HARD HAT SERVICES™
Engineering, Construction and Management Solutions

245 Kenilworth Ave, Glen Ellyn, IL 60137
Phone (877) 630-7428
www.hardhatinc.com

VIA EMAIL

December 26, 2023

Mr. Jeffrey Maxted
Alliant Energy
4902 North Biltmore Lane
Madison, WI 53718-2148

Re: Hazard Potential Classification Assessment – Revision 2 - §257.73(a)(2)
Alliant Energy – Interstate Power and Light Company
IPL – Lansing Generating Station
Lansing, Iowa

Mr. Maxted,

Hard Hat Services (HHS) completed Revision 2 to the hazard potential classification assessment for the existing CCR surface impoundment located at the Interstate Power and Light Company (IPL) Lansing Generating Station (LAN) in Lansing, Iowa.

Background Information

In accordance with the requirements set forth in §257.73(a)(2) of the CCR Rule, an owner or operator of an existing CCR surface impoundment must conduct initial and periodic hazard potential classification assessments of their CCR surface impoundment, except for those existing CCR surface impoundments that are incised. The owner or operator must determine each CCR surface impoundment hazard potential classification through a hazard potential classification assessment.

FEMA (FEMA Publication 333, Federal Guidelines for Dam Safety, Hazard Potential Classification System for Dams, April 2004) developed a "hazard potential" classification in order to classify surface impoundments based on the probable loss of human life, and the impacts on economic, environmental, and lifeline interests in the event of an unintentional release from a surface impoundment. Three hazard potential classification levels are used, as follows:

1. High Hazard Potential – Assigned to surface impoundments where failure or mis-operation will probably cause loss of human life.
2. Significant Hazard Potential – Assigned to surface impoundments where failure or mis-operation results in no probable loss of human life, but can cause economic loss,

environmental damage, or 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.

3. Low Hazard Potential – Assigned to surface impoundments where failure or mis-operation has no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property.

Facility Specific Information

The IPL – Lansing Generating Station (LAN) is located at 2320 Power Plant Drive, Lansing, IA. 52151. Figure 1 provides both a topographic map and an aerial of the LAN facility location, with the approximate property boundary of the facility identified. LAN has one existing CCR surface impoundment, which is identified as LAN Upper Ash Pond (Figure 2).

Construction activities related to the closure of the LAN Upper Ash Pond are substantially complete. Closure activities of the LAN Upper Ash Pond generally included, berm stabilization using deep soil mixing, hydraulic dredging of CCR from the northern part of the upper ash pond and placement of the dredged material into geo-tubes at the southern end of the impoundment, placement of capping soils atop of the CCR Unit and sloping the final grade to drain stormwater into the unnamed creek west of the impoundment.

Current conditions of the impoundment have no impounded storm water within the CCR Unit. The area is graded to drain stormwater from the capped southern area toward the north. A portion of the north end of the western embankment was excavated in order to allow surface drainage into the unnamed creek west of the western embankment. The impoundment no longer impounds storm or process water.

LAN Upper Ash Pond

The LAN Upper Ash Pond was located southwest of the generating plant and south of Power Plant Drive. The LAN Upper Ash Pond received influent flows from the Unit 4 boiler floor sumps, water treatment sumps, fly ash hydroveyor system, storm water runoff from the active dry ash landfill, as well as sluiced CCR. The LAN Upper Ash Pond was the only receiver of sluiced CCR at LAN. The CCR was sluiced from the generating plant to the southeast corner of the LAN Upper Ash Pond, where the majority of the CCR settled. Ongoing maintenance dredging was conducted in the southern portion of the LAN Upper Ash Pond. The dredged CCR was temporarily stockpiled and dewatered prior to being transported to the on-site active dry ash landfill located south of the LAN Upper Ash Pond.

