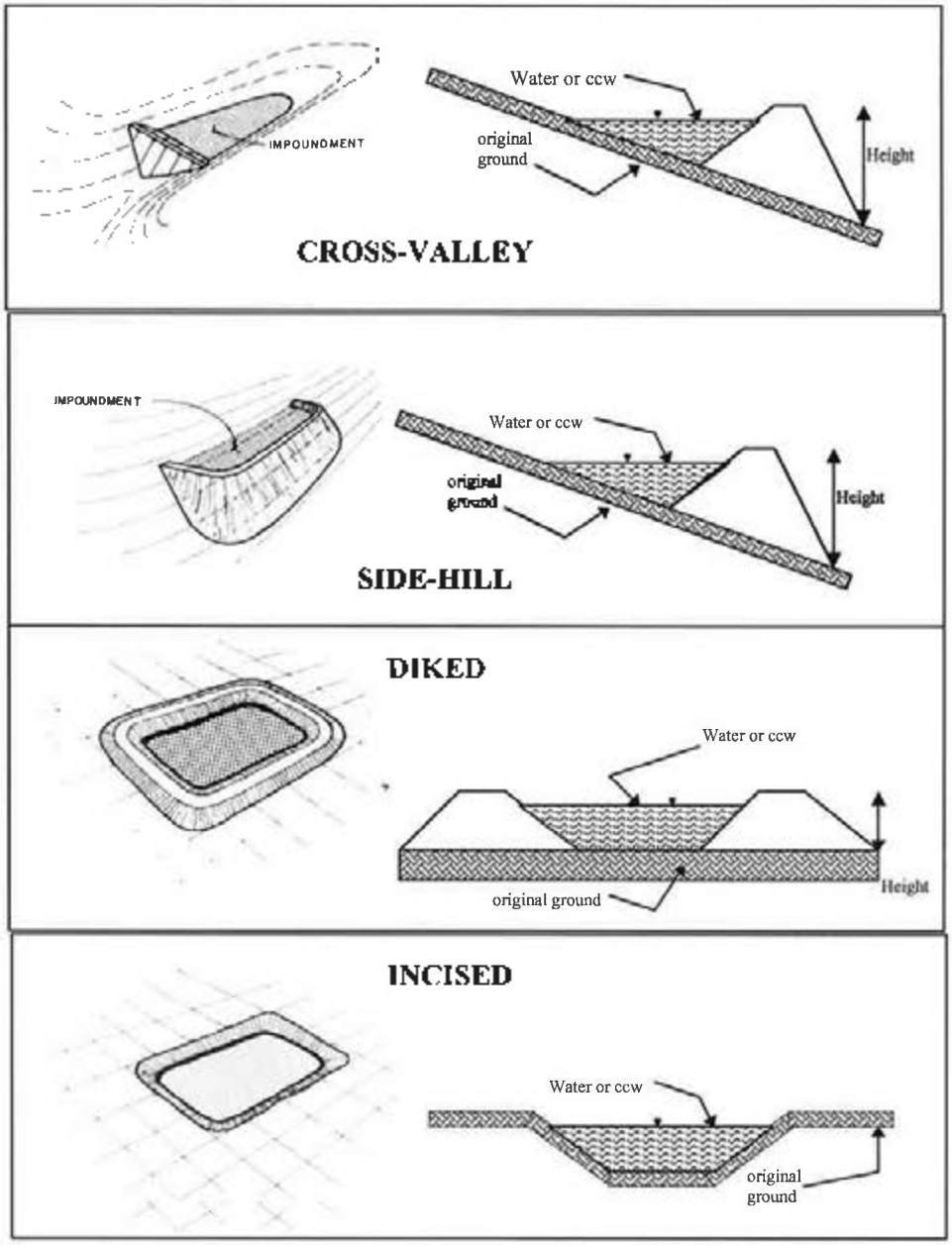
_____ **SIGNIFICANT HAZARD POTENTIAL:** Dams assigned the significant hazard potential classification are those dams where failure or misoperation results in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or can impact other concerns. Significant hazard potential classification dams are often located in predominantly rural or agricultural areas but could be located in areas with population and significant infrastructure.

_____ **HIGH HAZARD POTENTIAL:** Dams assigned the high hazard potential classification are those where failure or misoperation will probably cause loss of human life.

DESCRIBE REASONING FOR HAZARD RATING CHOSEN:

Potential failure of the impoundment embankment would not likely result in loss of human life. Economic and environmental damage would likely be limited to owner's property.

CONFIGURATION:



__ Cross-Valley
____ Side-Hill
____ Diked
____ Incised (form completion optional)
_X_ Combination Incised/Diked

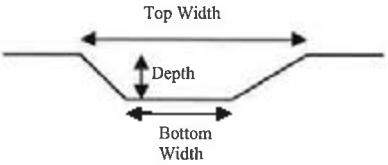
Embankment Height 18 feet
Pool Area 1.77 acres
Current Freeboard 4 feet
Embankment Material Lean Clay
Liner No liner present
Liner Permeability Unknown

TYPE OF OUTLET (Mark all that apply)

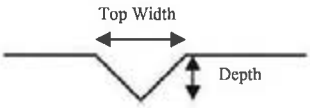
____ **Open Channel Spillway**
____ Trapezoidal
____ Triangular
____ Rectangular
____ Irregular

____ depth
____ bottom (or average) width
____ top width

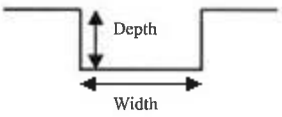
TRAPEZOIDAL



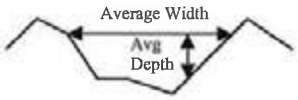
TRIANGULAR



RECTANGULAR

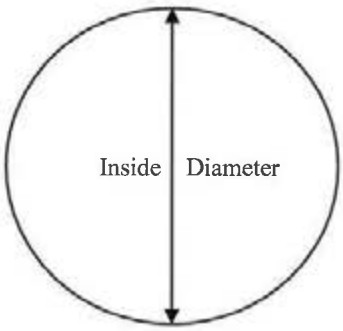


IRREGULAR



__X__ **Outlet**

48 inside diameter
Varies: See Below.



Material
__X__ corrugated metal
____ welded steel
____ concrete
____ plastic (hdpe, pvc, etc.)
____ other (specify) _____

Is water flowing through the outlet? YES __X__ NO ____

____ **No Outlet**

____ **Other Type of Outlet** (specify) _____

The Impoundment was Designed By _____

_____

Has there ever been a failure at this site? YES _____ NO ___X_____

If So When? _____

If So Please Describe : _____

Has there ever been significant seepages at this site? YES _____ NO X

If So When? _____

IF So Please Describe: _____

Has there ever been any measures undertaken to monitor/lower Phreatic water table levels based on past seepages or breaches at this site? YES _____ NO N/A

If so, which method (e.g., piezometers, gw pumping,...)? _____

If so Please Describe : _____

Coal Combustion Dam Inspection Checklist Form

US Environmental Protection Agency

Site Name:	Edgewater Generating Station	Date:	5/31/11
Unit Name:	South Pond A	Operator's Name:	Wisconsin Power and Light
Unit I.D.:		Hazard Potential Classification:	High Significant Low ✓

Inspector's Name: Patrick J. Harrison, P.E. and Doug P. Simon, P.E.

Check the appropriate box below. Provide comments when appropriate. If not applicable or not available, record "N/A". Any unusual conditions or construction practices that should be noted in the comments section. For large diked embankments, separate checklists may be used for different embankment areas. If separate forms are used, identify approximate area that the form applies to in comments.

	Yes	No		Yes	No
1. Frequency of Company's Dam Inspections?	Quarterly		18. Sloughing or bulging on slopes?		✓
2. Pool elevation (operator records)?	609.2		19. Major erosion or slope deterioration?		✓
3. Decant inlet elevation (operator records)?	609.2		20. Decant Pipes:		
4. Open channel spillway elevation (operator records)?			Is water entering inlet, but not exiting outlet?		✓
5. Lowest dam crest elevation (operator records)?	611.6		Is water exiting outlet, but not entering inlet?		✓
6. If instrumentation is present, are readings recorded (operator records)?	✓		Is water exiting outlet flowing clear?	✓	
7. Is the embankment currently under construction?		✓	21. Seepage (specify location, if seepage carries fines, and approximate seepage rate below):		
8. Foundation preparation (remove vegetation,stumps, topsoil in area where embankment fill will be placed)?			From underdrain?		✓
9. Trees growing on embankment? (If so, indicate largest diameter below)	✓		At isolated points on embankment slopes?		✓
10. Cracks or scarps on crest?		✓	At natural hillside in the embankment area?		✓
11. Is there significant settlement along the crest?		✓	Over widespread areas?		✓
12. Are decant trashracks clear and in place?		✓	From downstream foundation area?		✓
13. Depressions or sinkholes in tailings surface or whirlpool in the pool area?		✓	"Boils" beneath stream or ponded water?		✓
14. Clogged spillways, groin or diversion ditches?		✓	Around the outside of the decant pipe?		✓
15. Are spillway or ditch linings deteriorated?		✓	22. Surface movements in valley bottom or on hillside?		✓
16. Are outlets of decant or underdrains blocked?		✓	23. Water against downstream toe?		✓
17. Cracks or scarps on slopes?		✓	24. Were Photos taken during the dam inspection?	✓	

Major adverse changes in these items could cause instability and should be reported for further evaluation. Adverse conditions noted in these items should normally be described (extent, location, volume, etc.) in the space below and on the back of this sheet.

Inspection Issue #	Comments
4.	There was no open channel spillway present.
8.	No information about foundation preparation was available.
9.	Largest tree diameter noted was approximately 24 inches.

U. S. Environmental Protection Agency

Coal Combustion Waste (CCW)
Impoundment Inspection

Impoundment NPDES Permit # WI-0001589-07-0 INSPECTOR Patrick J. Harrison, P.E.
Doug P. Simon, P.E.
Date May 31, 2011

Impoundment Name South Pond A
Impoundment Company Wisconsin Power and Light
EPA Region Region V
State Agency (Field Office) Addresss Wisconsin Department of Natural Resources
Plymouth, Illinois
Name of Impoundment South Pond A
(Report each impoundment on a separate form under the same Impoundment NPDES Permit number)

New X Update _____

	Yes	No
Is impoundment currently under construction?	_____	X
Is water or ccw currently being pumped into the impoundment?	X	_____

IMPOUNDMENT FUNCTION: Settlement of CCW prior to water discharge to adjacent impoundment.

Nearest Downstream Town : Name Impoundment along Lake Michigan - No downstream
Distance from the impoundment town present.
Impoundment
Location: Longitude _____ Degrees _____ Minutes _____ Seconds
Latitude _____ Degrees _____ Minutes _____ Seconds
State Wisconsin County Sheboygan

Does a state agency regulate this impoundment? YES X NO _____

If So Which State Agency? The Wisconsin Department of Natural Resources regulates the discharge of water (NPDES Permit).

HAZARD POTENTIAL (In the event the impoundment should fail, the following would occur):

_____ **LESS THAN LOW HAZARD POTENTIAL:** Failure or misoperation of the dam results in no probable loss of human life or economic or environmental losses.

__X__ **LOW HAZARD POTENTIAL:** Dams assigned the low hazard potential classification are those where failure or misoperation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property.

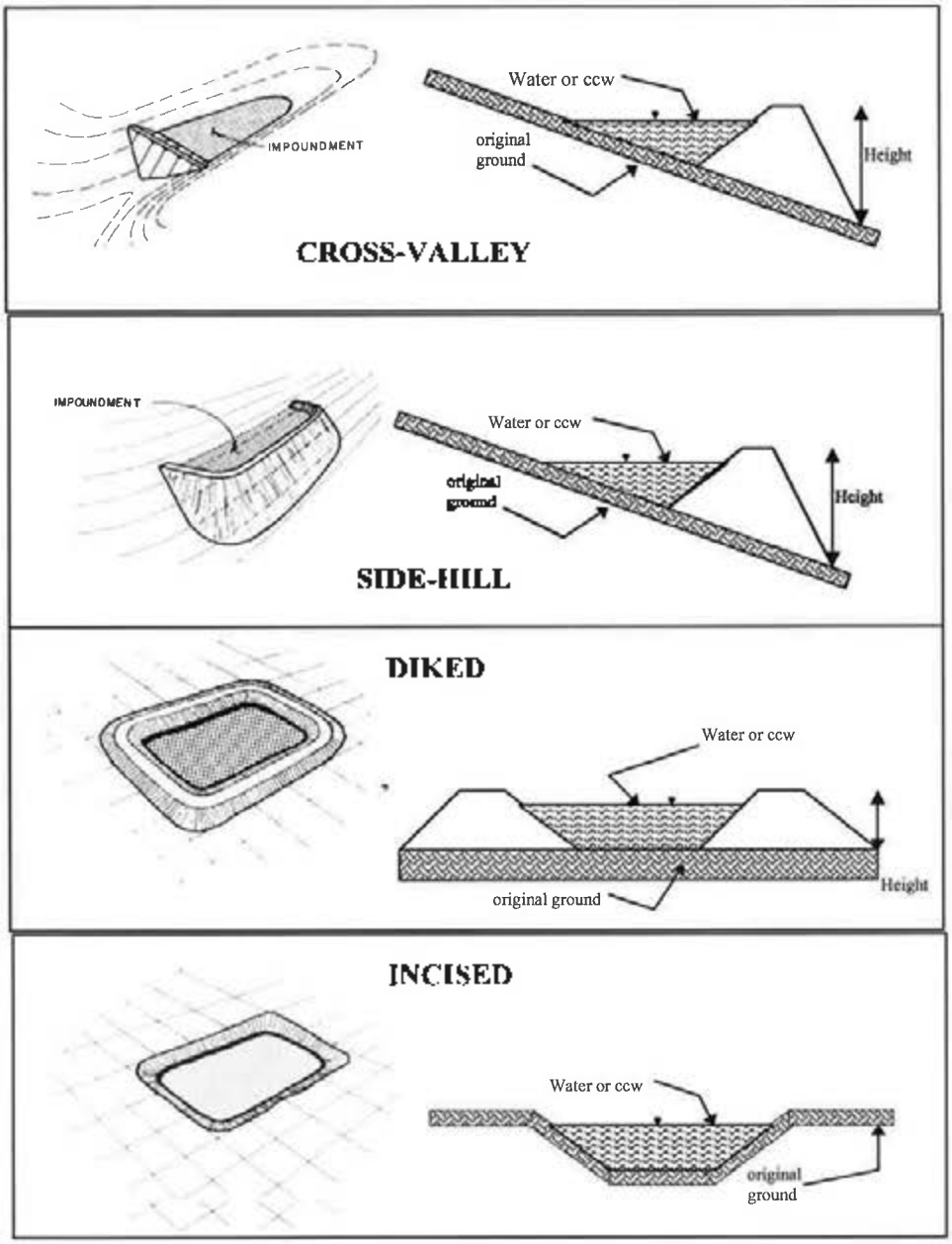
_____ **SIGNIFICANT HAZARD POTENTIAL:** Dams assigned the significant hazard potential classification are those dams where failure or misoperation results in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or can impact other concerns. Significant hazard potential classification dams are often located in predominantly rural or agricultural areas but could be located in areas with population and significant infrastructure.

_____ **HIGH HAZARD POTENTIAL:** Dams assigned the high hazard potential classification are those where failure or misoperation will probably cause loss of human life.

DESCRIBE REASONING FOR HAZARD RATING CHOSEN:

Potential failure of the impoundment embankment would not likely result in loss of human life. Economic and environmental damage would likely be limited to owner's property.

CONFIGURATION:



_ Cross-Valley
_____ Side-Hill
_____ Diked
_____ Incised (form completion optional)
X _ Combination Incised/Diked

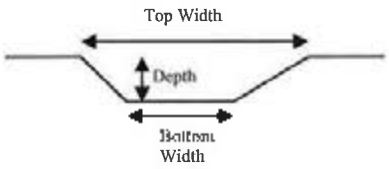
Embankment Height 19 feet
Pool Area ~2.1 acres
Current Freeboard 2.4 feet
Embankment Material Lean Clay
Liner No liner present
Liner Permeability Unknown

TYPE OF OUTLET (Mark all that apply)

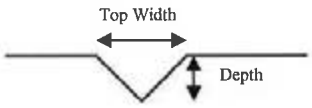
_____ **Open Channel Spillway**
_____ Trapezoidal
_____ Triangular
_____ Rectangular
_____ Irregular

_____ depth
_____ bottom (or average) width
_____ top width

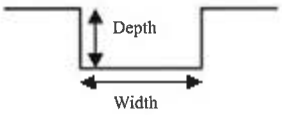
TRAPEZOIDAL



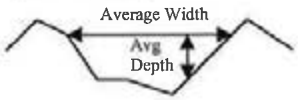
TRIANGULAR



RECTANGULAR

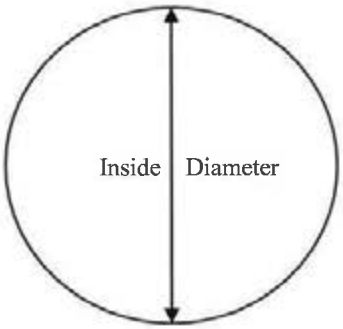


IRREGULAR



__X__ **Outlet**

__18__ inside diameter
Varies: See Below.



Material
__X__ corrugated metal
_____ welded steel
_____ concrete
_____ plastic (hdpe, pvc, etc.)
_____ other (specify) _____

Is water flowing through the outlet? YES __X__ NO _____

_____ **No Outlet**

_____ **Other Type of Outlet** (specify) _____

The Impoundment was Designed By _____

_____

Has there ever been a failure at this site? YES _____ NO X

If So When? _____

If So Please Describe : _____

Has there ever been significant seepages at this site? YES _____ NO X

If So When? _____

IF So Please Describe: _____

Has there ever been any measures undertaken to monitor/lower Phreatic water table levels based on past seepages or breaches at this site? YES _____ NO N/A

If so, which method (e.g., piezometers, gw pumping,...)? _____

If so Please Describe : _____

APPENDIX D

REFRENCES

REFERENCE LIST
EDGEWATER GENERATING STATION

Miller Engineers Scientists. "Cross Sections; Edgewater Generating Station; Impoundment Analysis." Drawing No. Dated February 25, 2011. Sheet 2 of 3.

Miller Engineers Scientists. "Boring & Cross Section Location Plan; Edgewater Generating Station; Impoundment Analysis – External Berms." Dated February 25, 2011. Sheet 1 of 3.

Miller Engineers Scientists. "Cross Sections; Edgewater Generating Station; Impoundment Analysis." Dated March 15, 2011. Sheet 3 of 3.

System diagram: WB-1; WPL Edgewater Generating Station. ID No. 00034. Undated.

Alliant Energy. Genco Standard Guide for Pond Inspections. Procedure No. GENCO-0-OP-402-01. Dated April 30, 2009.

Baker, Bruce. Letter to Greg Neal regarding WPDES Permit Reissuance No. WI-0001589-07-0; Edgewater Generating Station. Dated November 24, 2003.

State of Wisconsin Department of Natural Resources. WPDES Permit for Wisconsin Power & Light Edgewater Generating Station. Permit No. WI-0001589-07-0. Dated November 24, 2003.

Shonts, Ted. Edgewater Generating Station Quarterly Visual Pond Inspection. Dated February 16, 2010.

Shonts, Ted. Edgewater Generating Station Quarterly Visual Pond Inspection. Dated March 7, 2011.

Shonts, Ted. Edgewater Generating Station Quarterly Visual Pond Inspection. Dated May 26, 2010.

Shonts, Ted. Edgewater Generating Station Quarterly Visual Pond Inspection. Dated July 9, 2009.

Shonts, Ted. Edgewater Generating Station Quarterly Visual Pond Inspection. Dated August 16, 2010.

Shonts, Ted. Edgewater Generating Station Quarterly Visual Pond Inspection. Dated November 1, 2010.

Shonts, Ted. Edgewater Generating Station Quarterly Visual Pond Inspection. Dated November 2, 2009.

BT^2, Inc. Field Investigation Report: Edgewater Closed Ash Disposal Facility; Wisconsin Power & Light Company; WDNR Licence #2524; June 1993. Dated April 22, 1994.

Miller Engineers Scientists. Edgewater Generating Station Ash Pond Evaluation; Sheboygan, Wisconsin. Dated March 18, 2011.

Donohue & Associates, Inc. Plan of Operation/Abandonment Plan: Units 3&4 – Ash Disposal Site; Edgewater Generating Station. Dated November 21, 1983.

Donohue & Associates, Inc. "Edgewater Ash Disposal Site; Borning Locations; Sheboygan County, Wisconsin." Drawing No. A-32348. Dated May 1976.

Donohue & Associates, Inc. "Edgewater Ash Disposal Site; Title, Index & Locality Map; Sheboygan County, Wisconsin." Drawing No. A-32355. Dated April 1976.

Donohue & Associates, Inc. "Edgewater Ash Disposal Site; Existing Ash Site Topography; Sheboygan County, Wisconsin." Drawing No. A-32351. Dated April 1976.

Donohue & Associates, Inc. "Edgewater Ash Disposal Site; Existing Topography and Site Operation; Sheboygan County, Wisconsin." Drawing No. A-32352. Dated April 1976.

Donohue & Associates, Inc. "Edgewater Ash Disposal Site; Proposed Future Development Plan; Sheboygan County, Wisconsin." Drawing No. A-32349. Dated April 1976.

Donohue & Associates, Inc. "Edgewater Ash Disposal Site; Groundwater Contours and Flows; Sheboygan County, Wisconsin." Drawing No. A-32344. Dated May 1976.

Donohue & Associates, Inc. "Edgewater Ash Disposal Site; Ground Water Cross Section; Sheboygan County, Wisconsin." Drawing No. A-32346. Dated May 1976.

Donohue & Associates, Inc. "Edgewater Ash Disposal Site; Ground Water Cross Section; Sheboygan County, Wisconsin." Drawing No. A-32345. Dated May 1976.

Donohue & Associates, Inc. "Edgewater Ash Disposal Site; Ground Water Cross Section; Sheboygan County, Wisconsin." Drawing No. A-32347. Dated May 1976.

Donohue & Associates, Inc. "Proposed Landfill Placement Cross Section." Drawing No. A-32343. Dated April 1976.

Donohue & Associates, Inc. "Proposed Landfill Placement Cross Section." Drawing No. A-32342. Dated April 1976.

Donohue & Associates, Inc. "Proposed Landfill Placement Cross Section." Drawing No. A-32341. Dated April 1976.

Donohue & Associates, Inc. "Proposed Landfill Placement Cross Section." Drawing No. A-32340. Dated April 1976.

Donohue & Associates, Inc. “Edgewater Ash Disposal Site; Progressive Site Operation Plan; Sheboygan County, Wisconsin.” Drawing No. A-32350. Dated April 1976.

Donohue & Associates, Inc. “Edgewater Ash Disposal Site; Soils Inventory & Boring Locations; Sheboygan County, Wisconsin.” Drawing No. A-32353. Dated April 1976.

Donohue & Associates, Inc. “Edgewater Generating Station; Proposed Dry Ash Disposal Site; Existing Topography; Sheboygan County, Wisconsin.” Dated November 1982.

Donohue & Associates, Inc. “Edgewater Ash Disposal Site; Land Use and Zoning; Sheboygan County, Wisconsin.” Drawing No. A-32347. Dated April 1976.

Miller Consulting Engineers. “Wisconsin Power and Light Company; Slag Storage Area; Unit 3 and 4 Ash Disposal Site; Sheboygan, Wisconsin.” Sheet 1. Dated July 2, 1986.

Miller Consulting Engineers. “Wisconsin Power and Light Company; Slag Storage Area; Unit 3 and 4 Ash Disposal Site; Sheboygan, Wisconsin.” Sheet 2. Dated July 2, 1986.

APPENDIX E

PREVIOUS INSPECTION REPORTS

EDGEWATER GENERATING STATION

QUARTERLY VISUAL POND INSPECTION

July 9, 2009

Signature:

Prepared by Ted Shonts (E&S) 7-21-09

Reviewed by: Pat Hartley (Plant Manager) 7-27-2009

Reviewed by: David Anderson (Maint. Manager) 7/23/09

Reviewed by: Brian Dierksheide (Ops. Manager) 7/24/09

Reviewed by: Ray Springhetti (Elec. Maint. Manager) 7/27/09

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION		
PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	Thursday, July 09, 2009	Slag Pond: A, B, C, & F Ponds/Coal Pile Runoff and Slag Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS:	
Bill Skalitzky; Jerry Stroul; Ted Shonts	Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	HIGH TEMP: 80	
	LOW TEMP: 60	
Plant Manager: Pat Hartley	WIND: Calm	PRESS:
	SIGNATORY REVIEW:	
E&S Specialist: Ted Shonts		

Description:
On Thursday, July 9, 2009 Ted Shonts contucted quarterly pond inspection.

1) DNR has been contacted for list of trappers to remove gopher / woodchuck dugging holes in west dike of "C" Pond.

2) Stevie B's has been contacted to remove/cut the trees and woody brush growing on the western dike of the "B" Pond.

Note: (Initial inspection 4-27-2009)
Tree Removal: Based on the GENCO Ash Pond Inspection Team; Alliant Energy Environmental Stewardship and Outreach Manager; and reference documents from the Army Corp of Engineers. Trees that are planted on top of or adjacent to the levee structure can result in significant domage Trees that are blown over in high wind conditions, not only create a large void that can destabilize the levee or dike, but the root systems associated with the tree can result in preferred piping channels if the roots are pulled out of the dike or levee (such as if a tree is blown over in a strong wind storm) To mitigate possible impacts of tree damage on levees or dikes, design and maintenance guidelines generally specify that trees be kept clear of the dike or levee structure. At Edgewater, we are not recommending the trees to be removed from the WPDES System, except the B Pond, due to fugitive dust issues at the site. In most cases, a failure of these dike walls present very low risk However, the eastern dike wall of the A Ponds should be monitored since a failure in this particular dike wall poses the greatest risk. In addition, the GENCO Ash Pond Inspection Team is recommending that the closed flyash landfill dike walls be included in this inspection process.

CONFIDENTIAL BUSINESS INFORMATION

NOTES or OBSERVATIONS

Provide a description of the issue or observation below:

ISSUE	Description and Location of Issue	Maximo Work Order #	Due Date	Date Completed
Trees	Remove trees on inside of western B Pond dike wall due to closed flyash liner.		12/31/2009	Stevie B's
Woody Shrubs	Remove trees on inside of western B Pond dike wall due to closed flyash liner.		12/31/2009	Stevie B's
Trees	Trees in the other ponds are not required to be removed due to fugitive dust concerns. However, the plant must inspect these areas for concerns, especially the eastern A Pond dike wall.	N/A	N/A	N/A
Animal	Gopher or Woodchuck holes were observed in the C Pond dike wall. The plant should remove the animal and fill the hole.	N/A	10/1/2009	
Closed Landfill	The flyash pond is a closed landfill that is equipped with berms. Due to potential movement of the ash and high ground water elevations, the berms of the landfill must be inspected at least on an annual basis.	Yes	Quarterly	Ongoing
Coal Pile Runoff Pond	The piping that transports water from the coal pile pond to the "F" pond drops the water about 8-ft above the "F" Pond water level. This pipe should be be lowered to allow a minimun drop.	7085154	10/1/2009	
Coal Pile Runoff Pond	Also, the plant needs to develop a procedure on when to start the coagulant pumps in the coal pile runoff pond.	N/A	As needed	Ongoing

Review this Sheet Prior to each Inspection

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED
Edgewater Generating Station	09-Jul-09	A Ponds
INSPECTOR(S). List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW	
Plant Manager: Pat Hartley		
Operations Manager: Brian Dieckshaide		
Maintenance Manager David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion: animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED
Edgewater Generating Station	09-Jul-09	B Pond
INSPECTOR(S). List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager Pat Hartley		
Operations Manager Brian Derksheide		
Maintainence Manager David Anderson		
E&S Specialist Ted Shonts		

	Yes	No	Action Needed?
1. Dike Integrity			
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		Yes
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		Yes
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	09-Jul-09	C Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW	
Plant Manager: Pat Hartley		
Operations Manager: Brian Dierksheide		
Maintainence Manager: David Andersen		
E&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?	X		Yes
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED	LIST POND INSPECTED:
Edgewater Generating Station	09-Jul-09	Coal Pile Retention Pond
INSPECTOR(S). List Below	WEATHER CONDITIONS Describe Weather Conditions	
Ted Shonts	Sunny	
PLANT MANAGEMENT REVIEW(if applicable). Spell Name	SIGNATORY REVIEW:	
Plant Manager Pat Hartley		
Operations Manager Brian Dierksheide		
Maintainence Manager David Anderson		
E&S Specialist Ted Shonts		

1. Dike Integrity	**Yes**	**No**	**Action Needed?**
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED
Edgewater Generating Station	09-Jul-09	F Pond
INSPECTOR(S). List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager: Brian Dierksheide		
Maintenance Manager: David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soil soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	09-Jul-09	I-43 Contact Water Basin
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager: Brian Dierksheide		
Maintainence Manager David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

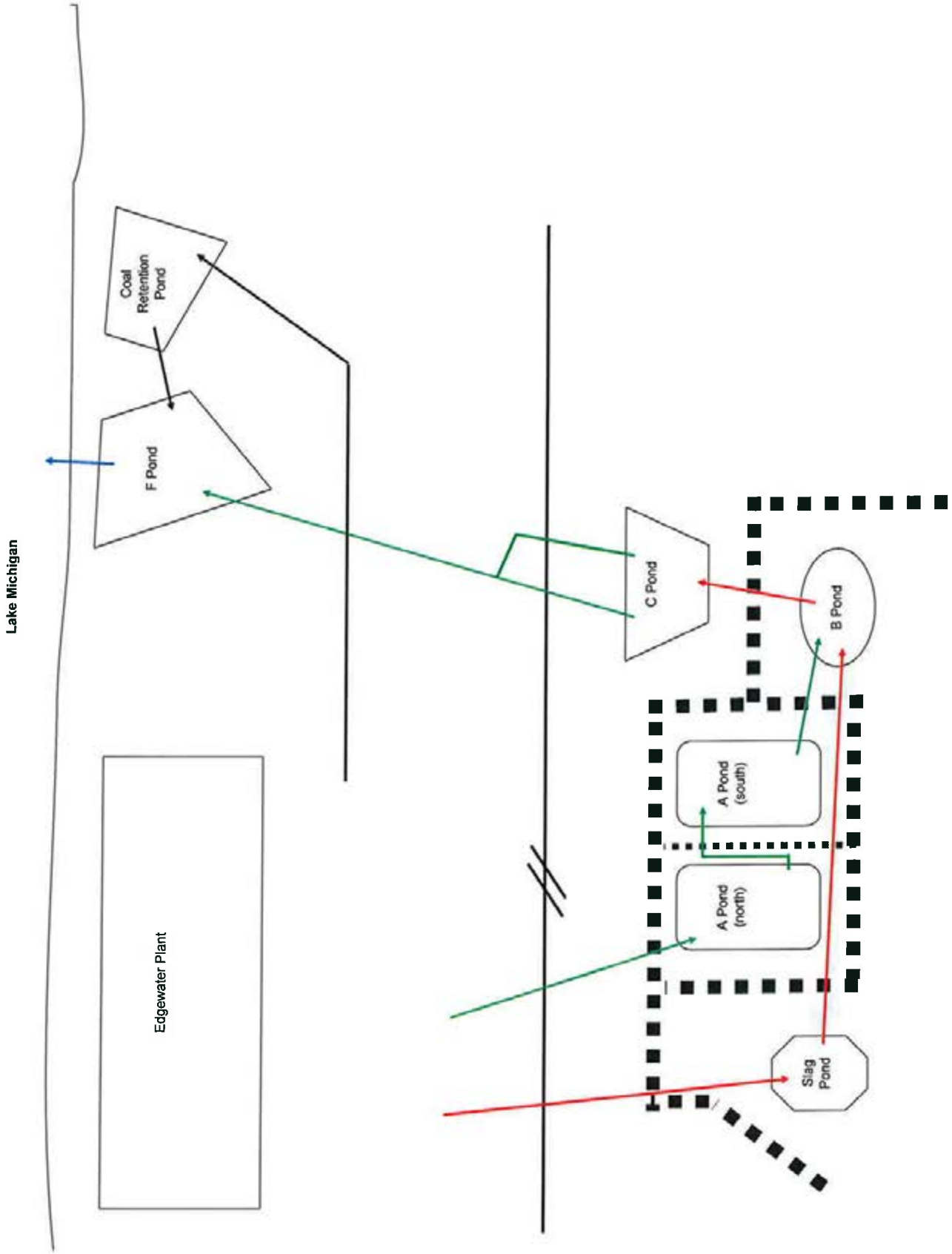
PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	09-Jul-09	Slag Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager: Brian Dierksheide		
Maintenance Manager: David Anderson		
E&S Specialist: Ted Shonts		

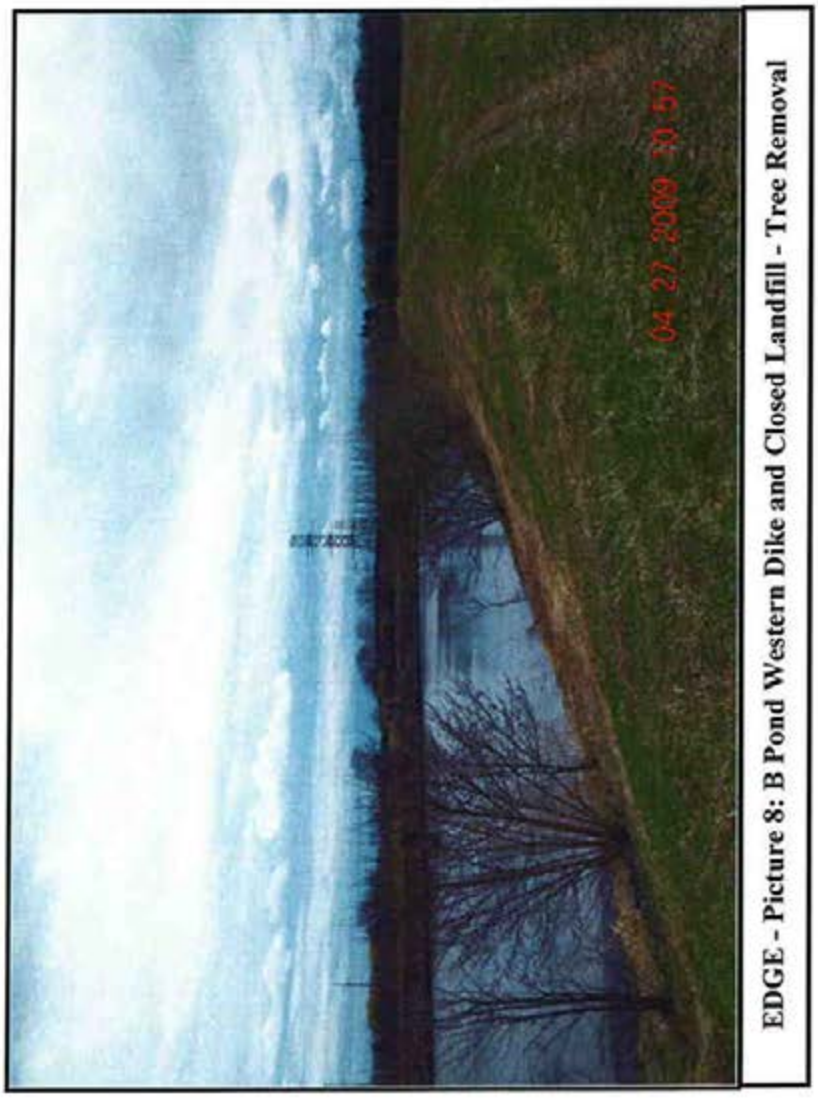
1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

INSPECTION FORM INSTRUCTIONS		
1)	**Plant Name**	Insert name of facility being inspected
2)	**Date**	List date of when inspection was completed
3)	**List Pond Inspected**	List plant name of pond being inspected. For plants with multiple ponds, use one inspection form per pond. Example: Coal Pile Runoff Pond
4)	**Inspectors**	List name of employee(s) who performed the inspection
5)	**Weather Conditions**	List the current weather conditions (cloud cover/precip/temp/wind strength) If there was a substantial rain or runoff event, please note as well
6)	**Plant Mgmt Review**	Plant Management staff is required to review and sign off on the inspection form
		It is advisible that 1 member of the plant management team review the report with the inspector(s)
7)	**Signatory Review**	Each plant management staff must sign off on the report
8)	**Inspection Process**	Physically walk around each side of the pond looking for conditions present on the report Answer each question and note any issues on page 2. If any issue is discovered, please note the location of the area in question and the steps taken to resolve the issue Examples. For animal caused issues, contracted with a Alliant Approved Company to remove/relocate the animals For erosion/dead vegitation issues, filled in the area and applied grass seed For large trees and woody shrubs, removed or cut down the trees/shrubs For wind erosion, used clean rip/rap to prevent futher erosion For seepage/dike integrity issues, try to determine the source of the issue and eliminate. If seepage continues, may need to perform soil structual anulysis and repair dike.

