

# Location Restriction Compliance Demonstration

Columbia Energy Center Surface Impoundments  
W8375 Murray Road  
Pardeeville, Wisconsin 53954

Prepared for:

Wisconsin Power and Light Company  
W8375 Murray Road  
Pardeeville, Wisconsin 53954

**SCS ENGINEERS**

25220164.00 | October 30, 2020

2830 Dairy Drive  
Madison, WI 53718-6751  
608-224-2830

## Table of Contents

Section	Page
<b>P.E. Certification</b> .....	<b>ii</b>
<b>1.0 Introduction</b> .....	<b>1</b>
<b>2.0 Location Restrictions</b> .....	<b>1</b>
<b>3.0 References</b> .....	<b>2</b>

## Figures


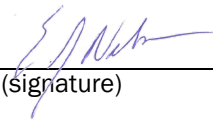
Figure 1. Site Location Map

## Appendices

Appendix A Approved Jurisdictional Determination  
Appendix B Fault Location Map  
Appendix C Seismic Hazard Map

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## P.E. CERTIFICATION

	<p>I, Eric J. Nelson, hereby certify that the location restriction demonstrations prepared for the surface impoundments at the Columbia Energy Center meet the requirements in 40 CFR 257.61(a), 62(a), and 63(a). This certification is based on my review of the October 2020 Location Restriction Compliance Demonstrations for the surface impoundments prepared by SCS Engineers. I am a duly licensed Professional Engineer under the laws of the State of Wisconsin.</p>	
	<p></p> <p>(signature)</p>	<p>10/30/2020</p> <p>(date)</p>
	<p>Eric J. Nelson</p> <p>(printed or typed name)</p>	<p>License number E-37855-6</p> <p>My license renewal date is July 31, 2022.</p> <p>Pages or sheets covered by this seal:</p> <p>All pages except Appendix A.</p>

## 1.0 INTRODUCTION

On behalf of Wisconsin Power and Light Company (WPL), SCS Engineers (SCS) has prepared the enclosed Location Restriction Compliance Demonstration for the coal combustion residual (CCR) surface impoundments at the Columbia Energy Center (COL) as required by 40 CFR 257.61-63. The CCR surface impoundments addressed with this demonstration include:

- COL Primary Ash Pond
- COL Secondary Ash Pond

Figure 1 shows the site and surface impoundment locations.

## 2.0 LOCATION RESTRICTIONS

### §257.61 “Wetlands.”

*“(a) New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must not be located in wetlands, as defined in §232.2 of this chapter, unless the owner or operator demonstrates by the dates specified in paragraph (c) of this section that the CCR unit meets the requirements of paragraphs (a)(1) through (5) of this section.”*

The COL surface impoundments are not located in wetlands as defined by 40 CFR 232.2. Following a field review of site conditions performed on September 21, 2020, WPL submitted a request for an approved jurisdictional determination (AJD) to the U.S. Army Corp of Engineers (USACE). The AJD request was prepared by Heartland Ecological Group, Inc. (Heartland), for aquatic resources located within the COL Primary and COL Secondary ponds that “are constructed in dry land, that do not have a surface water connection to a water of the U.S., and aquatic resources that are associated with waste water treatment facilities (Heartland, 2020),” which they understand not to be wetlands as defined by 40 CFR 232.2. On October, 28, 2020, USACE provided an AJD that concurs with this understanding. The AJD provided by USACE is provided in **Appendix A** along with a copy of the AJD request submitted by WPL.

### §257.62 “Fault areas.”

*“(a) New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must not be located within 60 meters (200 feet) of the outermost damage zone of a fault that has had displacement in Holocene time unless the owner or operator demonstrates by the dates specified in paragraph (c) of this section that an alternative setback distance of less than 60 meters (200 feet) will prevent damage to the structural integrity of the CCR unit.”*

Based on a review of the U.S. Geological Survey (USGS) Quaternary faults database and map as shown in **Appendix B**, the surface impoundments are not located within 200 feet of the outermost damage zone of a fault that has had displacement in Holocene time. In 40 CFR 257.53, Holocene is defined as the most recent epoch of the Quaternary period extending from 11,700 years before present, to present. The USGS map shows that no faults are located in Wisconsin.



### §257.63 “Seismic impact zones.”

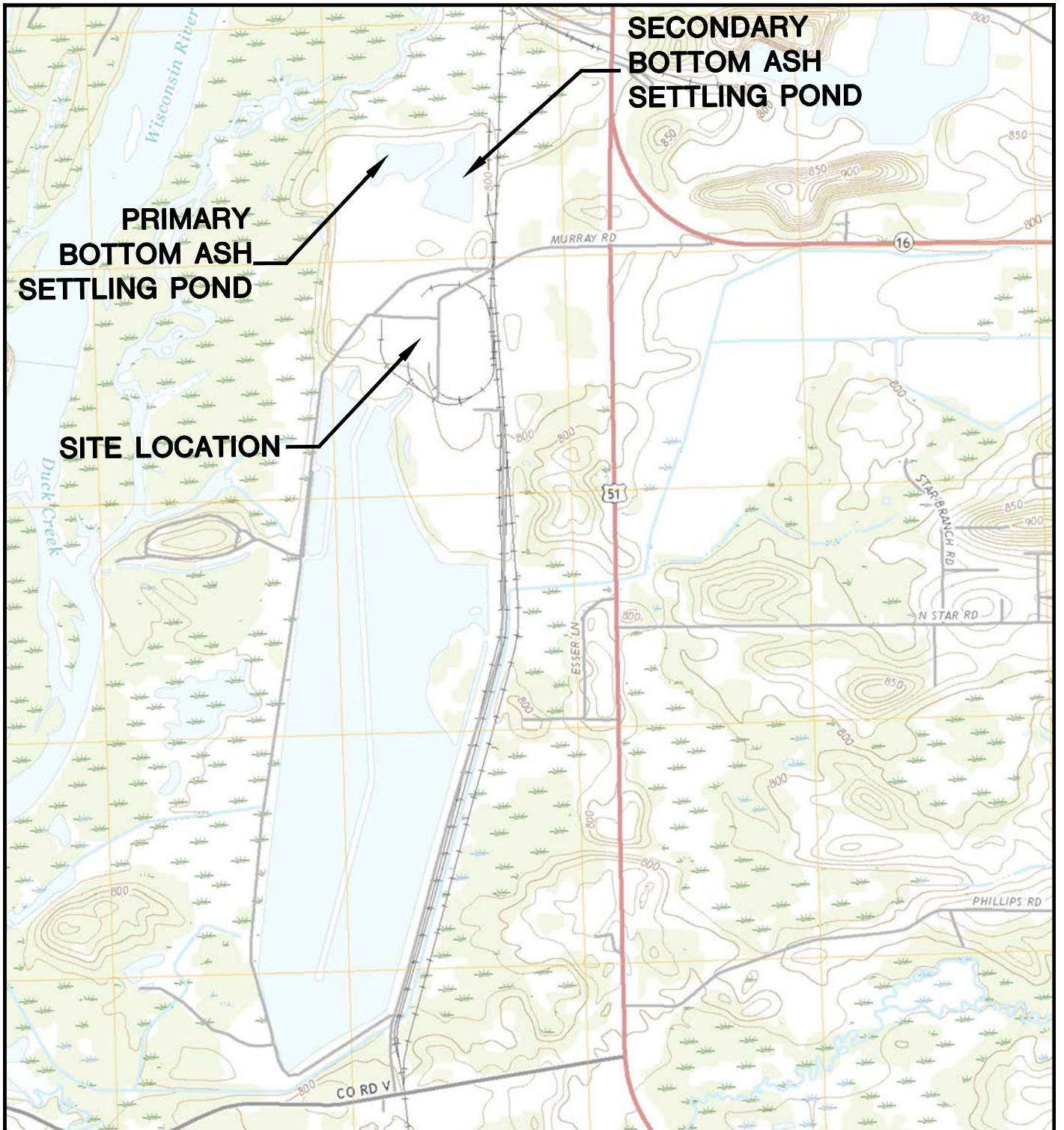
*“(a) New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must not be located in seismic impact zones unless the owner or operator demonstrates by the dates specified in paragraph (c) of this section that all structural components including liners, leachate collection and removal systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site.”*

The surface impoundments are not located in seismic impact zones. In 40 CFR 257.53, a seismic impact zone is defined as an area having a 2 percent or greater probability that the maximum expected horizontal acceleration, expressed as a percentage of the earth’s gravitational pull (g), will exceed 0.10 g in 50 years. Based on a review of the USGS 2014 Long-Term Model National Seismic Hazard Map (see **Appendix C**), the maximum expected horizontal acceleration for the majority of Wisconsin, including all of Columbia County, is less than 0.04 g, below the threshold for a seismic impact zone.

## 3.0 REFERENCES

- A. Heartland Ecological Group, Inc., 2020, Approved Jurisdictional Determination Request: Wisconsin Power and Light Company, Columbia Energy Center, Town of Pacific, Columbia County, Wisconsin: Heartland Project #: 20200376: Mount Horeb, WI, September 28, 2020.
- B. USGS fault map website (accessed 9/16/2020):  
<http://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=db287853794f4555b8e93e42290e9716>
- C. USGS seismic impact zones map website (accessed 9/16/2020):  
<https://earthquake.usgs.gov/static/lfs/nshm/conterminous/2014/2014pga2pct.pdf>


Figure 1  
Site Location Map



POYNETTE QUADRANGLE  
 WISCONSIN-COLUMBIA CO.  
 7.5 MINUTE SERIES (TOPOGRAPHIC)  
 2018  
 SCALE: 1" = 2,000'



CLIENT	Wisconsin Power and Light Company		SITE	LOCATION RESTRICTION COMPLIANCE DEMONSTRATIONS COLUMBIA ENERGY CENTER TOWN OF PACIFIC, WISCONSIN		SITE LOCATION MAP	
	PROJECT NO.	25220164.00		DRAWN BY:	ZB	ENGINEER	<b>SCS ENGINEERS</b> 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830
DRAWN:	09/16/20	CHECKED BY:	PEG	1			
REVISED:	09/30/20	APPROVED BY:	EJN				



Appendix A  
Approved Jurisdictional Determination



**DEPARTMENT OF THE ARMY**  
**ST. PAUL DISTRICT, CORPS OF ENGINEERS**  
180 FIFTH STREET EAST, SUITE 700  
ST. PAUL, MN 55101-1678

October 28, 2020

Regulatory File No. MVP-2020-01873-SJW

Alliant Energy  
c/o Jeff Maxted  
4902 North Biltmore Lane  
P.O. Box 77007  
Madison, Wisconsin 53707-1007

Dear Mr. Maxted:

This letter regards an approved jurisdictional determination for three aquatic resources features which were identified within the Wisconsin Power and Light Company – Columbia Energy Center facility in the Town of Pacific, Columbia County, Wisconsin. The project site is located in Sections 27 and 28, Township 12 North, Range 9 East, Columbia County, Wisconsin. The review area for our jurisdictional determination is identified on the enclosed figure, labeled MVP-2020-01873-SJW: Figure 1.

The review area contains no waters of the United States subject to Corps of Engineers (Corps) jurisdiction. Therefore, you are not required to obtain Department of the Army authorization to discharge dredged or fill material within this area. The rationale for this determination is provided in the enclosed Approved Jurisdictional Determination form. This determination is only valid for the review area described. You are also cautioned that the area of waters described on the enclosed Jurisdictional Determination form is approximate and is not based on a precise delineation of aquatic resources.

If you object to this approved jurisdictional determination, you may request an administrative appeal under Corps regulations at 33 CFR 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination, you must submit a completed RFA form to the Mississippi Valley Division Office at the address shown on the form.

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR 331.5, and that it has been received by the Division Office within 60 days of the date of the enclosed NAP. It is not necessary to submit an RFA form to the division office if you do not object to the determination in this letter.

This approved jurisdictional determination may be relied upon for five years from the date of this letter. However, the Corps reserves the right to review and revise the determination in response to changing site conditions, information that was not considered during our initial review, or off-site activities that could indirectly alter the extent of wetlands and other resources on-site. This determination may be renewed at the end of the five year period provided you submit a written request and our staff are able to verify that the limits established during the original determination are still accurate.

Regulatory Branch (File No. MVP-2020-01873-SJW)

If you have any questions, please contact me in our Stevens Point field office at (651) 290-5878 or by email at [samuel.j.woboril@usace.army.mil](mailto:samuel.j.woboril@usace.army.mil). In any correspondence or inquiries, please refer to the Regulatory file number shown above.

Sincerely,

A handwritten signature in black ink, appearing to read "Samuel J. Woboril". The signature is fluid and cursive, with the first name "Samuel" and last name "Woboril" clearly legible.

Samuel J. Woboril  
Project Manager

cc:  
Jeff Kraemer, Heartland Ecological Group  
Kara Brooks, Wisconsin Department of Natural Resources



**U.S. ARMY CORPS OF ENGINEERS  
REGULATORY PROGRAM  
APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM)  
NAVIGABLE WATERS PROTECTION RULE**

**I. ADMINISTRATIVE INFORMATION**

Completion Date of Approved Jurisdictional Determination (AJD): 10/28/2020

ORM Number: MVP-2020-01873-SJW

Associated JDs: N/A

Review Area Location<sup>1</sup>: State/Territory: Wisconsin City: Town of Pacific County/Parish/Borough: Columbia

Center Coordinates of Review Area: Latitude 43.490007 Longitude -89.414106

**II. FINDINGS**

**A. Summary:** Check all that apply. At least one box from the following list MUST be selected. Complete the corresponding sections/tables and summarize data sources.

- The review area is comprised entirely of dry land (i.e., there are no waters or water features, including wetlands, of any kind in the entire review area). Rationale: N/A or describe rationale.
- There are “navigable waters of the United States” within Rivers and Harbors Act jurisdiction within the review area (complete table in Section II.B).
- There are “waters of the United States” within Clean Water Act jurisdiction within the review area (complete appropriate tables in Section II.C).
- There are waters or water features excluded from Clean Water Act jurisdiction within the review area (complete table in Section II.D).

**B. Rivers and Harbors Act of 1899 Section 10 (§ 10)<sup>2</sup>**

§ 10 Name	§ 10 Size	§ 10 Criteria	Rationale for § 10 Determination
N/A.	N/A.	N/A.	N/A.

**C. Clean Water Act Section 404**

Territorial Seas and Traditional Navigable Waters ((a)(1) waters): <sup>3</sup>			
(a)(1) Name	(a)(1) Size	(a)(1) Criteria	Rationale for (a)(1) Determination
N/A.	N/A.	N/A.	N/A.

Tributaries ((a)(2) waters):			
(a)(2) Name	(a)(2) Size	(a)(2) Criteria	Rationale for (a)(2) Determination
N/A.	N/A.	N/A.	N/A.

Lakes and ponds, and impoundments of jurisdictional waters ((a)(3) waters):			
(a)(3) Name	(a)(3) Size	(a)(3) Criteria	Rationale for (a)(3) Determination
N/A.	N/A.	N/A.	N/A.

Adjacent wetlands ((a)(4) waters):			
(a)(4) Name	(a)(4) Size	(a)(4) Criteria	Rationale for (a)(4) Determination
N/A.	N/A.	N/A.	N/A.

<sup>1</sup> Map(s)/figure(s) are attached to the AJD provided to the requestor.

<sup>2</sup> If the navigable water is not subject to the ebb and flow of the tide or included on the District’s list of Rivers and Harbors Act Section 10 navigable waters list, do NOT use this document to make the determination. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Rivers and Harbors Act Section 10 navigability determination.

<sup>3</sup> A stand-alone TNW determination is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where upstream or downstream limits or lake borders are established. A stand-alone TNW determination should be completed following applicable guidance and should NOT be documented on the AJD Form.