The discharge water flowed to the west prior to flowing north through a series of five interconnected settling ponds separated by intermediate dikes. The intermediate dikes consisted of 30-inch diameter corrugated metal pipes on the west and east sides, which hydraulically connected the five settling ponds. The water from each settling pond flowed north until it entered the large open settling pond area of the LAN Upper Ash Pond. Previously, a weir concrete structure controlled the water level within the impoundment. This structure was identified as National Pollution Discharge Elimination System (NPDES) Outfall 010. The

structure was equipped with a fiberglass stoplogs to raise and lower the pond elevation. The discharge pipe from the structure continued north, below the railroad tracks and eastward where it discharged into the Mississippi River. The LAN Upper Ash Pond had an emergency stormwater overflow structure which could direct sizeable precipitation events into the Unnamed Creek #1 through NPDES Outfall 001, which then flowed to Unnamed Creek #2 and finally into the Mississippi River.

Where Unnamed Creek #2 meets the Mississippi River, the U.S Fish and Wildlife Service National Wetlands Inventory indicates that there is a 1.02 acre "Freshwater Emergent Wetland" (classification code of PEMFh) at the point of convergence. The October 29, 2020 Location Restriction Compliance Demonstration identifies that the LAN Upper Ash Pond was not located in wetlands as defined by 40 CFR 232.2.

The total surface area of the LAN Upper Ash Pond was approximately 11.5 acres and had an embankment height of approximately 20 feet from the crest to the toe of the downstream slope at its greatest height. The area of the entire CCR Unit inclusive of the impoundment and the dredging and dewatering areas was approximately 17 acres. The interior storage depth of the LAN Upper Ash Pond was approximately 28 feet. As stated in the 2023 Annual Inspection, the volume of impounded CCR within the LAN Upper Ash Pond is approximately 622,000 cubic yards.

Hazard Potential Classification

The existing CCR surface impoundment has been assigned a hazard potential classification, as identified below.

LAN Upper Ash Pond

LAN Upper Ash Pond closure construction activities are substantially complete and therefore no longer operates as an impoundment as it doesn't have the potential to impound water. The FEMA Federal Guidelines for Dam Safety, April 2004 states that, "*This hazard potential classification system should be utilized with the understanding that the failure of any dam or water-retaining structure, no matter how small, could represent a danger to downstream life and property. Whenever there is an uncontrolled release of stored water, there is the possibility of someone, regardless of how unexpected, being in its path."* The FEMA guidance does not apply to the LAN Upper Ash Pond because it no longer acts like a dam or water-retaining structure and no longer has the potential for an uncontrolled release of stored water. Because there isn't a "No Potential" option under the FEMA guidelines, the LAN Upper Ash Pond has been assigned a **Low Hazard Potential** classification.

Qualified Professional Engineer Certification

To meet the requirements of 40 CFR 257.73(a)(2)(ii), I Mark W. Loerop hereby certify that I am a licensed Professional Engineer in the State of Iowa; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in 40 CFR 257.73(a)(2).