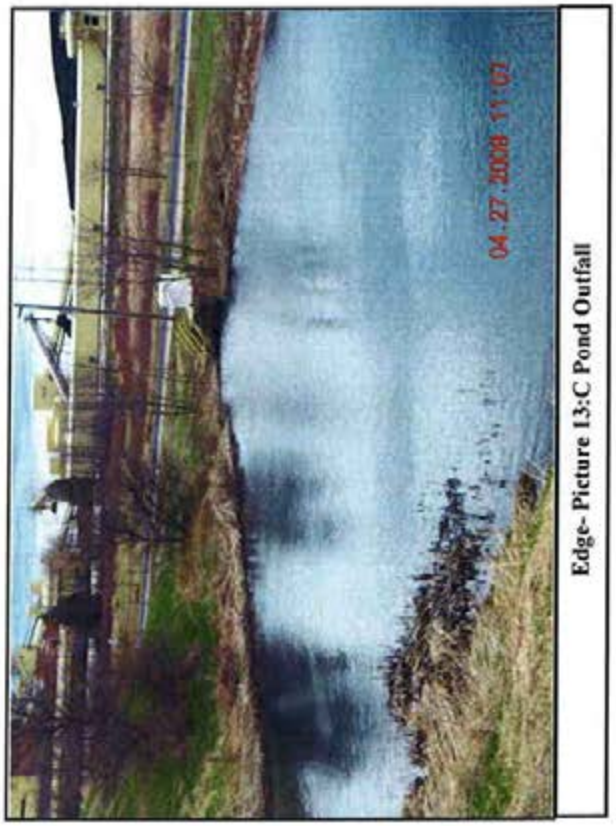
INSPECTION PROCESS	
Inspection Frequency	Minimum inspection frequency is as follow: Spring/Summer/Fall. Inspections can be combined with other inspections
Additional Inspection Frequencies	In addition to item #1 above, inspections should take (at the descretion of the Plant Manager) during these events Large Rain Event or meltoff and flood events (other than typical spring events)
Pictures	Pictures are a great opportunity to capture existing conditions and allows a site to compare from year to year Pictures shall be taken during the initial inspection and then during each Spring Inspection Pictures shall be taken at the same location each year. These areas will be defined during the initial inspection Pictures shall be taken to show areas of concern that are observed during each inspection and attached to the report
Addressing Items of Concern	Inspectors will review the pictures and the inspection form with Plant Management Staff. Decisions shall be made to address the current issue. Corporate Environmental shall be contacted regarding the issue; review of solutions; and determine if any type of Permitting or Approval is required, prior to commencing the work, from the State Agency; Federal Agencies; or County Agencies Engineering shall be contacted regarding structural concerns of a dike or what might the impact be to the integrity of the Dike if a trees or other living objects are removed (root concerns)
Review of Records	Prior to a new year of inspections, plant staff shall review the previous year inspections to review past issues and if they were resolved Total Suspended Solids (TSS) analysis from past Discharge Monitoring Reports shall be reviewed each year to determine if the ponds require more intensive dredging





EDGE - Picture 8: B Pond Western Dike and Closed Landfill - Tree Removal

Edge - Picture 14:Animal Activity on C Pond Dike



Edge- Picture 13:C Pond Outfall

CONFIDENTIAL BUSINESS INFORMATION

EDGEWATER GENERATING STATION

QUARTERLY VISUAL POND INSPECTION

November 2, 2009

Signature:

Prepared by: Ted Shonts (E&S)

Reviewed by: Pat Hartley (Plant Manager)

Reviewed by: David Anderson (Maint. Manager)

Reviewed by: Brian Dierksheide (Ops. Manager)

Reviewed by: Ray Springhetti (Elec. Maint. Manager)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION		
PLANT NAME: Edgewater Generating Station	**DATE COMPLETED:** Monday, November 02, 2009	**LIST POND INSPECTED:** Slag Pond; A, B, C, & F Ponds/Coal Pile Runoff and Slag Pond
INSPECTOR(S): List Below Ted Shonts	**WEATHER CONDITIONS:** Partly Sunny	
PLANT MANAGEMENT REVIEW (if applicable):	**HIGH TEMP:** 52	
	LOW TEMP: 48	
Plant Manager: Pat Hartley	**WIND:** Calm	**PRESS:**
	SIGNATORY REVIEW:	
E&S Specialist: Ted Shonts		

Description: November 11, 2009 Ted Shonts contacted quarterly pond inspection.

1) Woodchuck hole in west dike of "C" Pond has been plugged with concete.

2) Trees and woody brush has been removed from west dike of the "B" Pond.

Note: (Initial inspection 4-27-2009), 7-9-2009, 11-2-2009
Tree Removal: Based on the GENCO Ash Pond Inspection Team; Alliant Energy Environmental Stewardship and Outreach Manager; and reference documents from the Army Corp of Engineers: Trees that are planted on top of or adjacent to the levee structure can result in significant damage. Trees that are blown over in high wind conditions, not only create a large void that can destabilize the levee or dike, but the root systems associated with the tree can result in preferred piping channels if the roots are pulled out of the dike or levee (such as if a tree is blown over in a strong wind storm.) To mitigate possible impacts of tree damage on levees or dikes, design and maintenance guidelines generally specify that trees be kept clear of the dike or levee structure. At Edgewater, we are not recommending the trees to be removed from the WPDES System, except the B Pond (removed 8-4-09), due to fugitive dust issues at the site. In most cases, a failure of these dike walls present very low risk. However, the eastern dike wall of the A Ponds should be monitored since a failure in this particular dike wall poses the greatest risk. In addition, the GENCO Ash Pond Inspection Team is recommending that the closed flyash landfill dike walls be included in this inspection process (closed landfill ponds are included in these quarterly inspections).

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	02-Nov-09	I-43 Contact Water Basin
INSPECTOR(S): List Below Ted Shonts	WEATHER CONDITIONS: Describe Weather Conditions Partly Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name Plant Manager Pat Hartley	SIGNATORY REVIEW	
Operations Manager Brian Dierkshcide		
Maintainence Manager. David Anderson		
E&S Specialist Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED
Edgewater Generating Station	02-Nov-09	A Ponds
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Partly Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW	
Plant Manager. Pat Hartley		
Operations Manager Brian Dierksheide		
Maintainence Manager David Anderson		
E&S Specialist. Ted Shonts		

1. Dike Integrity	**Yes**	**No**	**Action Needed?**
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of croison caused either by wind croison; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

* That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED
Edgewater Generating Station	02-Nov-09	B Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Partly Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager: Brian Dickshende		
Maintainence Manager: David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	**Yes**	**No**	**Action Needed?**
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	removed 8-4-09
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	removed 8-4-09
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	02-Nov-09	C Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Partly Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW	
Plant Manager Pat Hartley		
Operations Manager, Brian Dierksheide		
Maintainence Manager, David Anderson		
E&S Specialist Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	plugged 7-27-09
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example. If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	02-Nov-09	Coal Pile Retention Pond
INSPECTOR(S): List Below Ted Shonts	WEATHER CONDITIONS: Describe Weather Conditions Partly Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name Plant Manager: Pat Hadley	SIGNATORY REVIEW:	
Operations Manager: Brian Derkshade		
Maintainence Manager: David Anderson		
I&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED
Edgewater Generating Station	02-Nov-09	F Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Partly Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager: Brian Dierksheide		
Maintainence Manager: David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	02-Nov-09	Slag Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Partly Sunny	
PLANT MANAGEMENT REVIEW(if applicable). Spell Name	SIGNATORY REVIEW:	
Plant Manager. Pat Hanley		
Operations Manager Brian Dieckshede		
Maintainence Manager David Anderson		
F&S Specialist Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

NOTES or OBSERVATIONS

Provide a description of the issue or observation below

ISSUE	Description and Location of Issue	Maximo Work Order #	Due Date	Date Completed
Trees	Remove trees on inside of western B Pond dike wall due to closed flyash liner.		12/31/2009	8/4/2009
Woody Shrubs	Remove trees on inside of western B Pond dike wall due to closed flyash liner.		12/31/2009	8/4/2009
Trees	Trees in the other ponds are not required to be removed due to fugitive dust concerns. However, the plant must inspect these areas for concerns, especially the eastern A Pond dike wall.	N/A	N/A	N/A
Animal	Gopher or Woodchuck holes were observed in the C Pond dike wall. The plant should remove the animal and fill the hole.	N/A	10/1/2009	7/27/2009
Closed Landfill	The flyash pond is a closed landfill that is equipped with berms. Due to potential movement of the ash and high ground water elevations, the berms of the landfill must be inspected at least on an annual basis.	Yes	Quarterly	Ongoing
Coal Pile Runoff Pond	The piping that transports water from the coal pile pond to the "F" pond drops the water about 8-ft above the "F" Pond water level. This pipe should be be lowered to allow a mimimun drop.	7085154	10/1/2009	Determined water level in "F" pond sufficiently deep to cushion falling water.
Coal Pile Runoff Pond	Also, the plant needs to develop a procedure on when to start the coagulant pumps in the coal pile runoff pond.	N/A	As needed	Ongoing

Review this Sheet Prior to each inspection: Reviewed 11-2-09

ALLIANT ENERGY SURFACE POND PHOTO LOG

PLANT NAME:

DATE	PHOTO NUMBER	DESCRIPTION of the PHOTO
11/2/2009	2009 11.209.40	West side of "C" pond w/concrete plugged wood chuck hole
11/2/2009	2009 11.209.43	West side of "B" pond w/trees removed

INSPECTION FORM INSTRUCTIONS		
1)	**Plant Name**	Insert name of facility being inspected
2)	**Date**	List date of when inspection was completed
3)	**List Pond Inspected**	List plant name of pond being inspected. For plants with multiple ponds, use one inspection form per pond. Example Coal Pile Runoff Pond
4)	**Inspectors**	List name of employee(s) who performed the inspection
5)	**Weather Conditions**	List the current weather conditions (cloud cover/precip/temp/wind strength) If there was a substantial rain or runoff event, please note as well
6)	**Plant Mgmt Review**	Plant Management staff is required to review and sign off on the inspection form. It is advisible that 1 member of the plant management team review the report with the inspector(s)
7)	**Signatory Review**	Each plant management staff must sign off on the report
8)	**Inspection Process**	Physically walk around each side of the pond looking for conditions present on the report Answer each question and note any issues on page 2 If any issue is discovered, please note the location of the area in question and the steps taken to resolve the issue Examples. For animal caused issues, contracted with a Alliant Approved Company to remove/relocate the animals For erosion/dead vegetation issues, filled in the area and applied grass seed For large trees and woody shrubs, removed or cut down the trees/shrubs For wind erosion, used clean rip/rap to prevent futher erosion For seepage/dike integrity issues, try to determine the source of the issue and eliminate. If seepage continues, may need to perform soil structual analysys and repair dike.

INSPECTION PROCESS	
Inspection Frequency	Minimum inspection frequency is as follow: Spring/Summer/Fall Inspections can be combined with other inspections
Additional Inspection Frequencies	In addition to item #1 above, inspections should take (at the discretion of the Plant Manager) during these events Large Rain Event or meltoff and flood events (other than typical spring events)
Pictures	Pictures are a great opportunity to capture existing conditions and allows a site to compare from year to year Pictures shall be taken during the initial inspection and then during each Spring Inspection Pictures shall be taken at the same location each year These areas will be defined during the initial inspection Pictures shall be taken to show areas of concern that are observed during each inspection and attached to the report
Addressing Items of Concern	Inspectors will review the pictures and the inspection form with Plant Management Staff Decisions shall be made to address the current issue. Corporate Environmental shall be contacted regarding the issue; review of solutions; and determine if any type of Permitting or Approval is required, prior to commencing the work, from the State Agency; Federal Agencies; or County Agencies Engineering shall be contacted regarding structural concerns of a dike or what might the impact be to the integrity of the Dike if a trees or other living objects are removed (root concerns)
Review of Records	Prior to a new year of inspections, plant staff shall review the previous year inspections to review past issues and if they were resolved Total Suspended Solids (TSS) analysis from past Discharge Monitoring Reports shall be reviewed each year to determine if the ponds require more intensive dredging

EDGEWATER GENERATING STATION

QUARTERLY VISUAL POND INSPECTION

February 16, 2010

by: Ted Shonts (E&S)
Pat Hartley (Plant Manager)
id Anderson (Maint. Manager)
n Dierksheide (Ops. Manager)
pringhetti (Elec. Maint. Manager)

Signature:

(For Pat Hartley)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION		
PLANT NAME:	**DATE COMPLETED:**	**LIST POND INSPECTED:**
Edgewater Generating Station	**02/162010**	**Slag Pond: A, B, C, & F Ponds/Coal Pile Runoff and Slag Pond**
INSPECTOR(S): List Below	**WEATHER CONDITIONS:**	
Ted Shonts	**Partly Sunny**	
PLANT MANAGEMENT REVIEW (if applicable):	**HIGH TEMP: 32**	
	LOW TEMP: 24	
Plant Manager: Pat Hartley	**WIND:** Calm	**PRESS:**
	SIGNATORY REVIEW:	
E&S Specialist: Ted Shonts		

Description: February 16 2010 Ted Shonts contacted quarterly pond inspection.

Note: (Initial inspection 4-27-2009), 7-9-2009, 11-2-200, 2-16-2010
Tree Removal: Based on the GENCO Ash Pond Inspection Team, Alliant Energy Environmental Stewardship and Outreach Manager; and reference documents from the Army Corp of Engineers. Trees that are planted on top of or adjacent to the levee structure can result in significant damage. Trees that are blown over in high wind conditions, not only create a large void that can destabilize the levee or dike, but the root systems associated with the tree can result in preferred piping channels if the roots are pulled out of the dike or levee (such as if a tree is blown over in a strong wind storm.) To mitigate possible impacts of tree damage on levees or dikes, design and maintenance guidelines generally specify that trees be kept clear of the dike or levee structure. At Edgewater, we are not recommending the trees to be removed from the WPDES System, except the B Pond removed 8-4-09, due to fugitive dust issues at the site. In most cases, a failure of these dike walls present very low risk However, the eastern dike wall of the A Ponds should be monitored since a failure in this particular dike wall poses the greatest risk. In addition, the GENCO Ash Pond Inspection Team is recommending that the closed flyash landfill dike walls be included in this inspection process (closed landfill ponds are included in these quarterly inspections) All pond berms were covered with a layer of snow There was no evidence of leaking berms that would have been observed by the presence of melted snow

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	16-Feb-10	I-43 Contact Water Basin
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Partly Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager: Brian Dinkelacker		
Maintainence Manager: David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	**Yes**	**No**	**Action Needed?**
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	16-Feb-10	A Ponds
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Partly Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager: Brian Derksheide		
Maintainence Manager: David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	16-Feb-10	B Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Partly Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW	
Plant Manager: Pat Hartley		
Operations Manager: Brian Dierksheide		
Maintainence Manager: David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	removed 8-4-09
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	removed 8-4-09
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	16-Feb-10	C Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Partly Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager: Brian Dierksheide		
Maintenance Manager: David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	**Yes**	**No**	**Action Needed?**
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	plugged 7-27-09
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	16-Feb-10	Coal Pile Retention Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Partly Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager: Brian Dierksheide		
Maintainence Manager: David Anderson		
I&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED
Edgewater Generating Station	16-Feb-10	F Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Partly Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager Brian Dierksheide		
Maintainence Manager David Anderson		
E&S Specialist Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	16-Feb-10	Slag Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Partly Sunny	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager Pat Hartley		
Operations Manager Brian Dierksheide		
Maintainence Manager David Anderson		
E&S Specialist Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of eroison caused either by wind eroison; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example; If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

NOTES or OBSERVATIONS

Provide a description of the issue or observation below:

ISSUE	Description and Location of Issue	Maximo Work Order #	Due Date	Date Completed
Trees	Remove trees on inside of western B Pond dike wall due to closed flyash liner.		12/31/2009	8/4/2009
Woody Shrubs	Remove trees on inside of western B Pond dike wall due to closed flyash liner.		12/31/2009	8/4/2009
Trees	Trees in the other ponds are not required to be removed due to fugitive dust concerns. However, the plant must inspect these areas for concerns, especially the eastern A Pond dike wall.	N/A	N/A	N/A
Animal	Gopher or Woodchuck holes were observed in the C Pond dike wall. The plant should remove the animal and fill the hole.	N/A	10/1/2009	7/27/2009
Closed Landfill	The flyash pond is a closed landfill that is equipped with berms. Due to potential movement of the ash and high ground water elevations, the berms of the landfill must be inspected at least on an annual basis.	Yes	Quarterly	Ongoing
Coal Pile Runoff Pond	The piping that transports water from the coal pile pond to the "F" pond drops the water about 8-ft above the "F" Pond water level. This pipe should be be lowered to allow a mimimun drop.	7085154	10/1/2009	Determined water level in "F" pond sufficiently deep to cushion falling water.
Coal Pile Runoff Pond	Also, the plant needs to develop a procedure on when to start the coagulant pumps in the coal pile runoff pond.	N/A	As needed	Completed

Review this Sheet Prior to each Inspection: Reviewed ~~11-2-09~~ 2-16-10

ALLIANT ENERGY SURFACE POND PHOTO LOG

PLANT NAME:

DATE:	PHOTO NUMBER	DESCRIPTION of the PHOTO
11/2/2009	2009 11.209.40	West side of "C" pond w/concrete plugged wood chuck hole
11/2/2009	2009 11.209.43	West side of "B" pond w/trees removed
2/16/2010	M(Ted): Pictures	Various

INSPECTION FORM INSTRUCTIONS

1)	**Plant Name**	Insert name of facility being inspected
2)	**Date**	List date of when inspection was completed
3)	**List Pond Inspected**	List plant name of pond being inspected. For plants with multiple ponds, use one inspection form per pond. Example: Coal Pile Runoff Pond
4)	**Inspectors**	List name of employee(s) who performed the inspection
5)	**Weather Conditions**	List the current weather conditions (cloud cover/precip/temp/wind strength) If there was a substantial rain or runoff event, please note as well
6)	**Plant Mgmt Review**	Plant Management staff is required to review and sign off on the inspection form. It is advisible that 1 member of the plant management team review the report with the inspector(s)
7)	**Signatory Review**	Each plant management staff must sign off on the report
8)	**Inspection Process**	Physically walk around each side of the pond looking for conditions present on the report Answer each question and note any issues on page 2. If any issue is discovered, please note the location of the area in question and the steps taken to resolve the issue Examples: For animal caused issues, contracted with a Alliant Approved Company to remove/relocate the animals For erosion/dead vegitation issues, filled in the area and applied grass seed For large trees and woody shrubs, removed or cut down the trees/shrubs For wind erosion, used clean rip/rap to prevent futher erosion For seepage/dike integrity issues, try to determine the source of the issue and eliminate. If seepage continues, may need to perform soil structual analysis and repair dike.

INSPECTION PROCESS	
Inspection Frequency	Minimum inspection frequency is as follow. Spring/Summer/Fall Inspections can be combined with other inspections
Additional Inspection Frequencies	In addition to item #1 above, inspections should take (at the discretion of the Plant Manager) during these events Large Rain Event or meltoff and flood events (other than typical spring events)
Pictures	Pictures are a great opportunity to capture existing conditions and allows a site to compare from year to year Pictures shall be taken during the initial inspection and then during each Spring Inspection Pictures shall be taken at the same location each year. These areas will be defined during the initial inspection Pictures shall be taken to show areas of concern that are observed during each inspection and attached to the report
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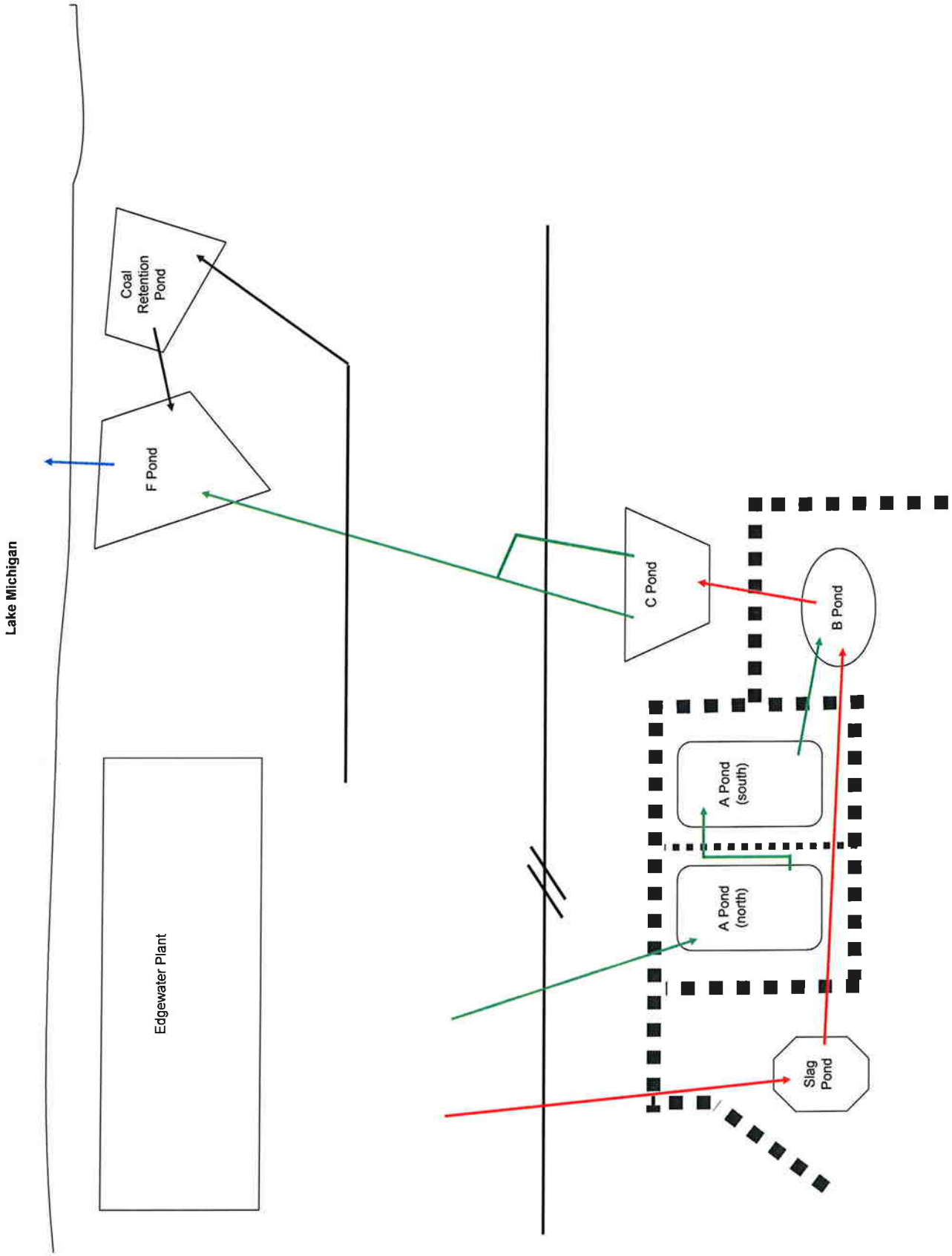
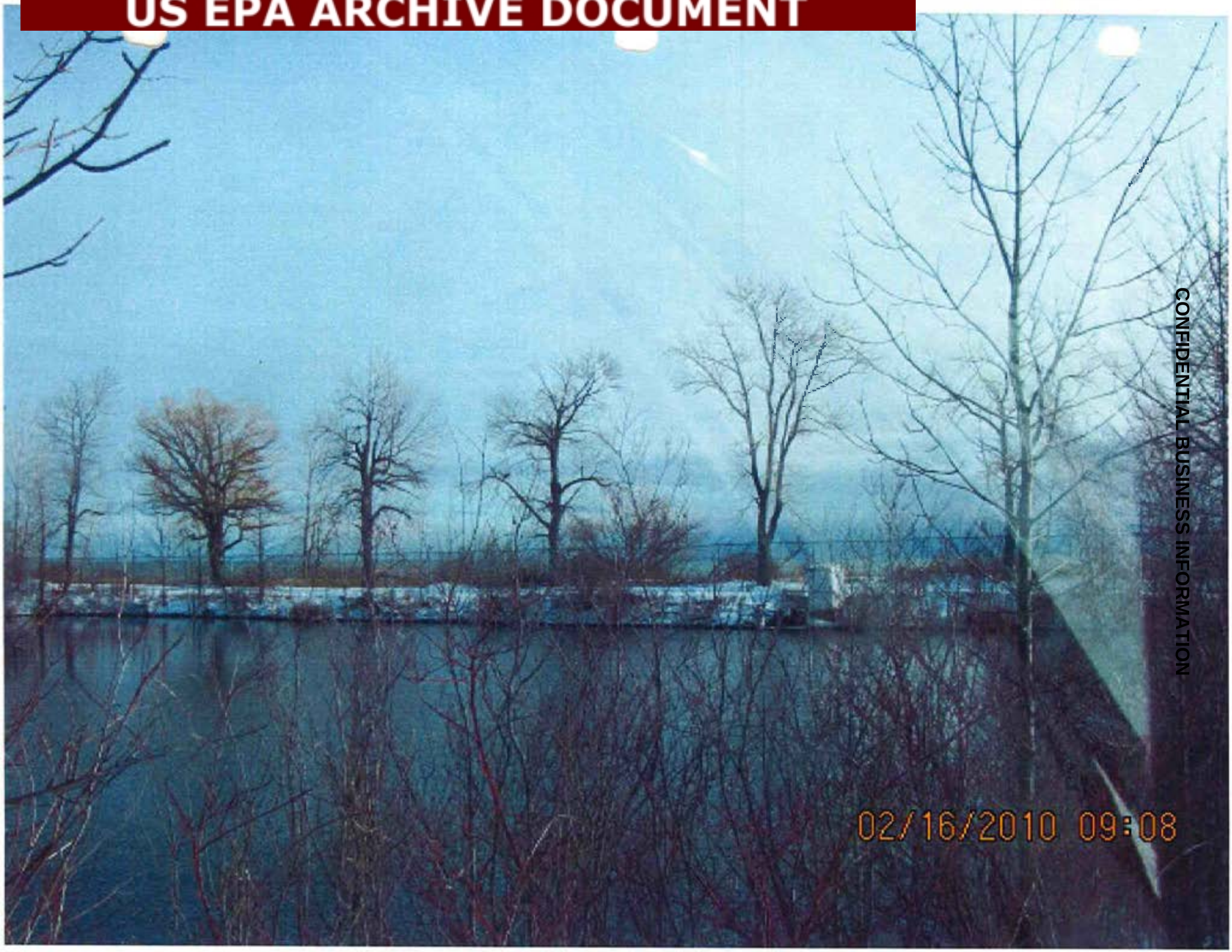
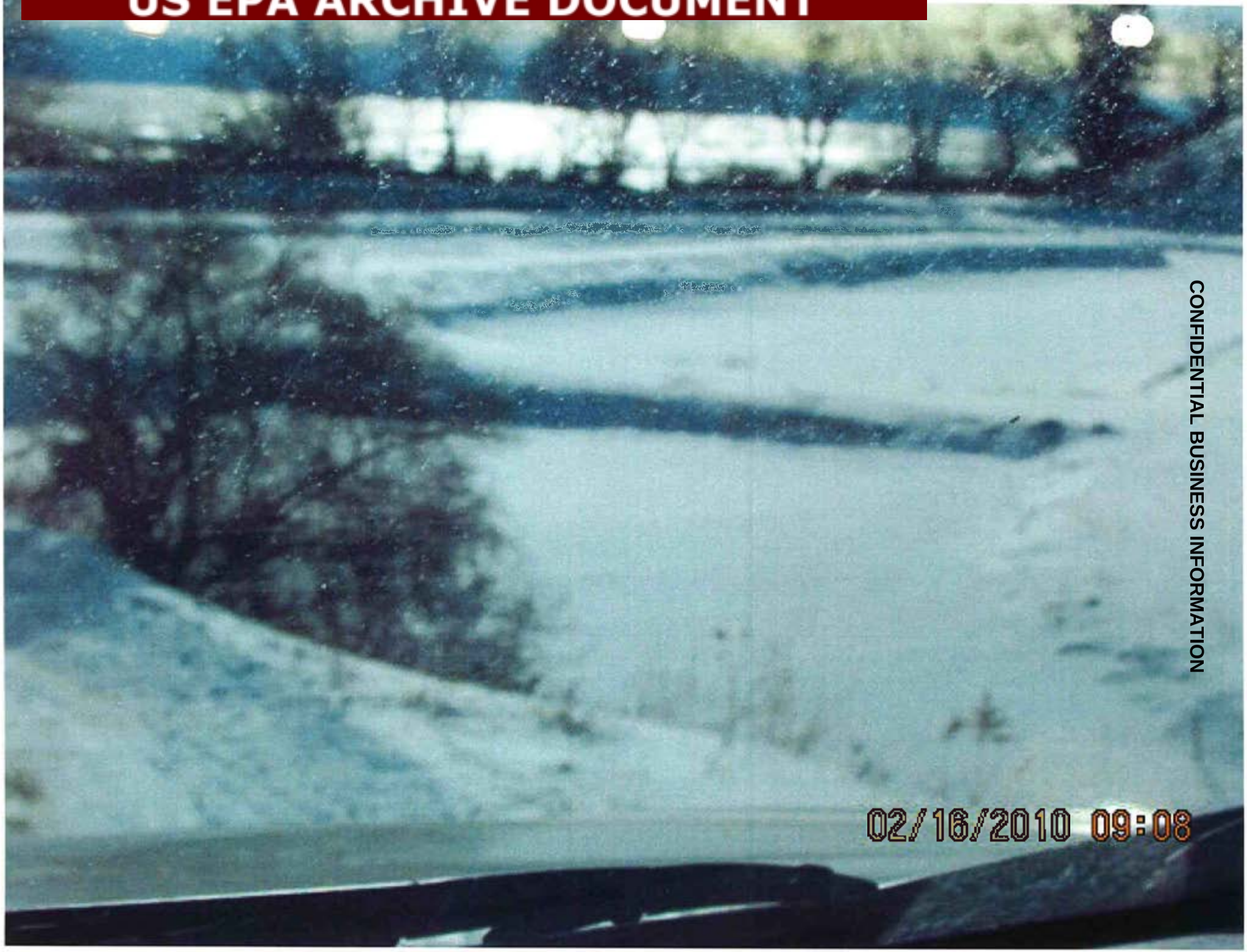
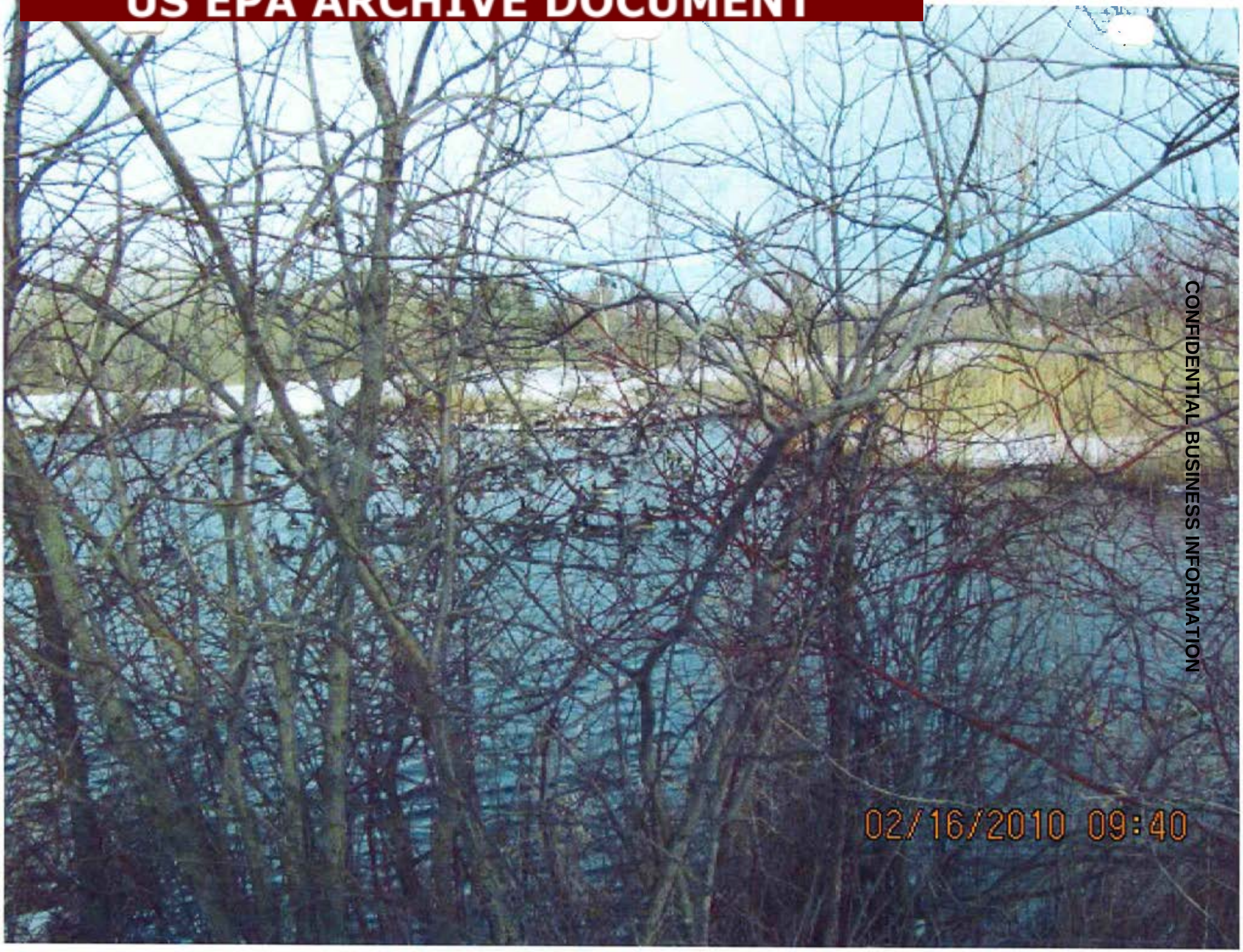
Review of Records	Prior to a new year of inspections, plant staff shall review the previous year inspections to review past issues and if they were resolved Total Suspended Solids (TSS) analysis from past Discharge Monitoring Reports shall be reviewed each year to determine if the ponds require more intensive dredging