**U.S. ARMY CORPS OF ENGINEERS  
REGULATORY PROGRAM  
APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM)  
NAVIGABLE WATERS PROTECTION RULE**

**D. Excluded Waters or Features**

Excluded waters ((b)(1) – (b)(12)): <sup>4</sup>			
Exclusion Name	Exclusion Size	Exclusion <sup>5</sup>	Rationale for Exclusion Determination
Pond 1 Pond 2 Conveyance Swale	7.70 9.72 2.22	acre(s) (b)(12) Waste treatment system.	The review area contains three open water aquatic features which are identified as Pond 1, Pond 2, and Conveyance Swale on the attached figures labeled MVP-2020-01873-SJW: Page 1 of 6 through 3 of 6. The review area consists of active coal combustion residual (CCR) and low-volume plant wastewater settling ponds, water conveyance features, berms, access roads, and other infrastructure associated with the function of the CCRSI facilities. A review of historic aerial imagery indicates that these features were constructed in the 1970's in an area which was comprised entirely of uplands. The majority of the site was historically utilized for agricultural purposes, while the northeastern most portion consisted of woodlands. The 1962 USGS mapping indicates the presence of wetlands immediately north and west of the site, but not immediately within the review area. The entire aquatic system within the Study Area is a closed system with no surface water outlets. The water within the settling ponds is recirculated through the conveyance swale and pumps and does not discharge into any wetlands or tributaries outside of the impounded CCR facility. Based on a review of all available information, including the WWI, Google Earth, USDA Topo Mapping, Historic Aerial Imagery, USGS Mapping, and NRCS Soils Maps, there is no evidence that these structures were constructed in wetlands, or that they maintain a surface connection to a downstream intermittent or perennial tributary. These features were constructed entirely in uplands, and are part of a wastewater treatment feature associated with the CCRSI facility. While the perimeter berms of the review area directly abut wetlands on the north and west side, there are no culverts or other type of feature which would create a hydrologic connection to the nearest downstream tributary, which is located approximately 0.14 miles to the west. Based on this information, the features identified as Pond

<sup>4</sup> Some excluded waters, such as (b)(2) and (b)(4), may not be specifically identified on the AJD form unless a requestor specifically asks a Corps district to do so. Corps districts may, in case-by-case instances, choose to identify some or all of these waters within the review area.

<sup>5</sup> Because of the broad nature of the (b)(1) exclusion and in an effort to collect data on specific types of waters that would be covered by the (b)(1) exclusion, four sub-categories of (b)(1) exclusions were administratively created for the purposes of the AJD Form. These four sub-categories are not new exclusions, but are simply administrative distinctions and remain (b)(1) exclusions as defined by the NWPR.





**U.S. ARMY CORPS OF ENGINEERS  
REGULATORY PROGRAM  
APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM)  
NAVIGABLE WATERS PROTECTION RULE**

Excluded waters ((b)(1) – (b)(12)): <sup>4</sup>			
Exclusion Name	Exclusion Size	Exclusion <sup>5</sup>	Rationale for Exclusion Determination
			1, Pond 2, and Conveyance Swale are considered (b)(12) excluded waters, and therefore not regulated by the Corps under Section 404 of the Clean Water Act.

**III. SUPPORTING INFORMATION**

**A. Select/enter all resources** that were used to aid in this determination and attach data/maps to this document and/or references/citations in the administrative record, as appropriate.

Information submitted by, or on behalf of, the applicant/consultant: [AJD request/Site Information submitted by consultant on behalf of the applicant on September 28, 2020.](#)

This information [Select.](#) sufficient for purposes of this AJD.

Rationale: [N/A or describe rationale for insufficiency \(including partial insufficiency\).](#)

Data sheets prepared by the Corps: [Title\(s\) and/or date\(s\).](#)

Photographs: [Aerial and Other: Submitted as part of the supporting documentation submitted on September 28, 2020.](#)

Corps site visit(s) conducted on: [Date\(s\).](#)

Previous Jurisdictional Determinations (AJDs or PJDs): [ORM Number\(s\) and date\(s\).](#)

Antecedent Precipitation Tool: [provide detailed discussion in Section III.B.](#)

USDA NRCS Soil Survey: [NRCS Web Soil Survey](#)

USFWS NWI maps: [Title\(s\) and/or date\(s\).](#)

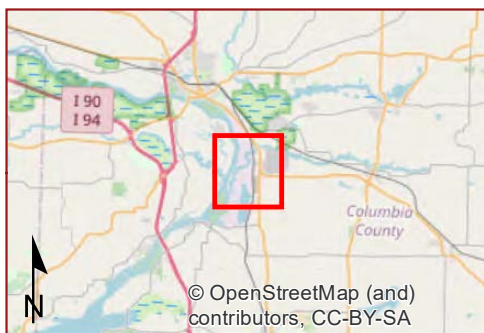
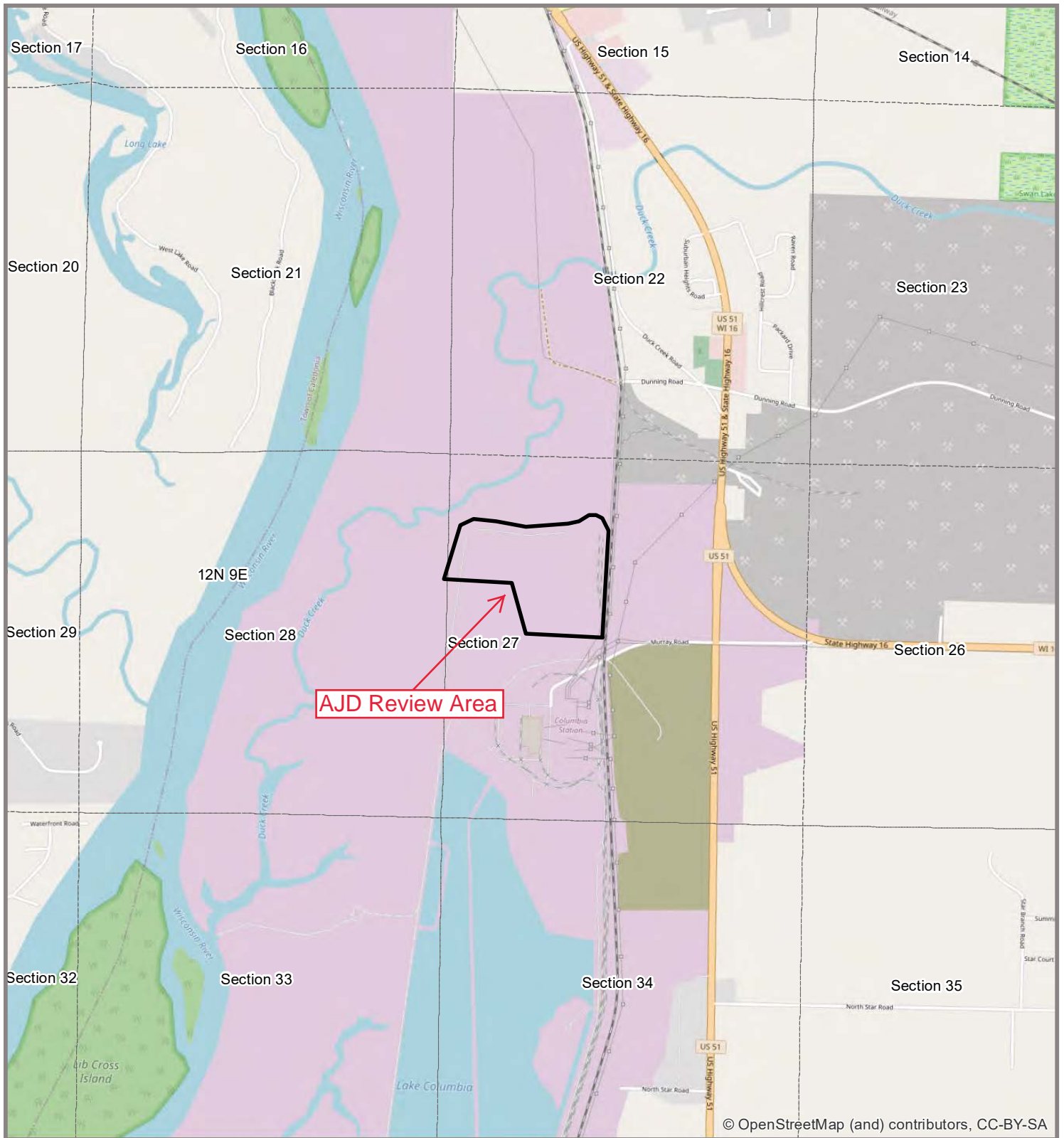
USGS topographic maps: [Title\(s\) and/or date\(s\).](#)




**Other data sources used to aid in this determination:**

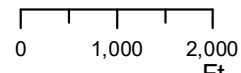
Data Source (select)	Name and/or date and other relevant information
<a href="#">USGS Sources</a>	<a href="#">1962 Map Submitted as part of supporting documentation.</a>
<a href="#">USDA Sources</a>	<a href="#">N/A.</a>
<a href="#">NOAA Sources</a>	<a href="#">N/A.</a>
<a href="#">USACE Sources</a>	<a href="#">N/A.</a>
<a href="#">State/Local/Tribal Sources</a>	<a href="#">Wisconsin Wetland Inventory</a>
<a href="#">Other Sources</a>	<a href="#">Google Earth</a>

**B. Typical year assessment(s):** [N/A](#)

**C. Additional comments to support AJD:** [N/A](#)



-  Study Area (67.43 ac)
-  PLSS Township
-  PLSS Sections



**Heartland**  
 ECOLOGICAL GROUP INC

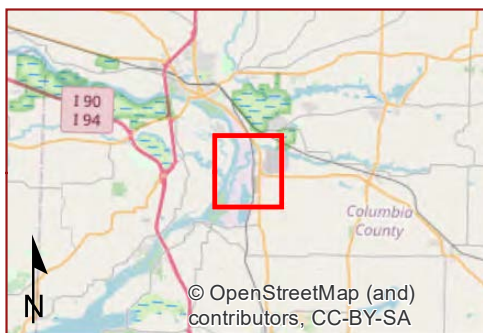
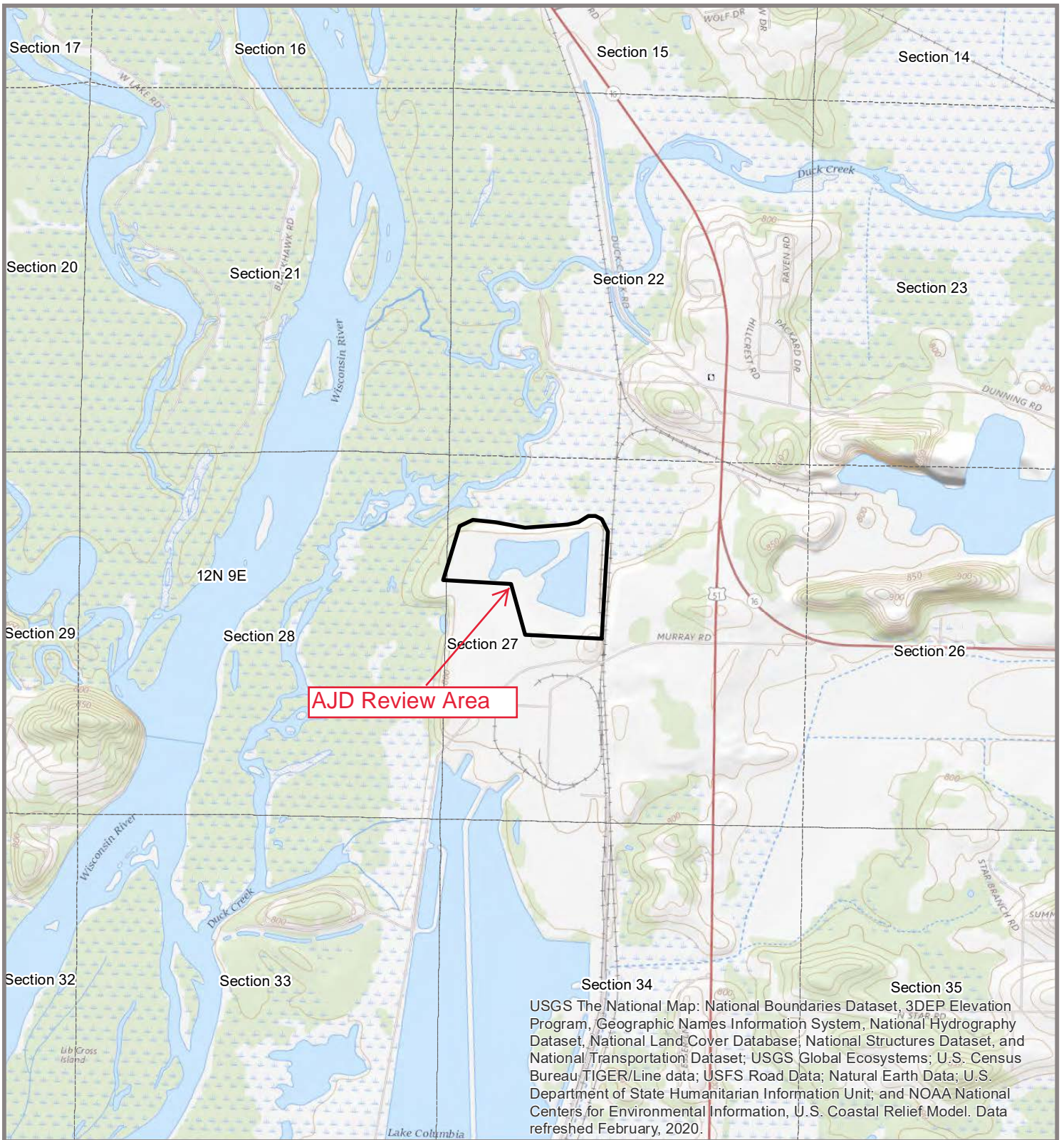
**Figure 1. Project Location**




WPL Columbia Power Plant  
 Project #20200376  
 T12N, R9E, S27 & 28  
 T Pacific, Columbia Co, WI