By: _____

Name: Mark Loerop

Date: Dec 26, 2023

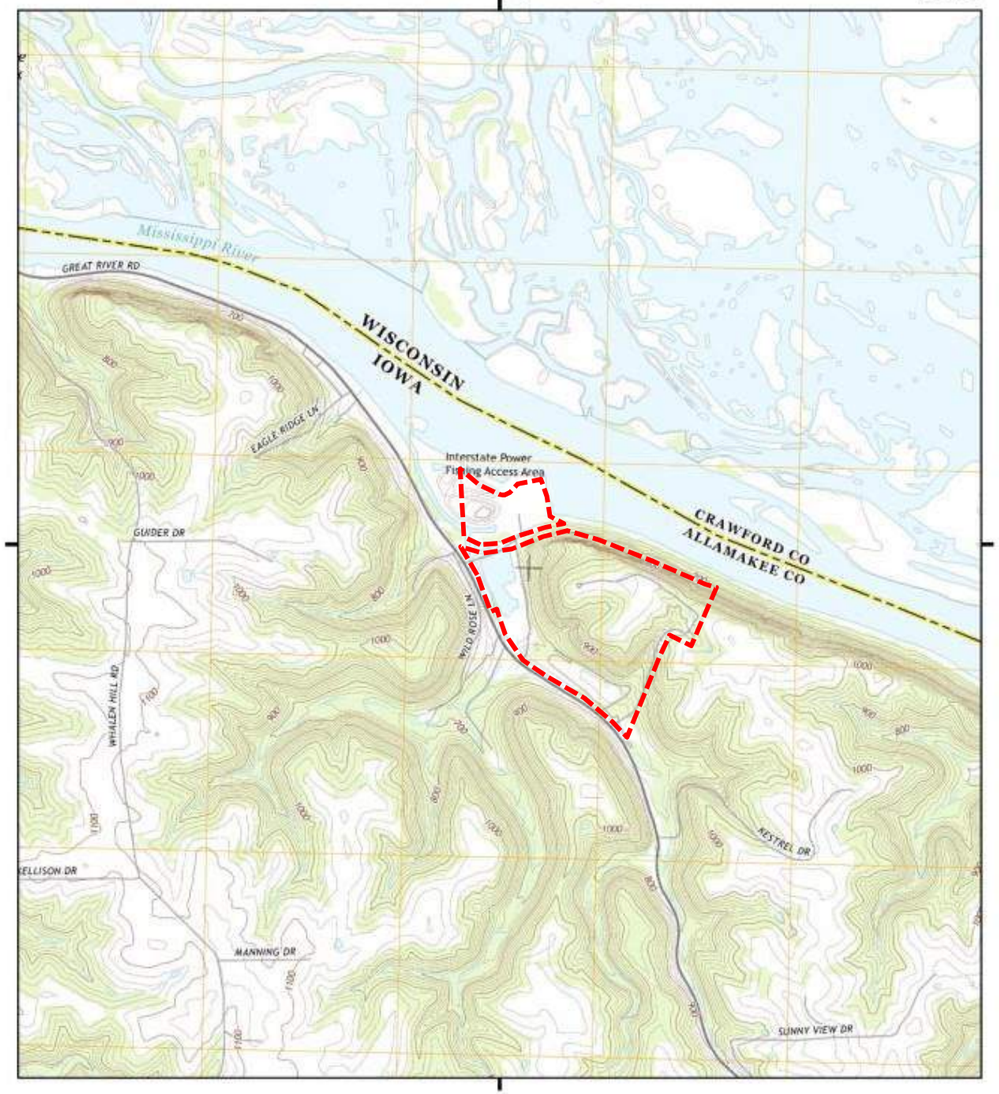
cc: Robin Nelson, IPL – Lansing Generating Station

att: Figure 1 – Facility Location Map
Figure 2 – LAN Upper Ash Pond

MWL/mwl/RAS
https://hardhatinc.sharepoint.com/Shared Documents/Projects/154 - Alliant Energy/154.018 - CCR Projects/026 - 2023 CCR Work/002 - LAN/Haz Pot Class/LAN Haz Pot Rev 2 2023 - FINAL.docx

Historical Topo Map

2013



This report includes information from the following map sheet(s).