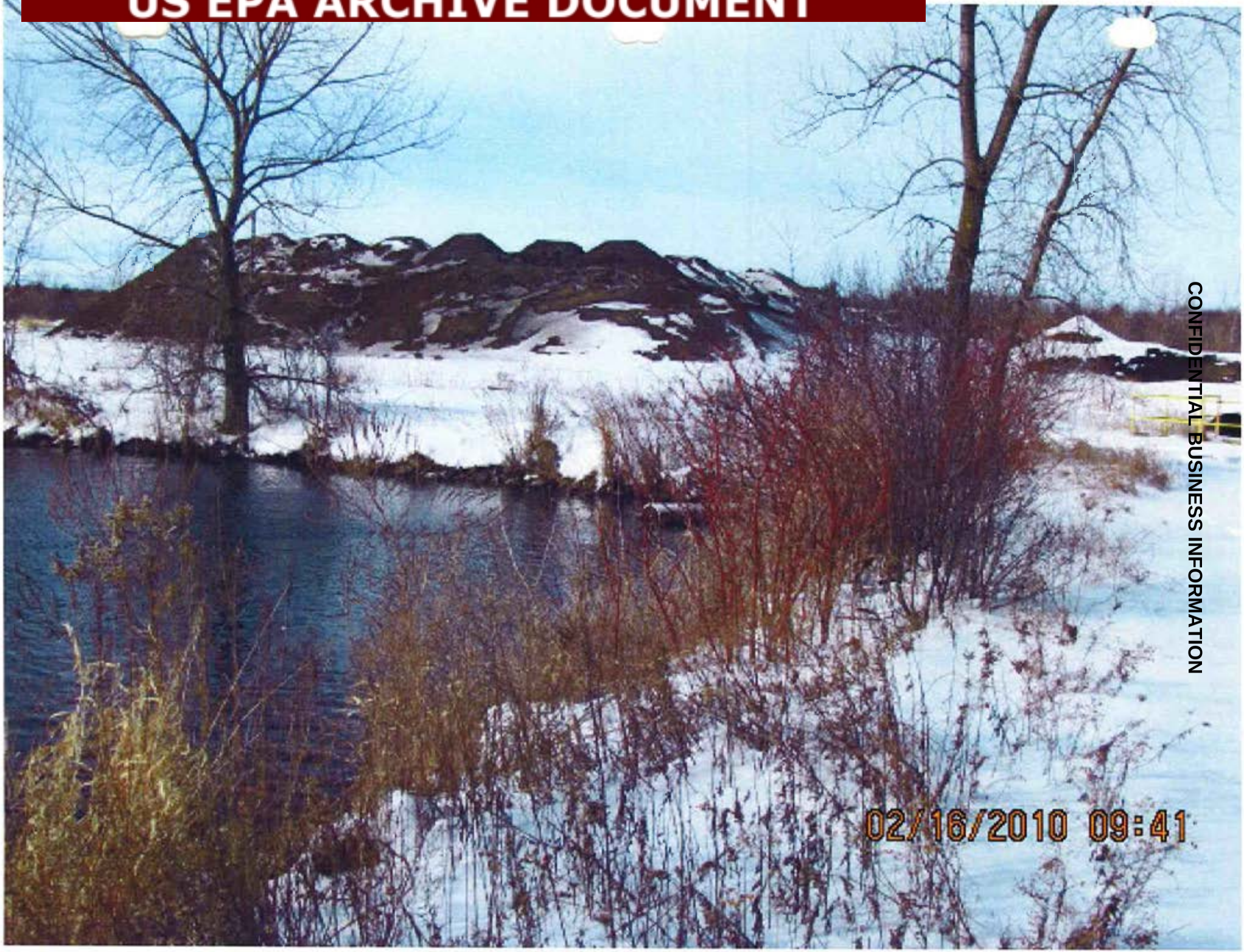
CONFIDENTIAL BUSINESS INFORMATION

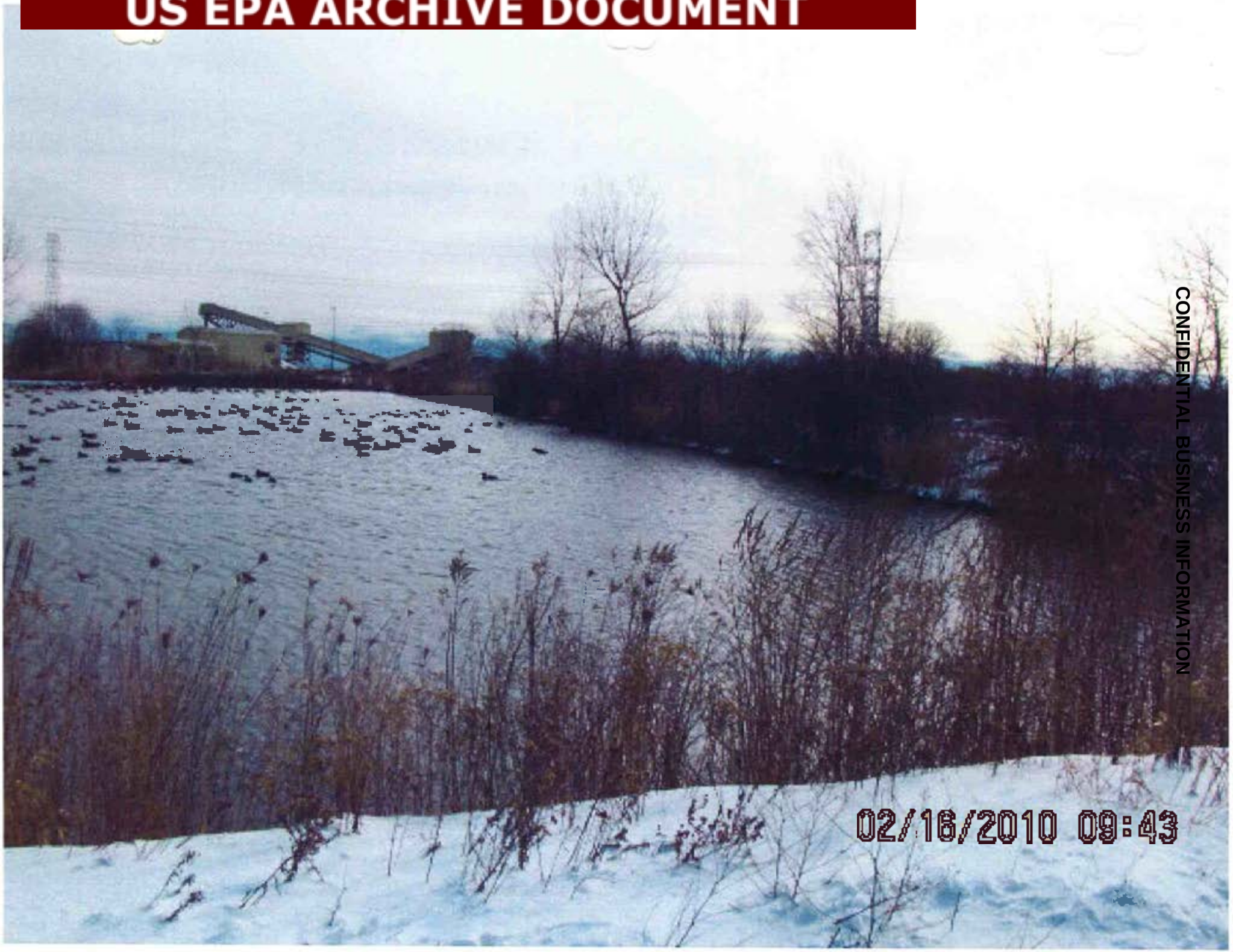


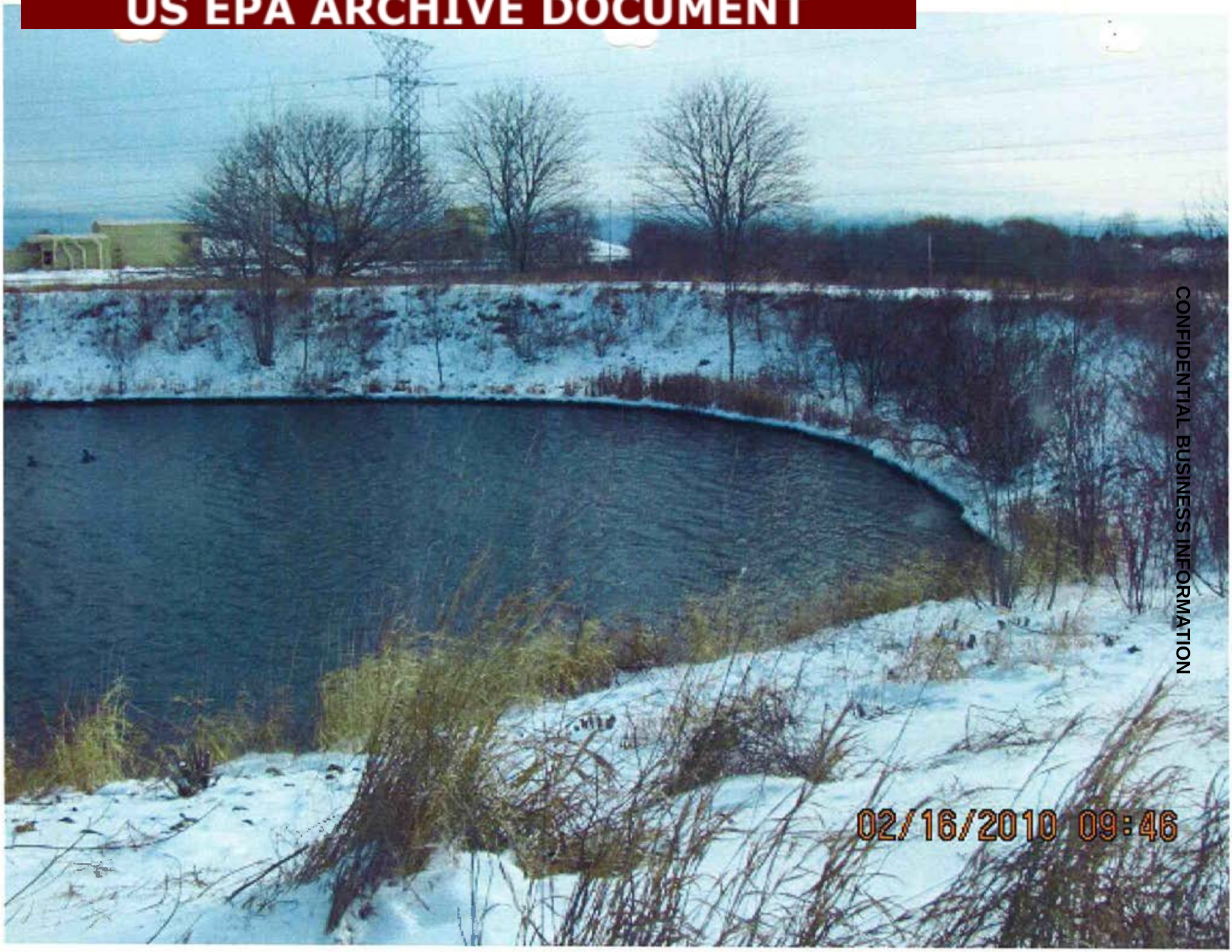


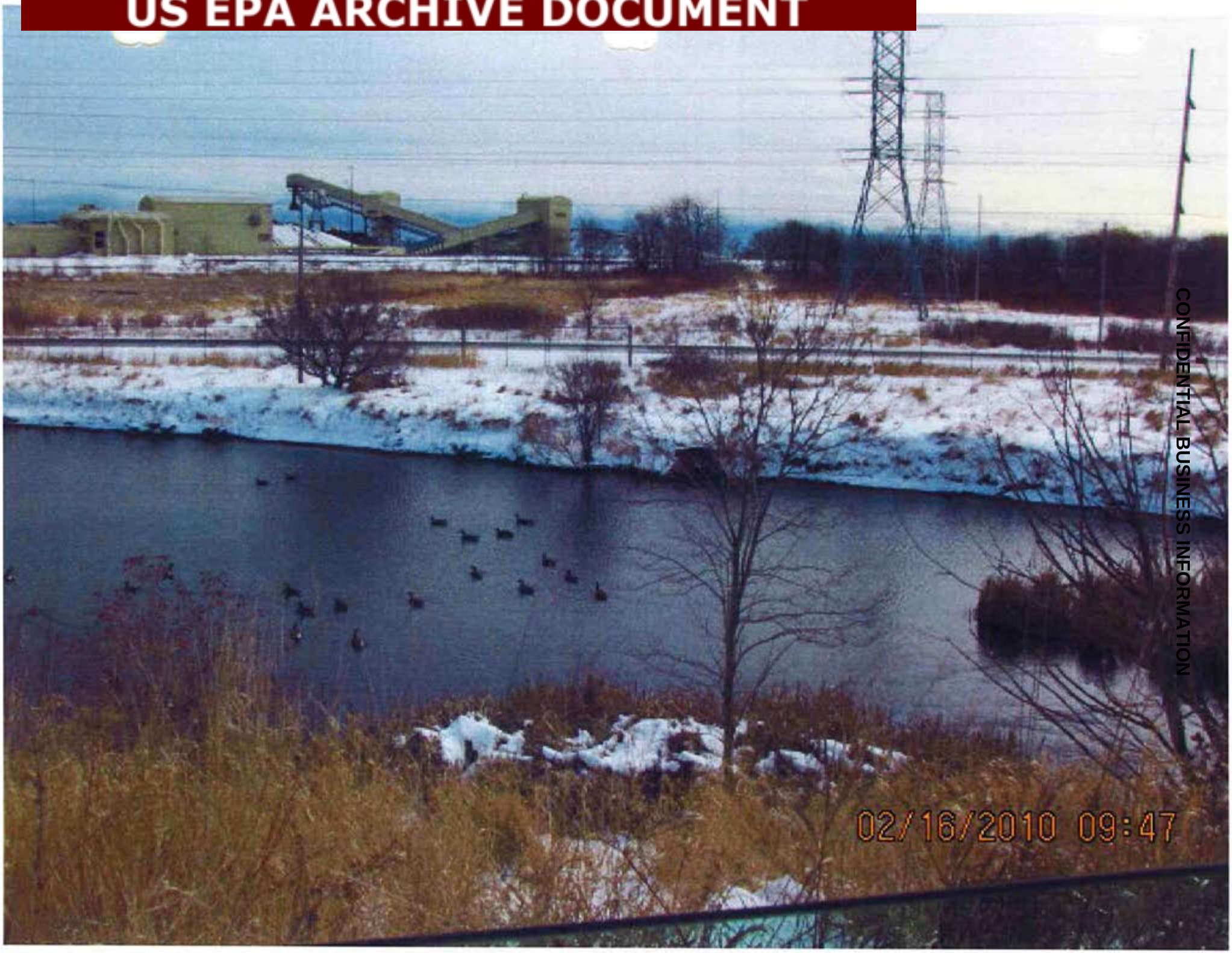












EDGEWATER GENERATING STATION

QUARTERLY VISUAL POND INSPECTION

May 26, 2010

Prepared by: Ted Shonts (E&S)
Reviewed by: Pat Hartley (Plant Manager)
Reviewed by: David Anderson (Maint. Manager)
Reviewed by: Brian Dierksheide (Ops. Manager)
Reviewed by: Ray Springhetti (Elec. Maint. Manager)

Signature:

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION		
PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	05/262010	Slag Pond; A, B, C, & F Ponds,Coal Pile Runoff and Slag Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS:	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW (if applicable):	HIGH TEMP: 72	
	LOW TEMP: 58	
Plant Manager: Pat Hartley	WIND: Calm	PRESS:
	SIGNATORY REVIEW:	
E&S Specialist: Ted Shonts		

Description: May 26. 2010 Ted Shonts contucted quarterly pond inspection.

Note: (Initial inspection 4-27-2009), 7-9-2009, 11-2-200, 2-16-2010, 5-26-2010
Tree Removal. Based on the GENCO Ash Pond Inspection Team; Alliant Energy Environmental Stewardship and Outreach Manager; and reference documents from the Army Corp of Engineers. Trees that are planted on top of or adjacent to the levee structure can result in significant damage. Trees that are blown over in high wind conditions, not only create a large void that can destabilize the levee or dike, but the root systems associated with the tree can result in preferred piping channels if the roots are pulled out of the dike or levee (such as if a tree is blown over in a strong wind storm). To mitigate possible impacts of tree damage on levees or dikes, design and maintenance guidelines generally specify that trees be kept clear of the dike or levee structure. At Edgewater, we are not recommending the trees to be removed from the WPDES System, except the B Pond removed 8-4-0), due to fugitive dust issues at the site. In most cases, a failure of these dike walls present very low risk. However, the eastern dike wall of the A Ponds should be monitored since a failure in this particular dike wall poses the greatest risk. In addition, the GENCO Ash Pond Inspection Team is recommending that the closed flyash landfill dike walls be included in this inspection process (closed landfill ponds are included in these quarterly inspections). All pond berms were covered with a layer of snow. ***There was no evidence of leaking berms that would have been observed by the presence of melted snow. There were no signs of leaking berms or animal intrusions. Vegetative cover was satisfactory and sufficient in preventing erosion. Pond's water edge rip-rap was intact and adequate in protecting from wave erosion.***

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	26-May-10	I-43 Contact Water Basin
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager Pat Hartley		
Operations Manager Brian Dierkshede		
Maintanence Manager David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion, animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	26-May-10	A Ponds
INSPECTOR(S): List Below	WEATHER CONDITIONS Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable). Spell Name	SIGNATORY REVIEW:	
Plant Manager Pat Hartley		
Operations Manager Brian Dierksheide		
Maintenance Manager David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	26-May-10	B Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager: Brian Derksheide		
Maintainence Manager: David Anderson		
F&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	removed 8-4-09
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	removed 8-4-09
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	26-May-10	C Pond
INSPECTOR(S). List Below Ted Shonts	WEATHER CONDITIONS: Describe Weather Conditions Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name Plant Manager Pat Hartley	SIGNATORY REVIEW:	
Operations Manager Brian Dieckbrede		
Maintainence Manager David Anderson		
E&S Specialist. Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	plugged 7-27-09
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of eroison caused either by wind eroison; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example. If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	26-May-10	Coal Pile Retention Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hurley		
Operations Manager: Brian Dierksheide		
Maintenance Manager: David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion: animal activity: swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	26-May-10	F Pond
INSPECTOR(S) List Below Ted Shonts	WEATHER CONDITIONS. Describe Weather Conditions Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name Plant Manager: Pat Hantey	SIGNATORY REVIEW:	
Operations Manager: Brian Derkshesle		
Maintainence Manager: David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of eroison caused either by wind eroison; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	26-May-10	Slag Pond
INSPECTOR(S). List Below	WEATHER CONDITIONS. Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW.	
Plant Manager Pat Hartley		
Operations Manager Brian Dierkshiede		
Maintenance Manager David Anderson		
E&S Specialist Ted Shonts		

1. Dike Integrity	**Yes**	**No**	**Action Needed?**
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

NOTES or OBSERVATIONS

Provide a description of the issue or observation below:

ISSUE	Description and Location of Issue	Maximo Work Order #	Due Date	Date Completed
Trees	Remove trees on inside of western B Pond dike wall due to closed flyash liner.		12/31/2009	8/4/2009
Woody Shrubs	Remove trees on inside of western B Pond dike wall due to closed flyash liner.		12/31/2009	8/4/2009
Trees	Trees in the other ponds are not required to be removed due to fugitive dust concerns. However, the plant must inspect these areas for concerns, especially the eastern A Pond dike wall.	N/A	N/A	N/A
Animal	Gopher or Woodchuck holes were observed in the C Pond dike wall. The plant should remove the animal and fill the hole.	N/A	10/1/2009	7/27/2009
Closed Landfill	The flyash pond is a closed landfill that is equipped with berms. Due to potential movement of the ash and high ground water elevations, the berms of the landfill must be inspected at least on an annual basis.	Yes	Quarterly	Ongoing
Coal Pile Runoff Pond	The piping that transports water from the coal pile pond to the "F" pond drops the water about 8-ft above the "F" Pond water level. This pipe should be be lowered to allow a mimimun drop.	7085154	10/1/2009	Determined water level in "F" pond sufficiently deep to cushion falling water.
Coal Pile Runoff Pond	Also, the plant needs to develop a procedure on when to start the coagulant pumps in the coal pile runoff pond.	N/A	As needed	Completed
Coal Pile Runoff Pond	Installed electrical service to run automatic coagulant feed system.	NA (Mineral Masters)	Awaiting DNR coagulant approval	Underway

Review this Sheet Prior to each Inspection: Reviewed 11-2-09

ALLIANT ENERGY SURFACE POND PHOTO LOG

PLANT NAME:

DATE	PHOTO NUMBER	DESCRIPTION of the PHOTO
11/2/2009	2009 11.209.40	West side of "C" pond w/concrete plugged wood chuck hole
11/2/2009	2009 11.209.43	West side of "B" pond w/trees removed
2/16/2010	M(Ted): Pictures	Various
5/26/2010	M(Ted): Pictures	Various

CONFIDENTIAL BUSINESS INFORMATION

INSPECTION FORM INSTRUCTIONS		
1)	**Plant Name**	Insert name of facility being inspected
2)	**Date**	List date of when inspection was completed
3)	**List Pond Inspected**	List plant name of pond being inspected. For plants with multiple ponds, use one inspection form per pond. Example: Coal Pile Runoff Pond
4)	**Inspectors**	List name of employee(s) who performed the inspection
5)	**Weather Conditions**	List the current weather conditions (cloud cover/precip/temp/wind strength) If there was a substantial rain or runoff event, please note as well
6)	**Plant Mgmt Review**	Plant Management staff is required to review and sign off on the inspection form. It is advisable that 1 member of the plant management team review the report with the inspector(s)
7)	**Signatory Review**	Each plant management staff must sign off on the report
8)	**Inspection Process**	Physically walk around each side of the pond looking for conditions present on the report Answer each question and note any issues on page 2. If any issue is discovered, please note the location of the area in question and the steps taken to resolve the issue Examples: For animal caused issues, contacted with a Alliant Approved Company to remove/relocate the animals For erosion/dead vegitation issues, filled in the area and applied grass seed For large trees and woody shrubs, removed or cut down the trees/shrubs For wind erosion, used clean rip/rap to prevent futher eroison For seepage/dike integrity issues, try to determine the source of the issue and eliminate. If seepage continues, may need to perform soil structual analysis and repair dike.

INSPECTION PROCESS	
Inspection Frequency	Minimum inspection frequency is as follow: Spring/Summer/Fall. Inspections can be combined with other inspections
Additional Inspection Frequencies	In addition to item #1 above, inspections should take (at the discretion of the Plant Manager) during these events Large Rain Event or meltoff and flood events (other than typical spring events)
Pictures	Pictures are a great opportunity to capture existing conditions and allows a site to compare from year to year Pictures shall be taken during the initial inspection and then during each Spring inspection Pictures shall be taken at the same location each year. These areas will be defined during the initial inspection Pictures shall be taken to show areas of concern that are observed during each inspection and attached to the report
Addressing Items of Concern	Inspectors will review the pictures and the inspection form with Plant Management Staff. Decisions shall be made to address the current issue. Corporate Environmental shall be contacted regarding the issue; review of solutions; and determine if any type of Permitting or Approval is required, prior to commencing the work. from the State Agency; Federal Agencies; or County Agencies Engineering shall be contacted regarding structural concerns of a dike or what might the impact be to the integrity of the Dike if a trees or other living objects are removed (root concerns)
Review of Records	Prior to a new year of inspections, plant staff shall review the previous year inspections to review past issues and if they were resolved Total Suspended Solids (TSS) analysis from past Discharge Monitoring Reports shall be reviewed each year to determine if the ponds require more intensive dredging

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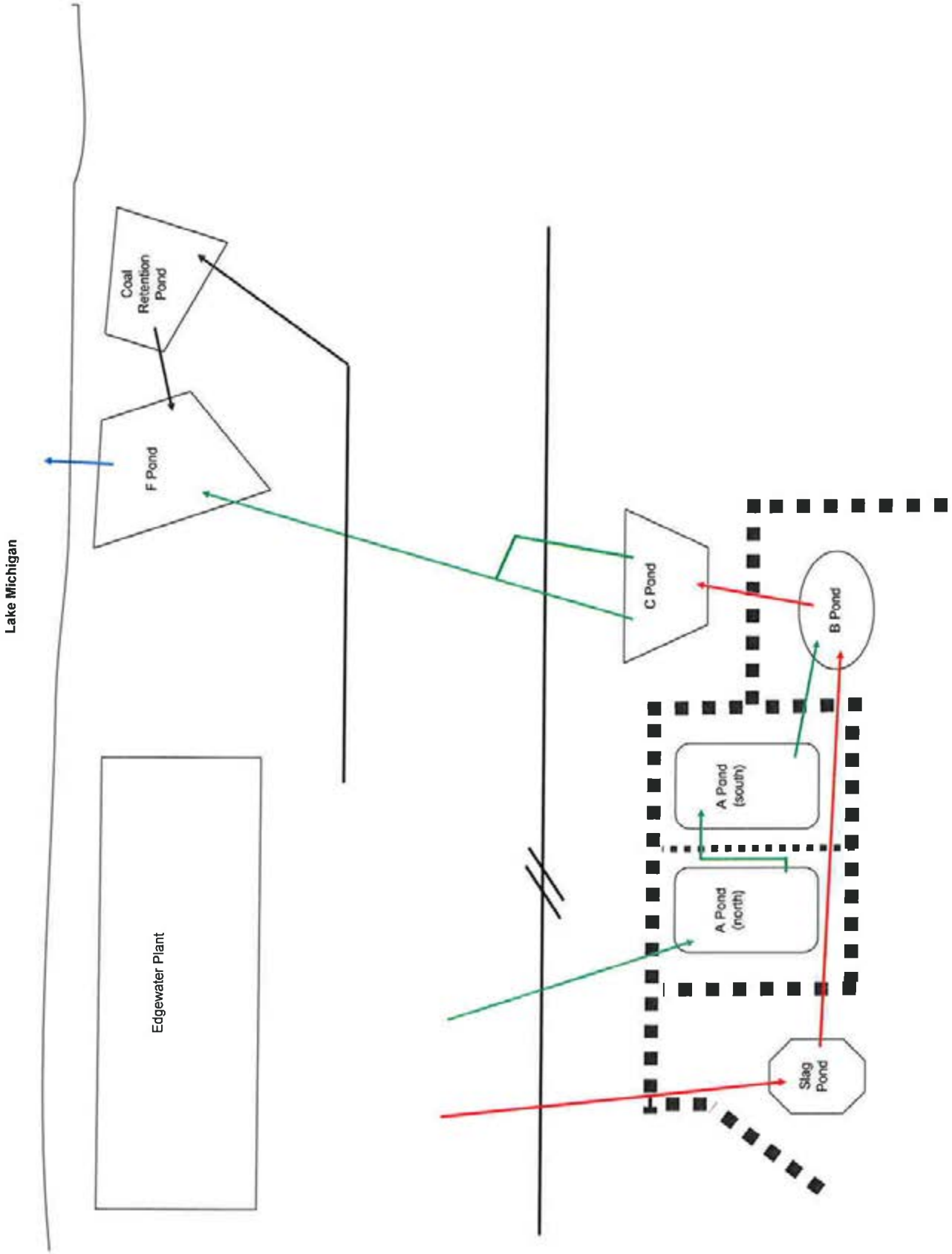

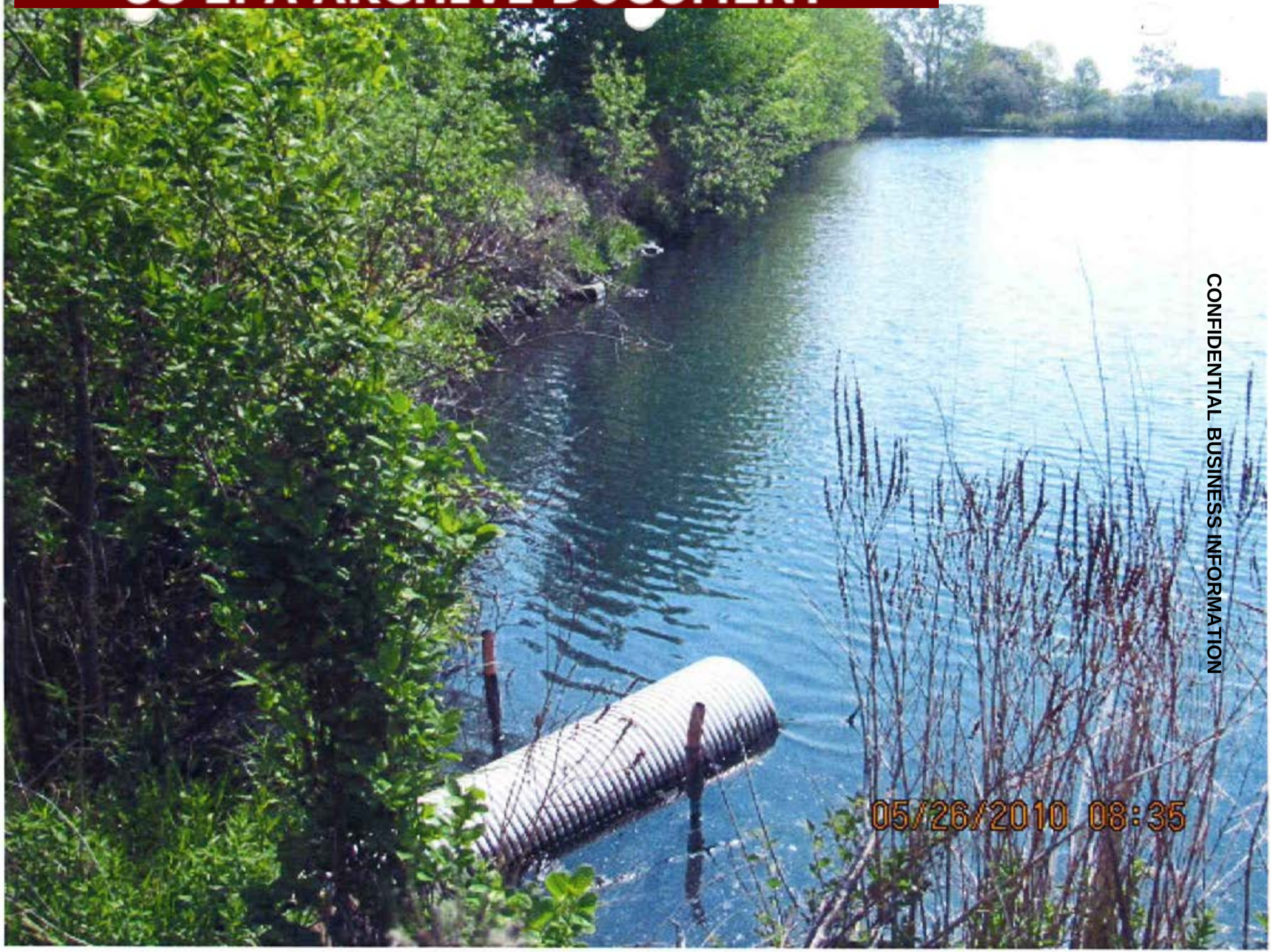

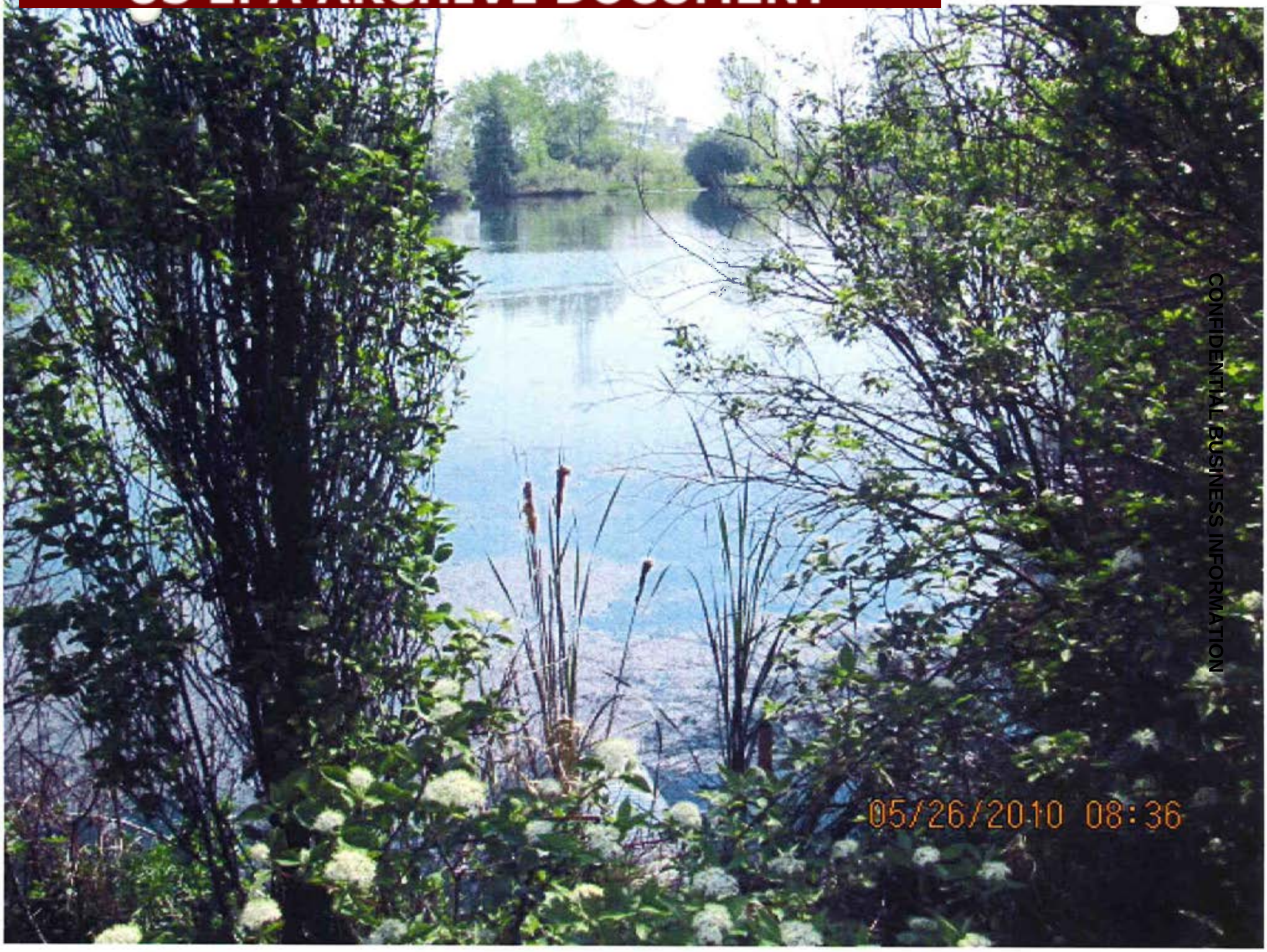

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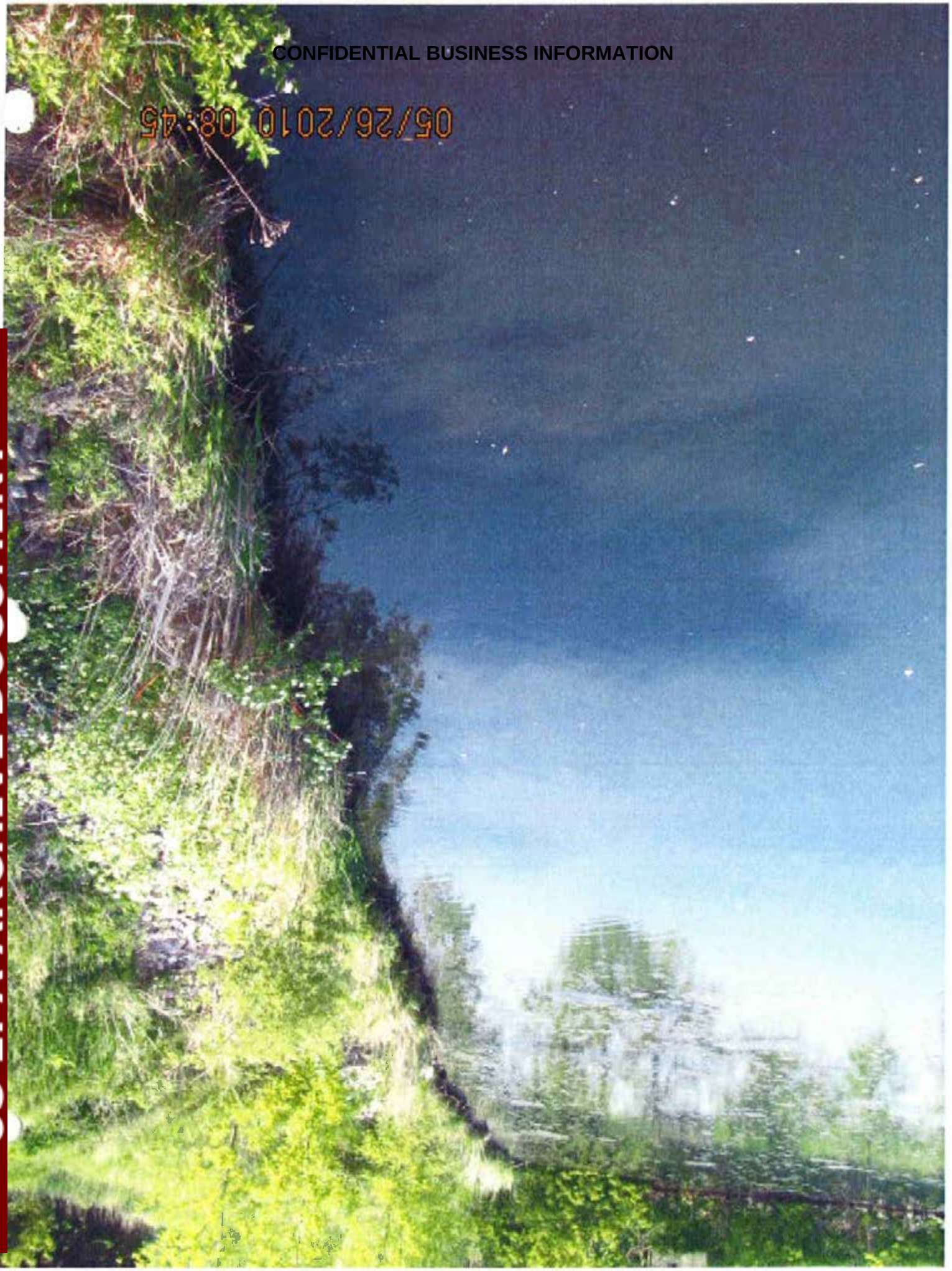

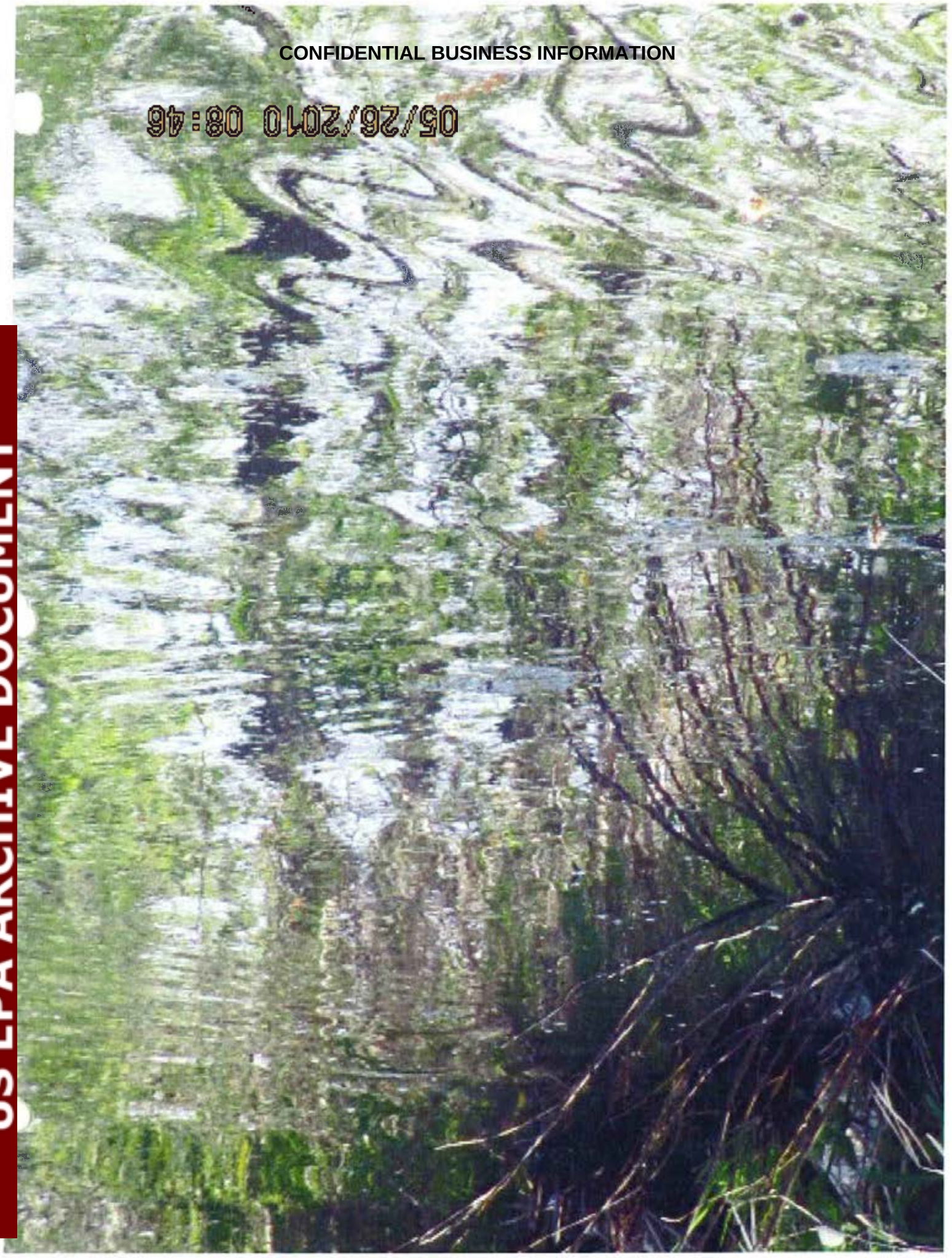

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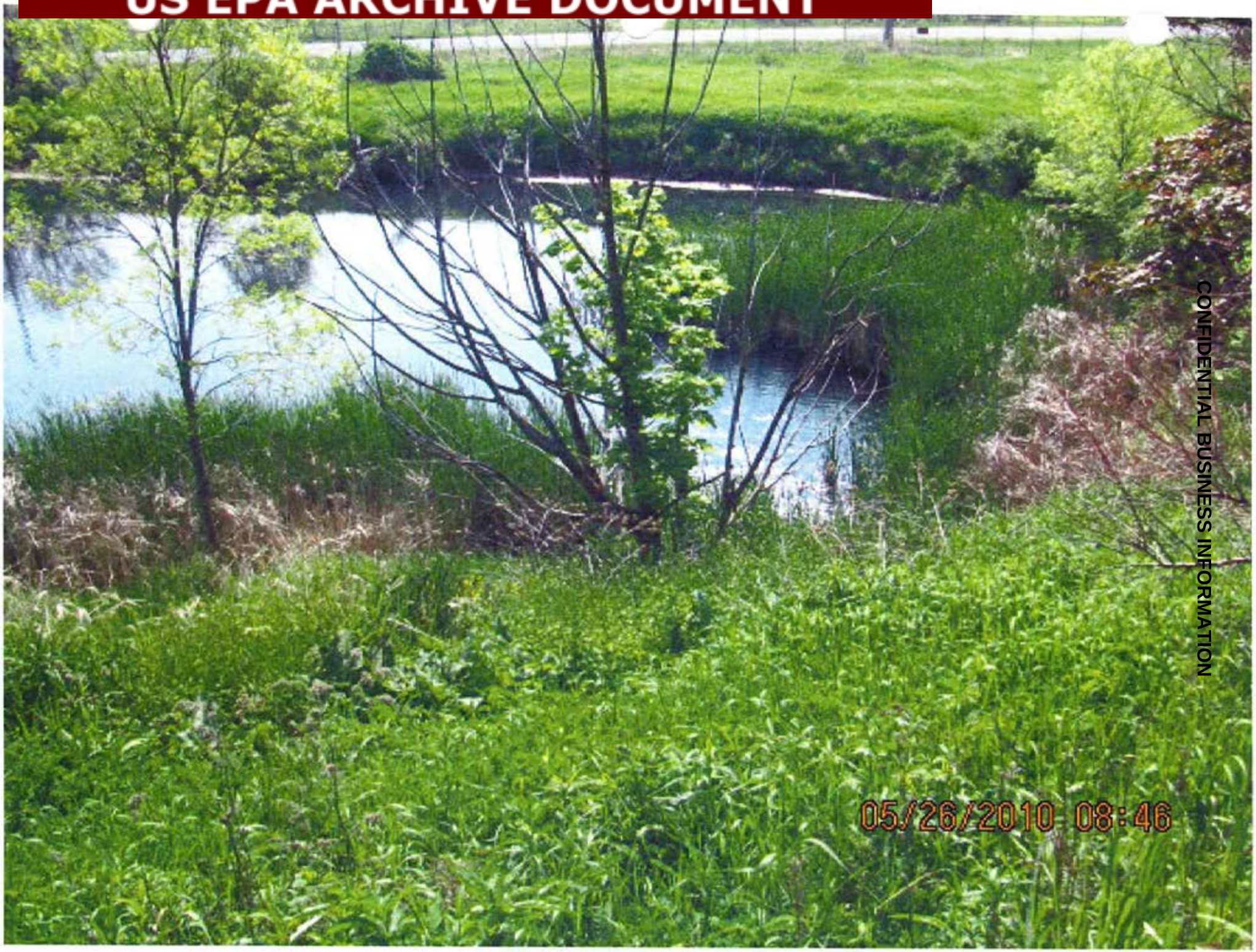

