

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
)
)
STANDARDS FOR THE DISPOSAL OF) **R20-19**
COAL COMBUSTION RESIDUALS) **(Rulemaking – Land)**
IN SURFACE IMPOUNDMENTS:)
PROPOSED NEW 35 ILL. ADM. CODE 845)

NOTICE OF FILING

To: ALL PARTIES ON THE ATTACHED SERVICE LIST

PLEASE TAKE NOTICE that I have today electronically filed with the Office of the Clerk of the Illinois Pollution Control Board the attached **Prefiled Responses of Dr. Melinda Hahn**, copies of which are herewith served upon you.

/s/ Ryan C. Granholm

Ryan C. Granholm

Dated: September 24, 2020

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NOW COME Dynegy Midwest Generation, LLC, Electric Energy, Inc., Illinois Power Generating Company, Illinois Power Resources Generating, LLC, and Kincaid Generation, LLC, (collectively, “Dynegy”), by their attorneys, Schiff Hardin LLP, pursuant to the Hearing Officer’s July 14, 2020 Order and submit the below responses.

Prefiled Responses of Dr. Melinda Hahn

Illinois Pollution Control Board:

22. On page 5, you state that the “detailed assessment performed by Ramboll does not support the conclusion and allegations of the Cap and Run report of “widespread” and “unsafe” groundwater impacts from coal ash surface impoundments.” Please clarify whether Ramboll prepared a technical report detailing the groundwater reviews and assessments. If so, please submit a copy of the report into the record.

RESPONSE: See attached report.

Illinois Environmental Protection Agency:

1. On Page 4 of your testimony you state that it was determined that neither potable wells nor water intakes were at risk from CCR surface impoundments in Illinois.
 - a. Can groundwater and surface water be used for purposes other than drinking water?

RESPONSE: Yes. For clarification, my testimony is intended to provide an update to the IEPA's 2012 Illinois Groundwater Protection Program Biennial (GPPB) report, which reported that, based on its potable well survey, no drinking water supply wells are being threatened downgradient of CCR surface impoundment sites in Illinois, and I concur with this conclusion based on Ramboll's review. My testimony is also intended to rebut any suggestion or conclusion one may want to draw from the Cap & Run report, which may in turn be contrary to the IEPA's GPPB reports.

b. Can water uses such as irrigation or live-stock watering, be impacted by contamination from a CCR surface impoundment?

RESPONSE: Our evaluation did not identify any irrigation or livestock watering wells that are at risk of impact from CCR impoundments.

c. Is water that is not currently be used for a specific purpose a valuable resource?

RESPONSE: This is beyond the scope of my testimony. I am not evaluating the appropriate use or resource quality of groundwater in the state of Illinois.

d. If so, should valuable resources be protected from degradation?

RESPONSE: I am not suggesting that groundwater resources should or should not be protected from degradation. Please see answer 1(a).

e. Are you aware of the antidegradation standards that Illinois has for groundwater in Part 620?

RESPONSE: Yes, I am generally aware of the Part 620 antidegradation standards. I am not suggesting that groundwater resources should or should not be protected from degradation.

City Water, Light & Power:

1. Did you look at the City Water, Light & Power Dallman and Lakeside Ash Pond sites for evidence of impact on surface water intakes, community water supply wells or other private potable wells from that site? What did you conclude?

RESPONSE: See attached report (Section 3.2).

ELPC, Prairie Rivers Network, and Sierra Club:

1. On page 1 of your testimony, you state that the Cap and Run: Toxic Coal Ash Left Behind By Big Polluters Threatens Illinois water (“Cap and Run report”) does not make the “necessary statistical calculations.”

a. What are those “necessary statistical calculations”?

RESPONSE: Statistically significant levels, as stipulated by 40 CFR 257.93, 95 and

96 -- Groundwater Sampling and Analysis Requirements.

b. Have you completed those calculations?

RESPONSE: No.

c. If so, what were the results? If not, why not?

RESPONSE: These calculations were not within the scope of my testimony, which does not include whether or not groundwater corrective action has been triggered pursuant to the CCR Rule.