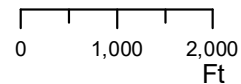
OpenStreetMap  
 Data: ESRI

9/11/2020





-  Study Area (67.43 ac)
-  PLSS Township
-  PLSS Sections



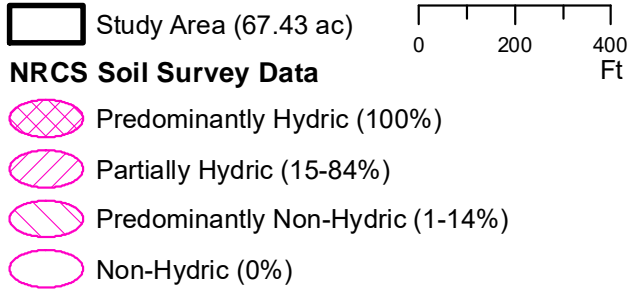
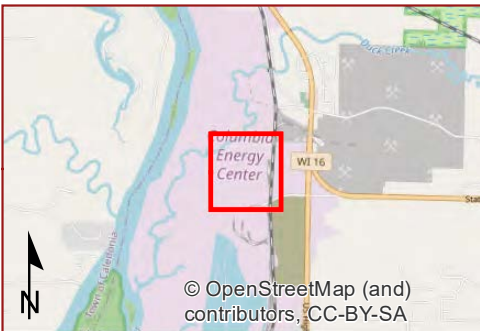
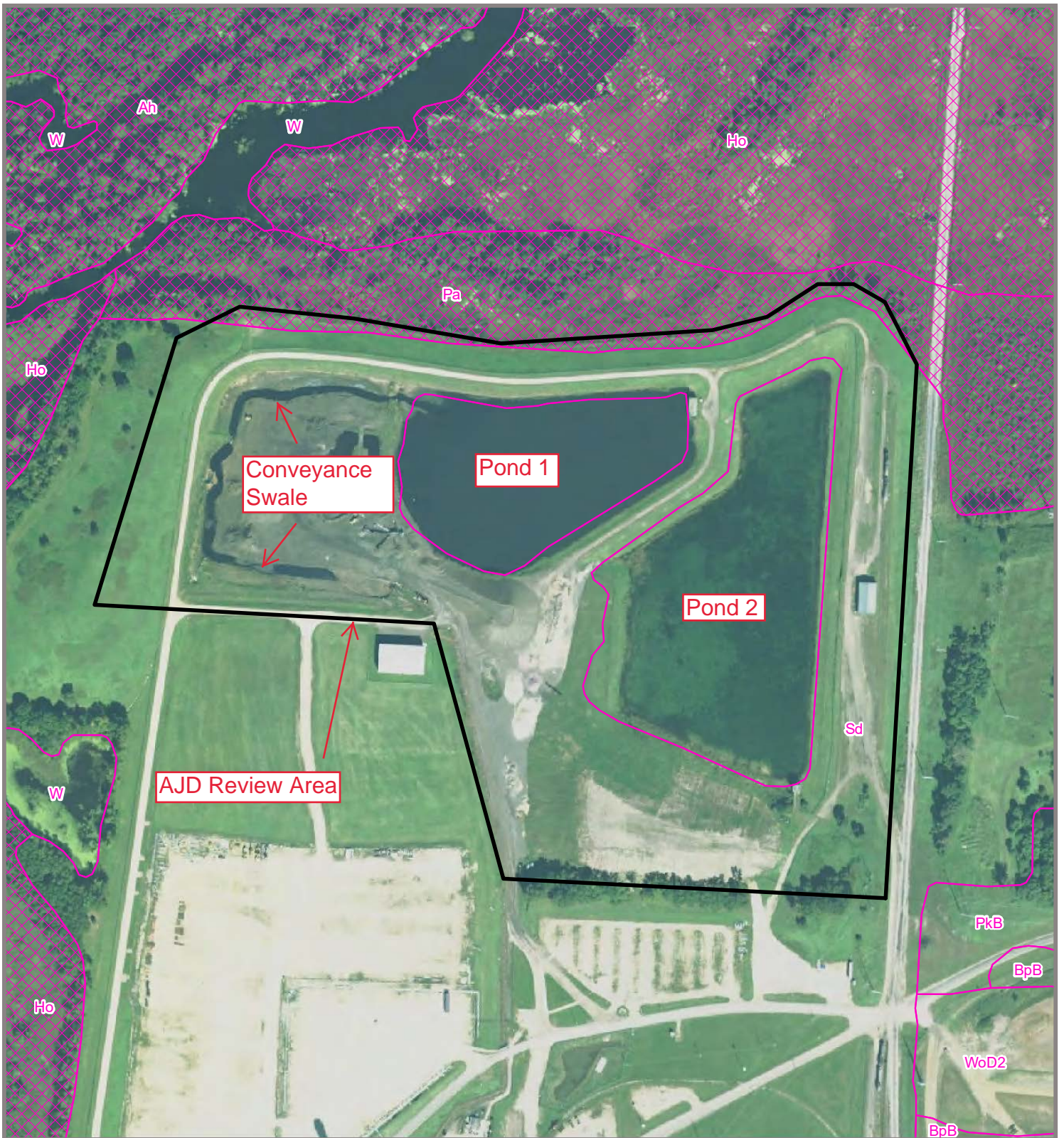
**Heartland**  
ECOLOGICAL GROUP INC

**Figure 2. USGS Topography**

WPL Columbia Power Plant  
Project #20200376  
T12N, R9E, S27 & 28  
T Pacific, Columbia Co, WI

USGSTopo  
Data: USGS      9/11/2020





**Heartland**  
ECOLOGICAL GROUP INC

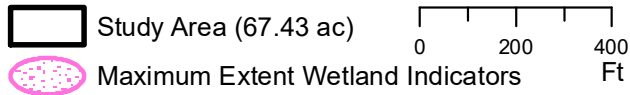
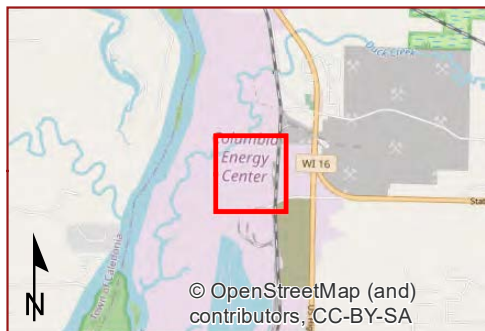
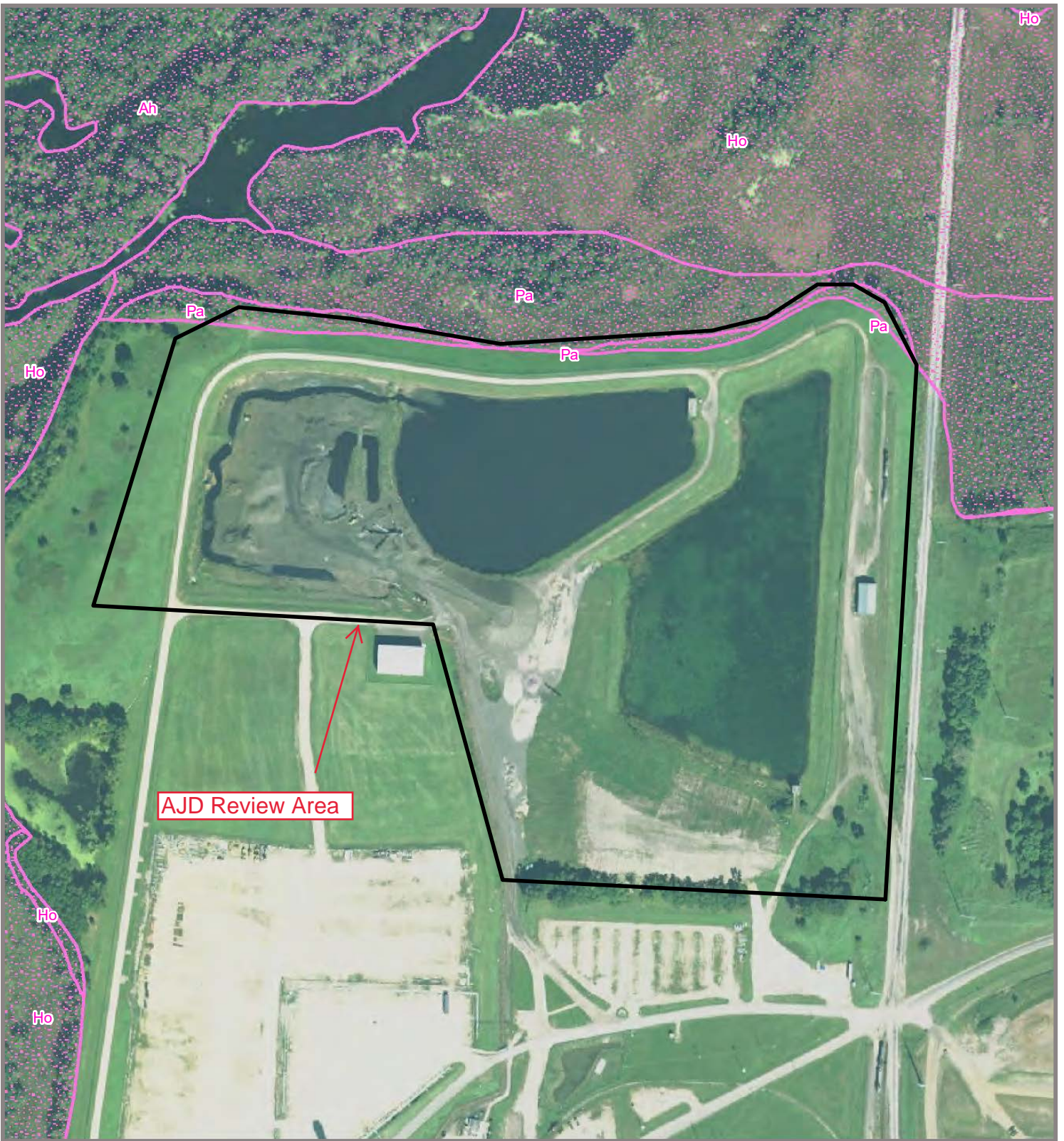
**Figure 3. NRCS Hydric Soils**

WPL Columbia Power Plant  
Project #20200376  
T12N, R9E, S27 & 28  
T Pacific, Columbia Co, WI

2018 NAIP  
Data: NRCS

9/11/2020





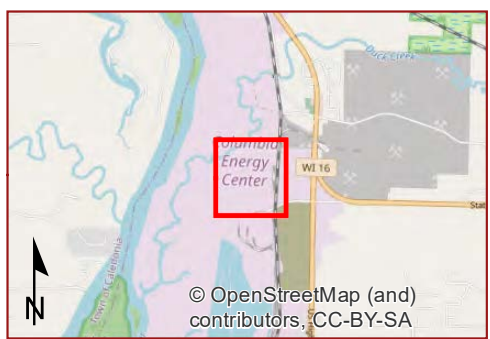
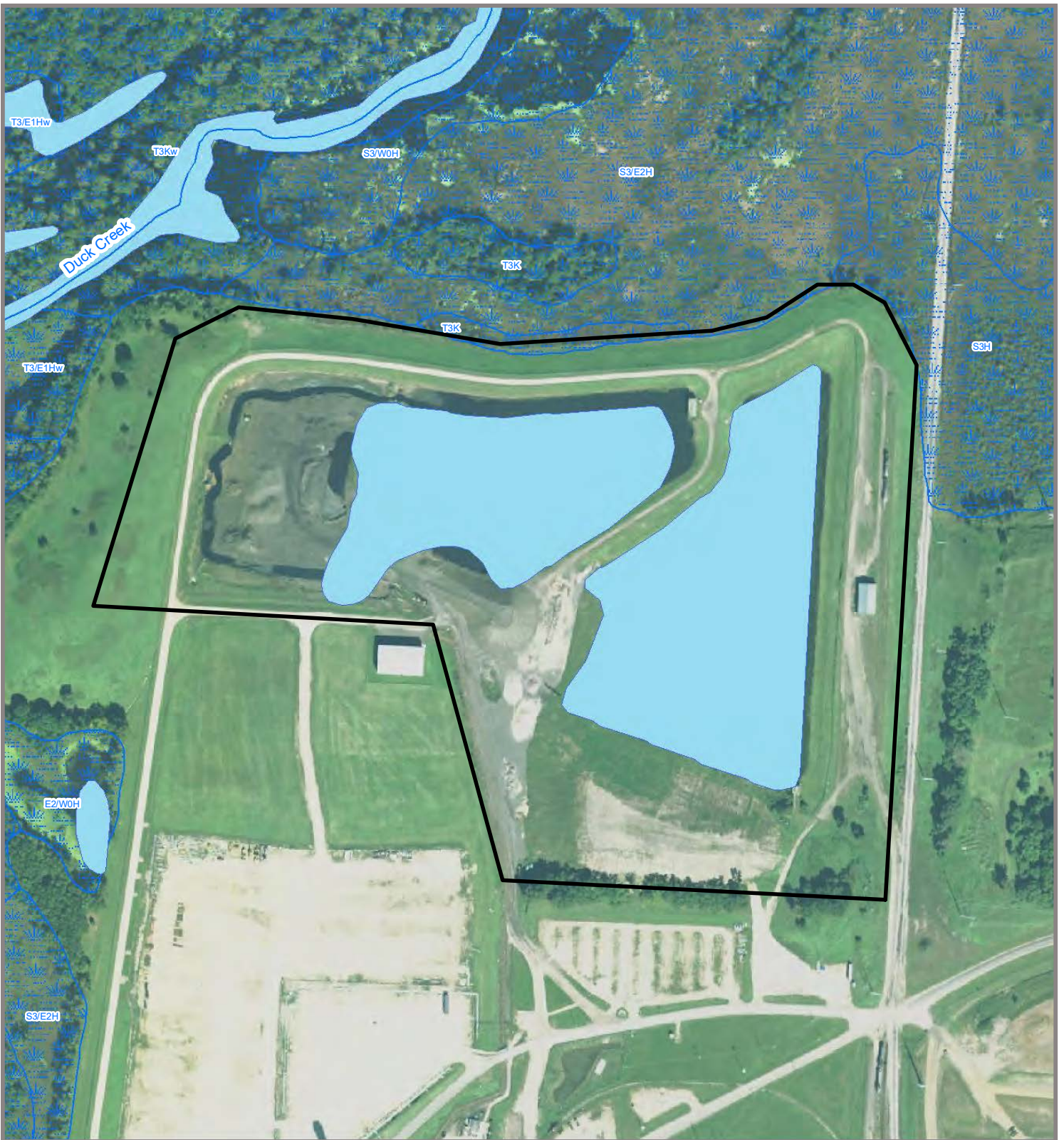
**Heartland**  
 ECOLOGICAL GROUP INC





**Figure 4. SWDV  
 Wetland Indicators**

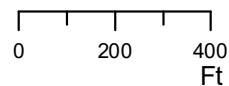
WPL Columbia Power Plant  
 Project #20200376  
 T12N, R9E, S27 & 28  
 T Pacific, Columbia Co, WI

2018 NAIP  
 Data: WDNR 9/11/2020





-  Study Area (67.43 ac)
-  WWI Wetlands
-  NHD Waterbody
-  NHD Waterway



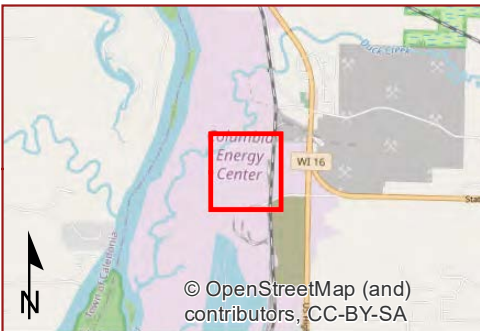
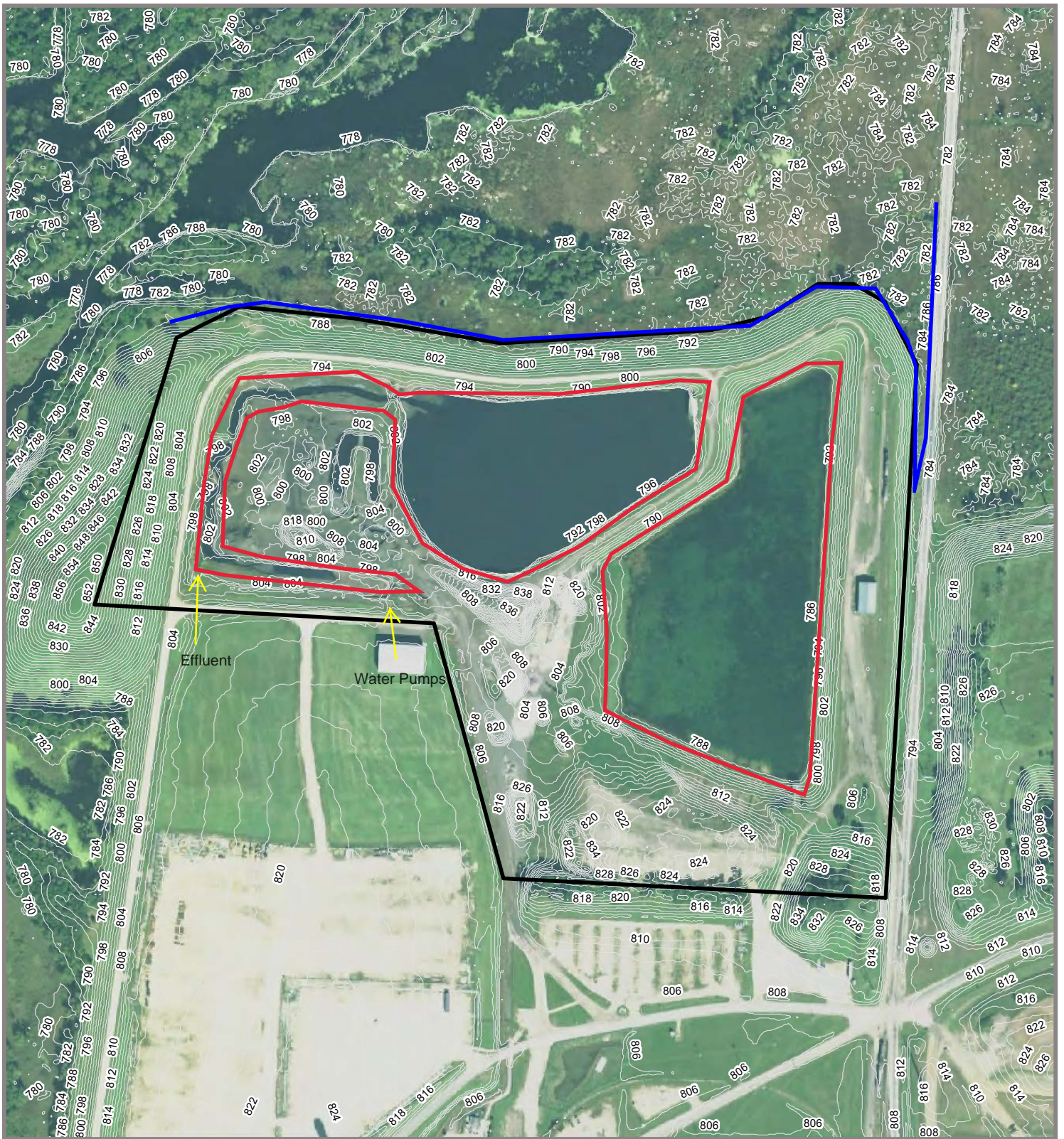
**Heartland**  
 ECOLOGICAL GROUP INC