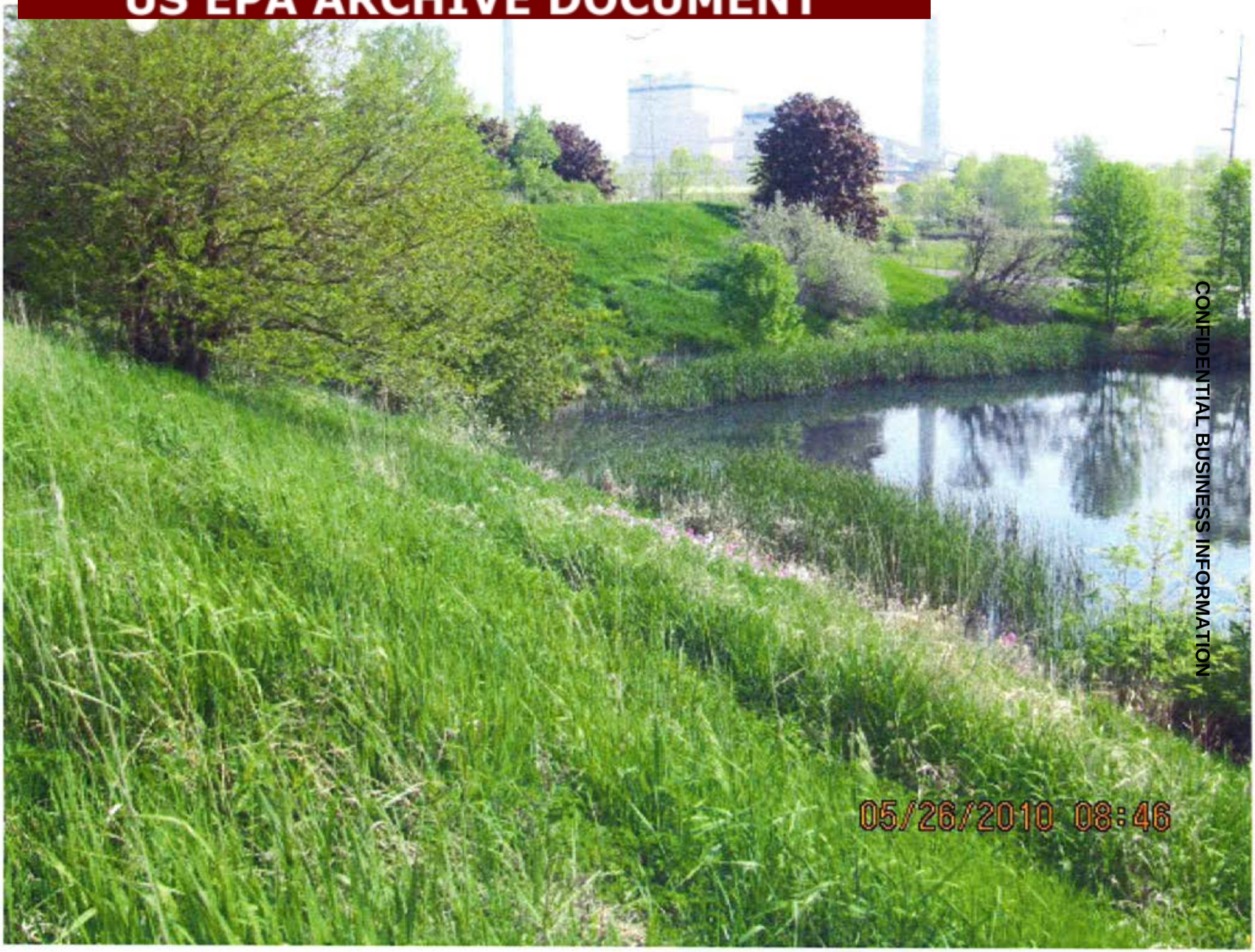

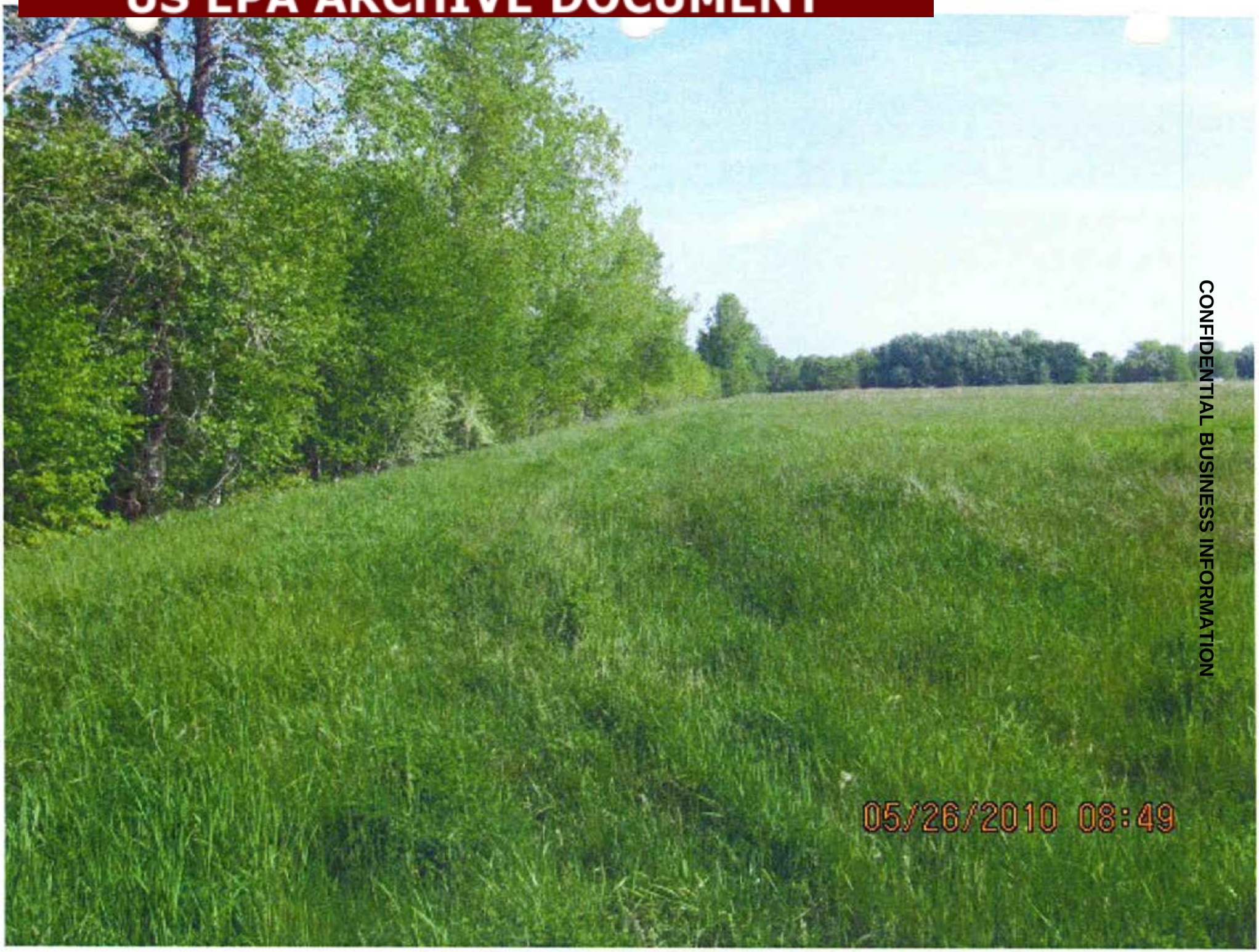

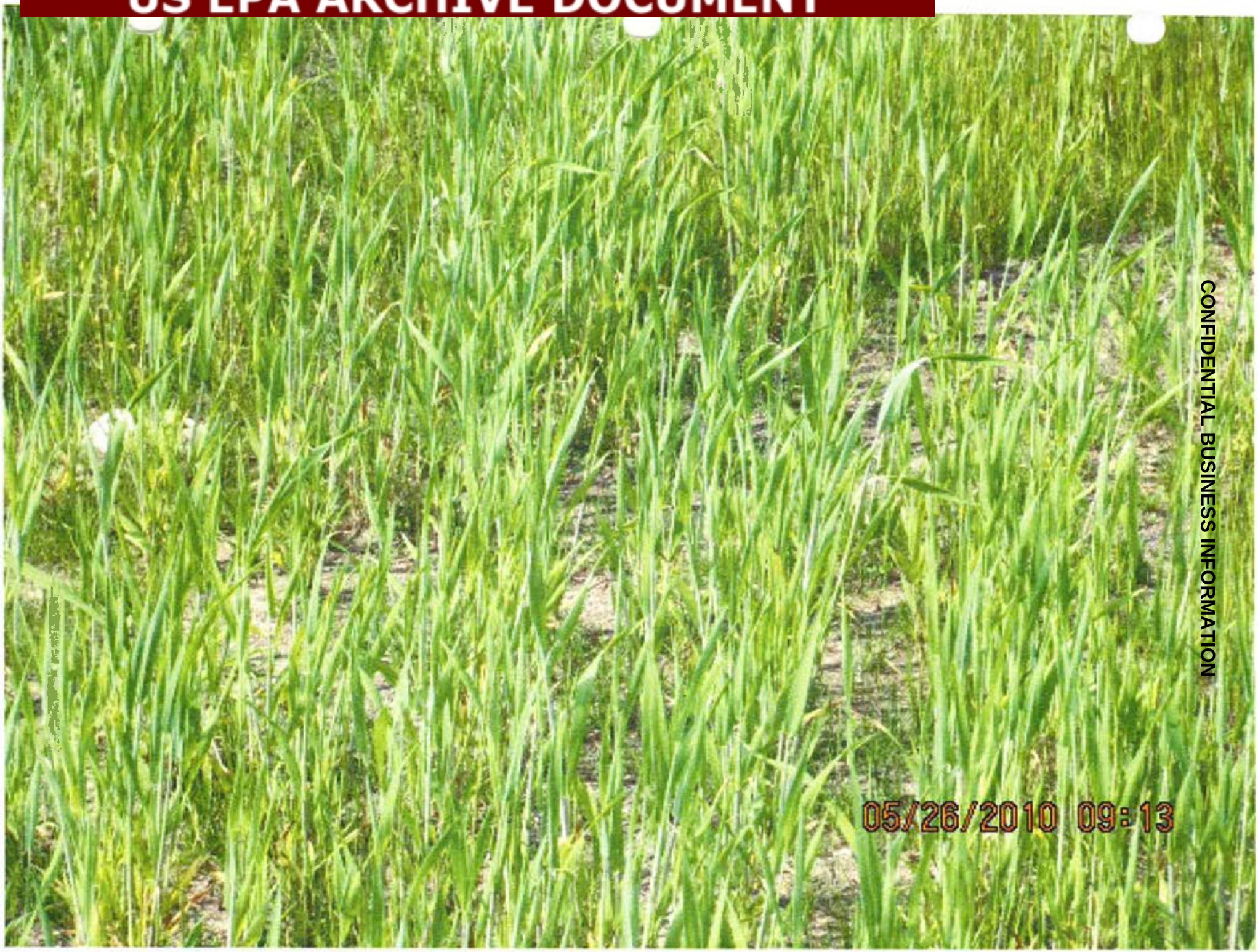

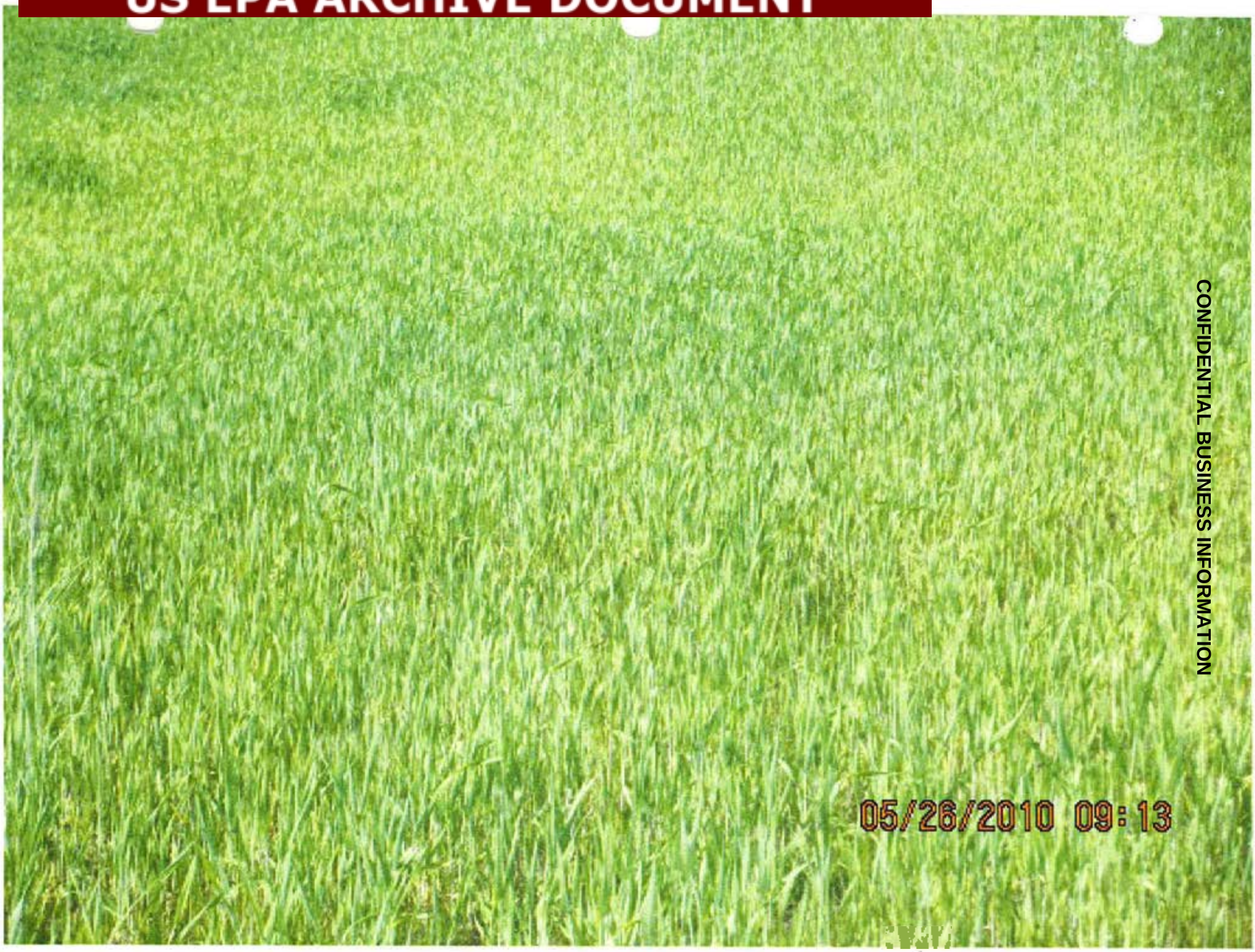

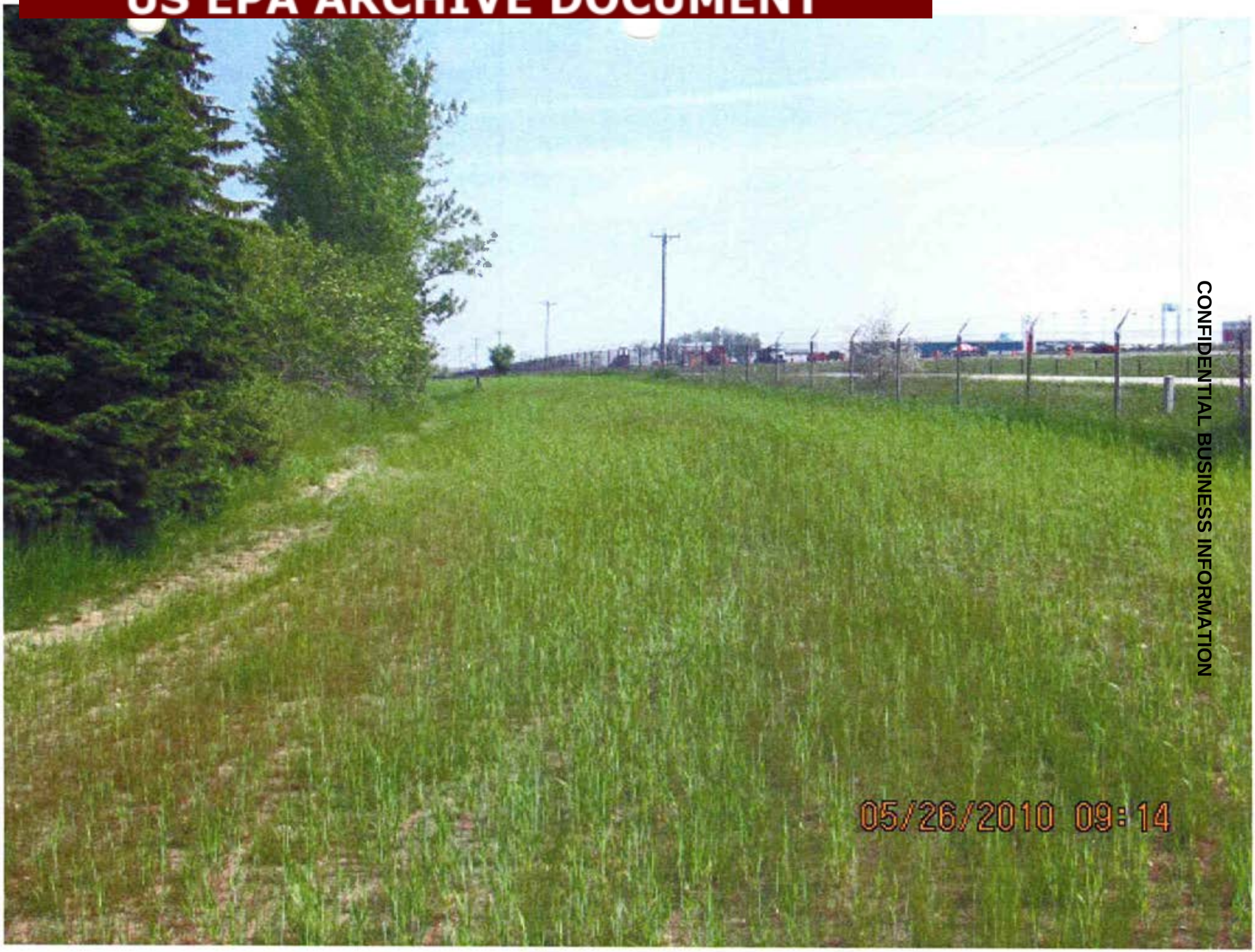

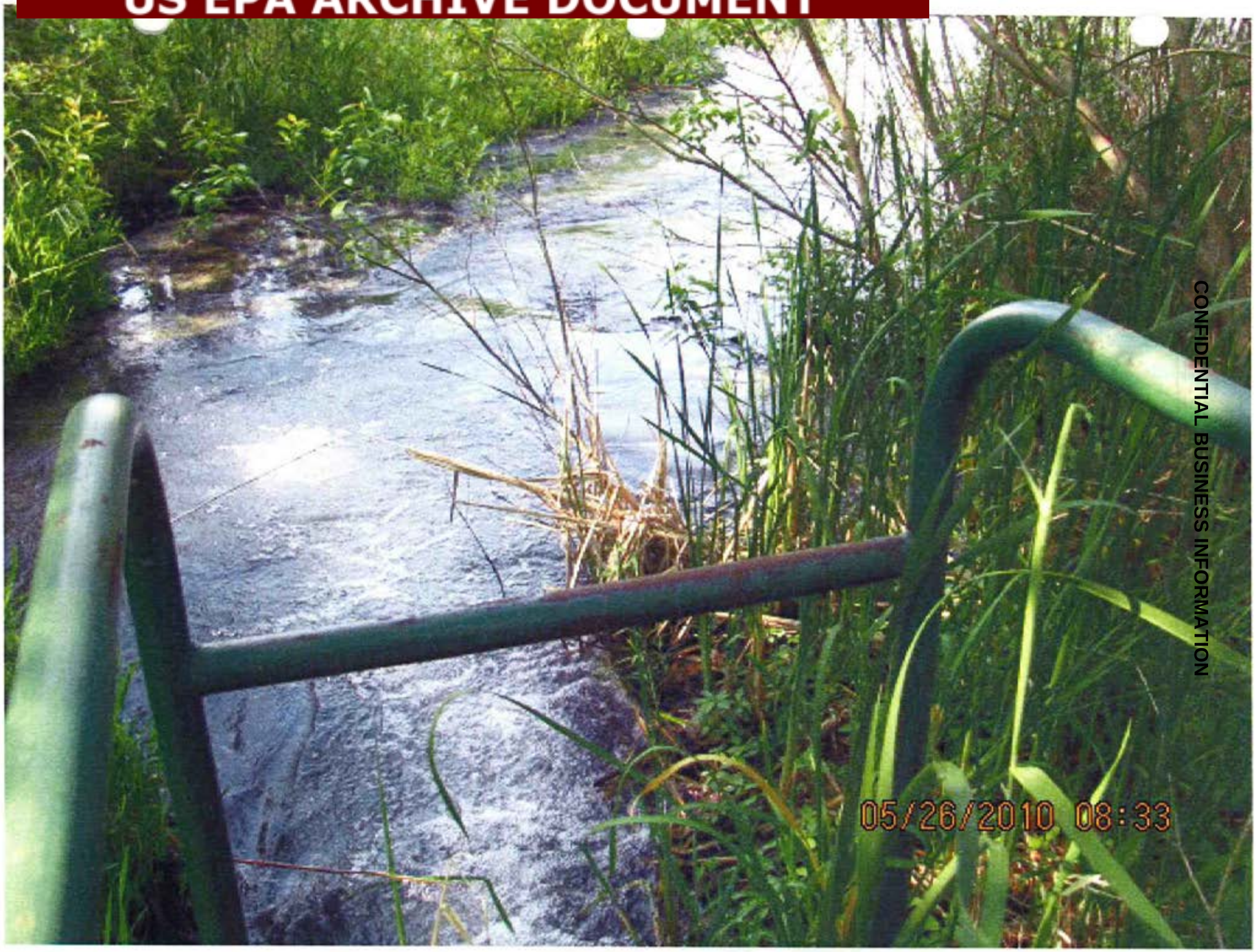

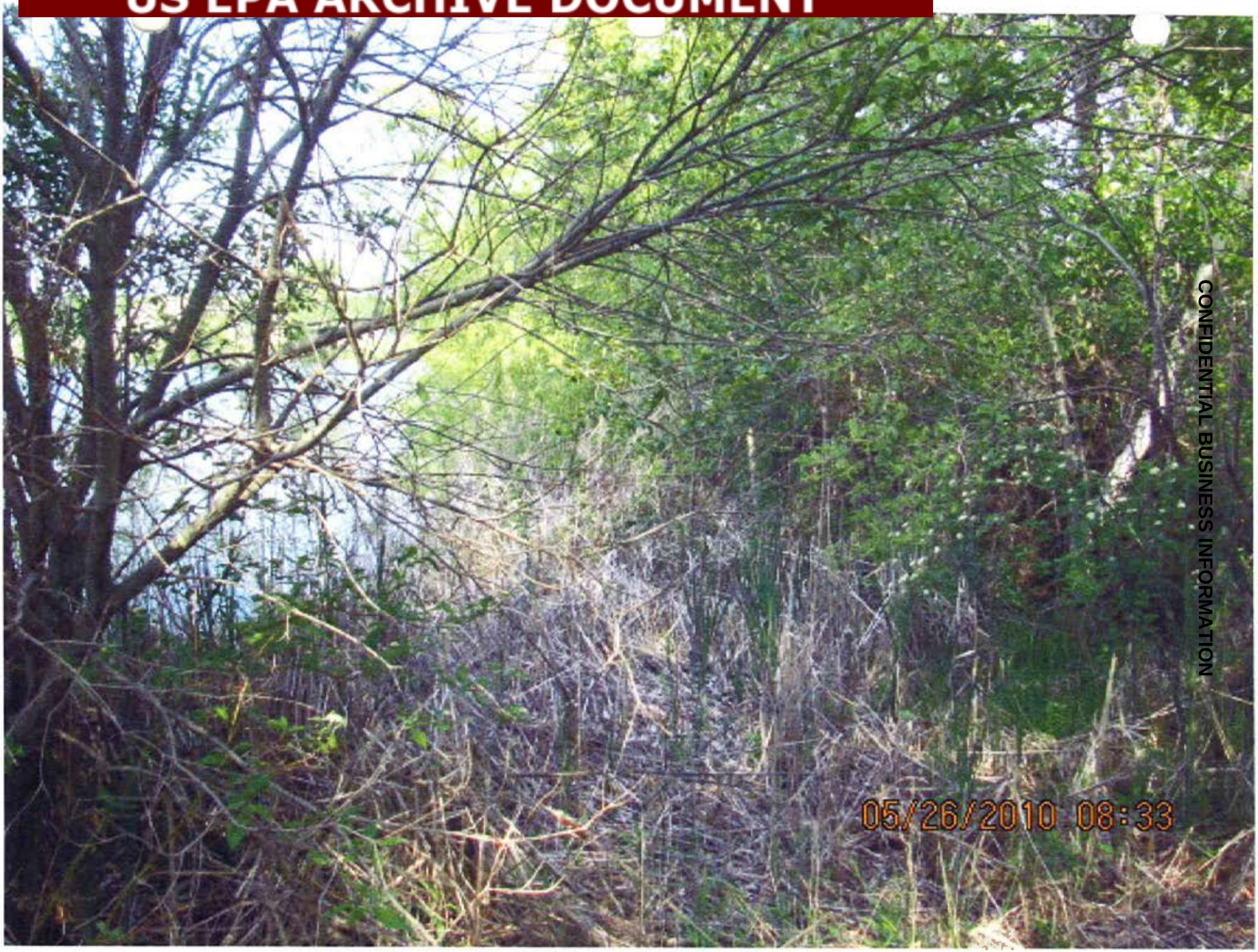

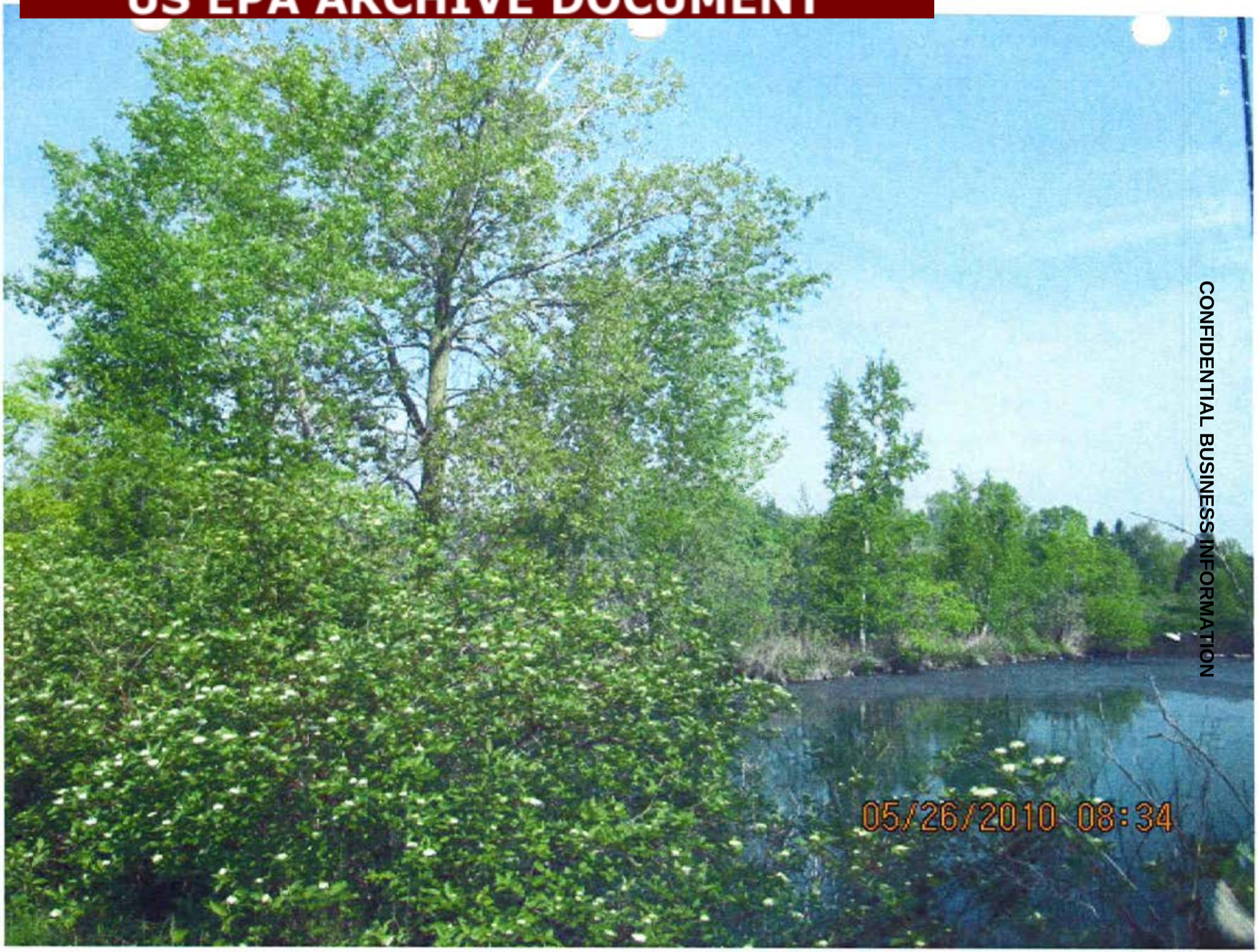

EDGEWATER GENERATING STATION

QUARTERLY VISUAL POND INSPECTION

August 16, 2010

Prepared by: Ted Shonts (E&S)
Reviewed by: Pat Hartley (Plant Manager)
Reviewed by: David Anderson (Maint. Manager)
Reviewed by: Brian Dierksheide (Ops. Manager)
Reviewed by: Ray Springhetti (Elec. Maint. Manager)

Signature:

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION		
PLANT NAME: Edgewater Generating Station	DATE COMPLETED: Monday, August 16, 2010	LIST POND INSPECTED: Slag Pond: A, B, C, & F Ponds, Coal Pile Runoff and Slag Pond
INSPECTOR(S): List Below Ted Shonts	WEATHER CONDITIONS: Clear	
PLANT MANAGEMENT REVIEW (if applicable):	HIGH TEMP: 84 LOW TEMP: 67	
Plant Manager: Pat Hartley	WIND: Calm	PRESS:
	SIGNATORY REVIEW:	
E&S Specialist: Ted Shonts		

Description: **August 16, 2010 Ted Shonts contucted quarterly pond inspection.**

*Note: (Initial inspection 4-27-2009), 7-9-2009, 11-2-200, 2-16-2010, 5-26-2010, **8-16-2010***
*Tree Removal: Based on the GENCO Ash Pond Inspection Team; Alliant Energy Environmental Stewardship and Outreach Manager; and reference documents from the Army Corp of Engineers: Trees that are planted on top of or adjacent to the levee structure can result in significant damage. Trees that are blown over in high wind conditions, not only create a large void that can destabilize the levee or dike, but the root systems associated with the tree can result in preferred piping channels if the roots are pulled out of the dike or levee (such as if a tree is blown over in a strong wind storm.) To mitigate possible impacts of tree damage on levees or dikes, design and maintenance guidelines generally specify that trees be kept clear of the dike or levee structure. At Edgewater, we are not recommending the trees to be removed from the WPDES System, except the B Pond removed 8-4-0), due to fugitive dust issues at the site. In most cases, a failure of these dike walls present very low risk. However, the eastern dike wall of the A Ponds should be monitored since a failure in this particular dike wall poses the greatest risk. In addition, the GENCO Ash Pond Inspection Team is recommending that the closed flyash landfill dike walls be included in this inspection process (closed landfill ponds are included in these quarterly inspections). All pond berms were covered with a layer of snow. There was no evidence of leaking berms that would have been observed by the presence of melted snow. There were no signs of leaking berms or animal intrusions Vegetative cover was satisfactory and sufficient in preventing erosion. Pond's water edge rip-rap was intact and adequate in protecting from wave erosion. **There were no signs of leaking berms or animal intrusions. Vegetative cover was satisfactory and sufficient in preventing erosion. Pond's water edge rip-rap was intact and adequate in protecting from wave erosion.***

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	16-Aug-10	I-43 Contact Water Basin
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager Pat Hartley		
Operations Manager Brian Dierkshede		
Maintainence Manager: David Anderson		
E&S Specialist Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of croison caused either by wind croison; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	16-Aug-10	A Ponds
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager: Brian Dierksheide		
Maintenance Manager: David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LAST POND INSPECTED:
Edgewater Generating Station	16-Aug-10	B Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager: Brian Dierkshide		
Maintainence Manager: David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	removed 8-4-09
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	removed 8-4-09
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example; If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	16-Aug-10	C Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hanley		
Operations Manager: Brian Dierkshede		
Maintainence Manager: David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	**Yes**	**No**	**Action Needed?**
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	plugged 7-27-09
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of eroison caused either by wind eroison; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	16-Aug-10	Coal Pile Retention Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager: Brian Doerkbende		
Maintainence Manager: David Anderson		
E&S Specialist Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

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ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	16-Aug-10	F Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager: Brian Dierksheide		
Maintainence Manager: David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	**Yes**	**No**	**Action Needed?**
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	16-Aug-10	Slag Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Pat Hartley		
Operations Manager: Brian Dierkshede		
Maintainence Manager David Anderson		
E&S Specialist: Ted Shonts		

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

NOTES or OBSERVATIONS

Provide a description of the issue or observation below:

ISSUE	Description and Location of Issue	Maximo Work Order #	Due Date	Date Completed
Trees	Remove trees on inside of western B Pond dike wall due to closed flyash liner.		12/31/2009	08/04/2009
Woody Shrubs	Remove trees on inside of western B Pond dike wall due to closed flyash liner.		12/31/2009	08/04/2009
Trees	Trees in the other ponds are not required to be removed due to fugitive dust concerns. However, the plant must inspect these areas for concerns, especially the eastern A Pond dike wall.	N/A	N/A	N/A
Animal	Gopher or Woodchuck holes were observed in the C Pond dike wall. The plant should remove the animal and fill the hole.	N/A	10/01/2009	07/27/2009
Closed Landfill	The flyash pond is a closed landfill that is equipped with berms. Due to potential movement of the ash and high ground water elevations, the berms of the landfill must be inspected at least on an annual basis.	Yes	Quarterly	Ongoing
Coal Pile Runoff Pond	The piping that transports water from the coal pile pond to the "F" pond drops the water about 8-ft above the "F" Pond water level. This pipe should be be lowered to allow a mimimun drop.	7085154	10/01/2009	Determined water level in "F" pond sufficiently deep to cushion falling water.
Coal Pile Runoff Pond	Also, the plant needs to develop a procedure on when to start the coagulant pumps in the coal pile runoff pond.	N/A	As needed	Completed
Coal Pile Runoff Pond	Installed electrical service to run automatic coagulant feed system.	NA (Mineral Masters)	Awaiting DNR coagualnt approval	Underway
Coal Pile Runoff Pond	Reinstalled automatic feed pump and flow senor	NA (Mineral Masters)	Approved	Ongoing

Review this Sheet Prior to each Inspection: Reviewed 11-2-09

ALLIANT ENERGY SURFACE POND PHOTO LOG

PLANT NAME:

DATE:	PHOTO NUMBER	DESCRIPTION of the PHOTO
11/02/2009	2009 11.209.40	West side of "C" pond w/concrete plugged wood chuck hole
11/02/2009	2009 11.209.43	West side of "B" pond w/trees removed
02/16/2010	M(Ted): Pictures	Various
05/26/2010	M(Ted): Pictures	Various
08/16/2010	M(Ted): Pictures	10:20 AM (Lakeshore Drive Closed Landfill - west side)
		10:23 AM (Lakeshore Drive Closed Landfill - B Pond, east side)
		10:24 AM (Lakeshore Drive Closed Landfill - B Pond, west side)
		10:25 AM (Lakeshore Drive Closed Landfill - B Pond, southwest corner
		10:25 AM (Lakeshore Drive Closed Landfill - C Pond, northeast corner)
		11:44 AM (I-43 Landfill, Phase 2 / Module 3)
		11:45 AM (I-43 Landfill, Ash Contact Pond)
		11:46 AM (I-43 Landfill, Phase 1 / Module 3)

INSPECTION FORM INSTRUCTIONS		
1)	**Plant Name**	Insert name of facility being inspected
2)	**Date**	List date of when inspection was completed
3)	**List Pond Inspected**	List plant name of pond being inspected. For plants with multiple ponds, use one inspection form per pond. Example: Coal Pile Runoff Pond
4)	**Inspectors**	List name of employee(s) who performed the inspection
5)	**Weather Conditions**	List the current weather conditions (cloud cover/precip/temp/wind strength) If there was a substantial rain or runoff event, please note as well
6)	**Plant Mgmt Review**	Plant Management staff is required to review and sign off on the inspection form. It is advisible that 1 member of the plant management team review the report with the inspector(s)
7)	**Signatory Review**	Each plant management staff must sign off on the report
8)	**Inspection Process**	Physically walk around each side of the pond looking for conditions present on the report Answer each question and note any issues on page 2 If any issue is discovered, please note the location of the area in question and the steps taken to resolve the issue Examples: For animal caused issues, contracted with a Alliant Approved Company to remove/relocate the animals For erosion/dead vegetation issues, filled in the area and applied grass seed For large trees and woody shrubs, removed or cut down the trees/shrubs For wind erosion, used clean rip/rap to prevent futher eroison For seepage/dike integrity issues, try to determine the source of the issue and eliminate. If seepage continues, may need to perform soil structual analysis and repair dike.