2. On page 1 of your testimony, you state that the Cap and Run report authors “use vague and superlative language to describe groundwater impacts from coal ash . . . which suggests that many people are being exposed to drinking water about health-based standards . . . which gives the false impression that the community water supply is impacted and residents are exposed to unacceptable health risks.”

a. Are you aware of where the data for the Cap and Run report, which you recognize is publicly available, comes from? If so, where?

RESPONSE: As noted in the Cap and Run report, “The Environmental Integrity Project and Earthjustice analyzed groundwater monitoring data from Illinois coal plants

that became publicly available in March 2018 pursuant to the EPA's federal coal ash rule...Groundwater data available for several coal plants not previously subject to the coal ash rule were also evaluated in this report.”

b. If groundwater monitoring data shows that certain pollutants are above the health-based standard, is that groundwater safe to drink?

RESPONSE: The Safe Drinking Water Act establishes Maximum Contaminant Levels (MCLs) for public water supply systems that protect public health from unacceptable risks of cancer and non-cancer health impacts based on long-term water consumption. A water supply which contains pollutants above primary MCLs is not considered safe¹ for the long-term protection of public health. If a chemical has an MCL, the MCL is generally adopted as the Illinois Class I groundwater standard. The purpose of Ramboll's analysis was to determine whether wells used for drinking water purposes are potentially threatened by sites with CCR surface impoundments in Illinois. The drinking water pathway must be complete if there are pollutants above the primary MCL for an unsafe condition to exist. The analysis does not include a risk assessment.

c. Are there any wells for domestic use near surface impoundments? Did you or Ramboll investigate where all of the residents get their water from in areas surveyed in the Cap and Run report?

RESPONSE: See attached report.

d. Did Ramboll evaluate whether there are any barriers to the siting of drinking water wells, or other wells for domestic use, near CCR surface impoundments in the future? If so, please describe Ramboll's findings and explain the barriers identified.

RESPONSE: Yes, Ramboll evaluated the presence of municipal groundwater use ordinances within the applicable search radii of the sites.

¹ Note that secondary MCLs are determined based on aesthetic effects (e.g., taste and odor) rather than health effects.

e. Did Ramboll evaluate whether there are any barriers to the siting of drinking water wells, or other wells for domestic use, in the future in aquifers currently affected by leachate from CCR surface impoundments? If so, please describe Ramboll's findings and explain the barriers identified.

RESPONSE: This was outside of the scope of the evaluation.

f. Did Ramboll evaluate whether there are any barriers to the siting of surface water intakes for drinking water or domestic use in the future in surface waters into which leachate from CCR surface impoundments is discharging? If so, please describe Ramboll's findings and explain the barriers identified.

RESPONSE: This was outside of the scope of the evaluation.

3. On page 2 of your testimony, you describe a study that Ramboll completed to "update the well survey completed by IEPA from 2010-2011 GPPB report."

a. Why was an update to the well survey needed?

RESPONSE: Considering that 10 years have passed since the IEPA's review and additional wells could have been installed, Ramboll completed an update to the survey to evaluate whether the survey conclusions held.

b. Could you provide a copy of Ramboll's report?

RESPONSE: See attached report.

4. On page 2 of your testimony, you state that Ramboll's survey identified "all private, semi-private, and non-community water system (non CWS) wells and surface water intakes located at the site or within 2,500 feet of the site property boundaries, all community water system (CWS) wells and surface water intakes located at the site or within one mile of the site property boundaries, and all setback zones and regulated recharge area. . . associated with non-CWS or CWS wells in which all or any portion of the site is located."

a. Why did Ramboll chose a radius of 2,500 feet of the site for its survey of private, semi-private, and non-community water system wells and surface water intakes?

RESPONSE: Illinois Administrative Code 1600.210, Procedures for Potable Water

Supply Well Surveys, part (a)(1)-(2), states that the following must be identified:

1) All private, semi-private, and non-community water system wells located at the property where the release occurred or within 200 feet of the property where the release occurred;

2) All community water system (CWS) wells located at the property where the release occurred or within 2,500 feet of the property where the release occurred;

Ramboll expanded the search radii stipulated in IAC 1600.210(a)(1)-(2) to be more conservative (i.e., inclusive) in its search for nearby water wells and surface water intakes. Prior assessments suggest that 2,500 feet is a conservative search radius as CCR plumes are not proven to travel that distance (EPA 2007 Coal Combustion Waste Damage Assessment Cases, EPRI 2009 Evaluation of Coal Combustion Product Damage Cases, Environmental Integrity Project, Earth Justice and Sierra Club 2010, In Harm's Way Report).

b. Did Ramboll evaluate whether CCR contamination can migrate, or has migrated, farther than 2,500 feet? If so, please describe Ramboll's evaluation and conclusions.