**Figure 5. Wisconsin Wetland Inventory**

WPL Columbia Power Plant  
 Project #20200376  
 T12N, R9E, S27 & 28  
 T Pacific, Columbia Co, WI

2018 NAIP  
 Data: WDNR, USGS 9/11/2020





- Study Area (67.43 ac)
- Columbia Co 2' Contours
- Aquatic Resources w/in CCRSI Facility
- Approximate Wetland Boundary Outside of CCRSI Facility



**Heartland**  
ECOLOGICAL GROUP INC

**Figure 6. Field Map**  
WPL Columbia Power Plant  
Project #20200376  
T12N, R9E, S27 & 28  
T Pacific, Columbia Co, WI  
2018 NAIP  
Data: Columbia Co 9/11/2020



**NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND  
REQUEST FOR APPEAL**

<b>Applicant: Alliant Energy – Jeff Maxted</b>		<b>File No.: MVP-2020-01873-SJW</b>	<b>Date: 10/28/2020</b>
Attached is:			See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)		A
	PROFFERED PERMIT (Standard Permit or Letter of permission)		B
	PERMIT DENIAL		C
X	APPROVED JURISDICTIONAL DETERMINATION		D
	PRELIMINARY JURISDICTIONAL DETERMINATION		E

**SECTION I -** The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

- A: INITIAL PROFFERED PERMIT:** You may accept or object to the permit.
- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
  - **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.
- B: PROFFERED PERMIT:** You may accept or appeal the permit
- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
  - **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- C: PERMIT DENIAL:** You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- D: APPROVED JURISDICTIONAL DETERMINATION:** You may accept or appeal the approved JD or provide new information.
- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
  - **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- E: PRELIMINARY JURISDICTIONAL DETERMINATION:** You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.



**SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT**

**REASONS FOR APPEAL OR OBJECTIONS:** (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

**ADDITIONAL INFORMATION:** The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

**POINT OF CONTACT FOR QUESTIONS OR INFORMATION:**

If you have questions regarding this decision and/or the appeal process you may contact:

Sam Woboril – Regulatory Project Manager  
USACE – St. Paul District Regulatory Division  
2926 Post Road, Suite B  
Stevens Point, Wisconsin 54481

(651) 290-5878  
samuel.j.woboril@usace.army.mil

If you only have questions regarding the appeal process you may also contact the Division Engineer through:

Administrative Appeals Review Officer  
Mississippi Valley Division  
P.O. Box 80 (1400 Walnut Street)  
Vicksburg, MS 39181-0080  
601-634-5820 FAX: 601-634-5816

**RIGHT OF ENTRY:** Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

\_\_\_\_\_  
Signature of appellant or agent.

Date:

Telephone number:



Alliant Energy  
4902 North Biltmore Lane  
P.O. Box 77007  
Madison, WI 53707-1007

1-800-ALLIANT (800-255-4268)  
alliantenergy.com

September 28, 2020

Mr. Samuel J. Woboril  
Project Manager  
U.S. Army Corps of Engineers  
St. Paul District  
2926 Post Road, Suite B  
Stevens Point, Wisconsin 54481

RE: **Request for Approved Jurisdictional Determination**  
Columbia Energy Center Coal Combustion Residual Surface Impoundments  
Wisconsin Power and Light Company  
Portage, Wisconsin

Dear Mr. Woboril:

On behalf of Wisconsin Power and Light Company, Alliant Energy is submitting the enclosed request for an Approved Jurisdictional Determination, prepared by Heartland Ecological Group, Inc., for aquatic resources located within the Coal Combustion Residual (CCR) Surface Impoundments that serve the Columbia Energy Center. Alliant Energy is requesting an Approved Jurisdictional Determination (AJD) from the U.S. Army Corps of Engineers to facilitate closure of the CCR surface impoundments in accordance with the federal CCR Rule (40 CFR 257.50-107).

Thank you in advance for your review and consideration. If you have any questions, or require any additional information, please call me at (608) 458-3853.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Maxted".

Jeff Maxted  
Manager – Environmental Services  
Alliant Energy Corporate Services, Inc.

Cc: Brian Clepper, WPL Columbia Energy Center  
Eric Nelson, SCS Engineers  
Jeff Kraemer, Heartland Ecological Group Inc.

# Heartland

ECOLOGICAL GROUP INC

506 Springdale Street, Mount Horeb, WI 53572

September 28, 2020

Mr. Samuel J. Woboril  
Project Manager  
U.S. Army Corps of Engineers  
St. Paul District  
2926 Post Road, Suite B  
Stevens Point, Wisconsin 54481  
[samuel.j.woboril@usace.army.mil](mailto:samuel.j.woboril@usace.army.mil)  
(651) 290-5878

**RE: Approved Jurisdictional Determination Request: Wisconsin Power and Light Company, Columbia Energy Center, Town of Pacific, Columbia County, Wisconsin: Heartland Project #: 20200376**

Dear Mr. Woboril:

On behalf of Wisconsin Power and Light Company (WPL), Heartland Ecological Group, Inc. (Heartland) is requesting an Approved Jurisdictional Determination (AJD) from the U.S. Army Corps of Engineers (USACE) for aquatic resources located within an active Coal Combustion Residual Surface Impoundment (CCRSI) facility associated with the Columbia Energy Center (Attachment 1 -Figure 6). The Columbia Energy Center is an active coal-fired electrical power generation facility constructed in the early 1970's and is located in Sections 27 and 28, Township 12 North, Range 9 East, Town of Pacific, Columbia County, Wisconsin (Attachment 1 - Figures 1 and 2).

Heartland staff (Scott Fuchs) completed a site visit on September 21, 2020 to complete an assessment and mapping of aquatic resources within the CCRSI area. The specific portion of the property subject to this AJD request is identified on Figure 6 as the "Study Area" limits. The Study Area consists of active coal combustion residual (CCR) and low-volume plant wastewater settling ponds, water conveyance features, berms, access roads and other infrastructure associated with the function of the CCRSI facilities. Figure 6 identifies the location and approximate extent of the aquatic resources within the Study Area. The aquatic resources identified, which appear to support wetland characteristics, consist of two constructed open water ponds and a constructed conveyance swale. The open water ponds and conveyance swale support emergent hydrophytic vegetation along the outermost perimeters but are primarily unvegetated open water systems (Attachment 2 – Site Photographs). The entire aquatic system within the Study Area is a closed system with no surface water outlets. The water within the settling ponds is recirculated through the conveyance swale and pumps and does not discharge into any wetlands or aquatic resources outside of the impounded CCR facility. Natural wetland areas were identified outside of the impounded CCR facility near the base of the berm at the north and east of the CCRSI facility and extend north to Duck Creek. These wetland areas are not subject to this AJD request.

The identified aquatic resources associated with the CCRSI were constructed in the 1970's. Heartland completed a historic assessment of baseline conditions leading up to the



construction of the CCRSI's to determine if the ponds were constructed in dry land. The historic assessment included review of historic aerial photographs from 1937 – 1974; USGS Topographic Maps (1962 & 1974); and Bordner Land use mapping (1930's) (Attachment 3 – Historical Information). Based on the assessment of this historical information, there is no definitive evidence the aquatic resources within the CCRSI area were constructed within wetlands or other existing aquatic resources. The historic information supports the conclusion that the facility was constructed at the southern margin of natural wetland areas as represented currently. The historic aerial photographs indicate that the majority of the Study Area was in agricultural use while the northeastern most portion consisted of woodlands up until the start of construction in the early 1970's. The 1962 USGS mapping indicates the presence of wetlands immediately north and west of the Study Area but not within the Study Area limits. The topography shown on the USGS map indicates that the Study Area supported higher elevations than the adjacent mapped wetland areas. The 1974 USGS mapping identifies the presence of the power plant and the ponds associated with the CCRSI facility in their present shape and form and wetlands are mapped immediately north and west of the Study Area. The Bordner Land use mapping does not map wetlands within the Study Area, but consistent with the USGS mapping, identifies wetlands immediately north of the Study Area. The Study Area is mapped as cleared cropland and the northeast corner is identified as oak-hickory woodland, typical of non-wetland conditions.

In conclusion, the Study Area consists of a CCRSI facility that contains artificially created aquatic resources that were constructed in dry land and effectively function as wastewater treatment facilities (WPL has an ongoing NPDES/WPDES permit to operate and manage the CCRSI facilities). Heartland understands that aquatic resources including wetlands that are constructed in dry land, that do not have a surface water connection to a water of the U.S., and aquatic resources that are associated with waste water treatment facilities are not generally federally jurisdictional waters of the U.S. Therefore, we anticipate that the USACE will confirm that there are no waters of the U.S. present within the identified Study Area limits of the CCRSI facility.

Please let me know if you have any questions or require any additional information.

Sincerely,

Jeff Kraemer, Principal  
Heartland Ecological Group, Inc.  
[jeff@heartlandecological.com](mailto:jeff@heartlandecological.com)  
(608) 490-2450 Ext. 2