INSPECTION PROCESS	
Inspection Frequency	Minimum inspection frequency is as follow: Spring/Summer/Fall. Inspections can be combined with other inspections
Additional Inspection Frequencies	In addition to Item #1 above, inspections should take (at the descretion of the Plant Manager) during these events Large Rain Event or meltoff and flood events (other than typical spring events)
Pictures	Pictures are a great opportunity to capture existing conditions and allows a site to compare from year to year Pictures shall be taken during the initial inspection and then during each Spring Inspection Pictures shall be taken at the same location each year These areas will be defined during the initial inspection Pictures shall be taken to show areas of concern that are observed during each inspection and attached to the report
Addressing Items of Concern	Inspectors will review the pictures and the inspection form with Plant Management Staff. Decisions shall be made to address the current issue. Corporate Environmental shall be contacted regarding the issue; review of solutions; and determine if any type of Permitting or Approval is required, prior to commencing the work, from the State Agency; Federal Agencies; or County Agencies Engineering shall be contacted regarding structural concerns of a dike or what might the impact be to the integrity of the Dike if a trees or other living objects are removed (root concerns)
Review of Records	Prior to a new year of inspections, plant staff shall review the previous year inspections to review past issues and if they were resolved Total Suspended Solids (TSS) analysis from past Discharge Monitoring Reports shall be reviewed each year to determine if the ponds require more intensive dredging

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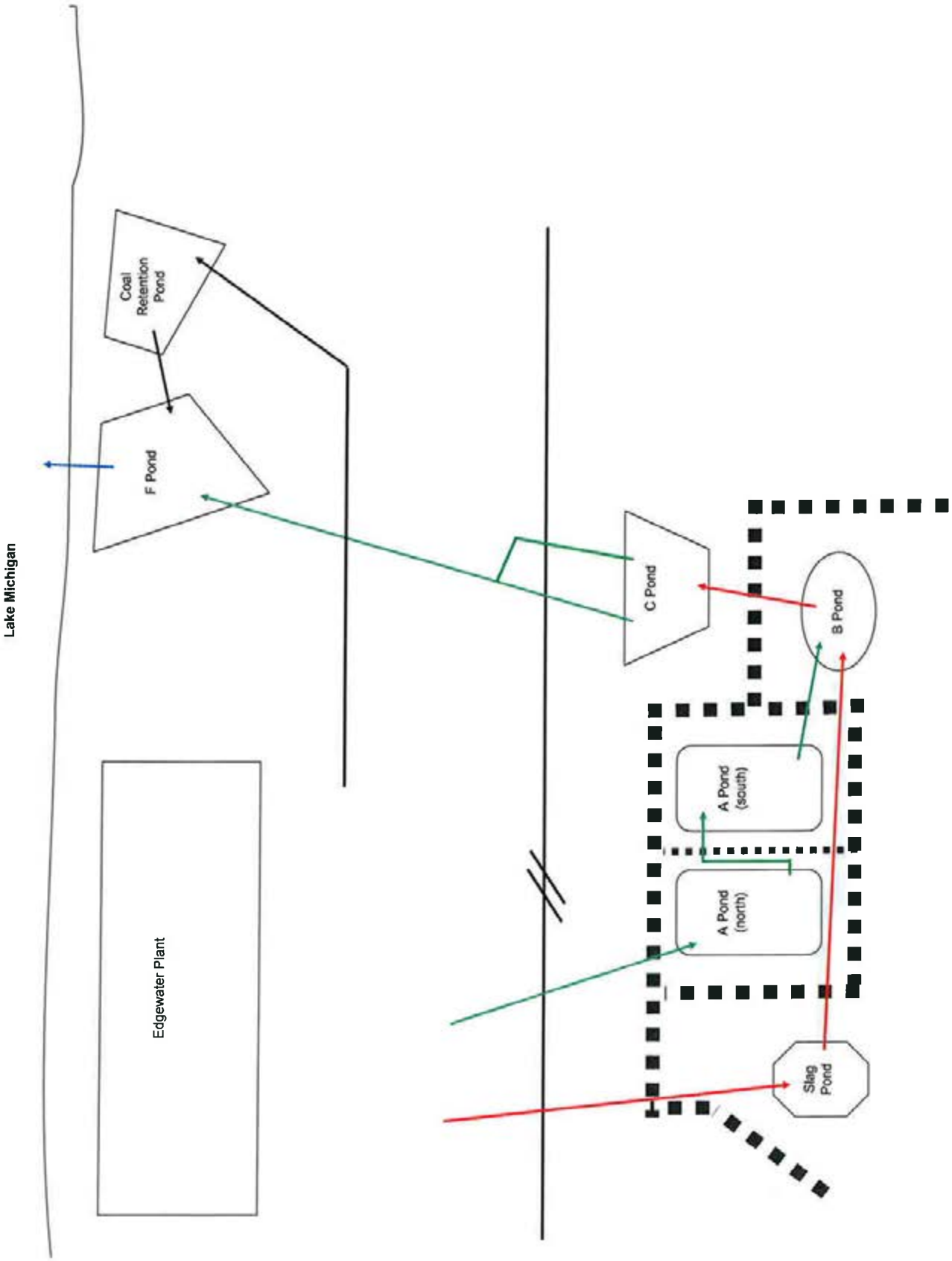

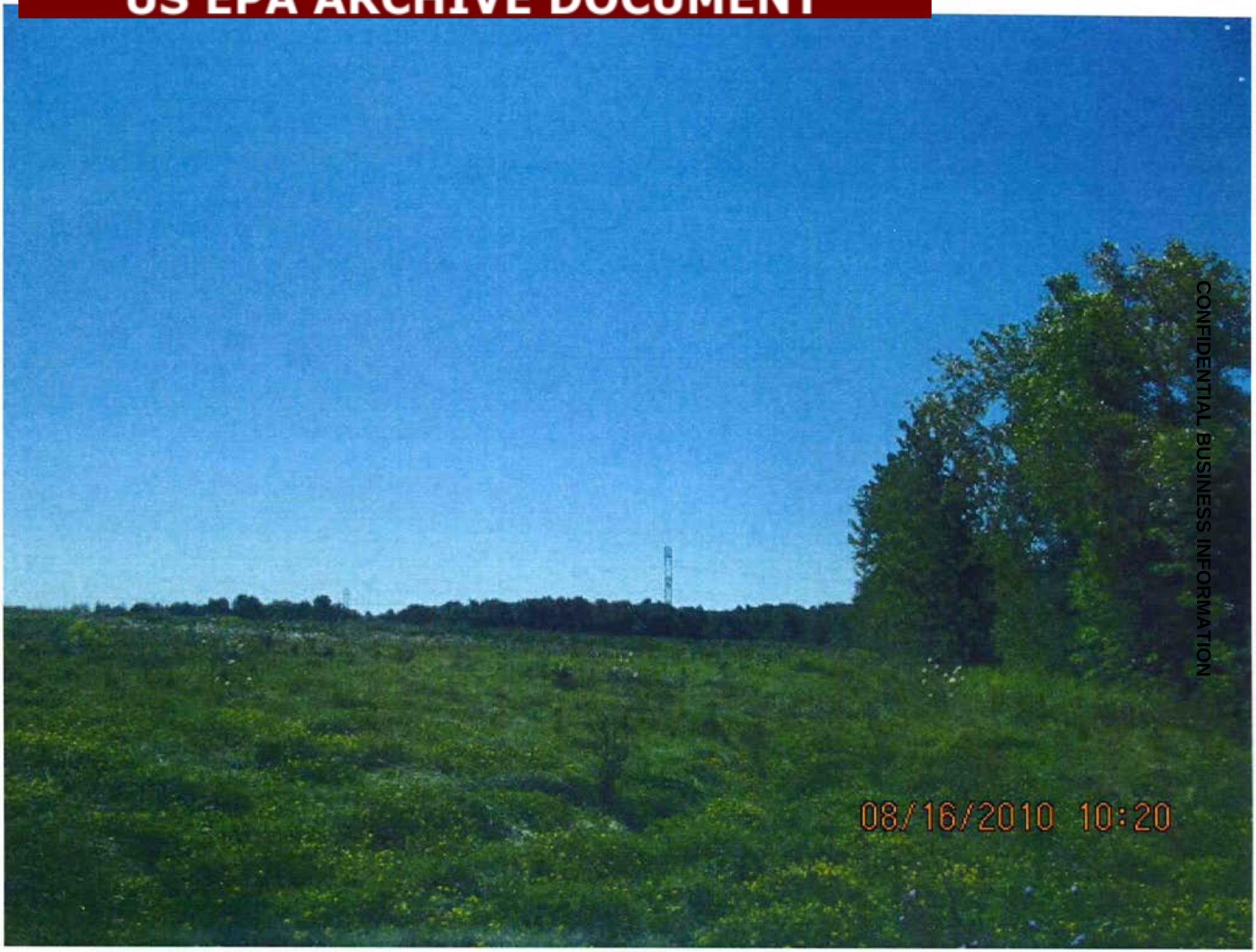

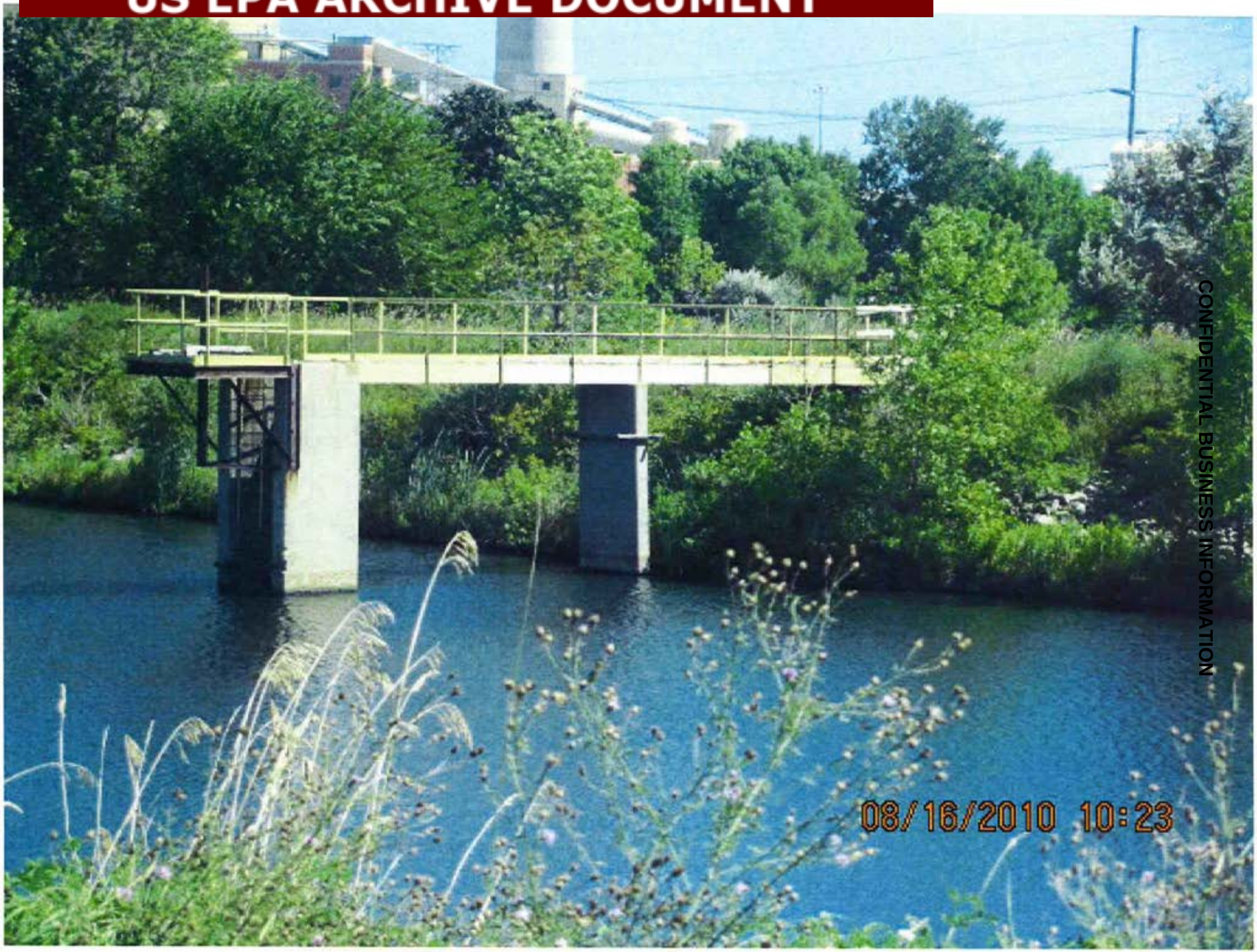

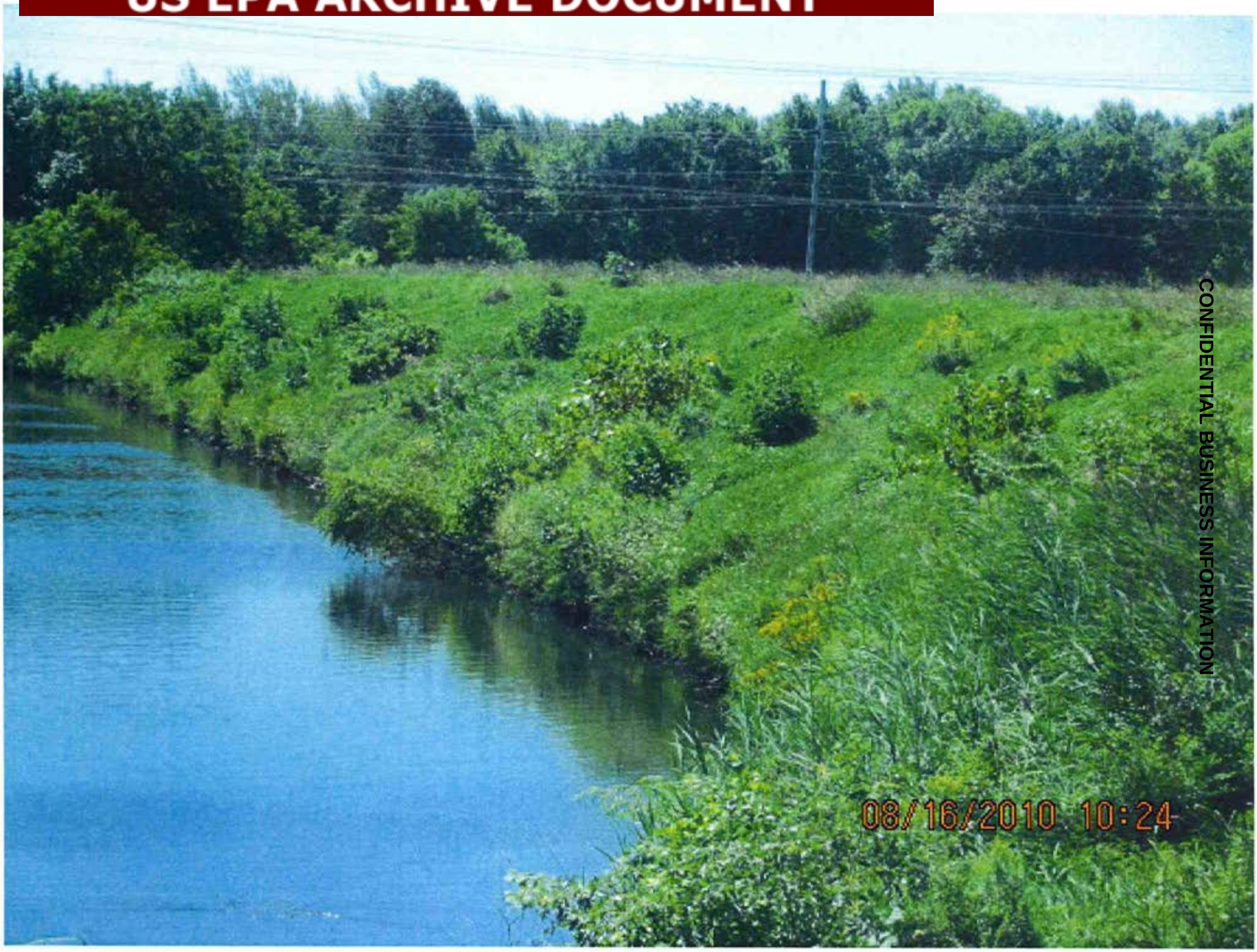

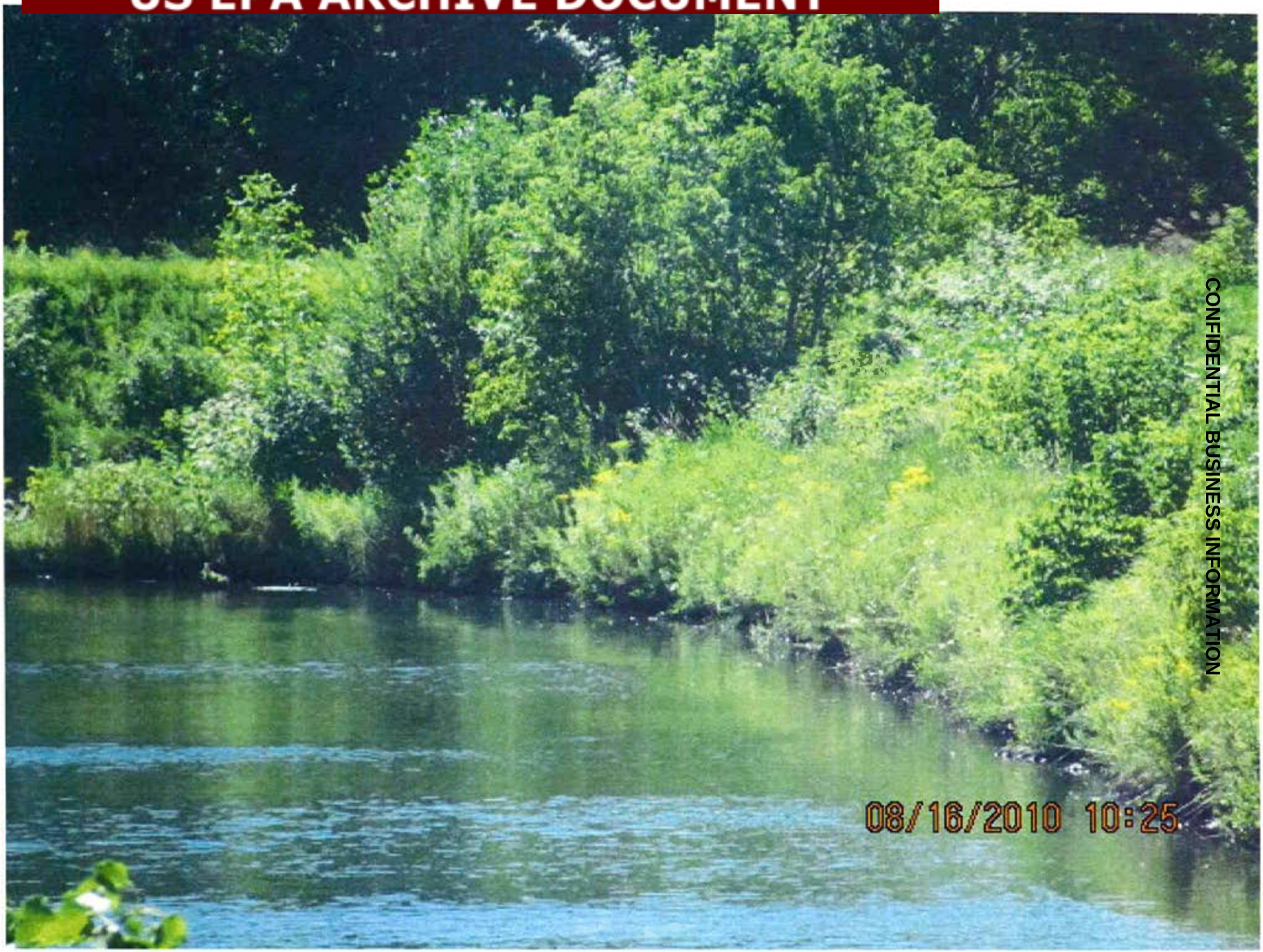

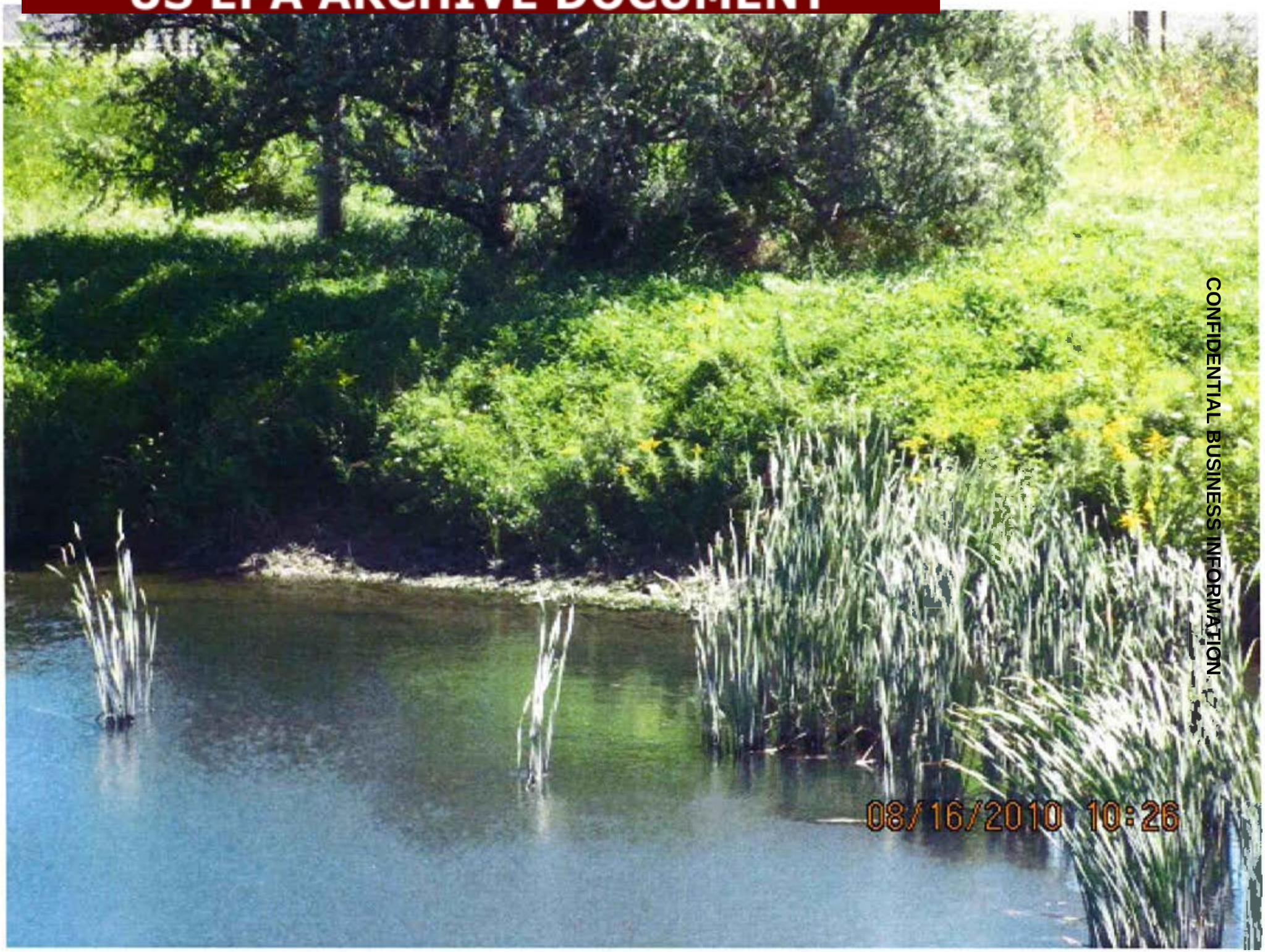

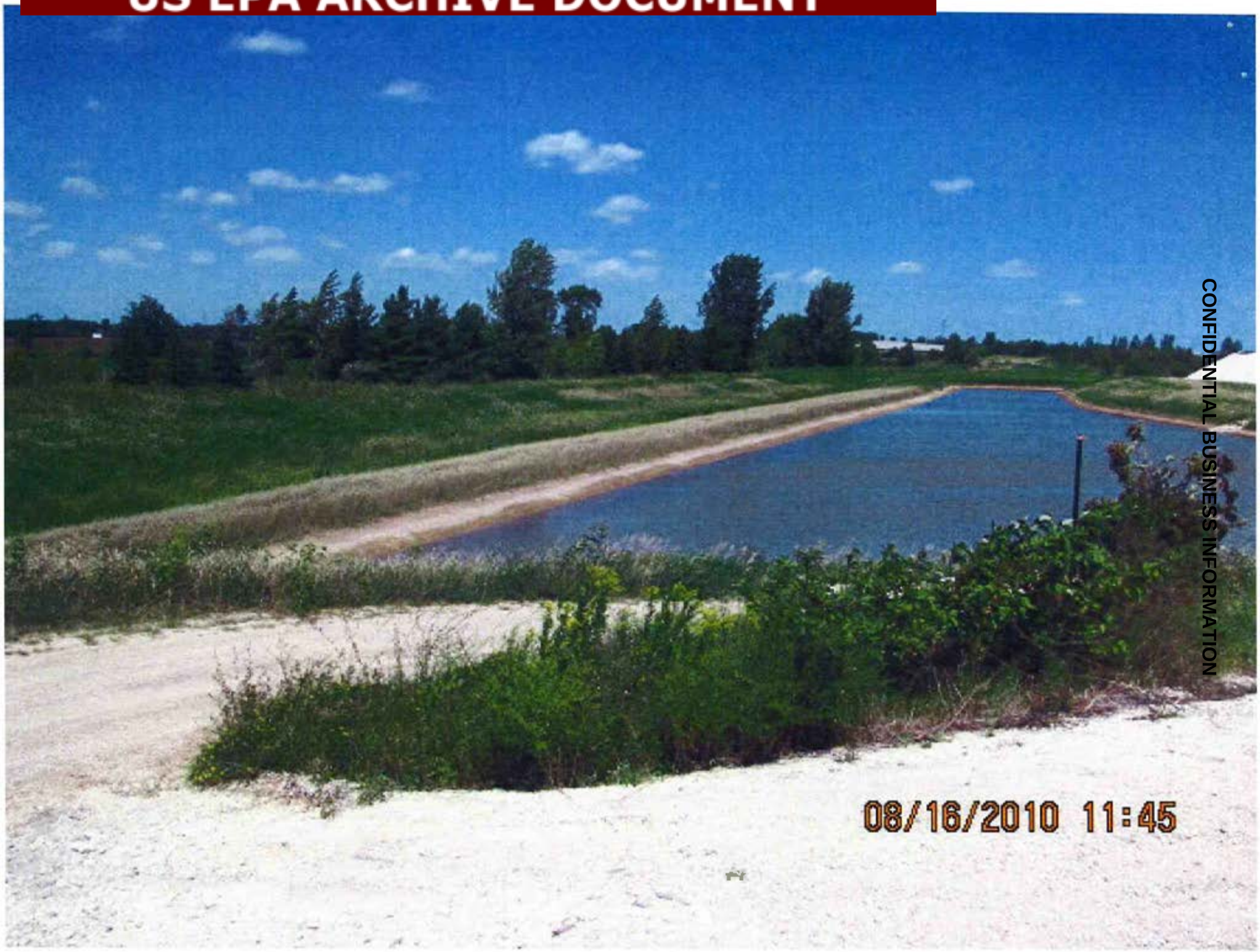

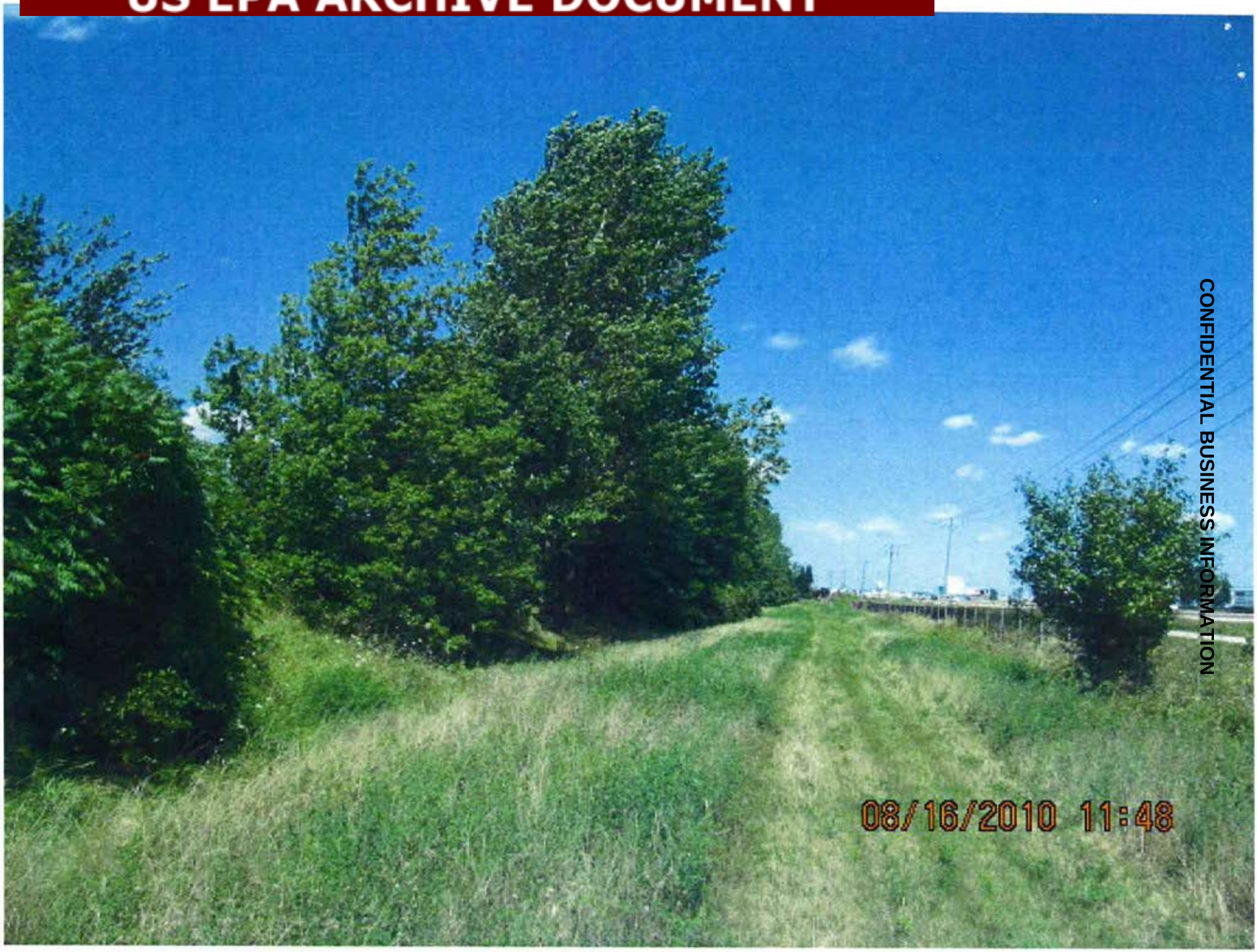

EDGEWATER GENERATING STATION

QUARTERLY VISUAL POND INSPECTION

November 1, 2010

Prepared by: Ted Shonts (E&S)

Reviewed by: Eric Sandvig (Plant Manager)

Reviewed by: David Anderson (Maint. Manager)

Reviewed by: John weber (Ops. Manager)

Reviewed by: Ray Springhetti (Elec. Maint. Manager)

Signature:

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION		
PLANT NAME: Edgewater Generating Station	DATE COMPLETED: Monday, November 01, 2010	LIST POND INSPECTED: Slag Pond; A, B, C, & F Ponds; Coal Pile Runoff and Slag Pond
INSPECTOR(S): List Below Ted Shonts	WEATHER CONDITIONS: Clear	
PLANT MANAGEMENT REVIEW (if applicable):	HIGH TEMP: 50	
	LOW TEMP: 35	
Plant Manager: Eric Snadvig	WIND: Calm	PRESS:
	SIGNATORY REVIEW:	
E&S Specialist: Ted Shonts		

Description: **November 1, 2010 Ted Shonts contucted quarterly pond inspection.**

Note: (Initial inspection 4-27-2009), 7-9-2009, 11-2-200, 2-16-2010, 5-26-2010, 8-16-201, ***11-1-2010***

Tree Removal: Based on the GENCO Ash Pond Inspection Team, Alliant Energy Environmental Stewardship and Outreach Manager; and reference documents from the Army Corp of Engineers: Trees that are planted on top of or adjacent to the levee structure can result in significant damage. Trees that are blown over in high wind conditions, not only create a large void that can destabilize the levee or dike, but the root systems associated with the tree can result in preferred piping channels if the roots are pulled out of the dike or levee (such as if a tree is blown over in a strong wind storm.) To mitigate possible impacts of tree damage on levees or dikes, design and maintenance guidelines generally specify that trees be kept clear of the dike or levee structure. At Edgewater, we are not recommending the trees to be removed from the WPDES System, except the B Pond removed 8-4-0), due to fugitive dust issues at the site. In most cases, a failure of these dike walls present very low risk. However, the eastern dike wall of the A Ponds should be monitored since a failure in this particular dike wall poses the greatest risk. In addition, the GENCO Ash Pond Inspection Team is recommending that the closed flyash landfill dike walls be included in this inspection process (closed landfill ponds are included in these quarterly inspections). All pond berms were covered with a layer of snow. There was no evidence of leaking berms that would have been observed by the presence of melted snow. There were no signs of leaking berms or animal intrusions. Vegetative cover was satisfactory and sufficient in preventing erosion. Pond's water edge rip-rap was intact and adequate in protecting from wave erosion. There were no signs of leaking berms or animal intrusions. Vegetative cover was satisfactory and sufficient in preventing erosion. Pond's water edge rip-rap was intact and adequate in protecting from wave erosion. ***There was no sign of leaking from berms or animal intrusions. Vegetative cover was satisfactory and sufficient in preventing erosion. Pond's water edge rip-rap was intact and adequate in protecting from wave erosion.***

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	01-Nov-10	I-43 Contact Water Basin
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Eric Sandvig	See cover	
Operations Manager: John Weber	See cover	
Maintainence Manager: David Anderson	See cover	
E&S Specialist: Ted Shonts	See cover	

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of eroison caused either by wind eroison: storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	01-Nov-10	A Ponds
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Eric Sandvig	See cover	
Operations Manager: John Weber	See cover	
Maintainence Manager: David Andersen	See cover	
E&S Specialist: Ted Shonts	See cover	