RESPONSE: See response to 4(a).

c. Why did Ramboll chose a radius of 1 mile of the site property boundaries for its survey of community water system wells and surface water intakes?

RESPONSE: See response to 4(a).

d. Did Ramboll evaluate whether CCR contamination can migrate, or has migrated, farther than 1 mile? If so, please describe Ramboll's evaluation and conclusions.

RESPONSE: See response to 4(a).

e. Why did Ramboll evaluate only those setback zones and regulated recharge areas associated with CWS and non-CWS wells in which "all or any portion of the site" is currently located?

RESPONSE: Pursuant to Illinois Administrative Code 1600.210, Procedures for Potable Water Supply Well Surveys, part (a)(3) "All setback zones and regulated recharge areas in which all or any portion of the property where the release occurred is located" must be identified.

f. Did Ramboll evaluate whether CCR contamination can migrate, or has migrated, into setback zones that do not overlap with any portion of the site? If so, please describe Ramboll's evaluation and conclusions.

RESPONSE: See the attached report. If relevant, Ramboll evaluated the risk of impact to wellhead protection areas and setback zones that do not overlap with any portion of the site.

5. On page 4 of your testimony, you state that Ramboll evaluated well survey results within the hydrogeological context of each site and surrounding area and considered other well characteristics.

a. Please provide those survey results and well characteristics for each of the wells surveyed.

RESPONSE: See attached report.

b. How did you determine the accuracy of the mapped location and groundwater chemistry?

RESPONSE: See the attached report for details on the source data and the limitations of that data (including location accuracy). Assessment of chemical data was outside the scope of testimony.

c. Does groundwater flow direction change at times at some CCR surface impoundments? Did Ramboll take such changes in flow direction into account in its evaluation?

RESPONSE: See the attached report.

6. On page 4 of your testimony, you state that Ramboll looked at the risk of impact.

a. How was risk of impact calculated?

RESPONSE: Ramboll determined whether or not wells were at risk of impact. It did not calculate a risk value or perform a risk assessment. See the attached report.

b. How far into the future does the risk of impact account for?

RESPONSE: The determination is not time-dependent.

c. Why were the health-based standards for cobalt, molybdenum, and radium not used when accounting for risk?

RESPONSE: The Class I Groundwater Quality Standards are the designated standards for potable groundwater resources in Illinois.

d. Does “at risk” mean that the Part 620 Groundwater Quality Standards are met?

RESPONSE: See page 4 of the filed testimony – The “risk of impact” is defined herein as the potential that an Illinois Part 620 Class I groundwater quality standard might be exceeded at a private well or surface water intake from a CCR surface impoundment.

7. On page 4 of your testimony, you list 5 Dynegey-owned sites that were identified as having potable water supply wells and or surface water intakes located potentially downgradient from the sites within the search radii (Baldwin, Edwards, Havana, Hennepin, and Joppa).

a. The testimony also mentions on page 4 that there was site-specific information about the surface impoundment location, well location and characteristics, hydrogeology and groundwater quality that Ramboll reviewed for these 5 sites.

i. What are the sources for this information?

RESPONSE: See the attached report.

ii. When were these evaluations completed?

RESPONSE: Between April and August of 2020.

iii. Please provide copies of these evaluations.

RESPONSE: See the attached report.

iv. Where were the background wells placed in comparison to each of the wells tested?

RESPONSE: Not applicable – no new wells were installed or sampled as a part of this evaluation.

v. Were all of the identified wells at each of these sites tested? When?

RESPONSE: Not applicable – no new wells were installed or sampled as a part of this evaluation.

8. On page 4 of your testimony, you describe 2 sites of the 13-non-Dynegey owned sites that are potentially down gradient from surface impoundments.

a. Why did you determine that the wells at Wood River are incorrectly mapped?

RESPONSE: See the attached report

- b. Where were the wells tested at Joliet 9?