Cc: Jeff Maxted, WPL

Eric Nelson, SCS Engineers

Attachment 1. Site Figures

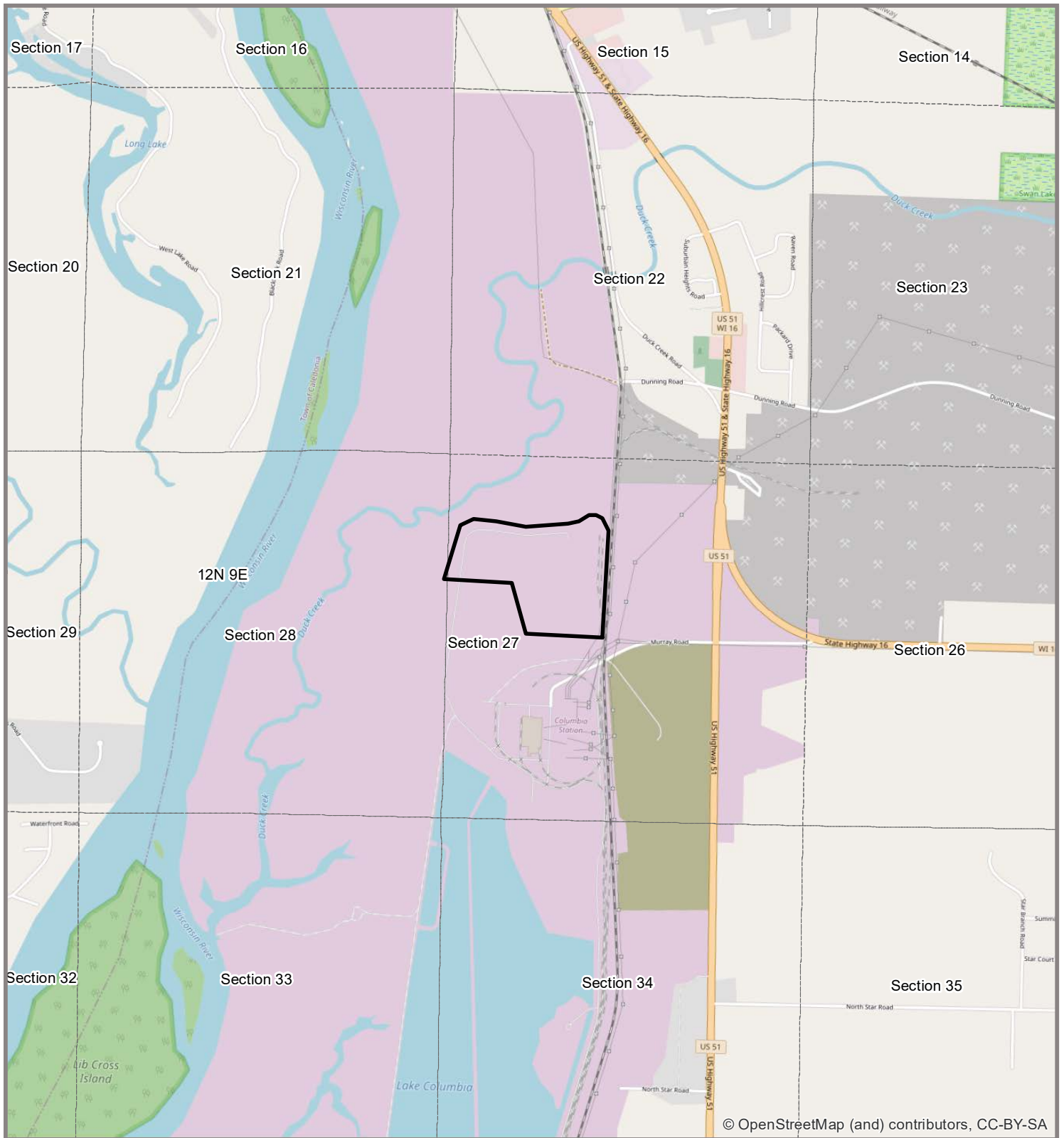
Attachment 2. Site Photographs

Attachment 3. Historical Information

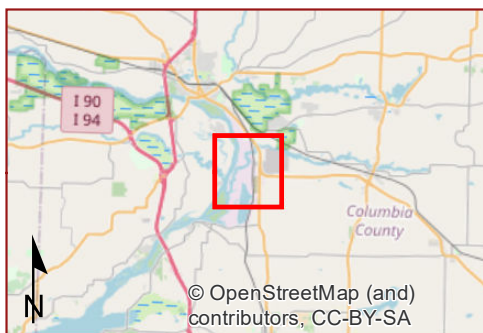





USACE  
Columbia Energy Center AJD Request  
September 28, 2020

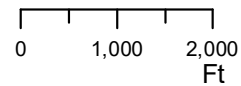
**ATTACHMENT 1 – SITE FIGURES**



© OpenStreetMap (and) contributors, CC-BY-SA



-  Study Area (67.43 ac)
-  PLSS Township
-  PLSS Sections



**Heartland**  
ECOLOGICAL GROUP INC

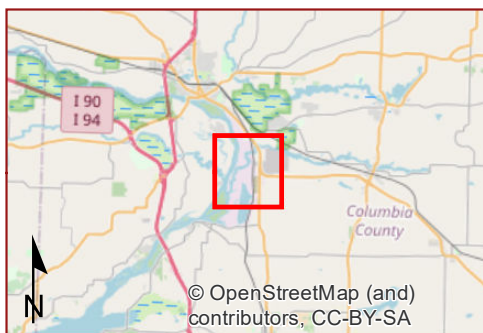
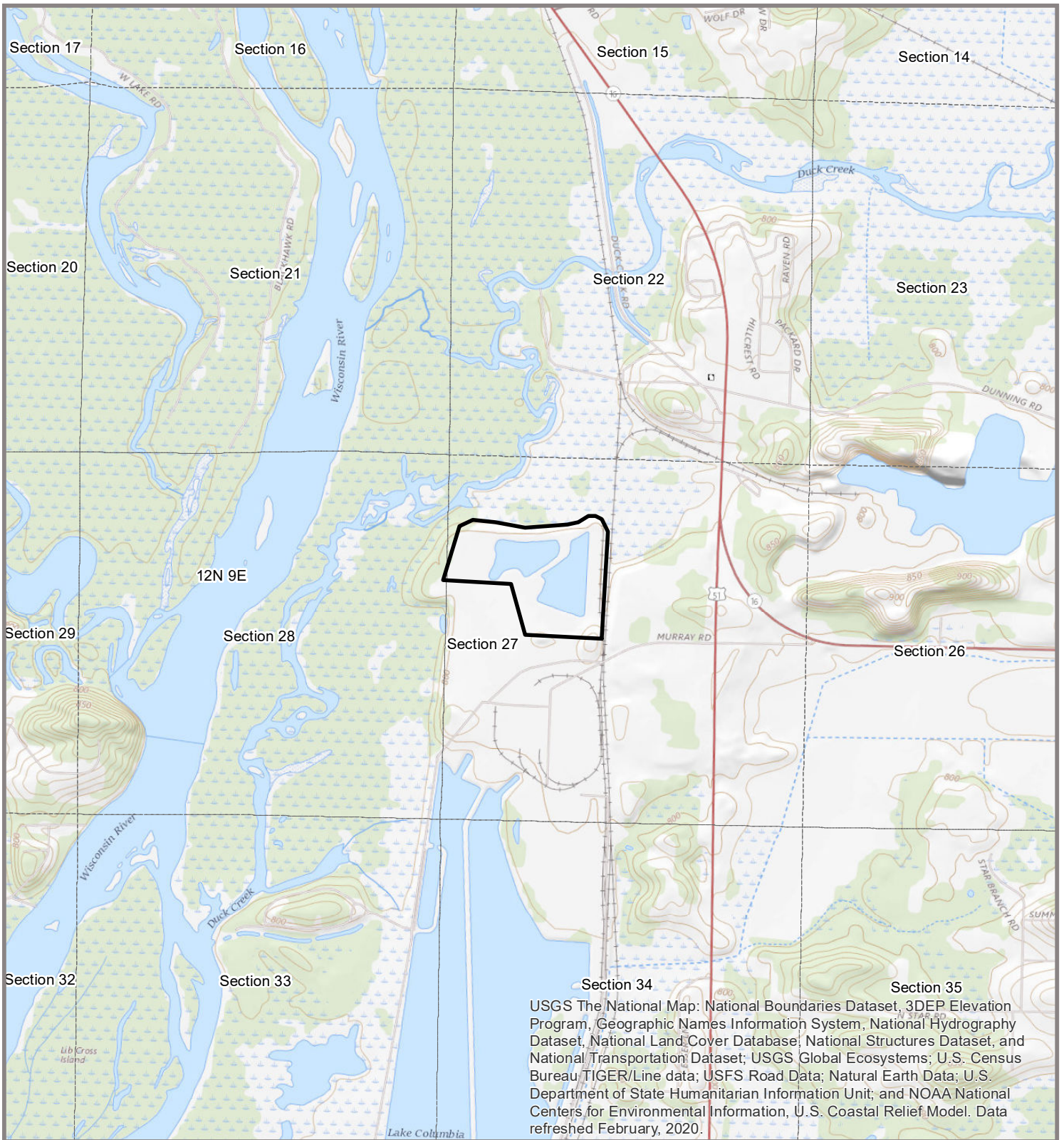
**Figure 1. Project Location**




WPL Columbia Power Plant  
Project #20200376  
T12N, R9E, S27 & 28  
T Pacific, Columbia Co, WI

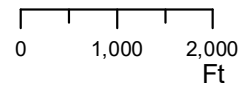
OpenStreetMap  
Data: ESRI

9/11/2020





-  Study Area (67.43 ac)
-  PLSS Township
-  PLSS Sections



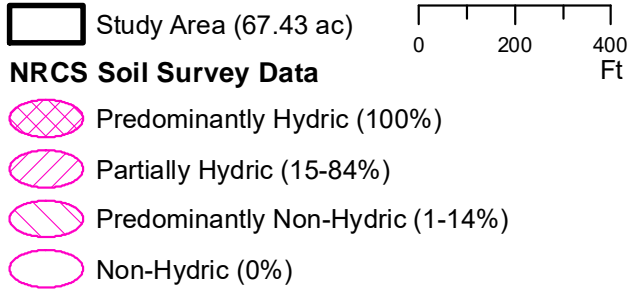
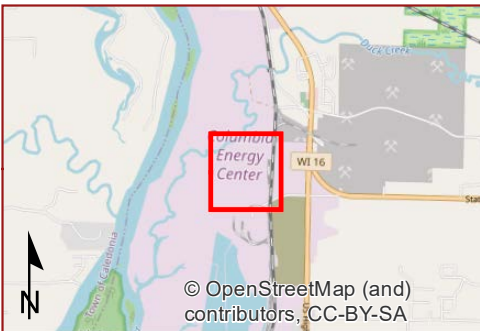
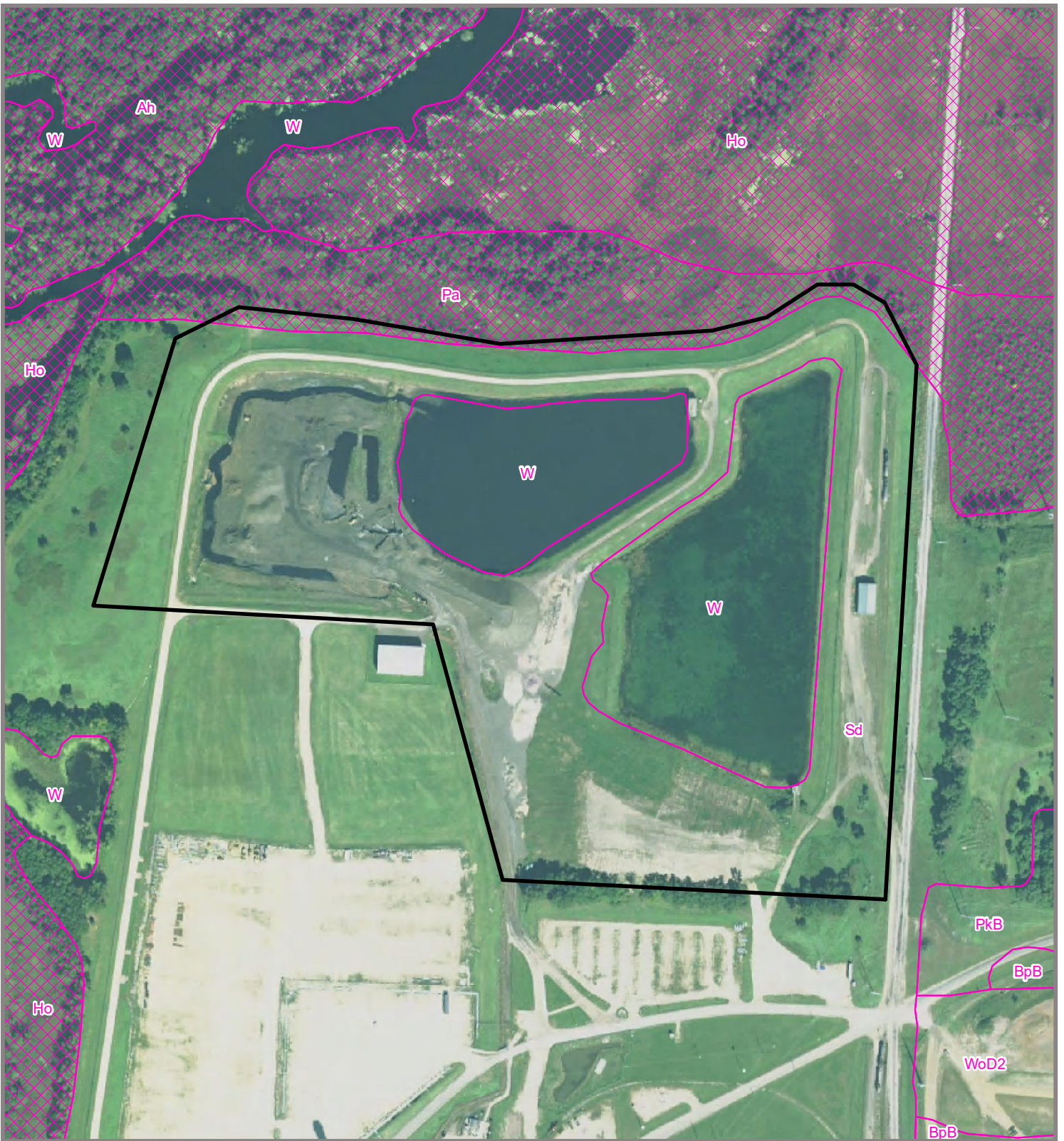
**Heartland**  
ECOLOGICAL GROUP INC

**Figure 2. USGS Topography**

WPL Columbia Power Plant  
Project #20200376  
T12N, R9E, S27 & 28  
T Pacific, Columbia Co, WI

USGSTopo  
Data: USGS      9/11/2020





**Heartland**  
ECOLOGICAL GROUP INC

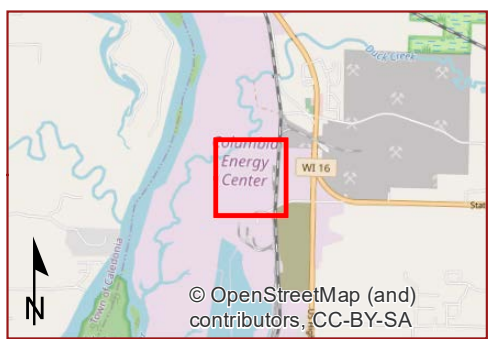
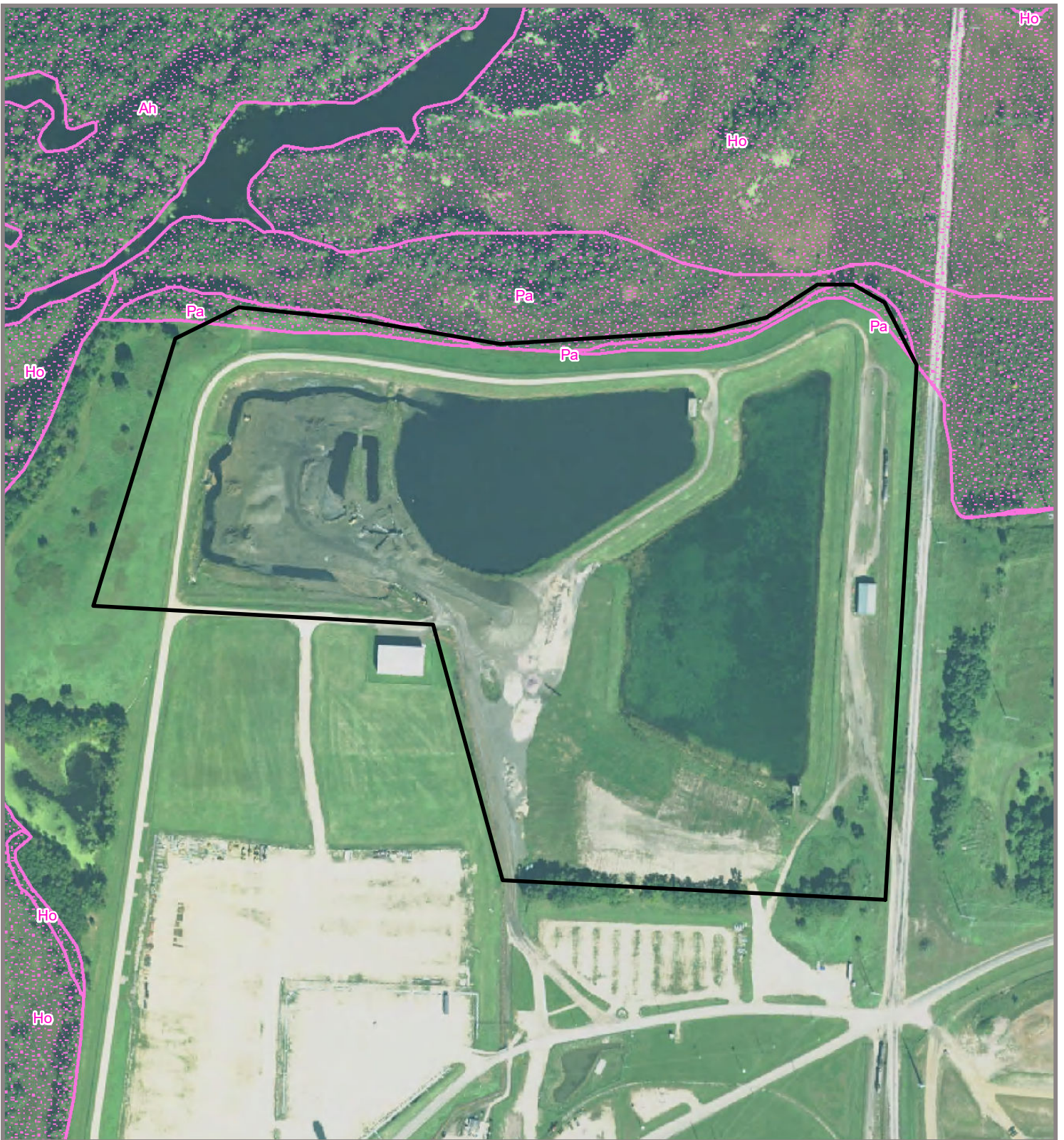
**Figure 3. NRCS Hydric Soils**

WPL Columbia Power Plant  
Project #20200376  
T12N, R9E, S27 & 28  
T Pacific, Columbia Co, WI