TP, Lansing, 2013, 7.5-minute

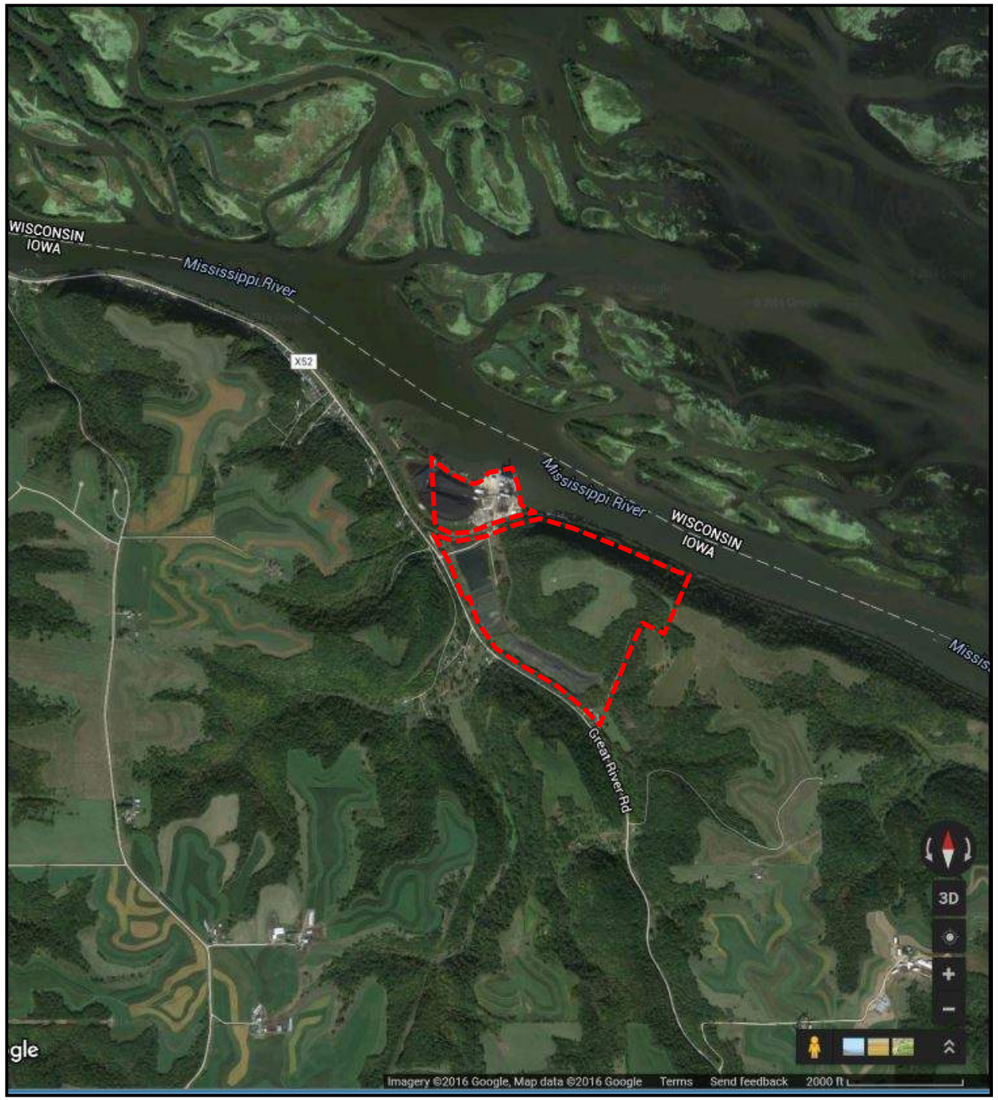
NW N NE
W E
SW S SE

Miles 0.25 0.5 1 1.5

SITE NAME: Lasing Generating Station
ADDRESS: 2364-2366 Power Plant Dr
Lansing, IA 52151
CLIENT: Environmental Site Assessors