RESPONSE: See the attached report.

- c. When were the wells sampled by IEPA determined to be unimpacted by the site?

RESPONSE: See the attached report.

- d. Where were the background wells placed for each of the wells at the 2 identified sites?

RESPONSE: Not applicable – no new wells were installed or sampled as a part of this evaluation.

9. On pages 4 and 5 of your testimony, you state that there were a number of water supply wells and surface water intakes in state databases that were mapped within 2,500 feet to 1 mile of the sites and that Ramboll reviewed this information.

- a. Is there a report documenting the results of this review? If so, please provide the report.

RESPONSE: See the attached report.

- b. How did Ramboll determine that there were no active potable water supply wells or surface water intakes at risk of impact from coal ash impoundments?

RESPONSE: See the attached report.

- c. How many is “a number of water supply wells and surface water intakes” and where are they located in relation to the surface impoundments?

RESPONSE: See the attached report.

- d. How did Ramboll calculate this “risk”?

RESPONSE: See the attached report and response to 6(a).

- e. How far into the future did Ramboll calculate that risk?

RESPONSE: See response to 6(b).

- f. Are there factors that could change at a surface impoundment or with groundwater flow that would alter that risk?

RESPONSE: Installation of new extraction wells or changes in pumping rates in existing extraction wells could potentially change the direction of groundwater flow.

Prepared for

Illinois Pollution Control Board

Prepared by

Ramboll US Corporation

Date

September 24, 2020

WELL/WATER SUPPLY SURVEY AND EVALUATION COAL-FIRED POWER PLANTS IN ILLINOIS

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Well/Water Supply Survey and Evaluation
Coal-Fired Power Plants in Illinois

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- Figure 2.02-A: Coffeen - Receptor Survey
- Figure 2.03-A: Duck Creek - Receptor Survey
- Figure 2.04-A: Edwards - Receptor Survey
- Figure 2.05-A: Havana - Receptor Survey
- Figure 2.06-A: Hennepin - Receptor Survey
- Figure 2.07-A: Joppa - Receptor Survey
- Figure 2.08-A: Kincaid - Receptor Survey
- Figure 2.09-A: Newton - Receptor Survey
- Figure 2.10-A: Vermilion - Receptor Survey

2. Receptor Survey (Sites Not Owned by Dynergy)

- Figure 3.01-A: Crawford - Receptor Survey
- Figure 3.02-A: Dallman/Lakeside - Receptor Survey
- Figure 3.03-A: Hutsonville - Receptor Survey
- Figure 3.04-A: Joliet 9 - Receptor Survey
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- Figure 3.06-A: Marion - Receptor Survey
- Figure 3.07-A: Meredosia - Receptor Survey
- Figure 3.08-A: Pearl - Receptor Survey
- Figure 3.09-A: Powerton - Receptor Survey
- Figure 3.10-A: Venice - Receptor Survey
- Figure 3.11-A: Waukegan - Receptor Survey
- Figure 3.12-A: Will County - Receptor Survey
- Figure 3.13-A: Wood River - Receptor Survey

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1. Introduction

Table 1-A: Site List

2. Receptor Survey (Dynegy-Owned Sites)

Table 2.01-A: Baldwin - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 2.01-B: Baldwin - Receptor Survey Results (CWS Wells < 1 mile)
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Table 2.02-A: Coffeen - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
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Table 2.05-B: Havana - Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Table 2.05-C: Havana - Receptor Survey Results (CWS Wells < 1 mile)
Table 2.06-A: Hennepin - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 2.06-B: Hennepin - Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Table 2.07-A: Joppa - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 2.07-B: Joppa - Receptor Survey Results (CWS Wells < 1 mile)
Table 2.08-A: Kincaid - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 2.08-B: Kincaid - Receptor Survey Results (Non-CWS Surface Water Intakes < 2,500 feet)
Table 2.09-A: Newton - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 2.10-A: Vermilion - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 2.10-B: Vermilion - Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Table 2.10-C: Vermilion - Receptor Survey Results (Non-CWS Surface Water Intakes < 2,500 feet)