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of eroison caused either by wind eroison; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	01-Nov-10	B Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW	
Plant Manager. Eric Sandvig	See cover	
Operations Manager. John Weber	See cover	
Maintainence Manager. David Andersen	See cover	
E&S Specialist. Ted Shonts	See cover	

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	removed 8-4-09
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	removed 8-4-09
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of eroison caused either by wind eroison: storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion: animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example; If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	01-Nov-10	C Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Eric Sandvig	See cover	
Operations Manager: John Wehrs	See cover	
Maintainence Manager: David Anderson	See cover	
E&S Specialist: Ted Shonts	See cover	

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	plugged 7-27-09
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of eroison caused either by wind eroison; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	01-Nov-10	Coal Pile Retention Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable) Spell Name	SIGNATORY REVIEW:	
Plant Manager Eric Sandvig	See cover	
Operations Manager John Weber	See cover	
Maintainence Manager David Anderson	See cover	
F&S Specialist Ted Shonts	See cover	

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of eroison caused either by wind eroison; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

* That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	01-Nov-10	F Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager Eric Sandvig	See cover	
Operations Manager John Weber	See cover	
Maintainence Manager: David Anderson	See cover	
E&S Specialist: Ted Shonts	See cover	

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of eroison caused either by wind eroison; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	01-Nov-10	Slag Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Clear	
PLANT MANAGEMENT REVIEW(if applicable) Spell Name	SIGNATORY REVIEW:	
Plant Manager Eric Saulsing	See cover	
Operations Manager. John Weber	See cover	
Maintainence Manager David Andersen	See cover	
E&S Specialist Ted Shonts	See cover	

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

* That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

NOTES or OBSERVATIONS

Provide a description of the issue or observation below:

ISSUE	Description and Location of Issue	Maximo Work Order #	Due Date	Date Completed
Trees	Remove trees on inside of western B Pond dike wall due to closed flyash liner.		12/31/2009	08/04/2009
Woody Shrubs	Remove trees on inside of western B Pond dike wall due to closed flyash liner.		12/31/2009	08/04/2009
Trees	Trees in the other ponds are not required to be removed due to fugitive dust concerns. However, the plant must inspect these areas for concerns, especially the eastern A Pond dike wall.	N/A	N/A	N/A
Animal	Gopher or Woodchuck holes were observed in the C Pond dike wall. The plant should remove the animal and fill the hole.	N/A	10/01/2009	07/27/2009
Closed Landfill	The flyash pond is a closed landfill that is equipped with berms. Due to potential movement of the ash and high ground water elevations, the berms of the landfill must be inspected at least on an annual basis.	Yes	Quarterly	Ongoing
Coal Pile Runoff Pond	The piping that transports water from the coal pile pond to the "F" pond drops the water about 8-ft above the "F" Pond water level. This pipe should be be lowered to allow a mimimun drop.	7085154	10/01/2009	Determined water level in "F" pond sufficiently deep to cushion falling water.
Coal Pile Runoff Pond	Also, the plant needs to develop a procedure on when to start the coagulant pumps in the coal pile runoff pond.	N/A	As needed	Completed
Coal Pile Runoff Pond	Installed electrical service to run automatic coagulant feed system.	NA (Mineral Masters)	Awaiting DNR coagulnt approval	Underway
Coal Pile Runoff Pond	Reinstalled automatic feed pump and flow senor	NA (Mineral Masters)	Approved	Ongoing
I-43 Landfill	Ash Contact Pond water depth guage has been installed to guide drawdown activities. If maintained at 2' mark, pond will be able to withhold a 4" rain before overflowing.	N/A	N/A	Completed

Review this Sheet Prior to each Inspection: Reviewed 11-2-09

ALLIANT ENERGY SURFACE POND PHOTO LOG

PLANT NAME:

DATE	PHOTO NUMBER	DESCRIPTION of the PHOTO
11/02/2009	2009 11.209.40	West side of "C" pond w/concrete plugged wood chuck hole
11/02/2009	2009 11.209.43	West side of "B" pond w/trees removed
02/16/2010	M(Ted): Pictures	Various
05/26/2010	M(Ted): Pictures	Various
08/16/2010	M(Ted): Pictures	10:20 AM (Lakeshore Drive Closed Landfill - west side)
		10:23 AM (Lakeshore Drive Closed Landfill - B Pond, east side)
		10:24 AM (Lakeshore Drive Closed Landfill - B Pond, west side)
		10:25 AM (Lakeshore Drive Closed Landfill - B Pond, southwest corner
		10:26 AM (Lakeshore Drive Closed Landfill - C Pond, northeast corner)
		11:44 AM (I-43 Landfill, Phase 2 / Module 3)
		11:45 AM (I-43 Landfill, Ash Contact Pond)
		11:46 AM (I-43 Landfill, Phase 1 / Module 3)
11/01/2010	M(Ted): Pictures	Various

INSPECTION FORM INSTRUCTIONS		
1)	**Plant Name**	Insert name of facility being inspected
2)	**Date**	List date of when inspection was completed
3)	**List Pond Inspected**	List plant name of pond being inspected. For plants with multiple ponds, use one inspection form per pond. Example: Coal Pile Runoff Pond
4)	**Inspectors**	List name of employee(s) who performed the inspection
5)	**Weather Conditions**	List the current weather conditions (cloud cover/precip/temp/wind strength) If there was a substantial rain or runoff event, please note as well
6)	**Plant Mgmt Review**	Plant Management staff is required to review and sign off on the inspection form. It is advisible that 1 member of the plant management team review the report with the inspector(s)
7)	**Signatory Review**	Each plant management staff must sign off on the report
8)	**Inspection Process**	Physically walk around each side of the pond looking for conditions present on the report Answer each question and note any issues on page 2. If any issue is discovered, please note the location of the area in question and the steps taken to resolve the issue Examples: For animal caused issues, contracted with a Alliant Approved Company to remove/relocate the animals For erosion/dead vegitation issues, tilled in the area and applied grass seed For large trees and woody shrubs, removed or cut down the trees/shrubs For wind erosion, used clean rip/rap to prevent futher erosion For seepage/dike integrity issues, try to determine the source of the issue and eliminate. If seepage continues, may need to perform soil structual analysis and repair dike.

INSPECTION PROCESS	
Inspection Frequency	Minimum inspection frequency is as follow: Spring/Summer/Fall. Inspections can be combined with other inspections
Additional Inspection Frequencies	In addition to item #1 above, inspections should take (at the deseretion of the Plant Manager) during these events Large Rain Event or meltoff and flood events (other than typical spring events)
Pictures	Pictures are a great opportunity to capture existing conditions and allows a site to compare from year to year Pictures shall be taken during the initial inspection and then during each Spring Inspection Pictures shall be taken at the same location each year. These areas will be defined during the initial inspection Pictures shall be taken to show areas of concern that are observed during each inspection and attached to the report
Addressing Items of Concern	Inspectors will review the pictures and the inspection form with Plant Management Staff. Decisions shall be made to address the current issue. Corporate Environmental shall be contacted regarding the issue; review of solutions; and determine if any type of Permitting or Approval is required, prior to commencing the work, from the State Agency; Federal Agencies; or County Agencies Engineering shall be contacted regarding structural concerns of a dike or what might the impact be to the integrity of the Dike if a trees or other living objects are removed (root concerns)
Review of Records	Prior to a new year of inspections, plant staff shall review the previous year inspections to review past issues and if they were resolved Total Suspended Solids (TSS) analysis from past Discharge Monitoring Reports shall be reviewed each year to determine if the ponds require more intensive dredging

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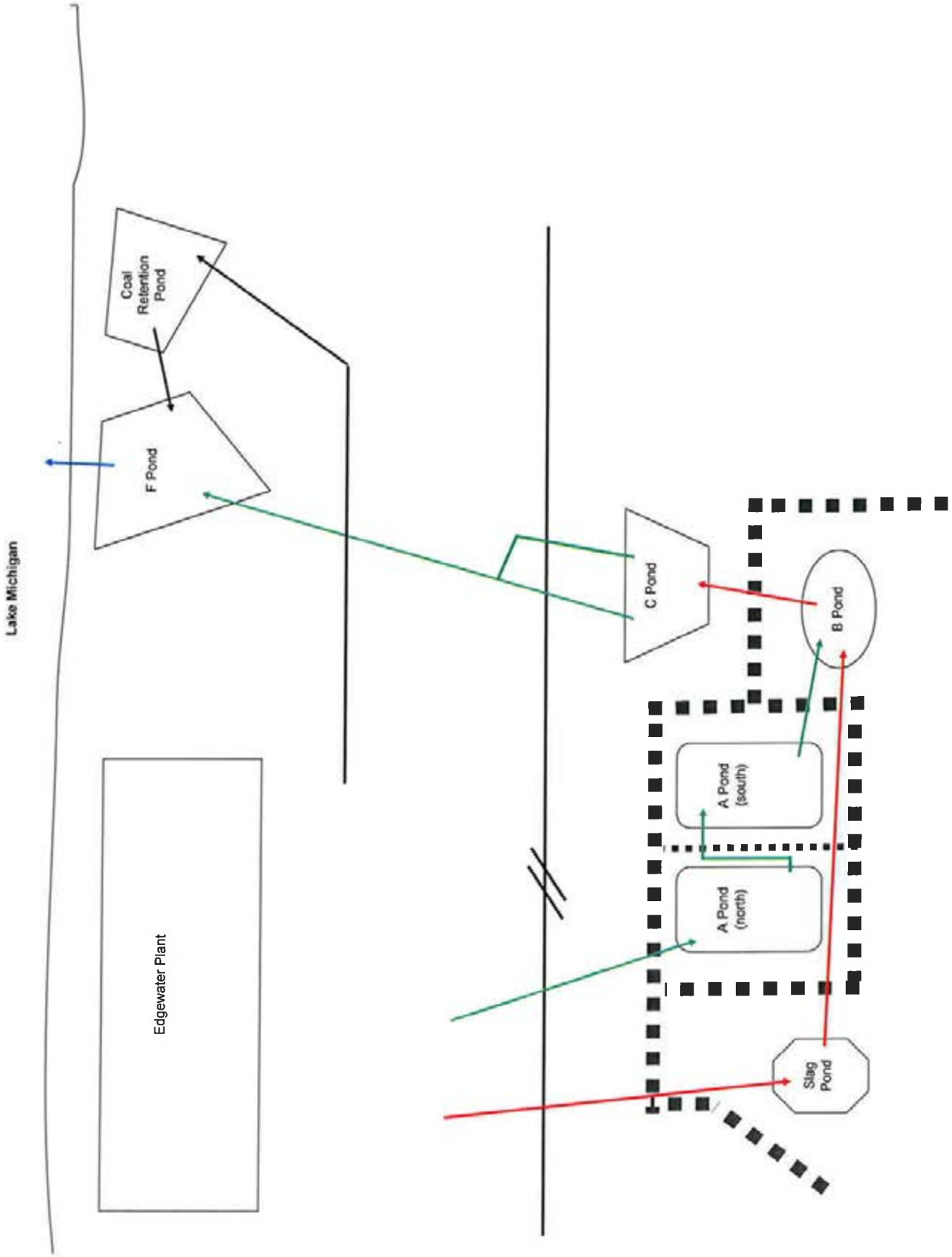
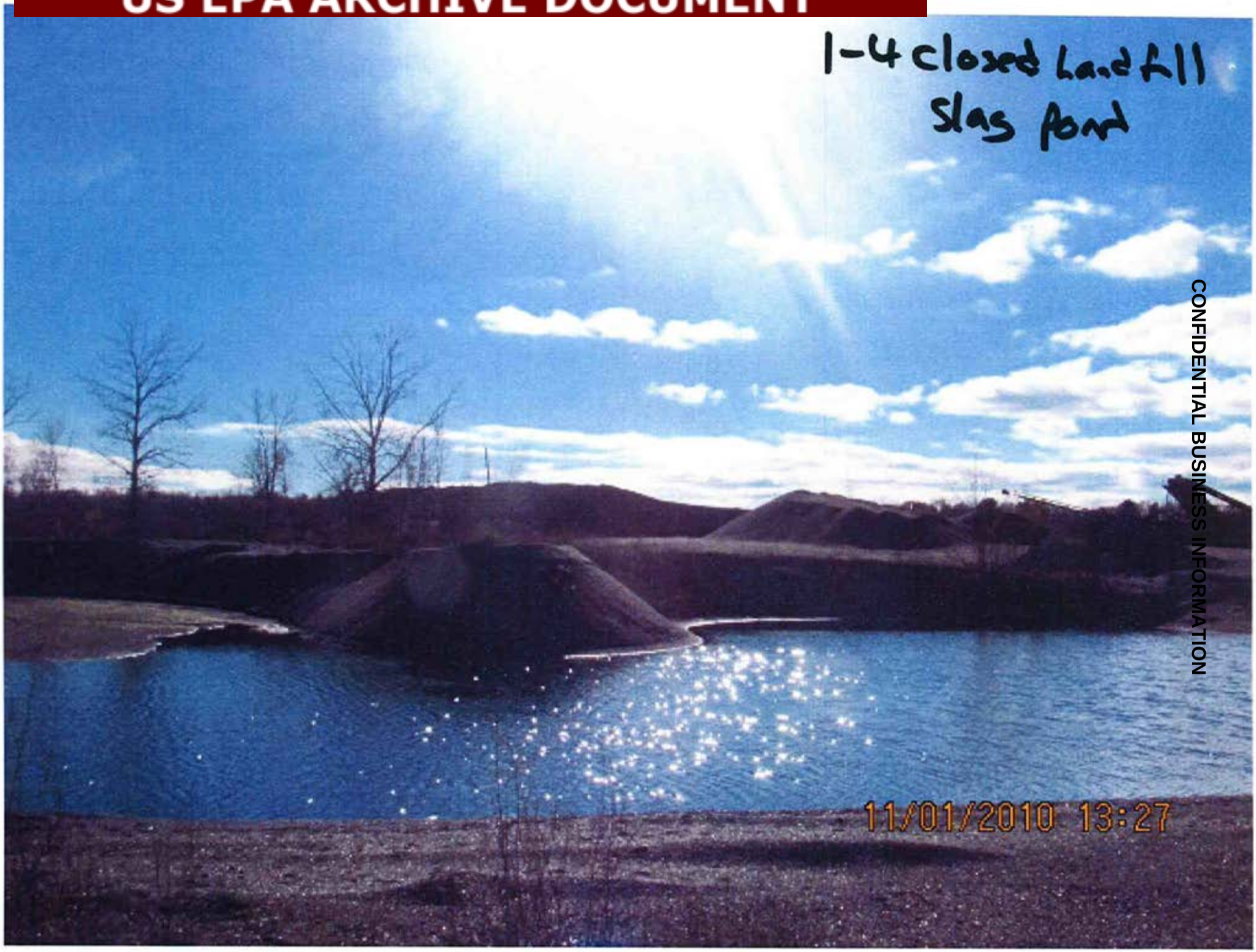
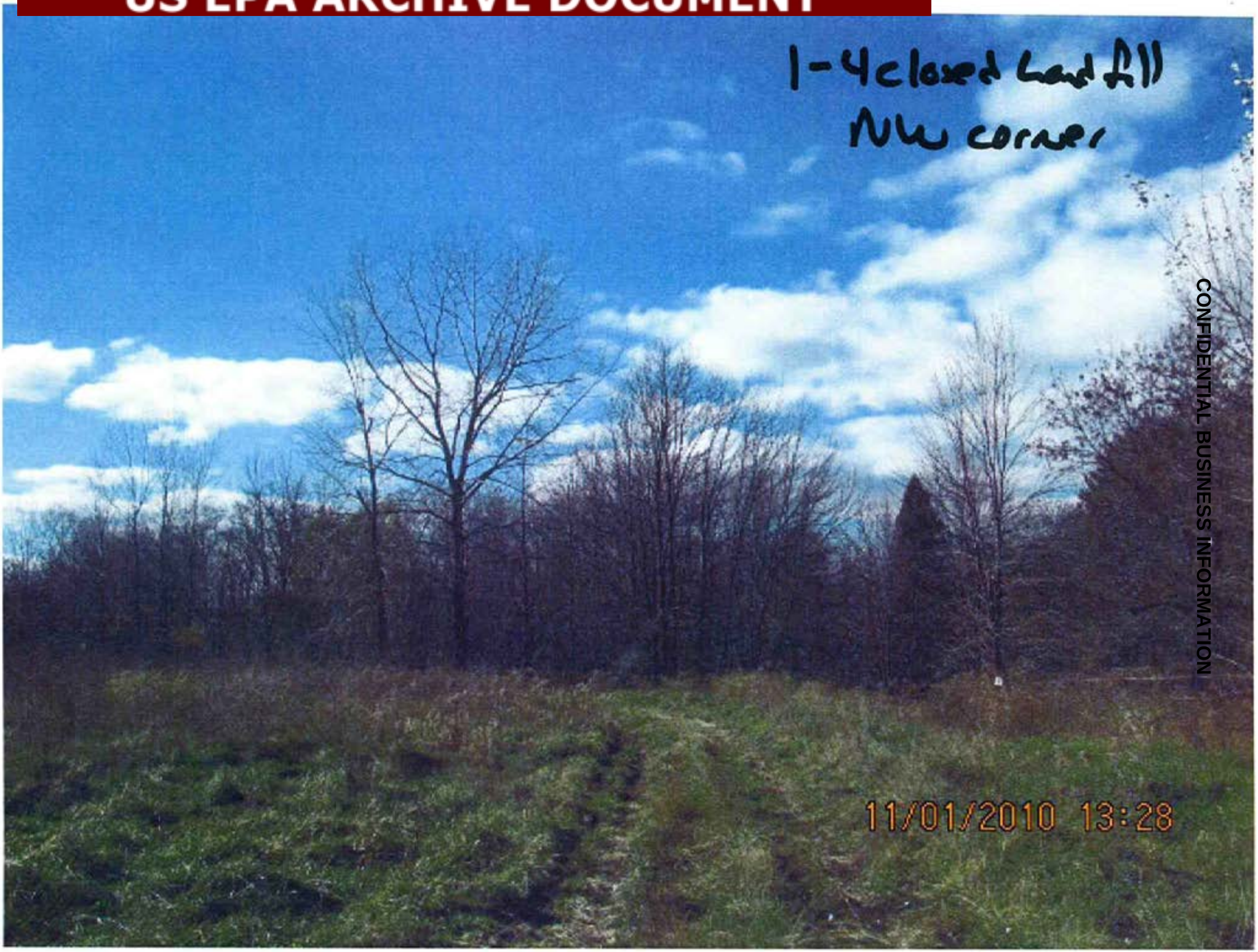
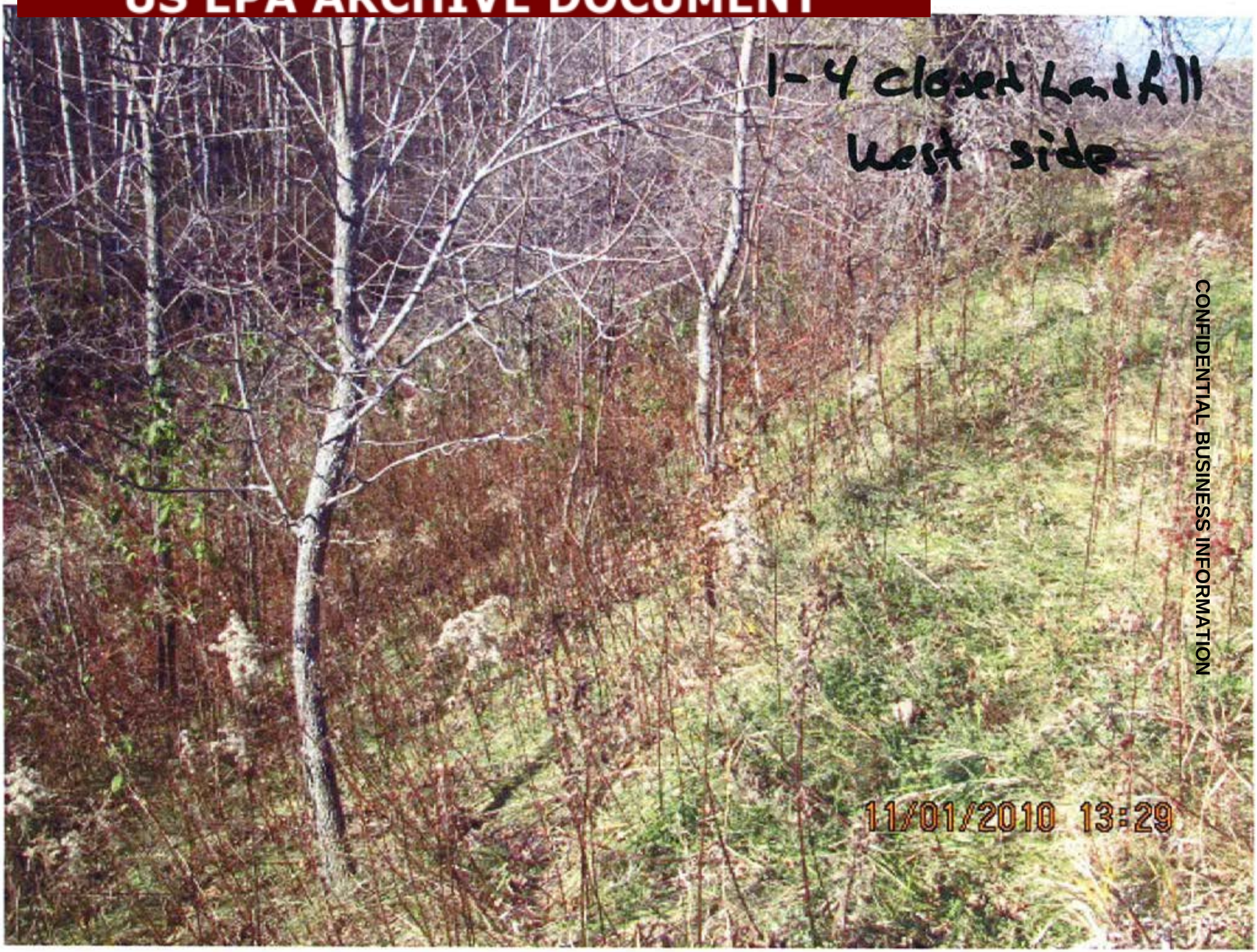
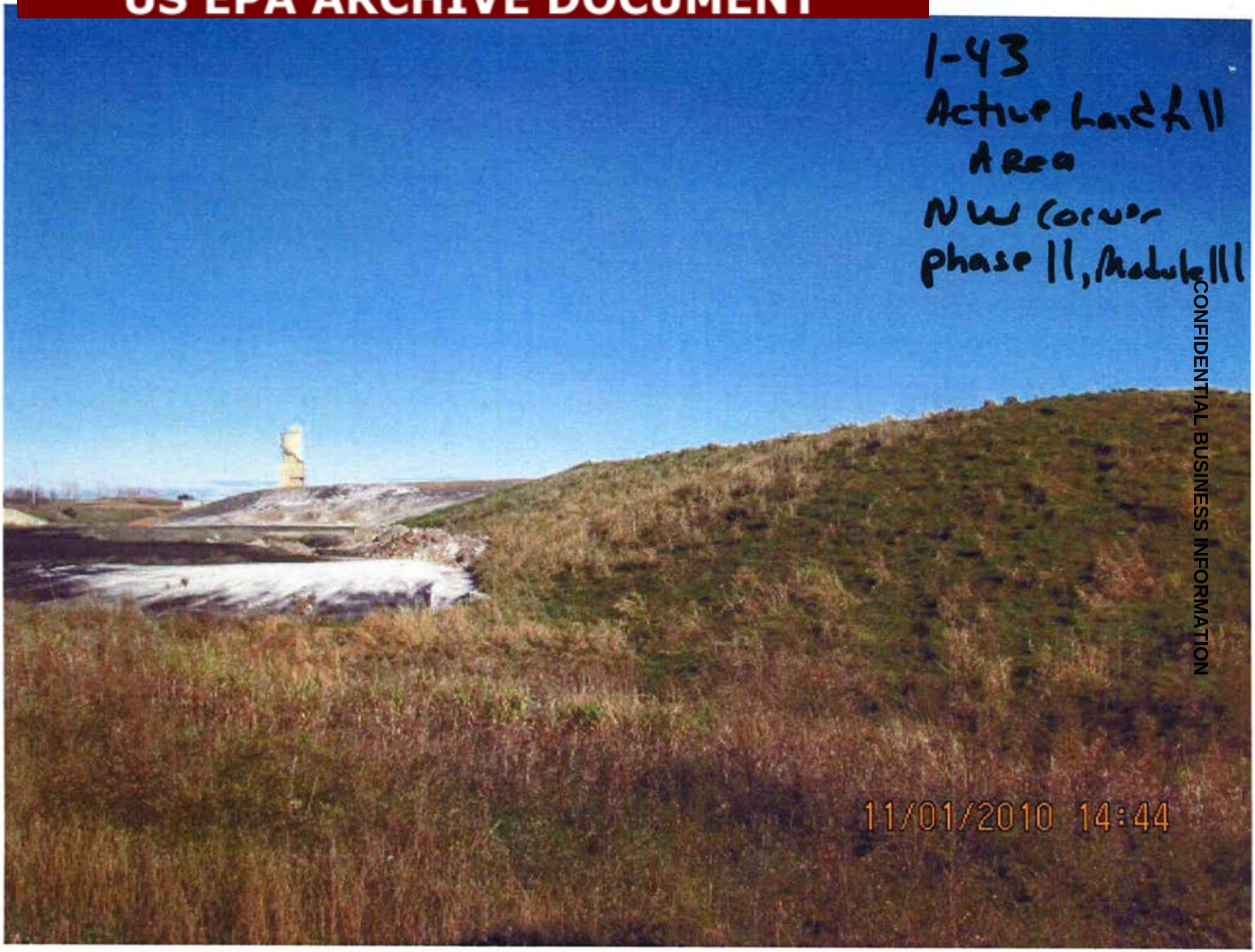
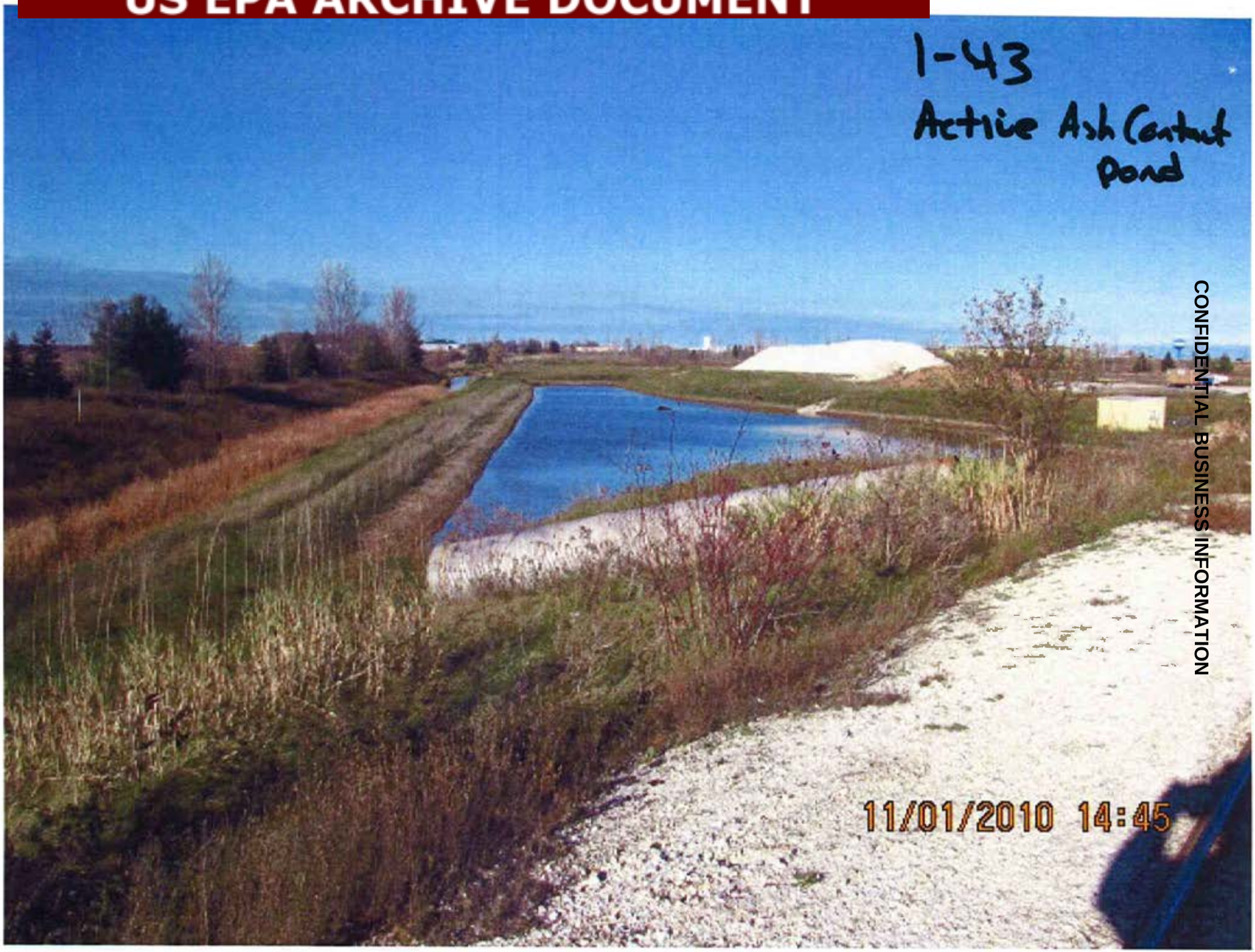