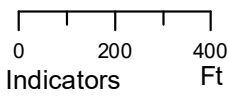
2018 NAIP  
Data: NRCS

9/11/2020





Study Area (67.43 ac)  
 Maximum Extent Wetland Indicators



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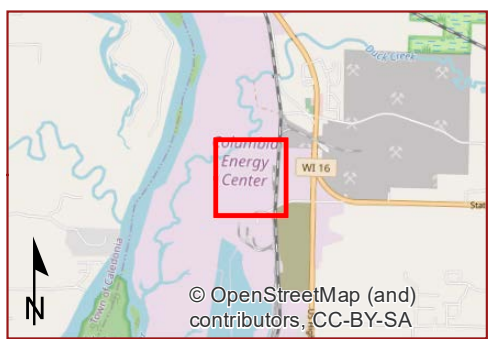
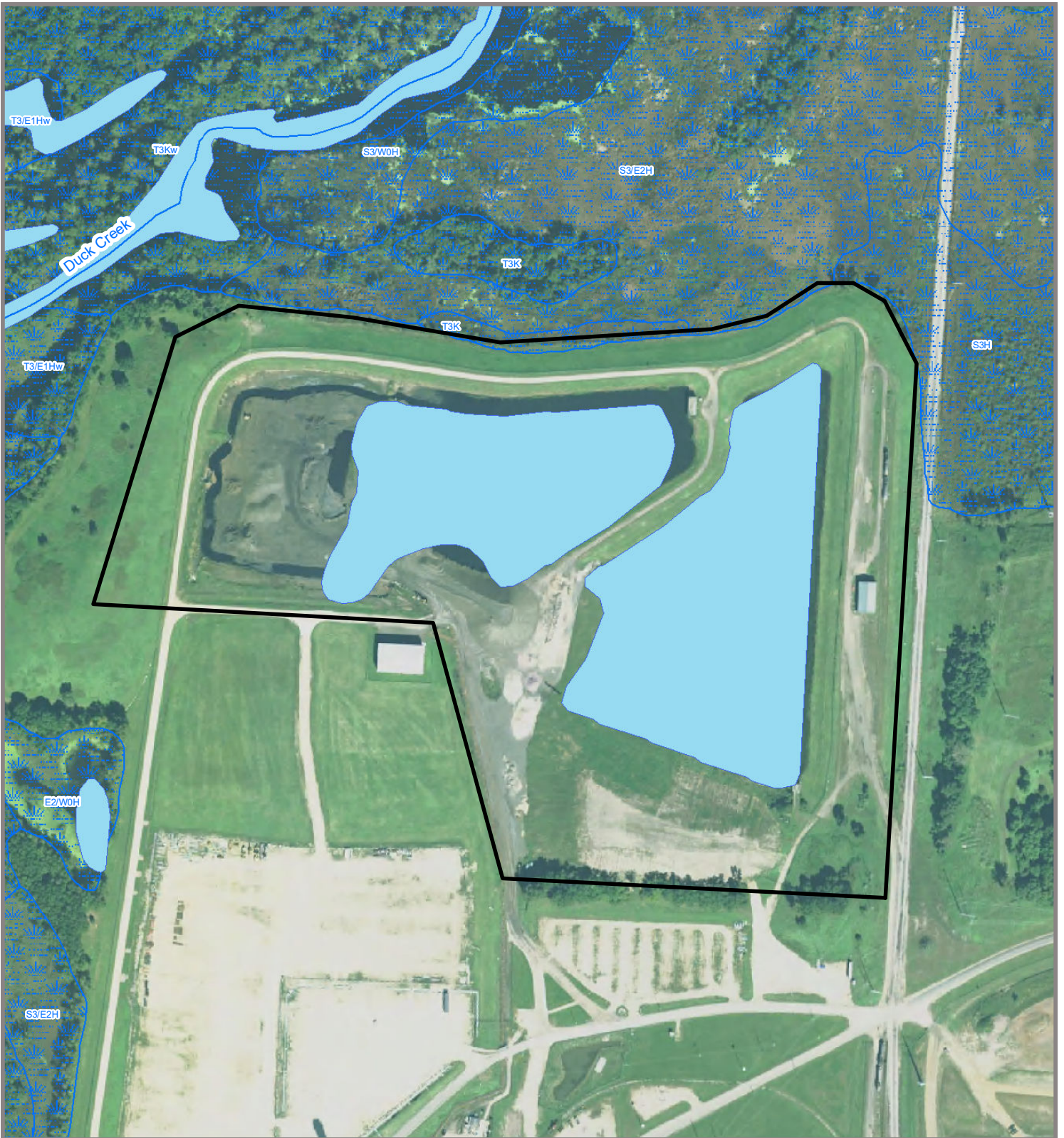
**Figure 4. SWDV  
 Wetland Indicators**

WPL Columbia Power Plant  
 Project #20200376  
 T12N, R9E, S27 & 28  
 T Pacific, Columbia Co, WI





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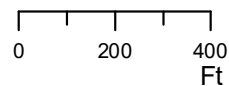
2018 NAIP  
 Data: WDNR 9/11/2020





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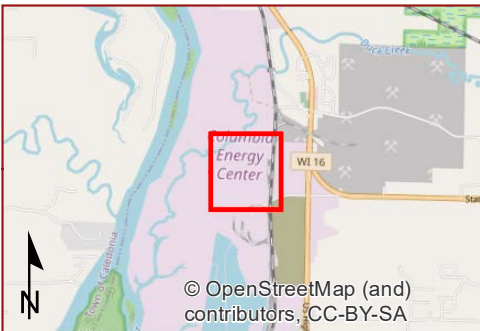
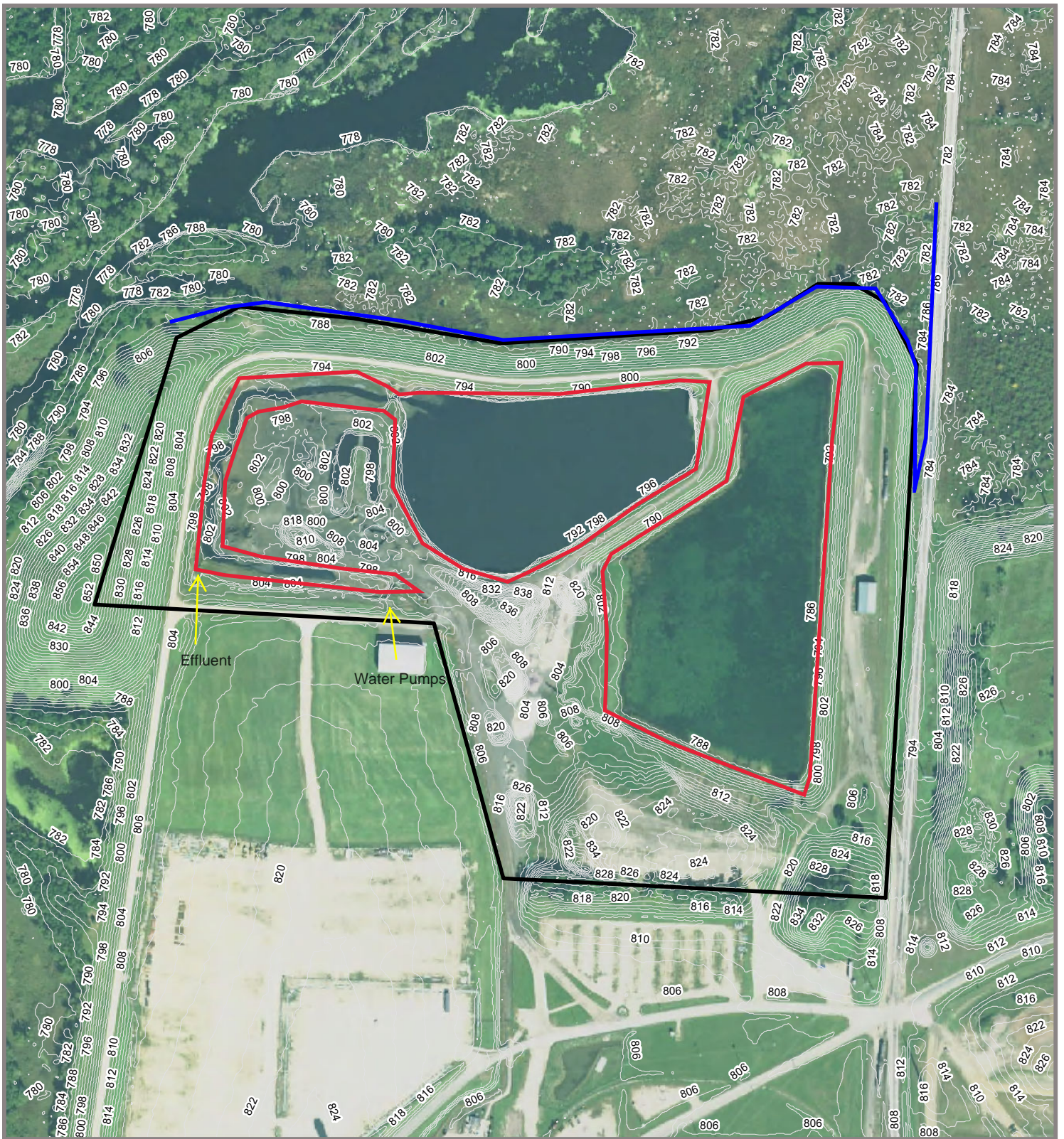
-  Study Area (67.43 ac)
-  WWI Wetlands
-  NHD Waterbody
-  NHD Waterway



**Heartland**  
ECOLOGICAL GROUP INC

**Figure 5. Wisconsin Wetland Inventory**  
WPL Columbia Power Plant  
Project #20200376  
T12N, R9E, S27 & 28  
T Pacific, Columbia Co, WI  
2018 NAIP  
Data: WDNR, USGS 9/11/2020





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- Study Area (67.43 ac)
- Columbia Co 2' Contours
- Aquatic Resources w/in CCRSI Facility
- Approximate Wetland Boundary Outside of CCRSI Facility



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**Figure 6. Field Map**  
WPL Columbia Power Plant  
Project #20200376  
T12N, R9E, S27 & 28  
T Pacific, Columbia Co, WI  
2018 NAIP  
Data: Columbia Co      9/11/2020



USACE  
Columbia Energy Center AJD Request  
September 28, 2020

**ATTACHMENT 2 – SITE PHOTOGRAPHS**





**Photo #1** Eastern Pond – NE Corner



**Photo #2** Eastern Pond – East Edge



**Photo #3** Eastern Pond – East Edge



**Photo #4** Eastern Pond – East Edge



**Photo #5** Eastern Pond from Southern Portion



**Photo #6** Water Conveyance Swale





**Photo #7** Water Conveyance Swale



**Photo #8** Western Pond from NE Corner



**Photo #9** Western Pond - Northern Edge



**Photo #10** Western Pond at Conveyance Swale Discharge



**Photo #11** Wetlands Off-Site to North from north berm



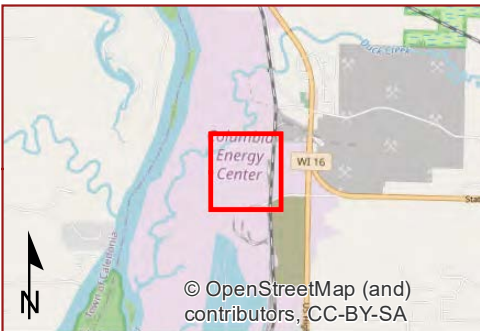
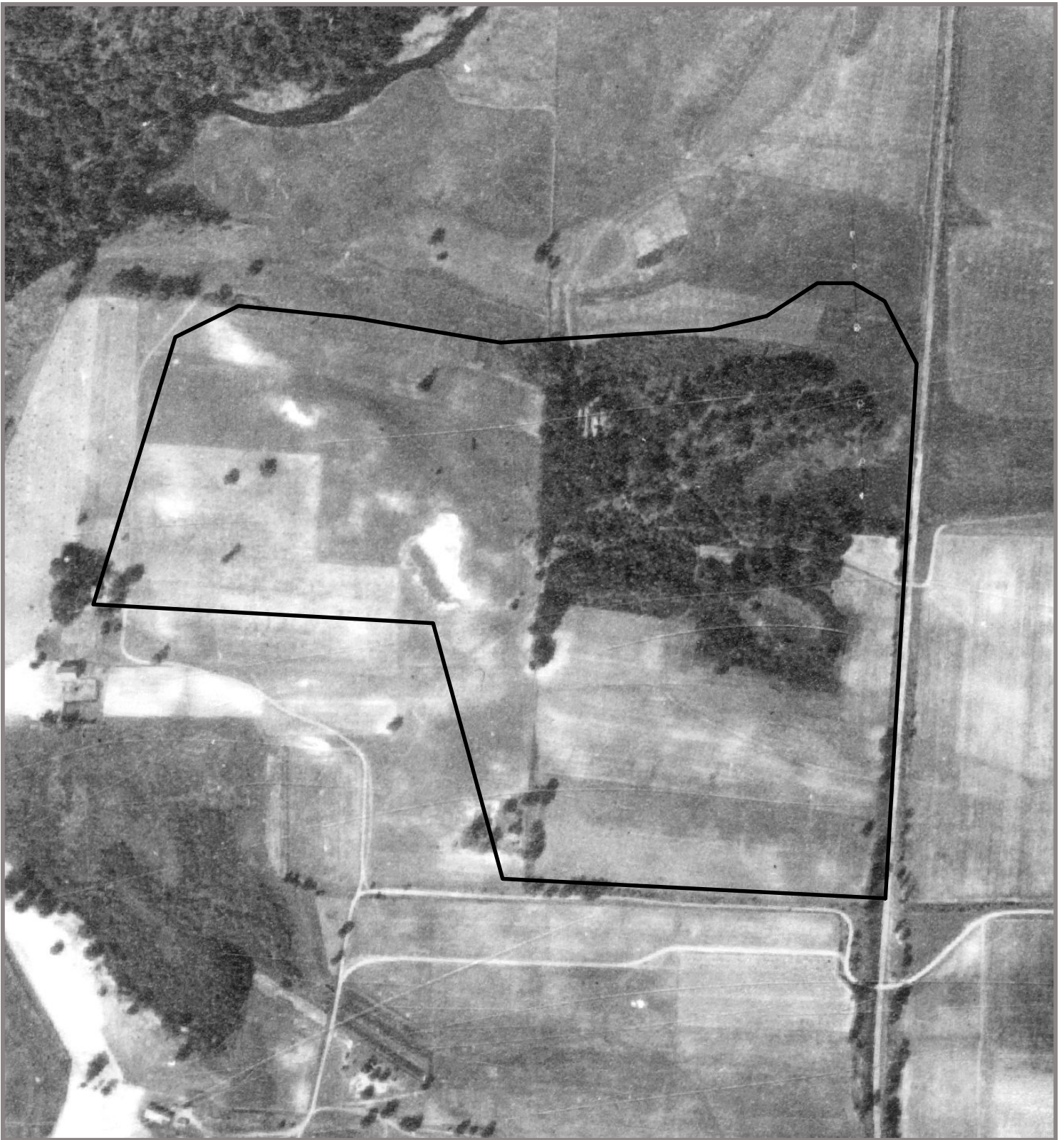
**Photo #12** Northern Berm and Wetlands to North.