3. Receptor Survey (Sites Not Owned by Dynegy)

Table 3.01-A: Crawford - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 3.02-A: Dallman/Lakeside - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 3.02-B: Dallman/Lakeside - Receptor Survey Results (CWS Surface Water Intakes < 1 mile)
Table 3.03-A: Hutsonville - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 3.03-B: Hutsonville - Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Table 3.03-C: Hutsonville - Receptor Survey Results (CWS Wells < 1 mile)
Table 3.04-A: Joliet 9 - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 3.04-B: Joliet 9 - Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Table 3.04-C: Joliet 9 - Receptor Survey Results (CWS Wells < 1 mile)
Table 3.05-A: Joliet 29 - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 3.05-B: Joliet 29 - Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Table 3.05-C: Joliet 29 - Receptor Survey Results (CWS Wells < 1 mile)
Table 3.06-A: Marion - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 3.06-B: Marion - Receptor Survey Results (CWS Surface Water Intakes < 1 mile)
Table 3.07-A: Meredosia - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 3.07-B: Meredosia - Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Table 3.07-C: Meredosia - Receptor Survey Results (CWS Wells < 1 mile)

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Table 3.08-A:	Pearl - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 3.08-B:	Pearl - Receptor Survey Results (CWS Wells < 1 mile)
Table 3.09-A:	Powerton - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 3.09-B:	Powerton - Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Table 3.10-A:	Venice - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 3.10-B:	Venice - Receptor Survey Results (CWS Surface Water Intakes < 1 mile)
Table 3.11-A:	Waukegan - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 3.12-A:	Will County - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 3.12-B:	Will County - Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Table 3.13-A:	Wood River - Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Table 3.13-B:	Wood River - Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Table 3.13-C:	Wood River - Receptor Survey Results (Non-CWS Surface Water Intakes < 2,500 feet)
Table 3.13-D:	Wood River - Receptor Survey Results (CWS Wells < 1 mile)

EXECUTIVE SUMMARY

Increased state regulation on the operation and closure of coal ash, or coal combustion residual (CCR) surface impoundments is currently being considered in Illinois. The Illinois Environmental Protection Agency (IEPA) and other stakeholders have published reviews of the potential for coal ash impoundments to impact drinking water supplies. The conclusions of these reports vary widely. The IEPA and the State of Illinois operate the Illinois Groundwater Protection Program as the Illinois Interagency Coordinating Committee on Groundwater (ICCG) and publish biennial reports on its findings. Some of these reports have addressed CCR. For example, in the report for calendar years 2010 and 2011 (the "2010-2011 Groundwater Protection Program Biennial [GPPB] report"),¹ the ICCG reported on its survey of potable wells at and around all Illinois CCR facilities and concluded that there appear to be no drinking water supply wells located downgradient that are being threatened by these facilities. On the other hand, a report titled *Cap and Run: Toxic Coal Ash Left Behind by Big Polluters Threatens Illinois Water* (the "Cap and Run report") prepared by a collection of environmental non-profit groups² claims that CCR facilities have created "widespread" and "severe" groundwater impacts with "unsafe" levels of contaminants. To be valid, these claims and conclusions, particularly of "unsafe" conditions, require a demonstration of risk including establishing a complete exposure pathway to a receptor, an estimated exposure concentration and dose, and finally a resultant risk. The Cap and Run report provides no such demonstration.

Without making the necessary statistical calculations, the Cap and Run report also claims that statistically significant increases (SSIs) in contaminant concentrations are likely to exist in downgradient wells at several Dynegy-related sites and suggests that additional characterization and corrective action may be needed. The report opines that the proposed closure in-place strategies for many of the surface impoundments will be inadequate to prevent future deterioration of groundwater quality surrounding the sites.

The purpose of this report is to complete a well and water supply survey for the coal ash impoundment sites identified in the Cap and Run report to determine the extent to which drinking water supplies, both public and private, are present hydraulically downgradient from and potentially at risk by coal ash impoundments. The report is organized into three main parts: 1) the introduction, which discusses the background, coal ash impoundment sites, scope, methodology, and data limitations; 2) the receptor survey for Dynegy-owned sites; and 3) the receptor survey for sites not owned by Dynegy.³ The report does not include any findings regarding whether an impoundment is in fact a CCR surface impoundment, instead it relies on IEPA's list of 73 impoundments included in the Statement of Reasons and the impoundments identified in the "Cap and Run report."⁴