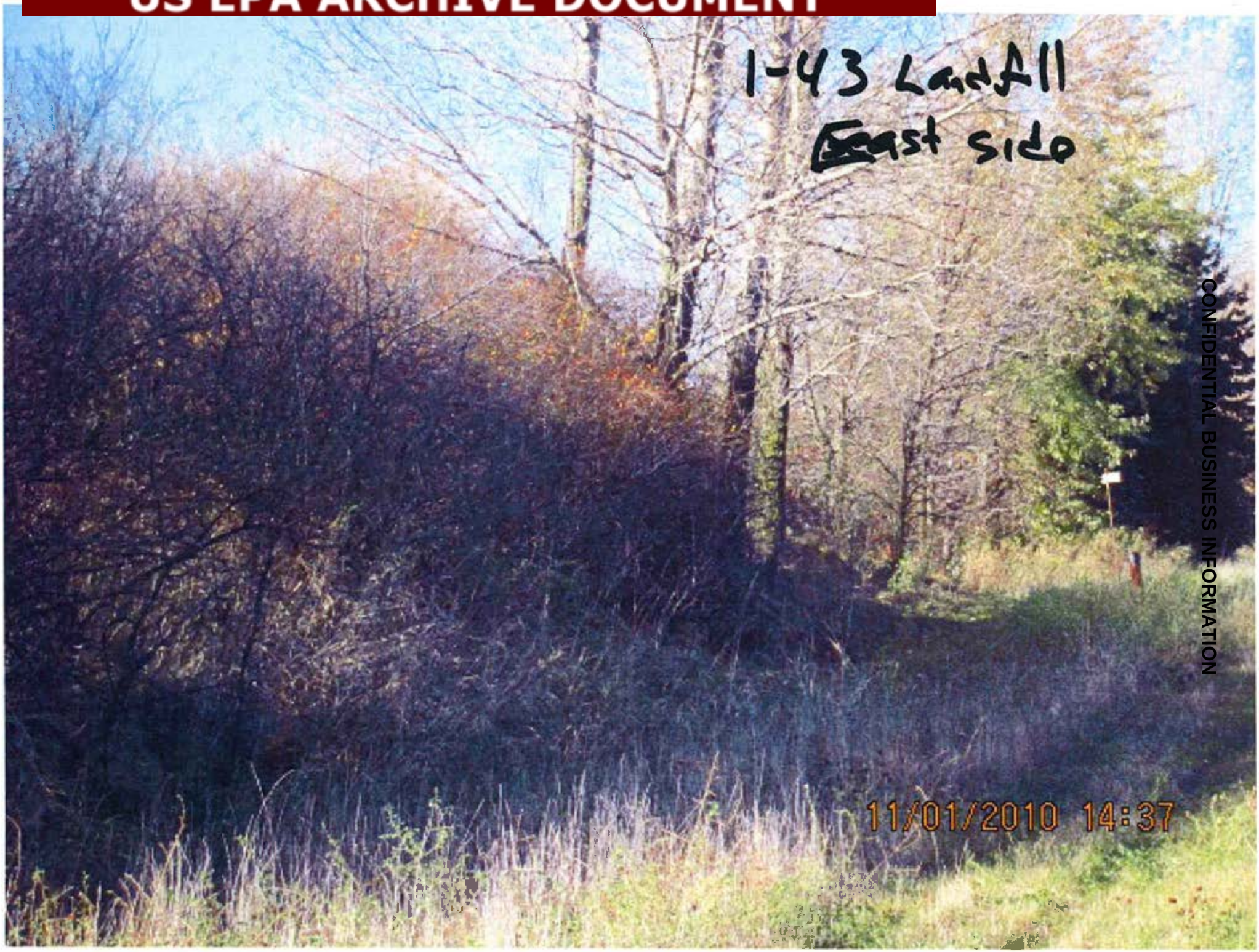


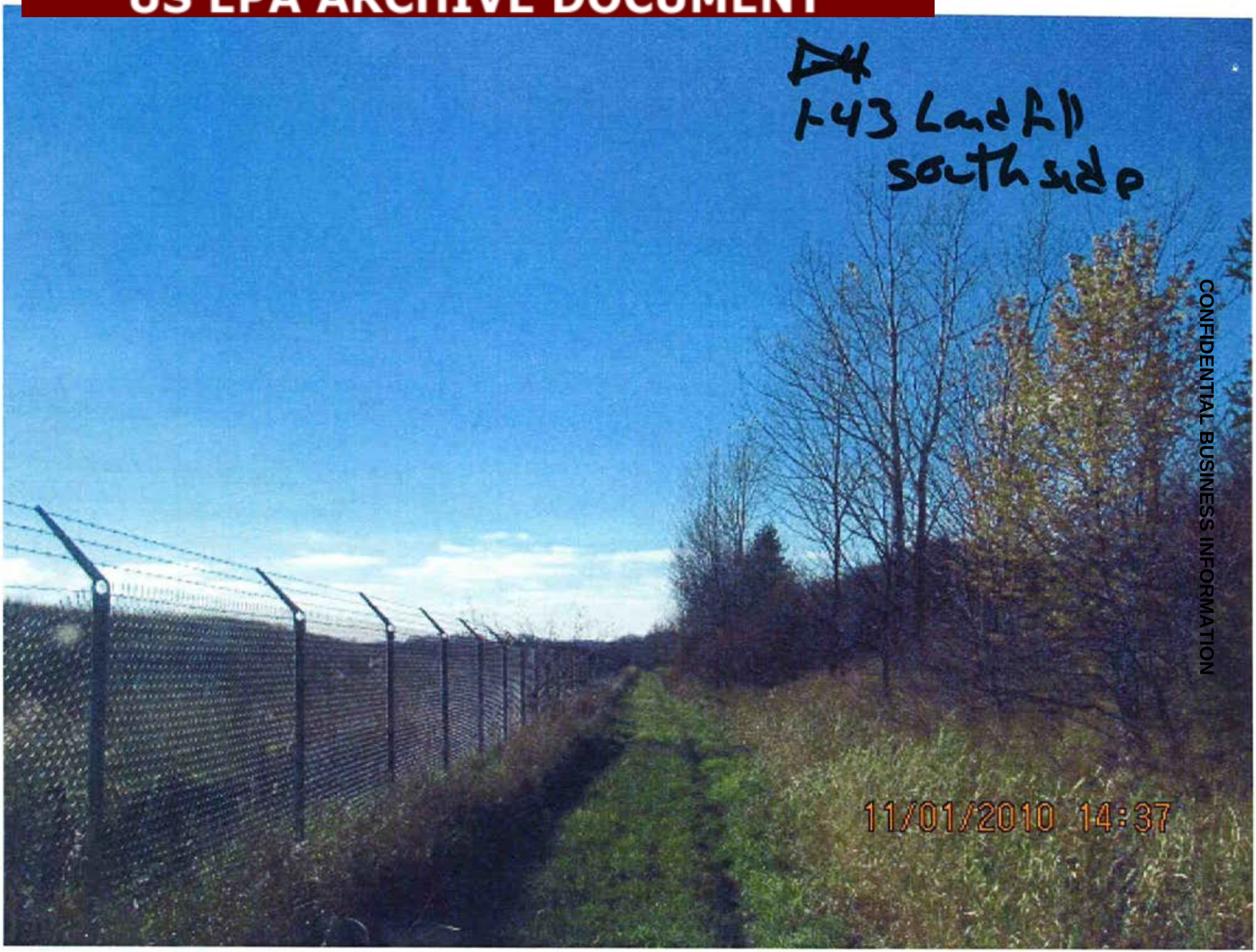


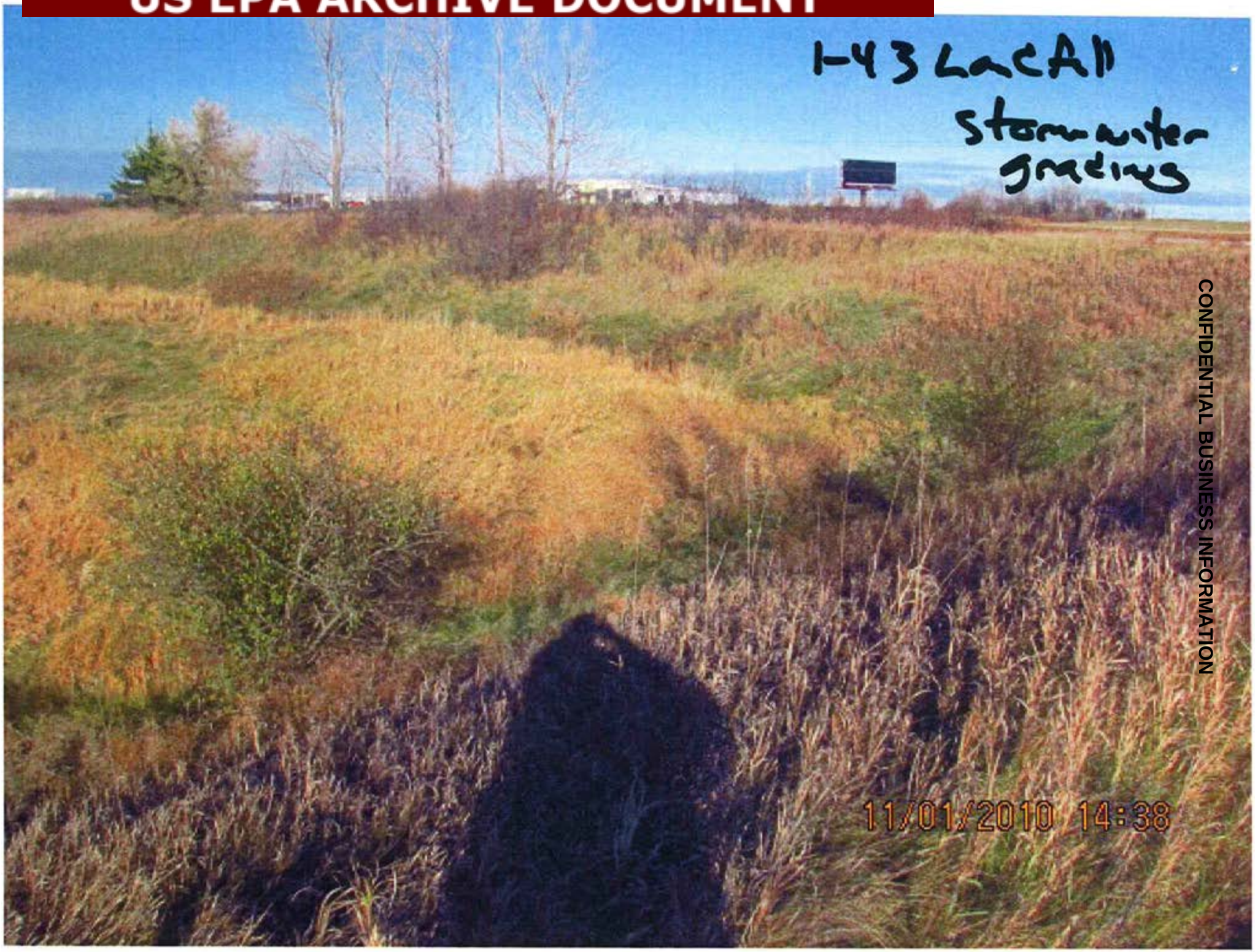


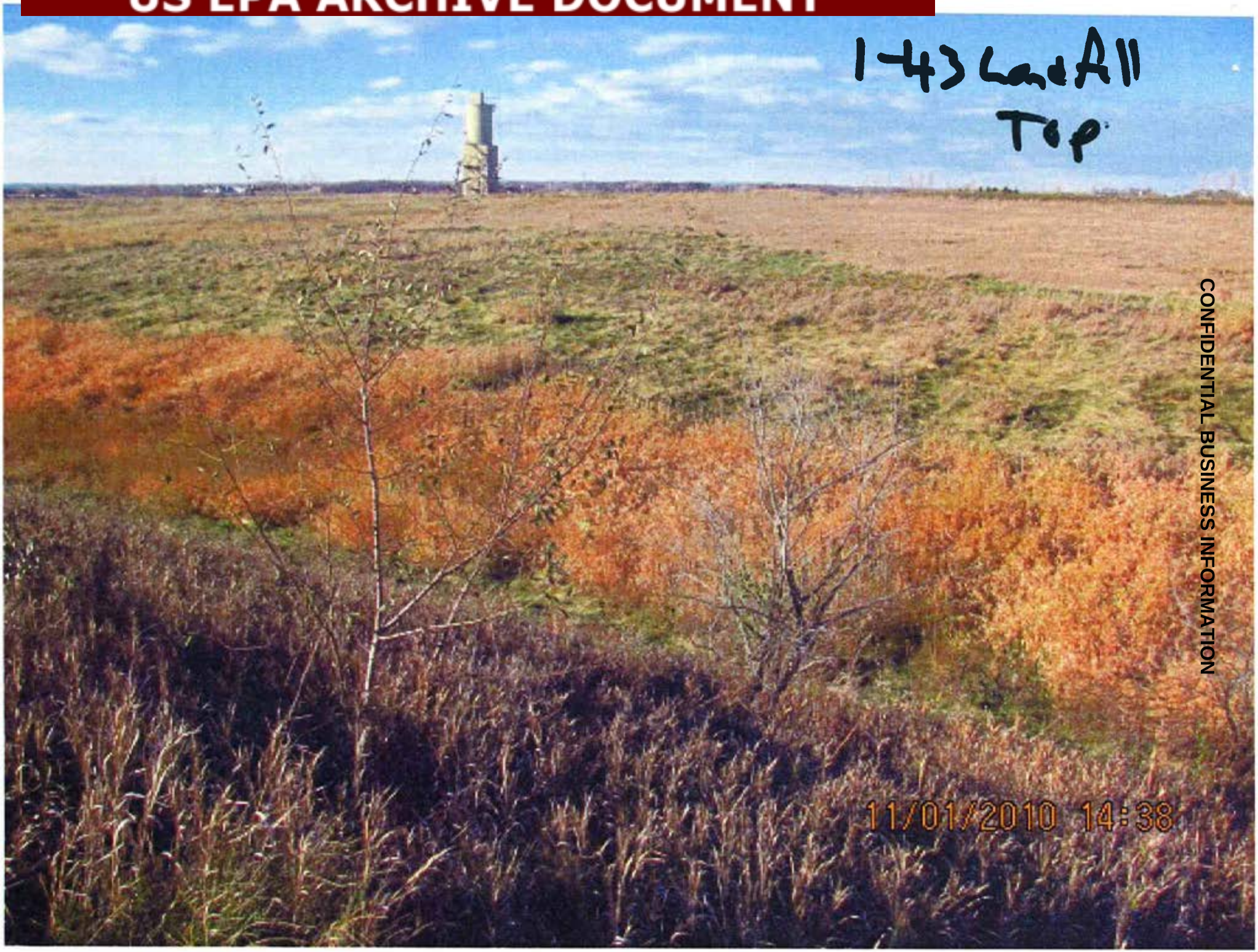


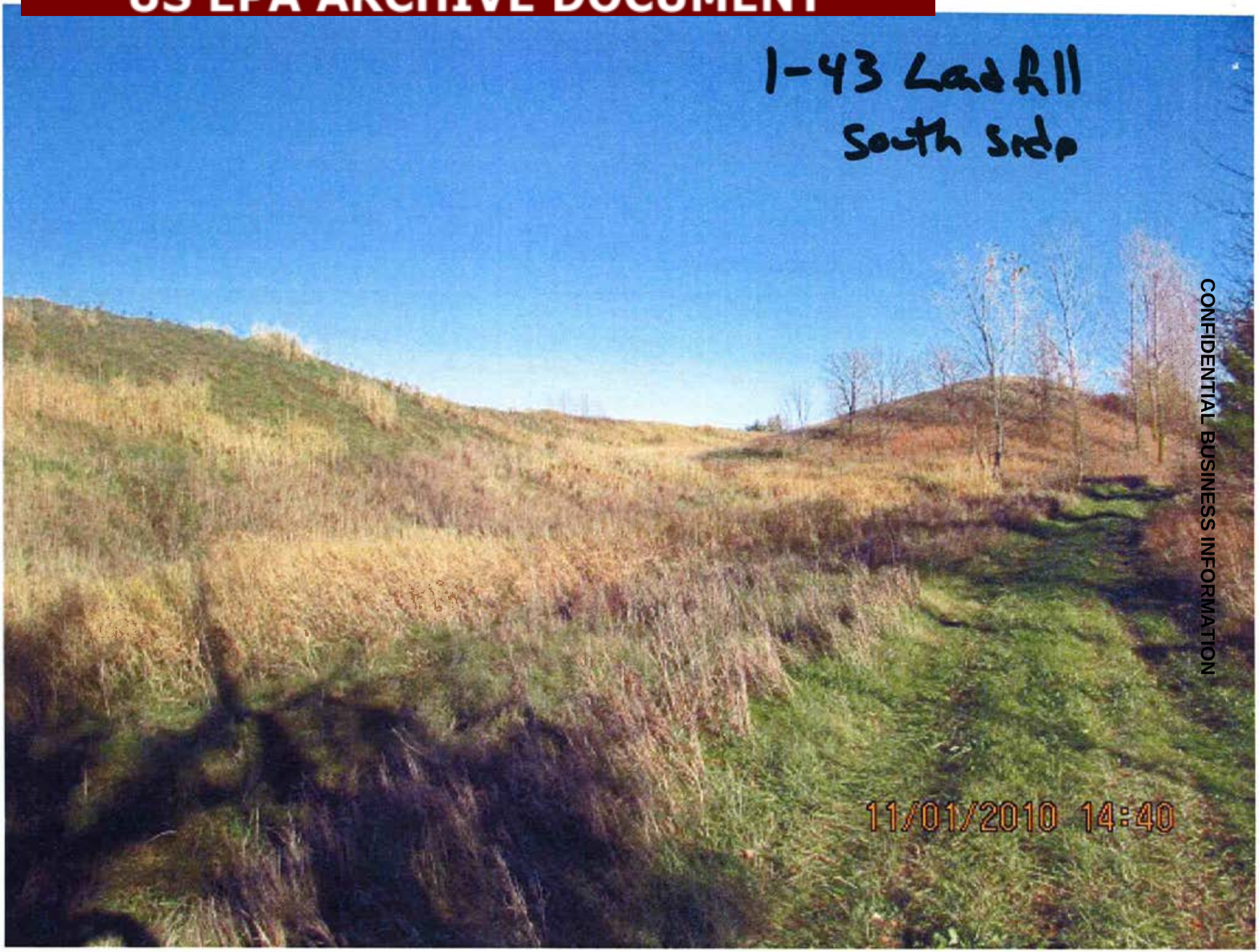


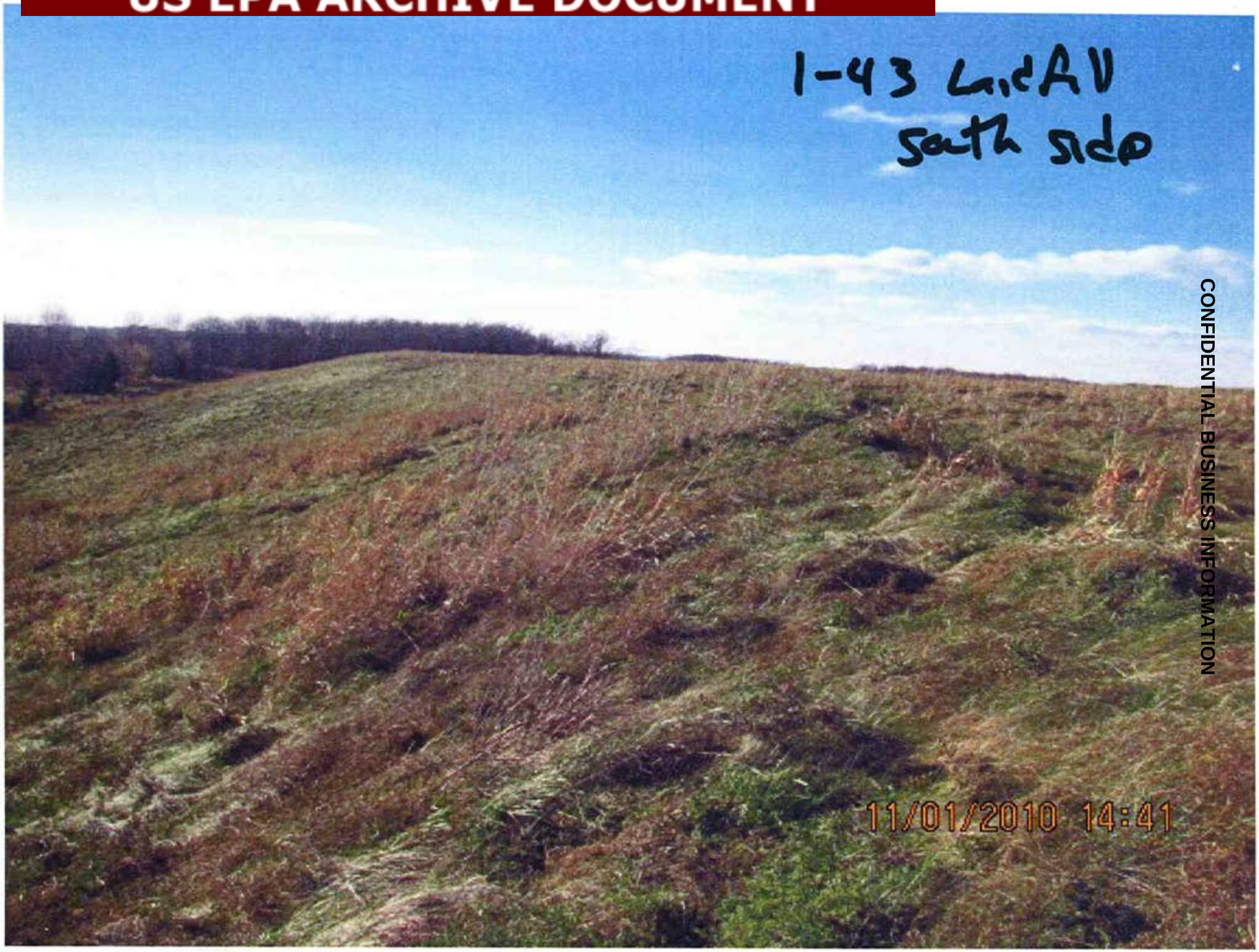


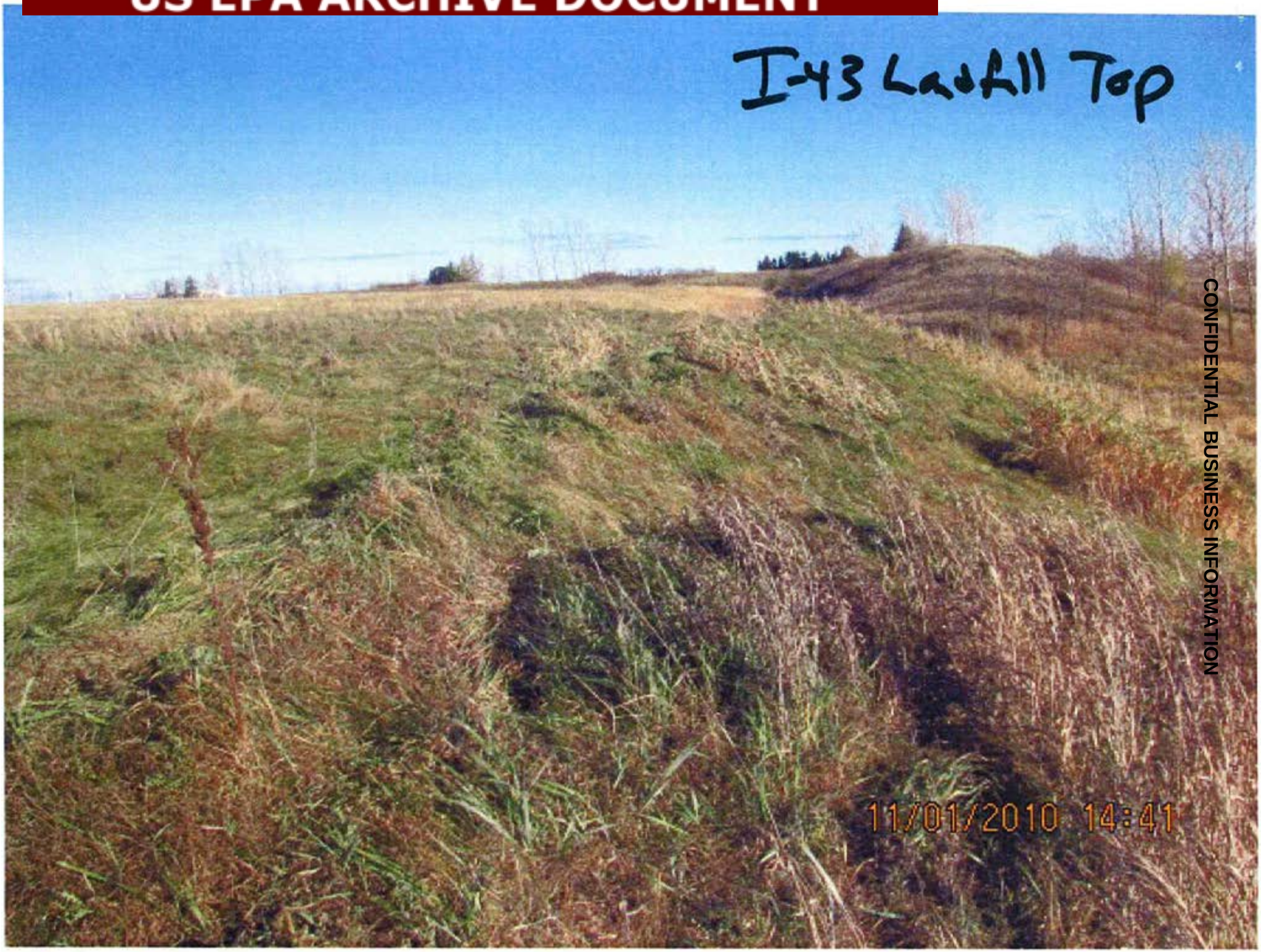


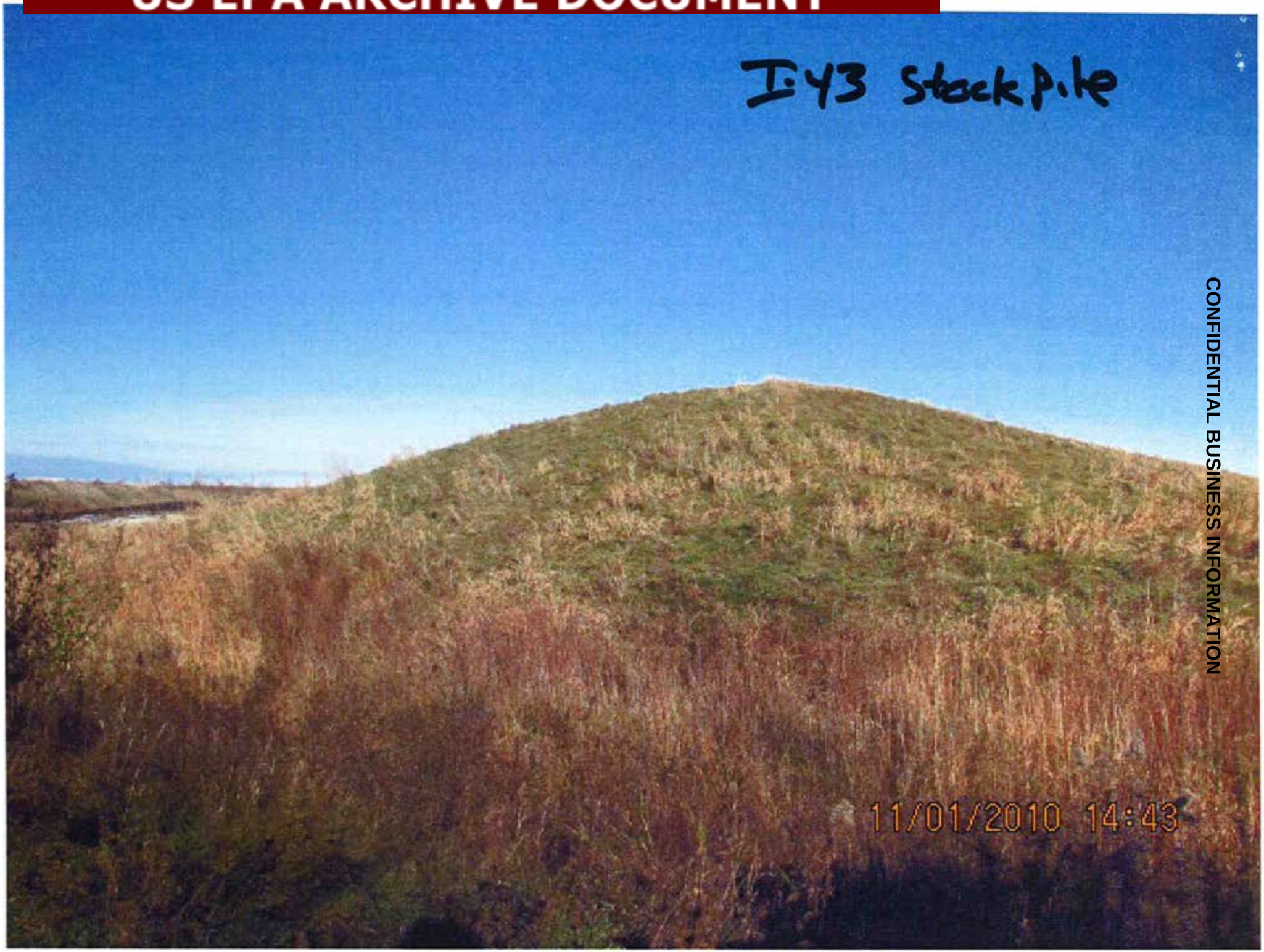








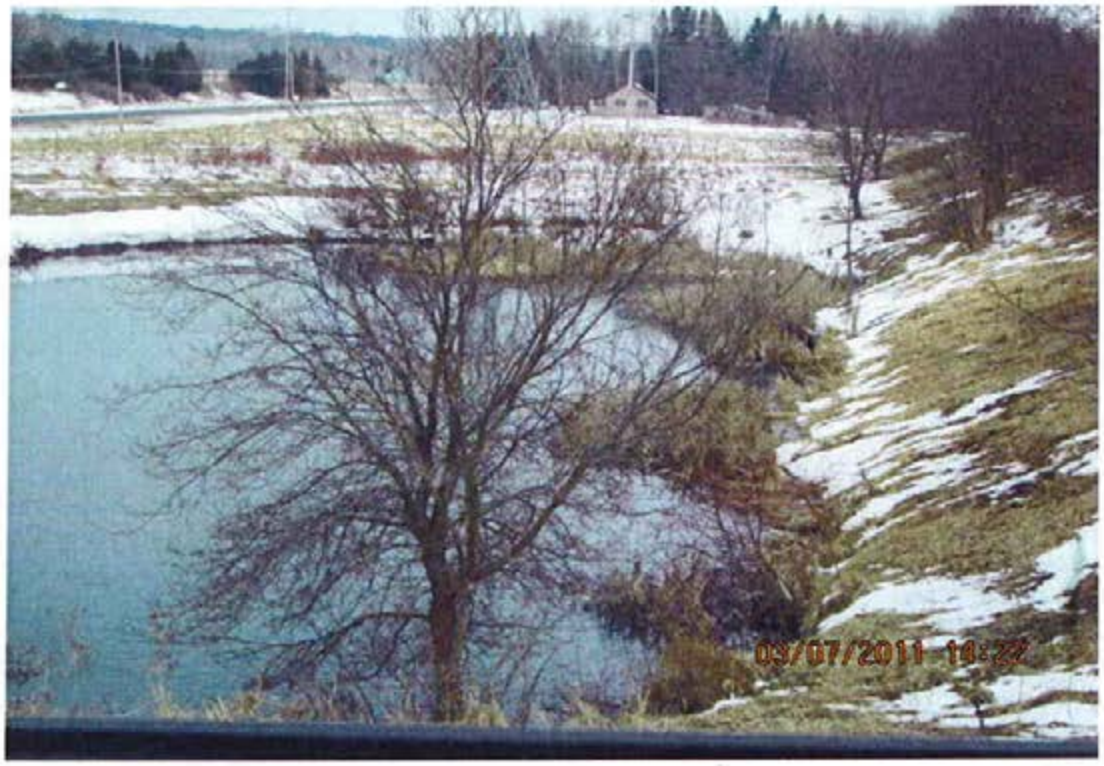




EDGEWATER GENERATING STATION

QUARTERLY VISUAL POND INSPECTION

March 7, 2011



Prepared by: Ted Shonts (E&S)
Reviewed by: Eric Sandvig (Plant Manager)
Reviewed by: David Anderson (Maint. Manager)
Reviewed by: Paul Gregor (Ops. Manager)
Reviewed by: Ray Springhetti (Elec. Maint. Manager)

Signature:

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION		
PLANT NAME: Edgewater Generating Station	DATE COMPLETED: Monday, March 07, 2011	LIST POND INSPECTED: Slag Pond: A, B, C, & F Ponds, Coal Pile Runoff and Slag Pond
INSPECTOR(S): List Below Ted Shonts	WEATHER CONDITIONS: Cloudy	
PLANT MANAGEMENT REVIEW (if applicable):	HIGH TEMP: 37°F	
	LOW TEMP: 35°F	
Plant Manager: Eric Snadvig	WIND: Calm	PRESS:
	SIGNATORY REVIEW:	
E&S Specialist: Ted Shonts		

Description: **March 7, 2011 Ted Shonts contucted quarterly pond inspection.**

*Note: (Initial inspection 4-27-2009), 7-9-2009, 11-2-200, 2-16-2010, 5-26-2010, 8-16-201, 11-1-2010, **3-7-2011***
*Tree Removal: Based on the GENCO Ash Pond Inspection Team; Alliant Energy Environmental Stewardship and Outreach Manager; and reference documents from the Army Corp of Engineers: Trees that are planted on top of or adjacent to the levee structure can result in significant damage. Trees that are blown over in high wind conditions, not only create a large void that can destabilize the levee or dike, but the root systems associated with the tree can result in preferred piping channels if the roots are pulled out of the dike or levee (such as if a tree is blown over in a strong wind storm.) To mitigate possible impacts of tree damage on levees or dikes, design and maintenance guidelines generally specify that trees be kept clear of the dike or levee structure. At Edgewater, we are not recommending the trees to be removed from the WPDES System, except the B Pond removed 8-1-0), due to fugitive dust issues at the site. In most cases, a failure of these dike walls present very low risk. However, the eastern dike wall of the A Ponds should be monitored since a failure in this particular dike wall poses the greatest risk. In addition, the GENCO Ash Pond Inspection Team is recommending that the closed flyash landfill dike walls be included in this inspection process (closed landfill ponds are included in these quarterly inspections). All pond berms were covered with a layer of snow. There was no evidence of leaking berms that would have been observed by the presence of melted snow. There were no signs of leaking berms or animal intrusions. Vegetative cover was satisfactory and sufficient in preventing erosion. Pond's water edge rip-rap was intact and adequate in protecting from wave erosion. There were no signs of leaking berms or animal intrusions. Vegetative cover was satisfactory and sufficient in preventing erosion. Pond's water edge rip-rap was intact and adequate in protecting from wave erosion. There was no sign of leaking from berms or animal intrusions. Vegetative cover was satisfactory and sufficient in preventing erosion. Pond's water edge rip-rap was intact and adequate in protecting from wave erosion. **Berms and stormwater runoff swales all appeared to be intake and functioning properly. Ash contact pond water level needs to be lowered for spring thaw and rainfall - regulatory approval being sought to construct emergency ash contact water storage to prevent ash contact pond overflow.***

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	07-Mar-11	I-43 Contact Water Basin
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Cloudy, 37°F	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW.	
Plant Manager: Eric Sandvig	See cover	
Operations Manager: John Weber	See cover	
Maintenance Manager: David Anderson	See cover	
E&S Specialist: Ted Shonts	See cover	

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED
Edgewater Generating Station	07-Mar-11	A Ponds
INSPECTOR(S): List Below	WEATHER CONDITIONS. Describe Weather Conditions	
Ted Shonts	Cloudy, 37°F	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager Eric Sandvig	See cover	
Operations Manager, John Weber	See cover	
Maintainence Manager David Anderson	See cover	
E&S Specialist Ted Shonts	See cover	

	Yes	No	Action Needed?
1. Dike Integrity			
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of eroison caused either by wind eroison; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED
Edgewater Generating Station	07-Mar-11	B Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Cloudy, 37°F	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Eric Sandvig	See cover	
Operations Manager: John Weber	See cover	
Maintenance Manager: David Anderson	See cover	
E&S Specialist: Ted Shonts	See cover	

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	removed 8-4-09
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	removed 8-4-09
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	07-Mar-11	C Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Cloudy, 37°F	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager: Eric Sandvig	See cover	
Operations Manager: John Welch	See cover	
Maintainence Manager: David Anderson	See cover	
E&S Specialist: Ted Shonts	See cover	

1. Dike Integrity	**Yes**	**No**	**Action Needed?**
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	plugged 7-27-09
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of eroison caused either by wind eroison; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

* That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	07-Mar-11	Coal Pile Retention Pond
INSPECTOR(S) List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Cloudy, 37°F	
PLANT MANAGEMENT REVIEW(if applicable). Spell Name	SIGNATORY REVIEW:	
Plant Manager: Eric Sandvig	See cover	
Operations Manager: John Weber	See cover	
Maintenance Manager: David Anderson	See cover	
E&S Specialist: Ted Shonts	See cover	

1. Dike Integrity	**Yes**	**No**	**Action Needed?**
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

* That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED:
Edgewater Generating Station	07-Mar-11	F Pond
INSPECTOR(S): List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Cloudy, 37°F	
PLANT MANAGEMENT REVIEW(if applicable): Spell Name	SIGNATORY REVIEW:	
Plant Manager Eric Sandvig	See cover	
Operations Manager John Weber	See cover	
Maintainence Manager David Anderson	See cover	
E&S Specialist Ted Shonts	See cover	

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion; storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

ALLIANT ENERGY SURFACE POND VISUAL INSPECTION

PLANT NAME:	DATE COMPLETED:	LIST POND INSPECTED
Edgewater Generating Station	07-Mar-11	Slag Pond
INSPECTOR(S) List Below	WEATHER CONDITIONS: Describe Weather Conditions	
Ted Shonts	Cloudy, 37°F	
PLANT MANAGEMENT REVIEW(if applicable) Spell Name	SIGNATORY REVIEW:	
Plant Manager Eric Sandvig	See cover	
Operations Manager: John Weber	See cover	
Maintenance Manager David Anderson	See cover	
E&S Specialist. Ted Shonts	See cover	

1. Dike Integrity	Yes	No	Action Needed?
Visual Signs of Animal Activity into the dike wall that may impact the integrity of the dike wall?		X	
Trees growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?	X		No
Any visual seeps of water through the dike wall?		X	
Any areas of soft soil/dead vegetation on the dike wall?		X	
Any areas of erosion caused either by wind erosion, storm water runoff into or outside the dike wall?		X	
Any evidence of ash pond water washing over the dike wall?		X	
Where applicable, are any of the valving or piping used to control the discharge from a pond leaking?		X	
Any ponding of water outside the dike wall? *		X	
2. Outfall Structure			
Any areas of erosion or animal activity near or at the entrance of the outfall structure or pipe that may cause wastewater to travel along the outside of the pipe?		X	
Any areas of erosion; animal activity; swirling of wastewater on the discharge side of the outfall structure that may impact the integrity of the dike or structure?		X	
Woody type shrubs growing on top or side of dike in which the root system may impact the integrity of the dike wall?		X	
3. Visable Solids			
Is there a build up of settled ash visible near the dike walls or discharge structure?		X	

*That is not normal. (Example: If a wetland or waterway exists on the outside of the dike wall.)

CONFIDENTIAL BUSINESS INFORMATION

NOTES or OBSERVATIONS

Provide a description of the issue or observation below:

ISSUE	Description and Location of Issue	Maximo Work Order #	Due Date	Date Completed
Trees	Remove trees on inside of western B Pond dike wall due to closed flyash liner.		12/31/2009	08/04/2009
Woody Shrubs	Remove trees on inside of western B Pond dike wall due to closed flyash liner.		12/31/2009	08/04/2009
Trees	Trees in the other ponds are not required to be removed due to fugitive dust concerns. However, the plant must inspect these areas for concerns, especially the eastern A Pond dike wall.	N/A	N/A	N/A
Animal	Gopher or Woodchuck holes were observed in the C Pond dike wall. The plant should remove the animal and fill the hole.	N/A	10/01/2009	07/27/2009
Closed Landfill	The flyash pond is a closed landfill that is equipped with berms. Due to potential movement of the ash and high ground water elevations, the berms of the landfill must be inspected at least on an annual basis.	Yes	Quarterly	Ongoing
Coal Pile Runoff Pond	The piping that transports water from the coal pile pond to the "F" pond drops the water about 8-ft above the "F" Pond water level. This pipe should be be lowered to allow a mimimun drop.	7085154	10/01/2009	Determined water level in "F" pond sufficiontly deep to cushion falling water.
Coal Pile Runoff Pond	Also, the plant needs to develop a procedure on when to start the coagulant pumps in the coal pile runoff pond.	N/A	As needed	Completed
Coal Pile Runoff Pond	Installed electrical service to run automatic coagulant feed system.	NA (Mineral Masters)	Awaiting DNR coagualnt approval	Underway
Coal Pile Runoff Pond	Reinstalled automatic feed pump and flow senor	NA (Mineral Masters)	Approved	Ongoing
I-43 Landfill	Ash Contact Pond water depth guage has been installed to guide drawdown activities. If maintained at 2' mark, pond will be able to withhold a 4" rain before overflowing.	N/A	N/A	Completed
I-43 Landfill	Ash Contact Pond water depth guage has been installed to guide drawdown activities. If maintained at 2' mark, pond will be able to withhold a 4" rain before overflowing.	N/A	N/A	Completed