N

Historical Aerial Photo



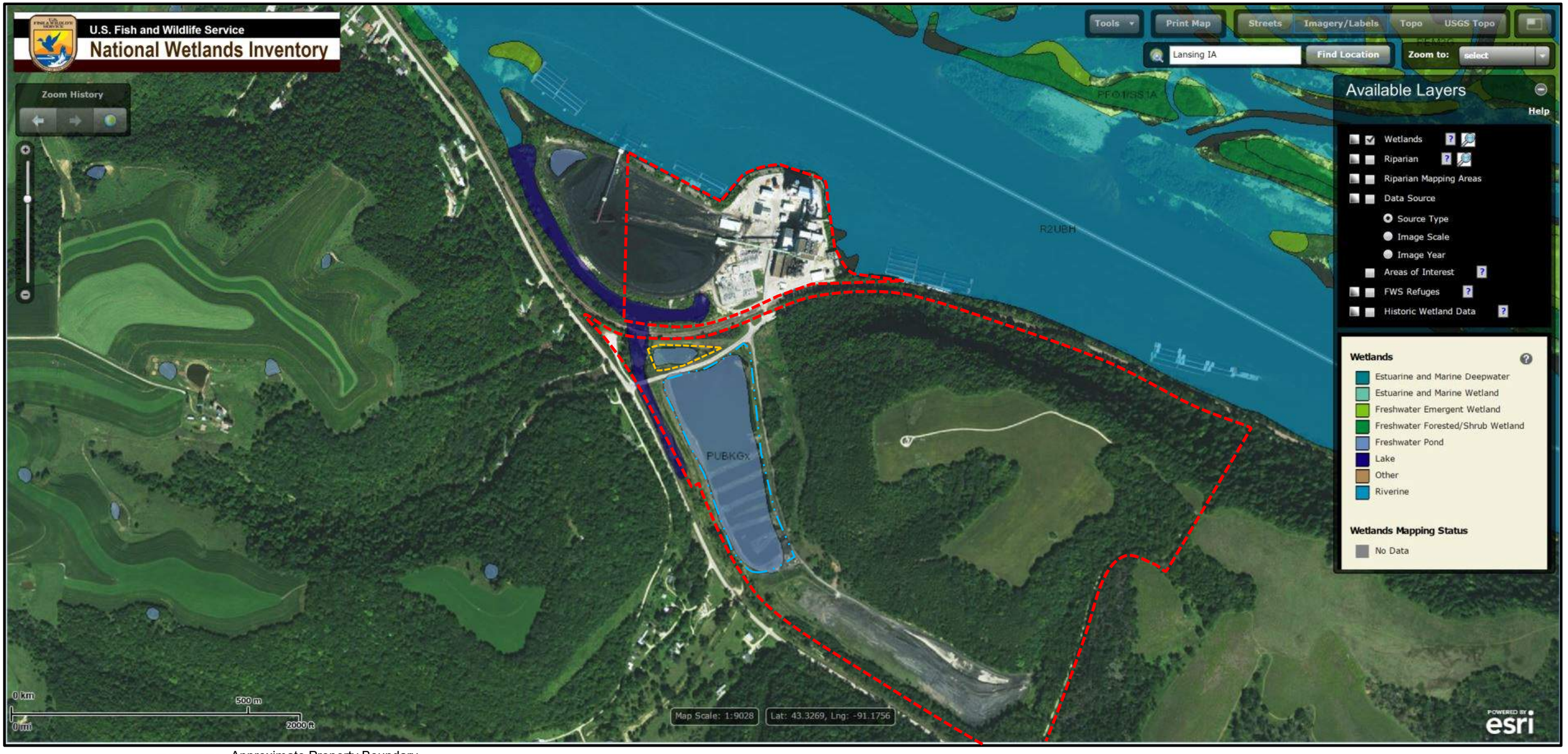
Approximate Property Boundary

4555570 - 1 page 5

HARD HAT SERVICES™
Engineering, Construction and Management Solutions

Site Location
Lansing Generating Station
Intersate Power and Light Company

Drawing: Figure 1
Date: 6/7/2016



Approximate Property Boundary
LAN Upper Ash Pond
LAN Lower Ash Pond (Closed in August 2015)

HARD HAT SERVICES™
Engineering, Construction and Management Solutions

Wetland Location Map
Lansing Generating Station
Intersate Power and Light Company

Drawing
Figure 2

Date
6/8/2016