USACE  
Columbia Energy Center AJD Request  
September 28, 2020

**ATTACHMENT 3 – HISTORICAL INFORMATION**





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 Study Area (67.43 ac)

0 200 400  
Ft

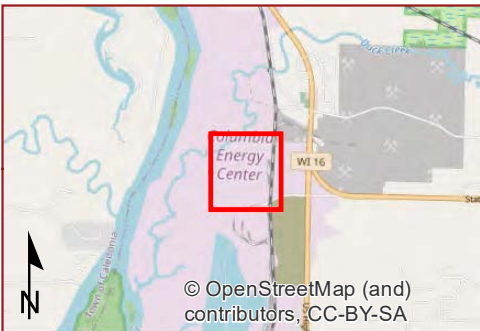
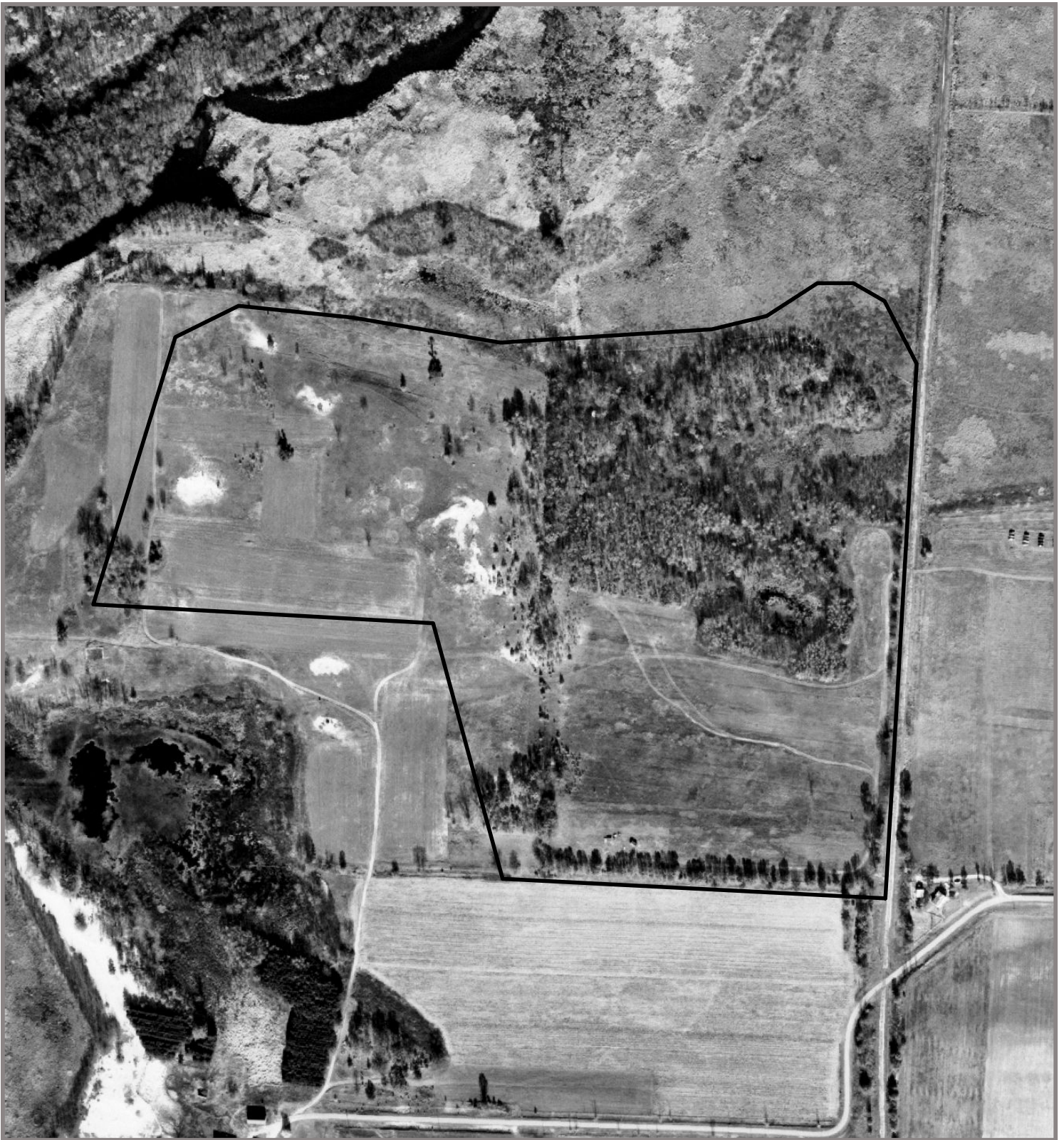
**Heartland**  
ECOLOGICAL GROUP INC

**Appendix: 9-21-1937  
Orthophoto**

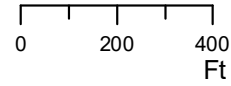
WPL Columbia Power Plant  
Project #20200376  
T12N, R9E, S27 & 28  
T Pacific, Columbia Co, WI

1937 Orthophoto  
Data: WI St. Cart. office 9/11/2020





 Study Area (67.43 ac)



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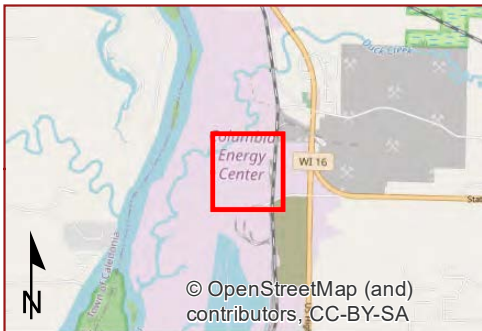
**Appendix: 11-11-1960  
Orthophoto**

WPL Columbia Power Plant  
Project #20200376  
T12N, R9E, S27 & 28  
T Pacific, Columbia Co, WI

1960 Orthophoto  
Data: USGS

9/18/2020





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 Study Area (67.43 ac)

0 200 400  
Ft

**Heartland**  
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**Appendix: 04-01-1974  
Orthophoto**

WPL Columbia Power Plant  
Project #20200376  
T12N, R9E, S27 & 28  
T Pacific, Columbia Co, WI

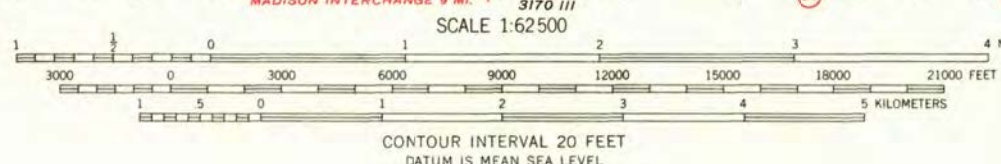
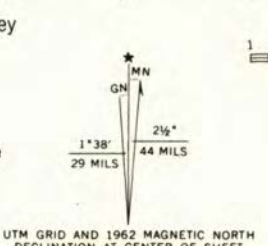
1974 IR Orthophoto  
Data: USGS

9/18/2020





Mapped, edited, and published by the Geological Survey  
Control by USGS and USC&GS  
Topography by photogrammetric methods from aerial  
photographs taken 1960. Field checked 1962  
Polyconic projection. 1927 North American datum  
10,000-foot grid based on Wisconsin coordinate system, south zone  
1000-meter Universal Transverse Mercator grid ticks,  
zone 16, shown in blue



ROAD CLASSIFICATION

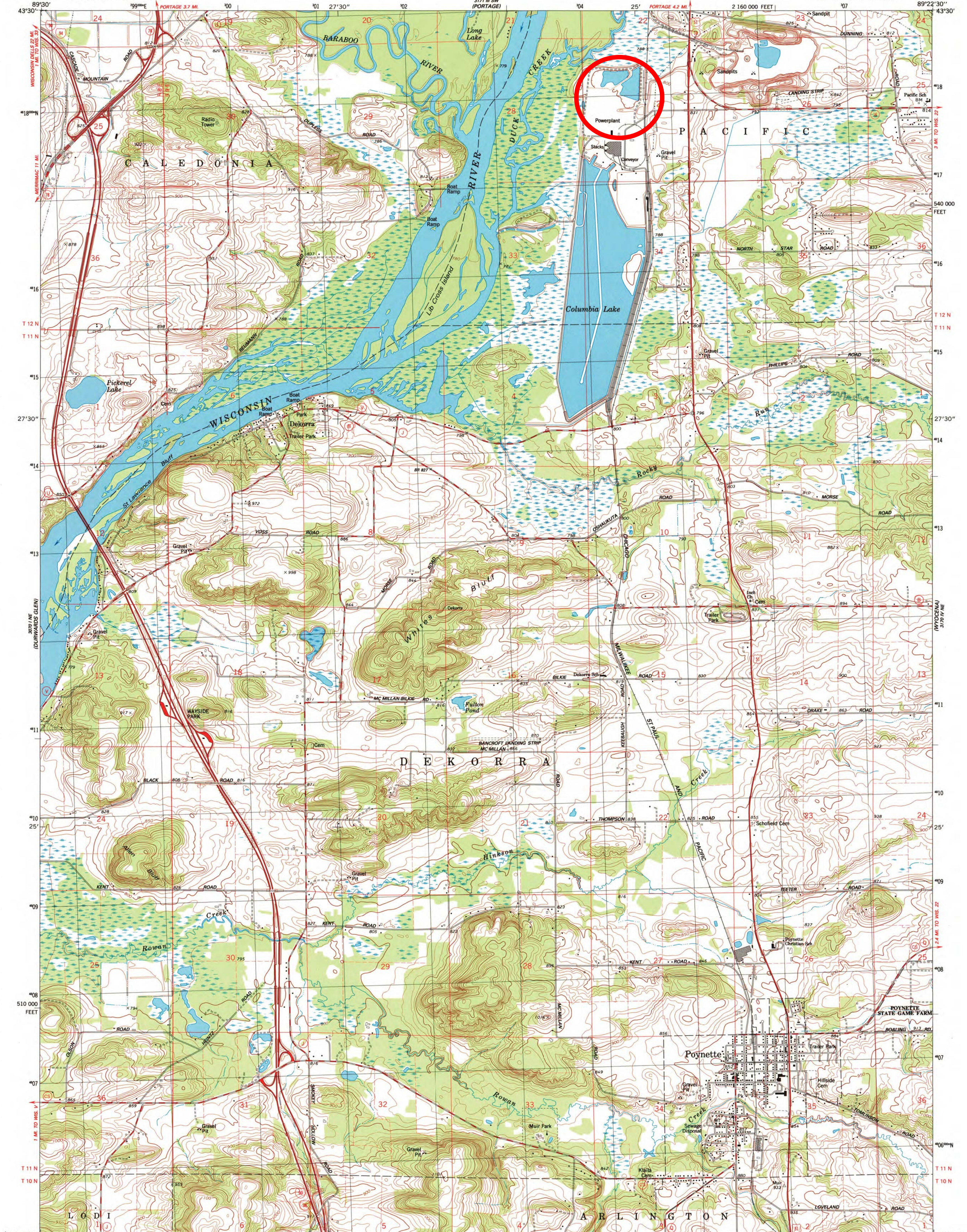
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Medium-duty	Unimproved dirt
Interstate Route	U.S. Route
	State Route



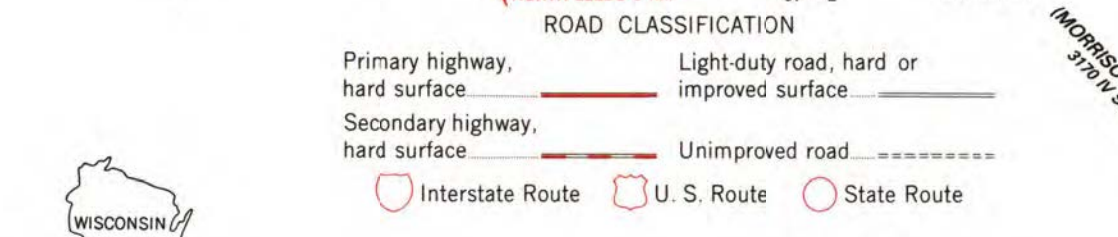
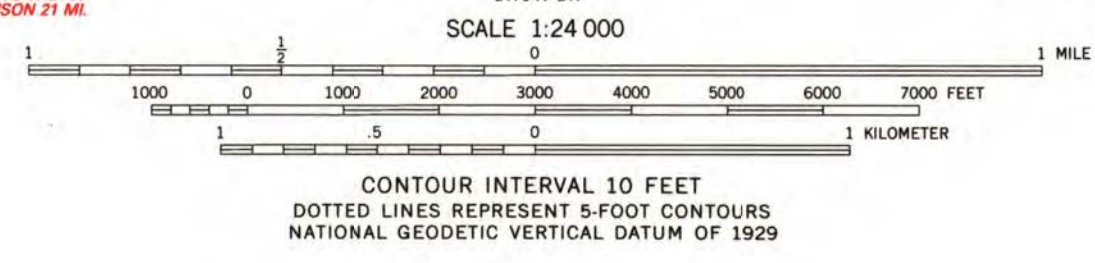
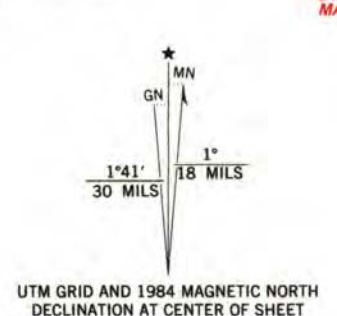
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U. S. GEOLOGICAL SURVEY, WASHINGTON, D. C. 20242  
AND WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY, MADISON, WISCONSIN 53706  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

POYNETTE, WIS.  
N4315-W8915/15  
1962  
AMS 3170 IV - SERIES V761





Mapped, edited, and published by the Geological Survey in cooperation with the Wisconsin Division of Highways and Wisconsin Geological and Natural History Survey. Control by USGS and NOS/NOAA. Topography by photogrammetric methods from aerial photographs taken 1960. Revised from aerial photographs taken 1982. Field checked 1983. Map edited 1984. Projection and 10,000-foot grid ticks: Wisconsin coordinate system, south zone (Lambert conformal conic) 1000-meter Universal Transverse Mercator grid, zone 16 1927 North American Datum. To place on the predicted North American Datum 1983, move the projection lines 5 meters north and 10 meters east as shown by dashed corner ticks. There may be private inholdings within the boundaries of the National or State reservations shown on this map.



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS FOR SALE BY U.S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092 AND WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY, MADISON, WISCONSIN 53706. A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST.

POYNETTE, WIS.  
NW/4 POYNETTE 15' QUADRANGLE  
43089-D4-TF-024  
1984  
DMA 3170 IV NW-SERIES V861

WISCONSIN HISTORICAL SOCIETY  
MAY 31 1999  
FIELD FILE 024





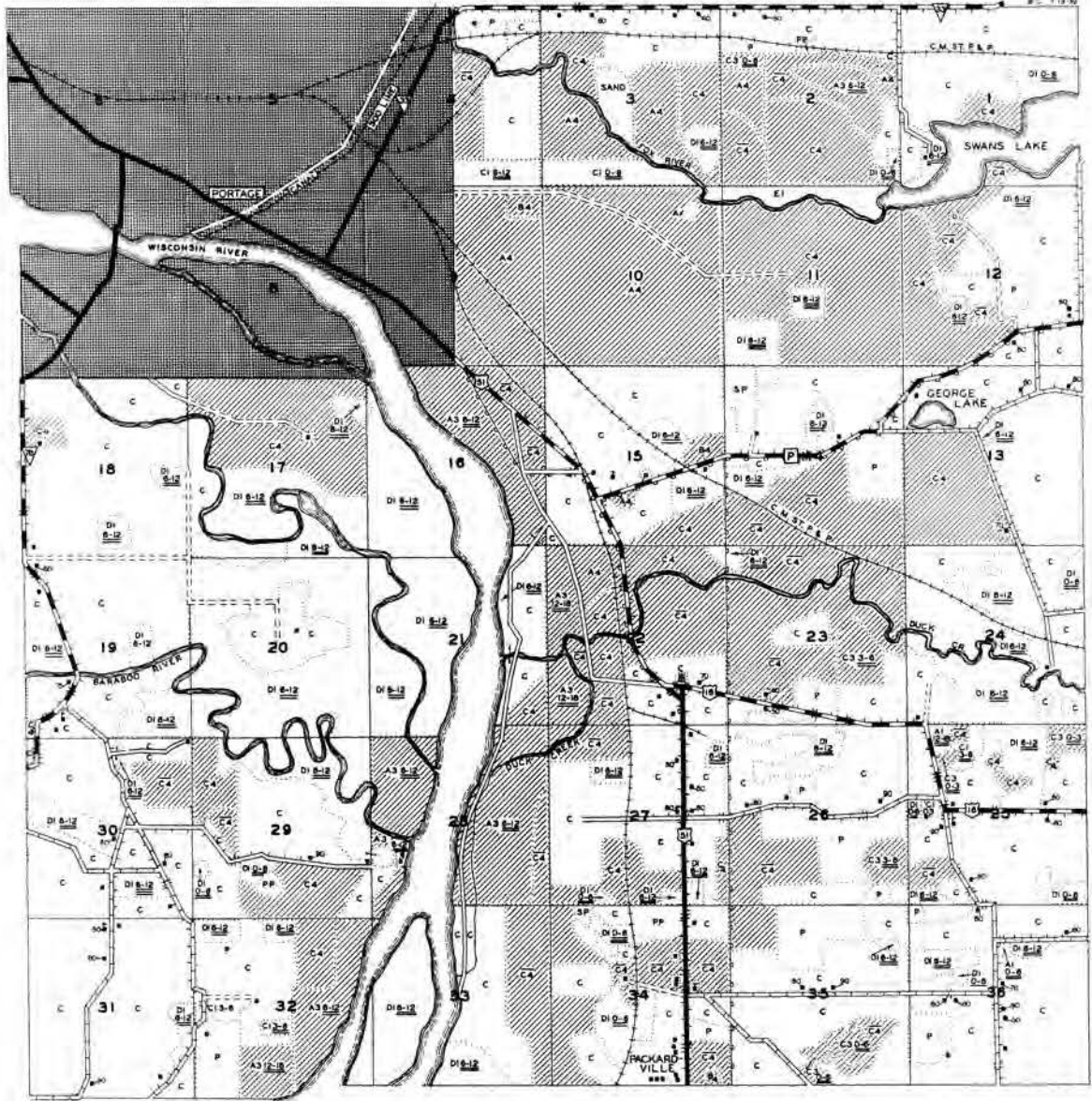
# WISCONSIN LAND INVENTORY

## LAND COVER MAP

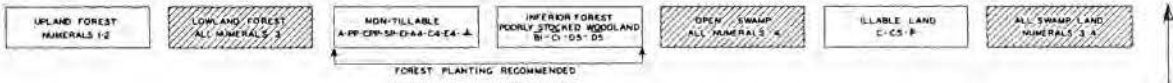
T. 12 N. R. 9 E.