Review this Sheet Prior to each Inspection: Reviewed 11-2-09

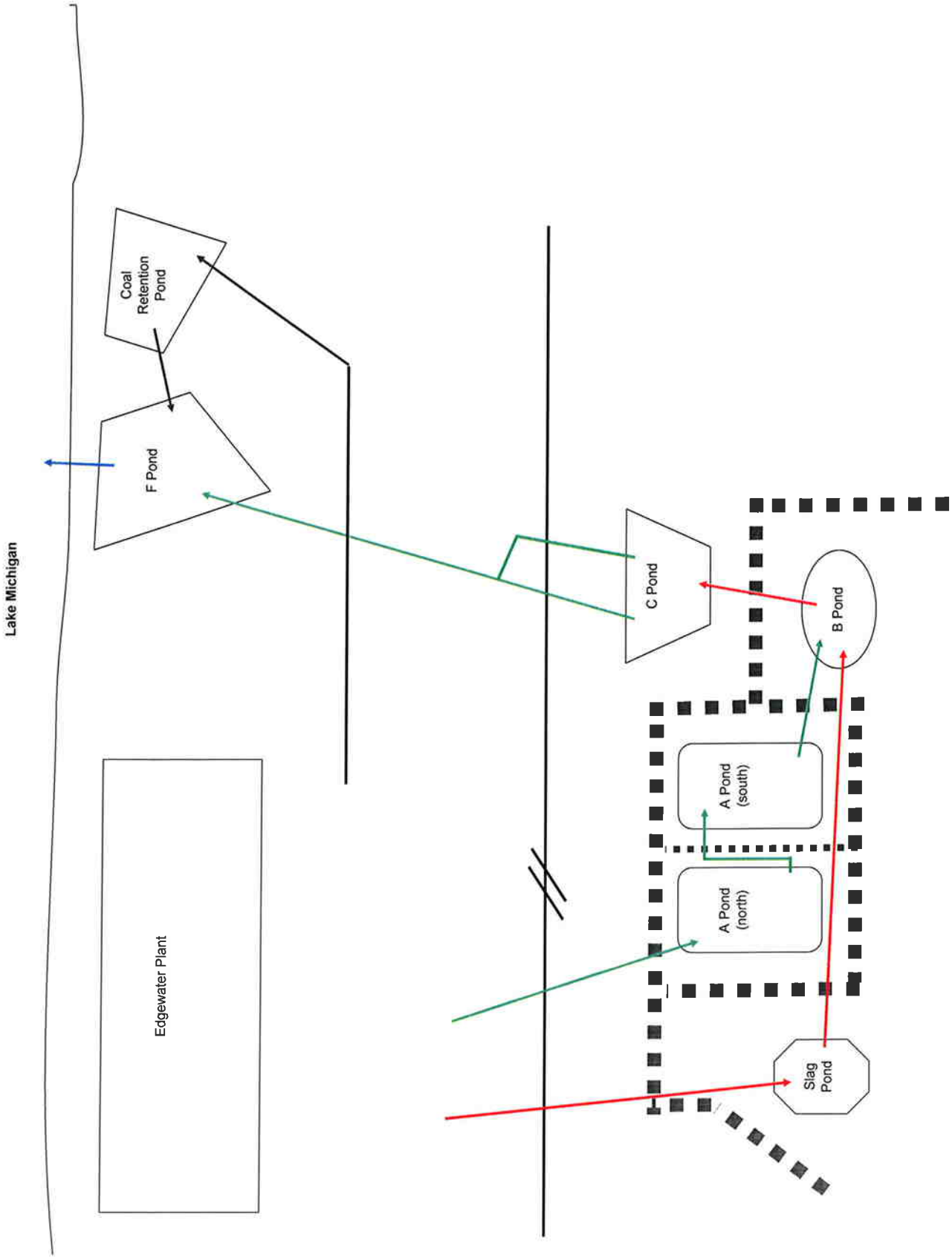
CONFIDENTIAL BUSINESS INFORMATION

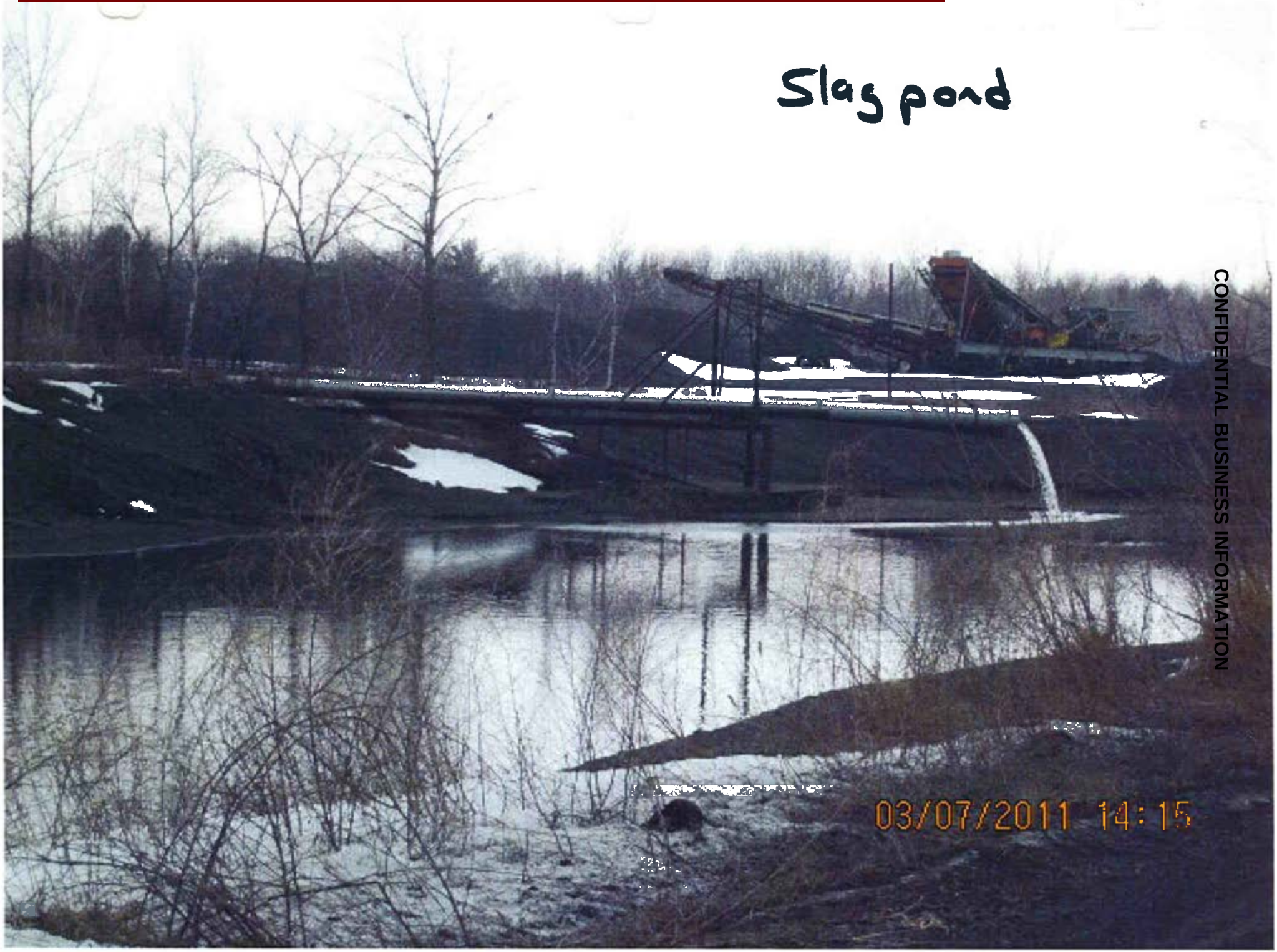
INSPECTION FORM INSTRUCTIONS

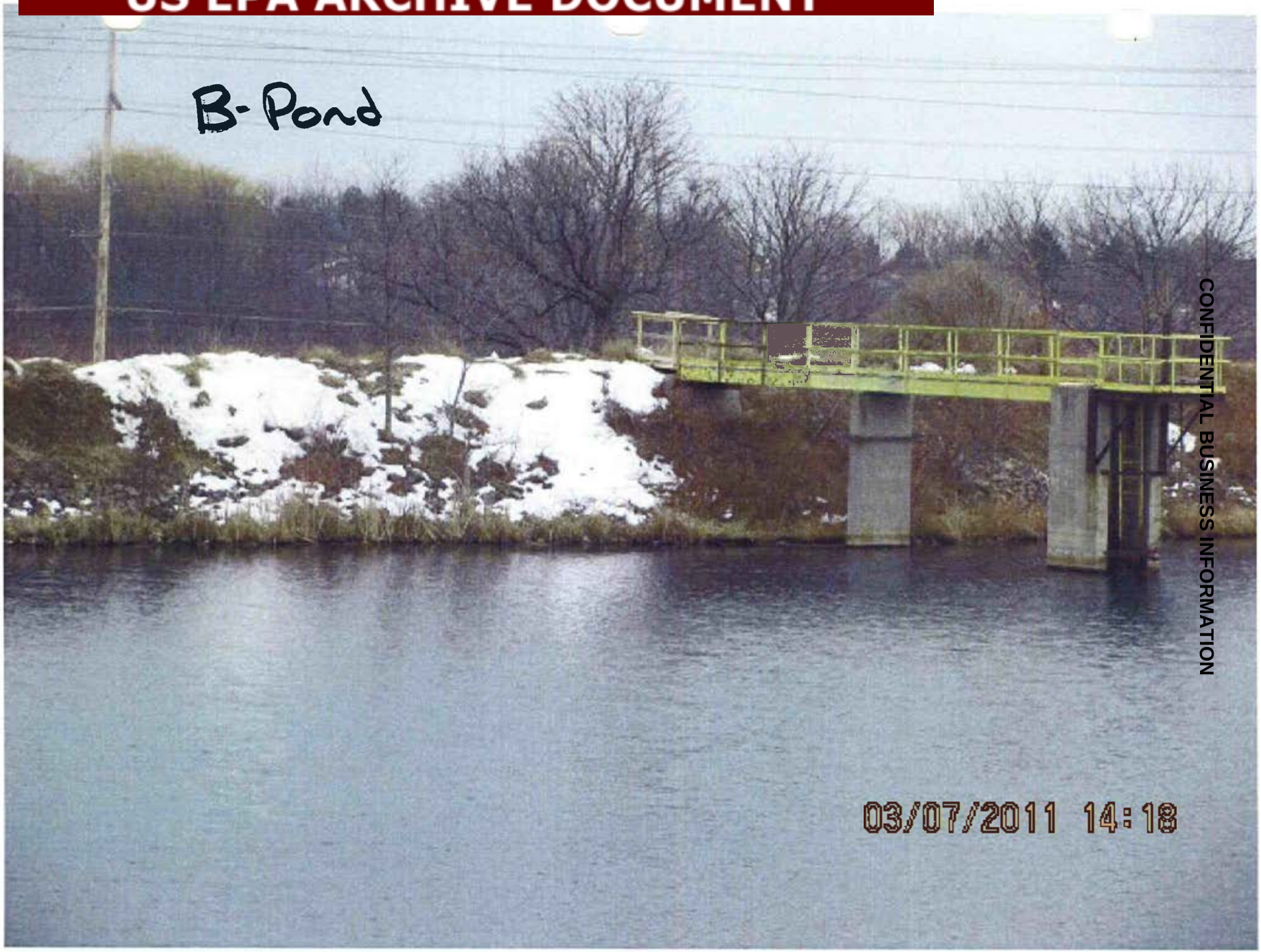
1)	**Plant Name**	Insert name of facility being inspected
2)	**Date**	List date of when inspection was completed
3)	**List Pond Inspected**	List plant name of pond being inspected. For plants with multiple ponds, use one inspection form per pond. Example: Coal Pile Runoff Pond
4)	**Inspectors**	List name of employee(s) who performed the inspection
5)	**Weather Conditions**	List the current weather conditions (cloud cover/precip/temp/wind strength) If there was a substantial rain or runoff event, please note as well
6)	**Plant Mgmt Review**	Plant Management staff is required to review and sign off on the inspection form. It is advisible that 1 member of the plant management team review the report with the inspector(s)
7)	**Signatory Review**	Each plant management staff must sign off on the report
8)	**Inspection Process**	Physically walk around each side of the pond looking for conditions present on the report Answer each question and note any issues on page 2. If any issue is discovered, please note the location of the area in question and the steps taken to resolve the issue Examples: For animal caused issues, contracted with a Alliant Approved Company to remove/relocate the animals For erosion/dead vegetation issues, filled in the area and applied grass seed For large trees and woody shrubs, removed or cut down the trees/shrubs For wind erosion, used clean rip/rap to prevent futher erosion For seepage/dike integrity issues, try to determine the source of the issue and eliminate. If seepage continues, may need to perform soil structual analysis and repair dike.

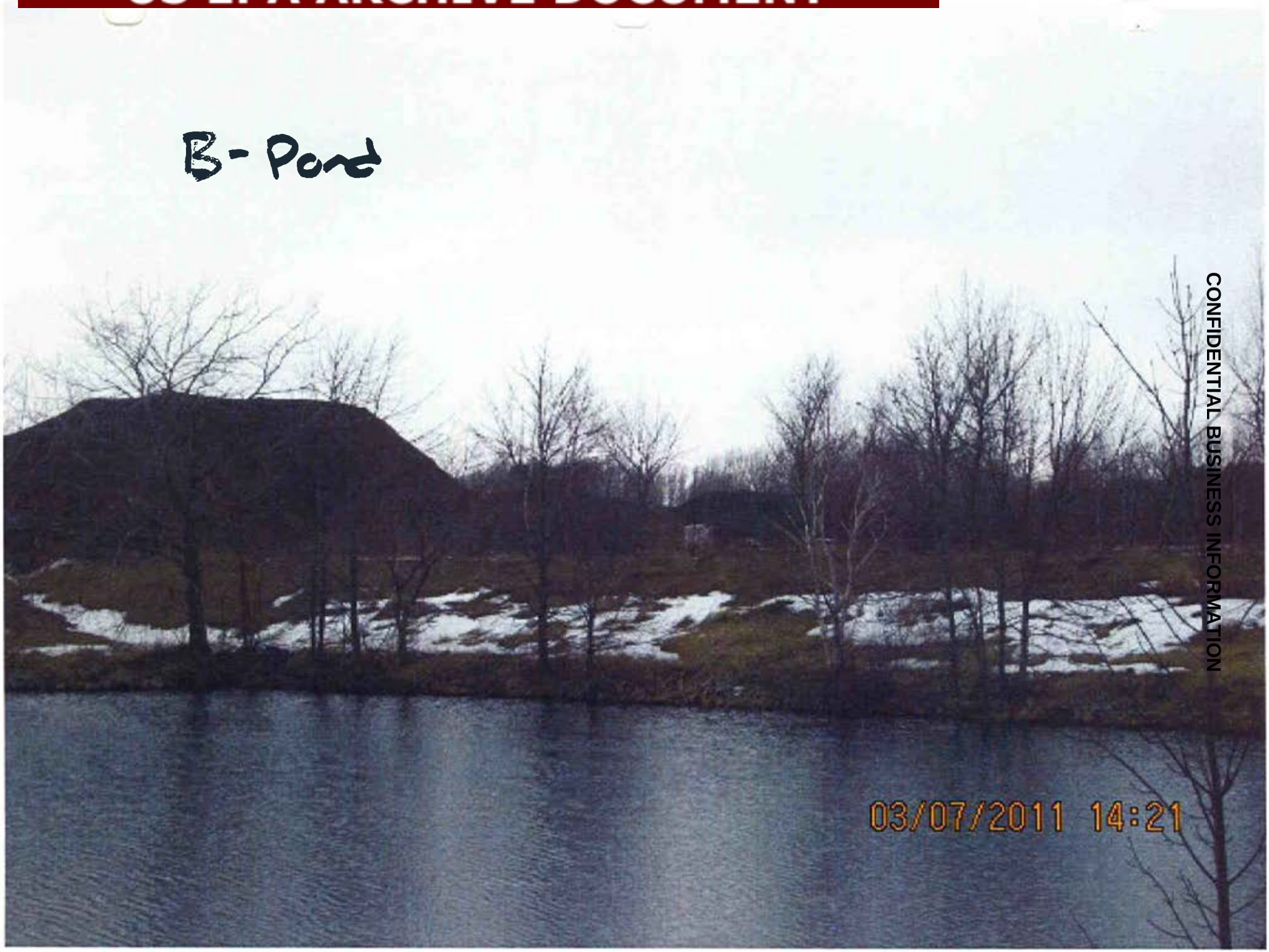
INSPECTION PROCESS	
Inspection Frequency	Minimum inspection frequency is as follow Spring/Summer/Fall. Inspections can be combined with other inspections
Additional Inspection Frequencies	In addition to item #1 above, inspections should take (at the discretion of the Plant Manager) during these events Large Rain Event or meltoff and flood events (other than typical spring events)
Pictures	Pictures are a great opportunity to capture existing conditions and allows a site to compare from year to year Pictures shall be taken during the initial inspection and then during each Spring Inspection Pictures shall be taken at the same location each year. These areas will be defined during the initial inspection Pictures shall be taken to show areas of concern that are observed during each inspection and attached to the report
Addressing Items of Concern	Inspectors will review the pictures and the inspection form with Plant Management Staff. Decisions shall be made to address the current issue. Corporate Environmental shall be contacted regarding the issue, review of solutions, and determine if any type of Permitting or Approval is required, prior to commencing the work, from the State Agency; Federal Agencies; or County Agencies Engineering shall be contacted regarding structural concerns of a dike or what might the impact be to the integrity of the Dike if a trees or other living objects are removed (root concerns)
Review of Records	Prior to a new year of inspections, plant staff shall review the previous year inspections to review past issues and if they were resolved Total Suspended Solids (TSS) analysis from past Discharge Monitoring Reports shall be reviewed each year to determine if the ponds require more intensive dredging

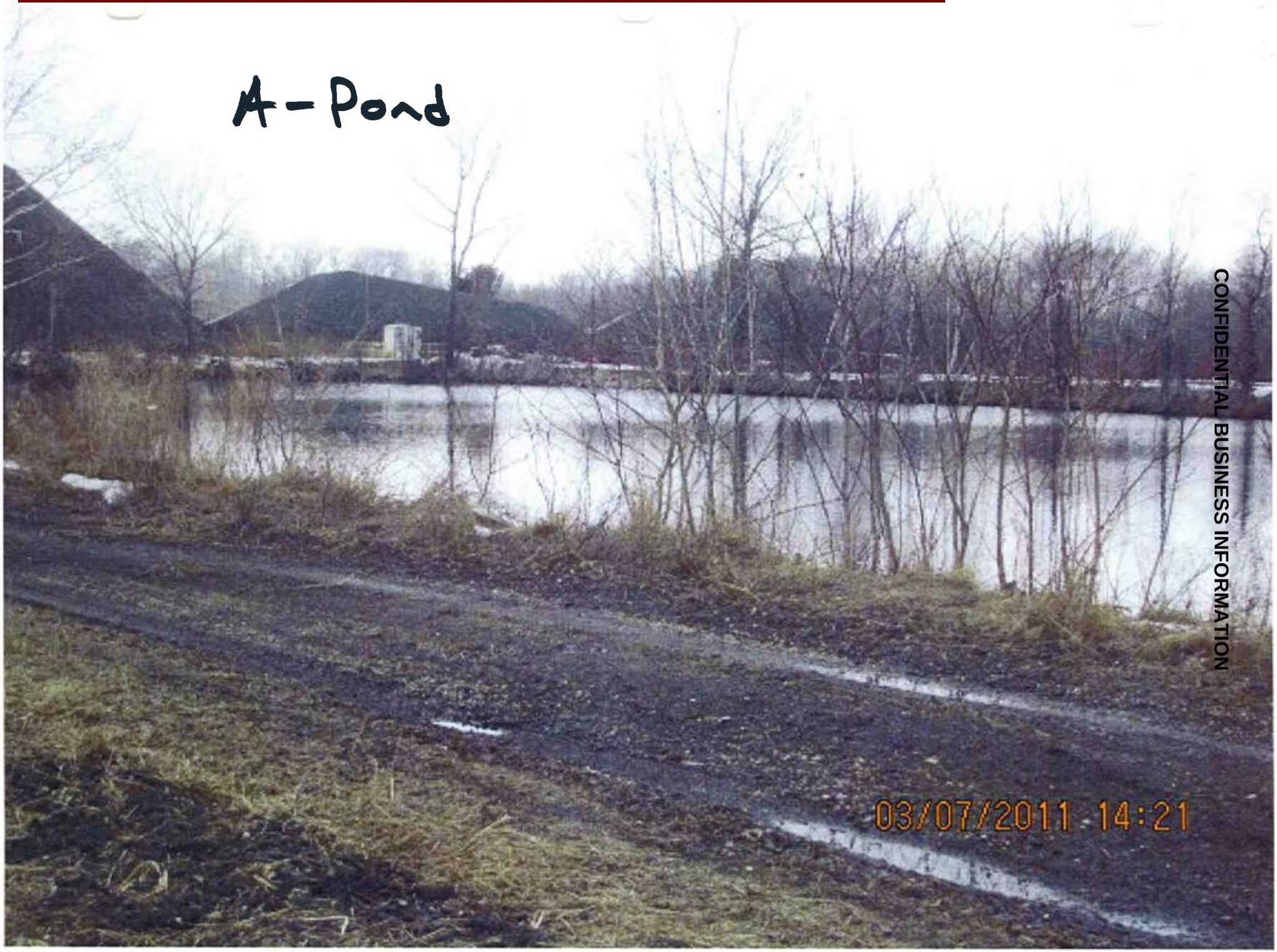
CONFIDENTIAL BUSINESS INFORMATION

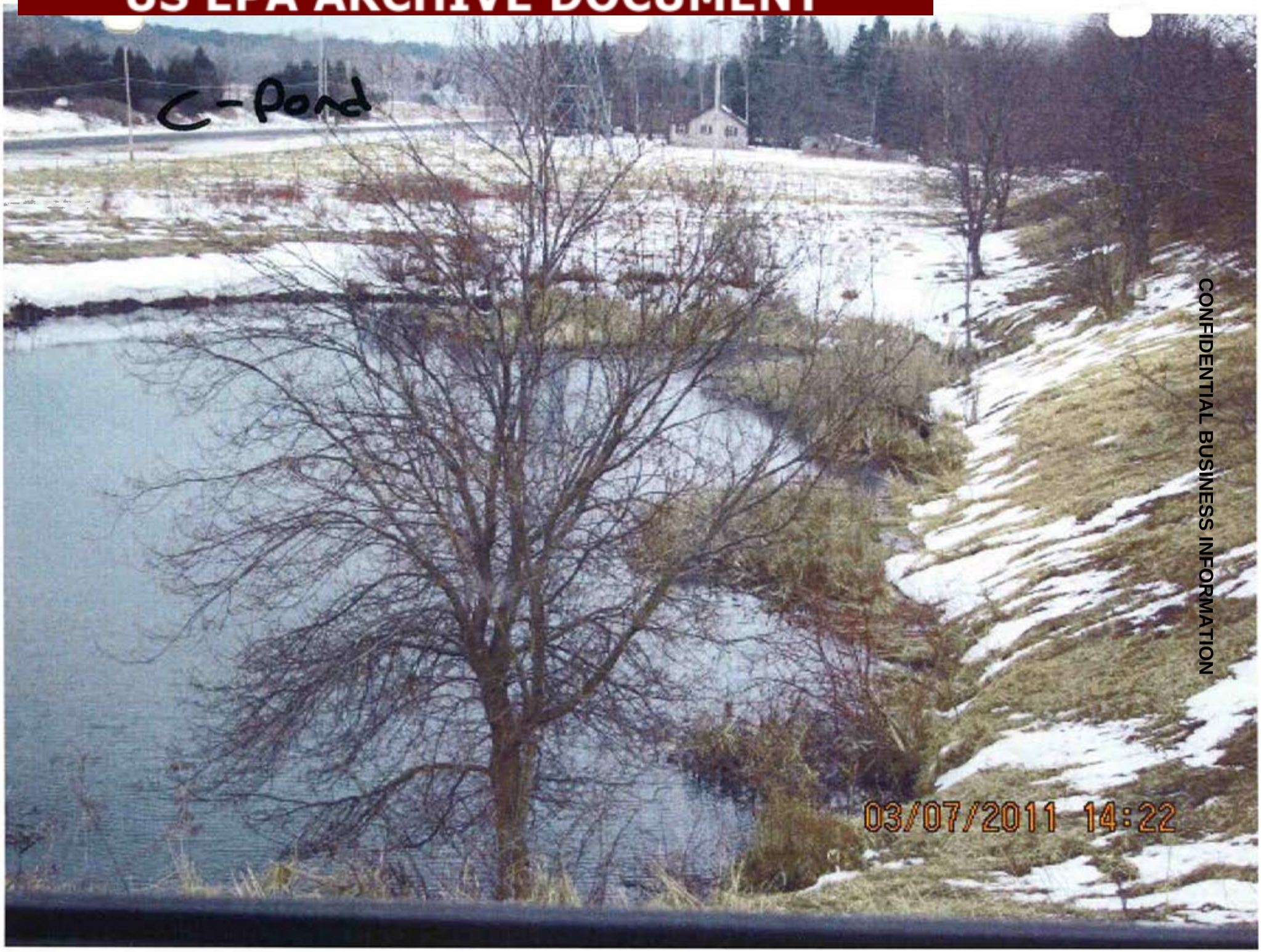












APPENDIX F

PHOTOGRAPHS

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
1	5/31/11

Direction Photo Taken:
East

Description:
Upstream slope of the Slag Pond with the discharge pipe trestle in the background.

Photo No.	Date:
2	5/31/11

Direction Photo Taken:
East

Description:
Upstream slope of the Slag Pond with the discharge pipe trestle.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
3	5/31/11

Direction Photo Taken:
East

Description:
Upstream slope of the Slag Pond.

Photo No.	Date:
4	5/31/11

Direction Photo Taken:
Southwest

Description:
Upsteam slope of the Slag Pond.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
5	5/31/11

Direction Photo Taken:
North

Description:
Upstream slope of the Slag Pond.

Photo No.	Date:
6	5/31/11

Direction Photo Taken:
West

Description:
Upstream slope of the Slag Pond.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
7	5/31/11

Direction Photo Taken:
East

Description:
Upstream slope of the Slag Pond.

Photo No.	Date:
8	5/31/11

Direction Photo Taken:
South

Description:
Upstream slope of the Slag Pond.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
9	5/31/11

Direction Photo Taken:
East

Description:
Crest of the Slag Pond.

Photo No.	Date:
10	5/31/11

Direction Photo Taken:
South

Description:
Crest of the Slag Pond.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
11	5/31/11

Direction Photo Taken:
North

Description:
Crest and upstream slope of the Slag Pond.

Photo No.	Date:
12	5/31/11

Direction Photo Taken:
West

Description:
Crest and upstream slope of the Slag Pond.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
13	5/31/11

Direction Photo Taken:
West

Description:
Downstream slope of the northern embankment of the Slag Pond.

Photo No.	Date:
14	5/31/11

Direction Photo Taken:
East

Description:
Downstream slope and toe of the Slag Pond.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
15	5/31/11

Direction Photo Taken:
West

Description:
Downstream slope and toe of the Slag Pond.

Photo No.	Date:
16	5/31/11

Direction Photo Taken:
West

Description:
Downstream slope and toe of the Slag Pond.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
17	5/31/11

Direction Photo Taken:
West

Description:
Cast-in-place concrete retaining wall on western portion of the downstream slope of Slag Pond.

Photo No.	Date:
18	5/31/11

Direction Photo Taken:
West

Description:
Cast-in-place concrete retaining wall on western portion of the downstream slope of Slag Pond.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
19	5/31/11

Direction Photo Taken:
South

Description:
Cracking in the concrete retaining wall along the downstream slope of the Slag Pond.

Photo No.	Date:
20	5/31/11

Direction Photo Taken:
East

Description:
Top of the concrete retaining wall.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
21	5/31/11

Direction Photo Taken:
South

Description:
Decant structure in the southwest corner of the Slag Pond.

Photo No.	Date:
22	5/31/11

Direction Photo Taken:
South

Description:
Decant structure in the southwest corner of the Slag Pond.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
23	5/31/11

Direction Photo Taken:
East

Description:
Upstream slope of the North Pond A.

Photo No.	Date:
24	5/31/11

Direction Photo Taken:
Southwest

Description:
Upstream slope of the North Pond A.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
25	5/31/11

Direction Photo Taken:
West

Description:
Crest and Upstream slope of North Pond A and South Pond A.

Photo No.	Date:
26	5/31/11

Direction Photo Taken:
East

Description:
Crest and Upstream slope of North Pond A and South Pond A.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No. 27	Date: 5/31/11

Direction Photo Taken:
Northeast

Description:
Crest and Upstream slope of North Pond A.

Photo No. 28	Date: 5/31/11

Direction Photo Taken:
North

Description:
Sluice pipes for transporting water and Coal Combustion Waste from the plant.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
29	5/31/11

Direction Photo Taken:
North

Description:
Sluice pipes where they penetrate the embankment to the North Pond A.

Photo No.	Date:
30	5/31/11

Direction Photo Taken:
South

Description:
Valves to control flow of water to North Pond A and South Pond A.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
31	5/31/11

Direction Photo Taken:
West

Description:
Sluice pipes and valves at the discharge point in the North Pond A..

Photo No.	Date:
32	5/31/11

Direction Photo Taken:
Southwest

Description:
Discharge of transport water into the North Pond A.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No. 33	Date: 5/31/11

Direction Photo Taken:
South

Description:
Downstream slope and toe of the North Pond A.

Photo No. 34	Date: 5/31/11

Direction Photo Taken:
East

Description:
Flume where discharge from North Pond A and South Pond A converge and flow to Pond B.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
35	5/31/11

Direction Photo Taken:
North

Description:
Discharge pipe from North Pond A into flume.

Photo No.	Date:
36	5/31/11

Direction Photo Taken:
South

Description:
Discharge pipe from South Pond A into flume.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
37	5/31/11

Direction Photo Taken:
West

Description:
Concrete flume conveying water from North Pond A and South Pond A.

Photo No.	Date:
38	5/31/11

Direction Photo Taken:
West

Description:
Concrete flume conveying water from North Pond A and South Pond A.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No. 39	Date: 5/31/11

Direction Photo Taken:
East

Description:
Decant pipe in the North Pond A.

Photo No. 40	Date: 5/31/11

Direction Photo Taken:
Northwest

Description:
Upstream slope of the South Pond A.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
41	5/31/11

Direction Photo Taken:
Northwest

Description:
Upstream slope of the South Pond A.

Photo No.	Date:
42	5/31/11

Direction Photo Taken:
West

Description:
Upstream slope and crest of South Pond A.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
43	5/31/11

Direction Photo Taken:
Northeast

Description:
Upstream slope of the South Pond A.

Photo No.	Date:
44	5/31/11

Direction Photo Taken:
North

Description:
Upstream slope and decant pipe in the South Pond A.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
45	5/31/11

Direction Photo Taken:
North

Description:
Downstream slope and crest of the South Pond A.

Photo No.	Date:
46	5/31/11

Direction Photo Taken:
West

Description:
Crest of the embankment between South Pond A and Pond C.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
47	5/31/11

Direction Photo Taken:
East

Description:
Crest of the embankment between South Pond A and Pond B.

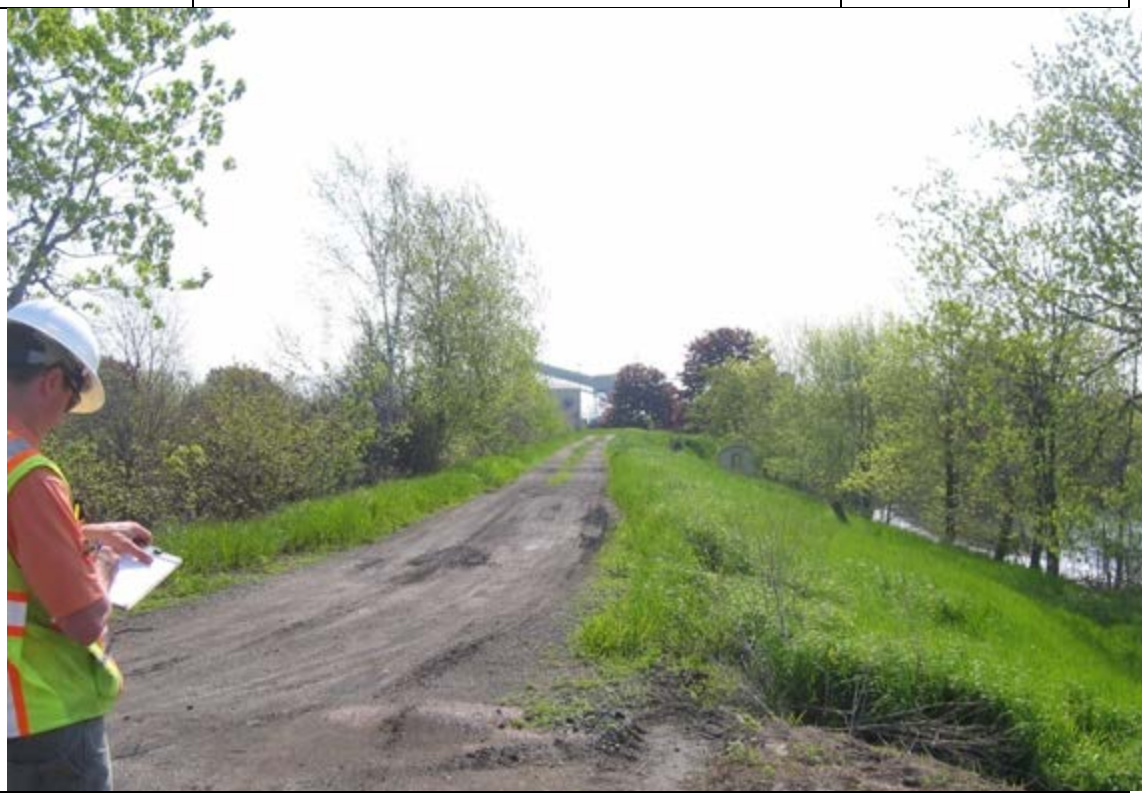


Photo No.	Date:
48	5/31/11

Direction Photo Taken:
South

Description:
Downstream slope of South Pond A.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
49	5/31/11

Direction Photo Taken:
Northeast

Description:
Discharge pipes into South Pond A.

Photo No.	Date:
50	5/31/11

Direction Photo Taken:
West

Description:
Upstream slope of Pond B.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
51	5/31/11

Direction Photo Taken:
Northwest

Description:
Upstream slope of Pond B.

Photo No.	Date:
52	5/31/11

Direction Photo Taken:
Southwest

Description:
Upsteam slope of Pond B.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
53	5/31/11

Direction Photo Taken:
Southeast

Description:
Upstream slope of Pond B.

Photo No.	Date:
54	5/31/11

Direction Photo Taken:
South

Description:
Upstream slope of Pond B.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No. 55	Date: 5/31/11

Direction Photo Taken:
Southeast

Description:
Upstream slope of Pond B.

Photo No. 56	Date: 5/31/11

Direction Photo Taken:
East

Description:
Upstream slope of Pond B.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
57	5/31/11

Direction Photo Taken:
Southeast

Description:
Upstream slope of Pond B as seen from the decant structure platform.

Photo No.	Date:
58	5/31/11

Direction Photo Taken:
Northeast

Description:
Upstream slope of Pond B as seen from the decant structure platform.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
59	5/31/11

Direction Photo Taken:
South

Description:
Crest of Pond B.

Photo No.	Date:
60	5/31/11

Direction Photo Taken:
North

Description:
Crest and upstream slope of Pond B.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
61	5/31/11

Direction Photo Taken:
North

Description:
Crest of Pond B.

Photo No.	Date:
62	5/31/11

Direction Photo Taken:
South

Description:
Crest of Pond B.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
63	5/31/11

Direction Photo Taken:
South

Description:
Downstream slope of the embankment between Pond B and Pond C.

Photo No.	Date:
64	5/31/11

Direction Photo Taken:
South

Description:
Downstream slope of Pond B.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No. 65	Date: 5/31/11

Direction Photo Taken:
South

Description:
Downstream slope of Pond B.

Photo No. 66	Date: 5/31/11

Direction Photo Taken:
West

Description:
Stormwater discharge pipe from the Landfill portion of the Site.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No. 67	Date: 5/31/11

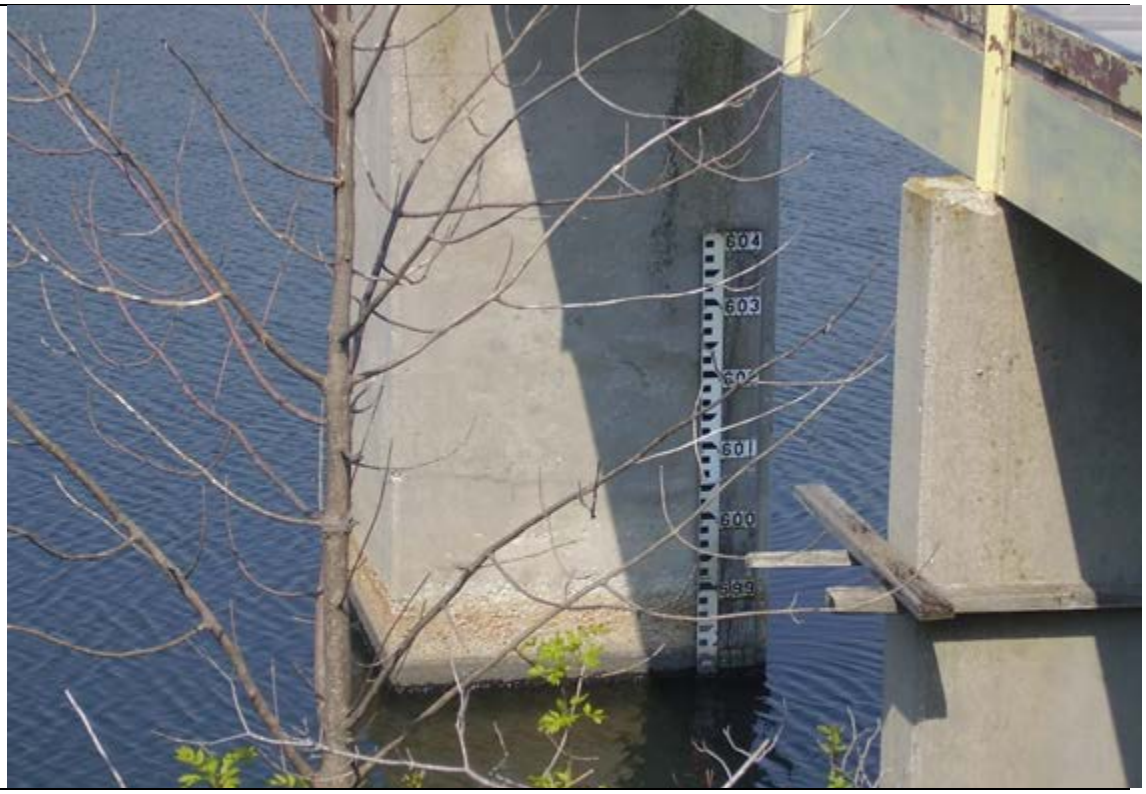
Direction Photo Taken:
Northeast

Description:
Decant structure in Pond B.

Photo No. 68	Date: 5/31/11

Direction Photo Taken:
West

Description:
Staff gauge on decant structure in Pond B.



GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
69	5/31/11

Direction Photo Taken:
West

Description:
Additional stop logs used at the Pond B decant structure.

Photo No.	Date:
70	5/31/11

Direction Photo Taken:
South

Description:
Pond C as seen from the embankment for South Pond A.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
71	5/31/11

Direction Photo Taken:
Northeast

Description:
Pond C as seen from the embankment for Pond B.

Photo No.	Date:
72	5/31/11

Direction Photo Taken:
Northeast

Description:
Upstream slope of Pond F.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
73	5/31/11

Direction Photo Taken:
Northwest

Description:
Upstream slope of Pond F.

Photo No.	Date:
74	5/31/11

Direction Photo Taken:
Southwest

Description:
Upstream slope of Pond F.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
75	5/31/11

Direction Photo Taken:
East

Description:
Upstream slope of Pond F.

Photo No.	Date:
76	5/31/11

Direction Photo Taken:
South

Description:
Upsteam slope and crest of Pond F.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No. 77	Date: 5/31/11

Direction Photo Taken:
West

Description:
Crest and Pump house for Pond F.

Photo No. 78	Date: 5/31/11

Direction Photo Taken:
North

Description:
Discharge pipe from pump house on Pond F.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
79	5/31/11

Direction Photo Taken:
South

Description:
Staff gauge at the decant structure in Pond F.

Photo No.	Date:
80	5/31/11

Direction Photo Taken:
North

Description:
Decant structure at Pond F.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
81	5/31/11

Direction Photo Taken:
East

Description:
Discharge pipe from Pond F to Lake Michigan.

Photo No.	Date:
82	5/31/11

Direction Photo Taken:
North

Description:
Downstream slope and discharge pipe from Pond F to Lake Michigan.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No. 83	Date: 5/31/11

Direction Photo Taken:
South

Description:
View of Pond E from the north.

Photo No. 84	Date: 5/31/11

Direction Photo Taken:
North

Description:
Southwestern portion of Pond D as seen from south.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
85	5/31/11

Direction Photo Taken:
Southeast

Description:
Northwestern portion of Pond E.

Photo No.	Date:
86	5/31/11

Direction Photo Taken:
North

Description:
Crest of the Landfill.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No. 87	Date: 5/31/11

Direction Photo Taken:
West

Description:
Crest of the Landfill.

Photo No. 88	Date: 5/31/11

Direction Photo Taken:
South

Description:
Crest of the Landfill.

GZA GeoEnvironmental, Inc.

PHOTOGRAPHIC LOG

Client Name: U.S. EPA	Site Location: Edgewater Generating Station Sheboygan, Wisconsin	Project No. 01.0170142.30

Photo No.	Date:
89	5/31/11

Direction Photo Taken:
Northwest

Description:
Concrete discharge structure from Pond B to Pond C.

Photo No.	Date:
90	5/31/11

Direction Photo Taken:
West

Description:
Discharge pipe from Slag Pond, North Pond A, and South Pond A into Pond B.