TOWN OF PACIFIC

COLUMBIA COUNTY



### LEGEND



### LAND COVER

- |   |   |   |
|---|---|---|
| <p>A ABANDONED</p> <p>A1 UPLAND HARDWOODS</p> <p>A2 HEMLOCK WITH HARDWOOD</p> <p>A3 SWAMP HARDWOODS</p> <p>A4 TACKLER, WILLOW, DOGWOOD<br/>ETC.</p> <p>B BIRCH</p> <p>B1 HARDWOOD WITH CONIFERS</p> <p>B2 WHITE PINE</p> <p>B3 WHITE CEDAR</p> <p>B4 CAT TAIL MARSH</p> | <p>C CLEARED CROP LAND</p> <p>C1 POPLAR WITH WHITE BIRCH</p> <p>C2 INTERIOR C1</p> <p>C3 NORWAY PINE</p> <p>C4 TAMARACK</p> <p>C4 GRASS MARSH</p> <p>C4 SEDGE MARSH</p> <p>C5 CULTIVATED STUMP LAND</p> <p>CPP POOR LAND PREVIOUSLY CROPPED</p> <p>D SCRUB OAK</p> <p>D1 OAK-HICKORY</p> <p>D2 JACK PINE</p> <p>D3 BLACK SPRUCE</p> | <p>D5 BALSAM</p> <p>D5 LEATHER LEAF</p> <p>D5 RECENT BURN</p> <p>D5 DEAD TIMBER</p> <p>E1 PIN CHERRY</p> <p>E4 WEECH PEAT</p> <p>F4 CRANBERRY MARSH</p> <p>FP FOREST PLANTATION</p> <p>G OPEN</p> <p>P PASTURE</p> <p>PP PERMANENT PASTURE</p> <p>RC RED CEDAR</p> <p>SP STUMP PASTURE</p> <p>TG TRUCK GARDEN</p> |
|---|---|---|

### ROADS

- |   |  |
|---|--|
| <p>4 FEDERAL HIGHWAY</p> <p>STATE HIGHWAY</p> <p>COUNTY HIGHWAY</p> | <p>HARD SURFACED ROAD</p> <p>UNIMPROVED GRAVEL ROAD</p> <p>UNIMPROVED DIRT ROAD</p> <p>UNIMPROVED DIRT ROAD</p> <p>TRAIL</p> <p>DRIVABLE FIRE LANE</p> <p>NON-DRIVABLE FIRE LANE</p> <p>TELEPHONE LINE</p> <p>POWER LINE</p> <p>RAILROAD</p> <p>ABANDONED RAILROAD</p> |
|---|--|

### IMPROVEMENTS

- |  |   |
|--|---|
| <p>O OCCUPIED HOUSE</p> <p>V VACANT HOUSE</p> <p>S SUMMER HOME</p> <p>S OCCUPIED SCHOOL</p> <p>V VACANT SCHOOL</p> <p>CHURCH</p> <p>T TOWN HALL</p> <p>C CHEESE FACTORY</p> <p>C CREAMERY</p> <p>F FILLING STATION OR GARAGE</p> <p>S STORE</p> <p>T TAVERN</p> <p>H HOTEL</p> <p>S SAW MILL</p> <p>G GRIST MILL</p> <p>F FARM BLDG LESS THAN 100 FT<br/>FROM CENTER OF ROAD</p> <p>L LOGGING CAMP</p> | <p>I INDICATES NO OF HOUSES IN<br/>A GROUP</p> <p>SO INDICATES THE NUMBER OF FEET<br/>BLDG IS LOCATED FROM CENTER<br/>OF ROAD</p> |
|--|---|

### MISCELLANEOUS SYMBOLS

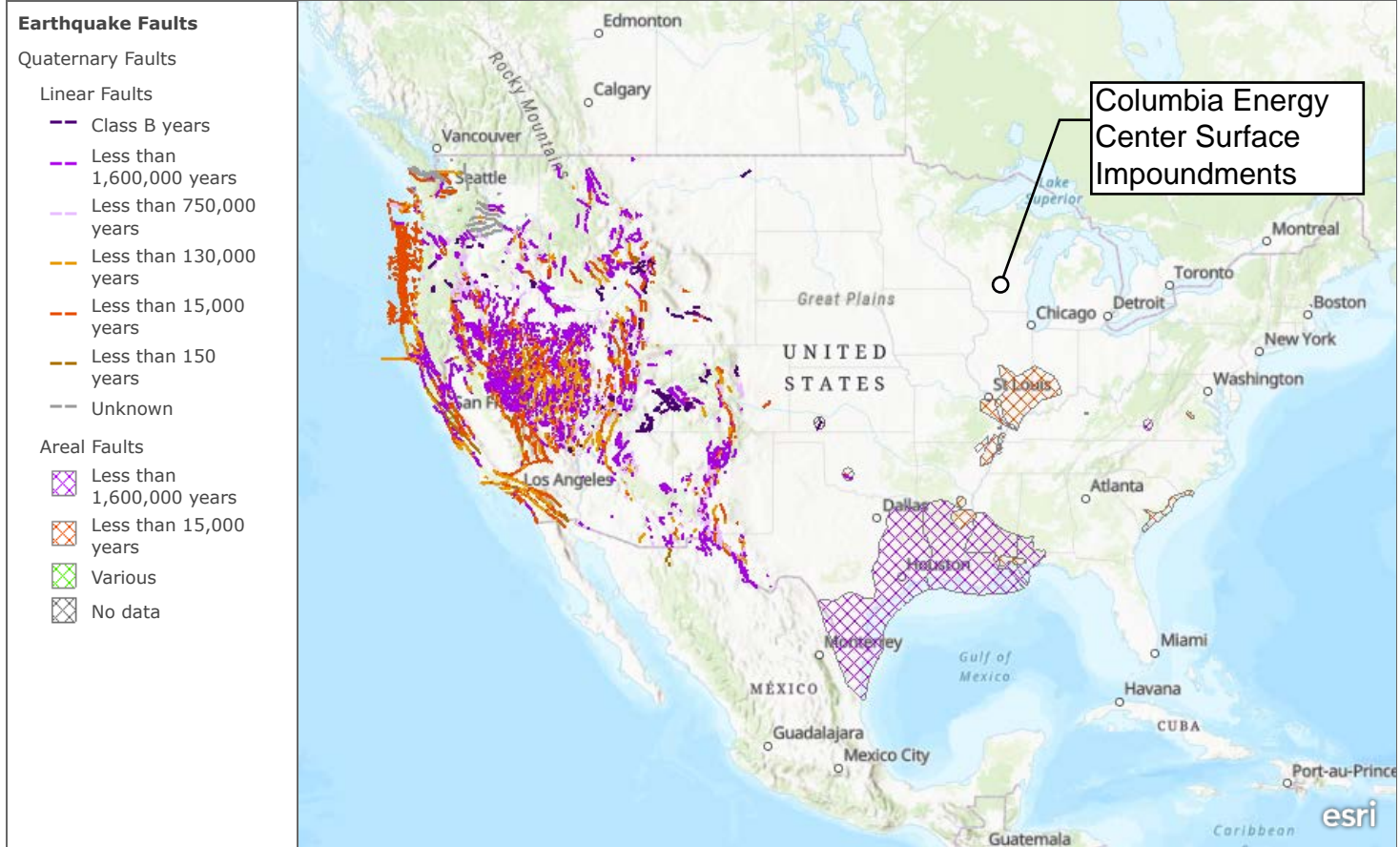
- |   |   |  |
|---|---|--|
| <p>Q QUARRY</p> <p>G GRAVEL PIT</p> <p>S SPRING</p> <p>F FUR FARM</p> <p>D DRAINAGE DITCH</p> | <p>M MEDIUM HARD WATER</p> <p>VH VERY HARD</p> <p>VA VERY ALGAE ABUNDANT</p> <p>A.A. ALGAE ABUNDANT</p> | <p>GC GOLF COURSE</p> <p>BD BEAVER DAM</p> <p>PD PUBLIC DUMP</p> <p>Y ORCHARD</p> <p>C CIVIL TOWN BOUNDARY</p> |
|---|---|--|

### LAKE SYMBOLS

- |  |   |  |
|--|---|--|
| <p>RA. RELATIVELY ABUNDANT PLANT GROWTH</p> <p>M.A. MODERATELY</p> <p>V.A. VERY</p> <p>S.C. PLANT GROWTH SCARC</p> | <p>A. PLANT GROWTH ABSENT</p> <p>OD. WATER LILY BED</p> <p>AD. AQUATIC PLANT BED</p> <p>WC. WILD CELERY</p> | <p>SH. SHALLOW</p> <p>BPW. BASS WEED</p> <p>PKW. PICKEREL WEED</p> |
|--|---|--|
- DENSITY, OR STAND
- IS INDICATED BY THE LINE OR  
LINES BELOW THE DIAMETER
- DI 8-12 ONE LINE + GOOD STAND
- DI 8-12 TWO LINES + MEDIUM STAND
- DI 8-12 THREE LINES + POOR STAND
- DI 8-12 FOUR LINES + SCATTERED
- WOODED AREAS
- DIAMETER CLASSES
- NUMERALS 0-3, 3-E ETC PLACED  
AFTER A TIMBER SYMBOL (DI 8-12)
- INDICATES IN INCHES THE AVERAGE  
DIAMETER OF THE TREES  
BAREST HALF (1/2 FT) WITHIN  
A GIVEN COVER AREA


Appendix B  
Fault Location Map

### Earthquake Faults



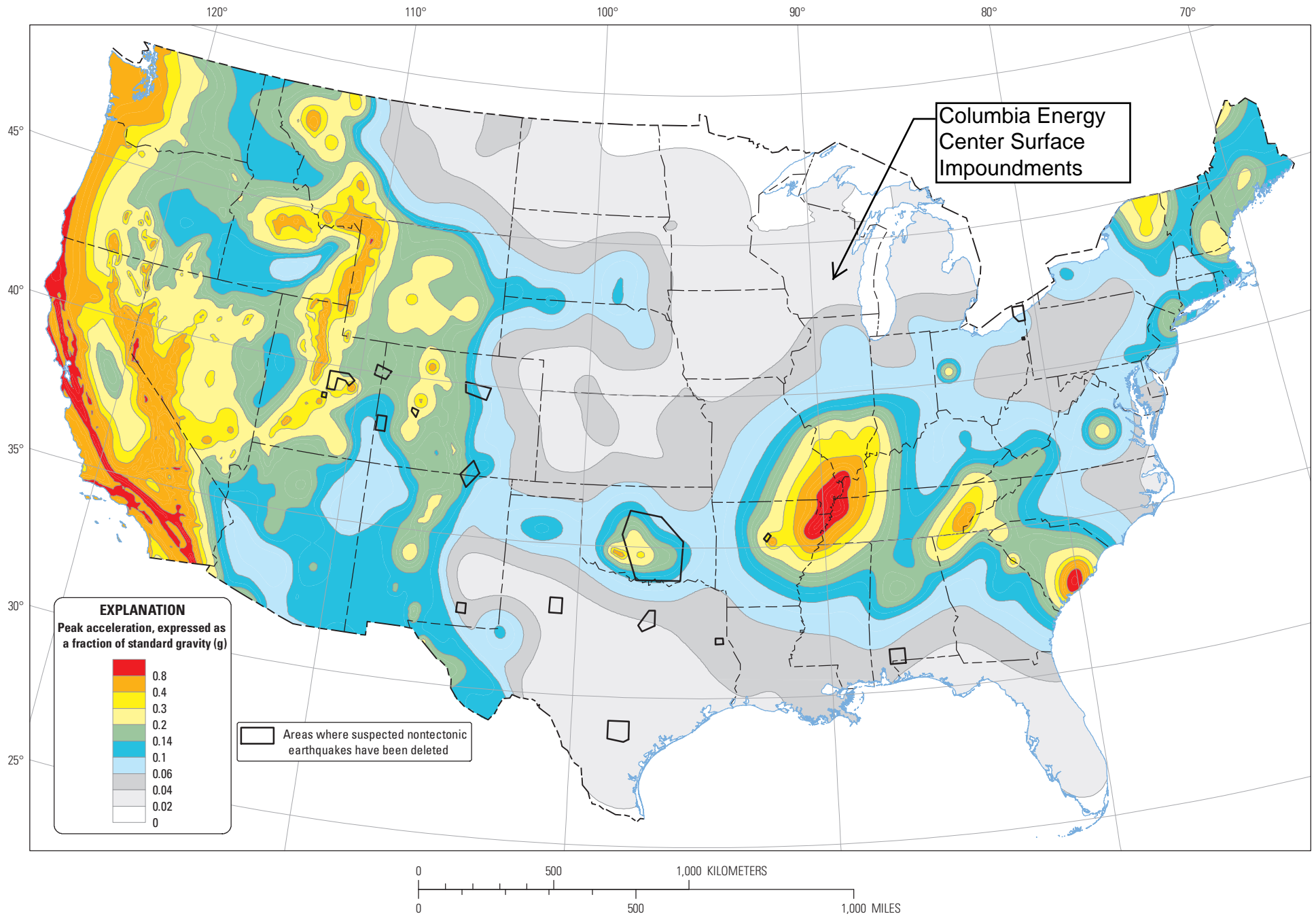
This map layer, utilizing data from the U.S. Geological Survey's (USGS) Earthquake Hazards Program (EHP), details known faults and folds in the U.S.

Esri, USGS | Esri, HERE, Garmin, FAO, NOAA, USGS, EPA | Acknowledgment of the Quaternary Faults and Fold Database, the U.S. Geological Survey, and (or) the National Atlas of the United States of America would be appreciated in products derived from these data.



Appendix C  
Seismic Hazard Map





## Two-percent probability of exceedance in 50 years map of peak ground acceleration

Source: USGS seismic impact zones map - <https://earthquake.usgs.gov/static/lfs/nshm/conterminous/2014/2014pga2pct.pdf>