Ramboll conducted well surveys based on 35 Illinois Administrative Code (IAC) 1600.210 "Procedures for Potable Water Supply Well Surveys" to identify all private, semi-private, and non-community water system (non-CWS) wells and surface water intakes located at the site or within 2,500 feet of each site, all community water system (CWS) wells and surface water intakes located at each site or within one mile of each site, and all setback zones and regulated recharge areas (i.e., wellhead protection areas [WHPAs]) associated with non-

¹ Illinois Interagency Coordinating Committee on Groundwater (ICCG), 2012. "Illinois Groundwater Protection Program: Biennial Comprehensive Status and Self-Assessment Report," January.

² Earth Justice, Prairie Rivers Network, Environmental Integrity Project, and Sierra Club, 2018. "Cap and Run: Toxic Coal Ash Left Behind by Big Polluters Threatens Illinois Water," November.

³ Dynegy includes Dynegy Midwest Generation, LLC; Electric Energy Inc.; Illinois Power Generating Company; Illinois Power Resources Generating, LLC; and Kincaid Generation, LLC (collectively, "Dynegy").

⁴ Ramboll understands that a number of owners/operators are challenging IEPA's characterization of certain units as CCR surface impoundments and is not offering an opinion on whether such units meet the definition of a CCR surface impoundment provided in 40 C.F.R. Part 257 or the Illinois Environmental Protection Act.

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CWS or CWS wells in which all or any portion of each site is located. Deviations from IAC 1600.210 are noted in Section 1.3. To be conservative, owned site boundaries rather than plant or surface impoundment boundaries were used as the basis for the search radii. For sites where potential drinking water wells or surface water intakes are identified in the downgradient direction of a site, further review of site-specific location and well information, hydrogeology, and groundwater quality was conducted to evaluate the potential for impacts.

To complete the well surveys, Ramboll determined owned property boundaries using county assessor databases and Geographic Information System (GIS) mapping services, reviewed local public water supply entities and associated water sources, determined local groundwater flow directions, and searched publicly available databases for well and water supply information to determine the presence of private/semi-private wells, non-CWS wells and surface water intakes, and CWS wells and surface water intakes within their respective search radii to evaluate whether off-site wells may be present at hydraulically downgradient locations from the 23 sites. The well survey was limited to publicly available information (mostly searchable databases and GIS mapping services), and as such, certain limitations apply (see Section 1.5). Public databases identifying private and semi-private wells do not necessarily provide information regarding the use of the water well (e.g., potable, irrigation, sanitation, cooling water, etc.) and often include wells which are no longer in service.

To determine the extent to which drinking water supplies are present downgradient of coal ash surface impoundments and are potentially at risk of groundwater impacts, Ramboll evaluated the well survey results within the hydrogeological context of the site and surrounding area and also considered other well characteristics, such as depth, installation date, status (e.g., inactive or abandoned), likely use (e.g., potable vs. non-potable), accuracy of the mapped location, distance from surface impoundment, and, in some cases chemical data. Detailed evaluations were conducted for 23 sites, namely, 10 Dynegy-owned sites and 13 sites not owned by Dynegy. Ramboll then determined whether the wells were "at risk" of impact from coal ash constituents, which is defined as at risk of exceeding the Illinois Class I groundwater quality standards (GQSs), as defined in 35 IAC Section 620.410 (effective October 5, 2012).

Based on Ramboll's evaluation, five Dynegy-owned sites were identified as having potable water supply wells and/or surface water intakes located potentially downgradient of the sites within the search radii: Baldwin, Edwards, Havana, Hennepin, and Joppa. Based on these results, Ramboll then reviewed site-specific information including surface impoundment location, well location and characteristics, hydrogeology and groundwater quality data for these five sites in order to determine whether the identified wells or surface water intakes are at risk from potential coal ash impacts. At Baldwin, an off-site groundwater investigation was conducted that determined that the private wells were not impacted. At Edwards, the private wells were determined to be not at risk from coal ash constituents. At Havana, there are no reported exceedances of groundwater quality standards. At Hennepin, no current potable water wells were determined to be at risk. Similarly at Joppa, the private wells were determined to be not at risk by coal-ash constituents. Based on the information reviewed, Ramboll concludes that no identified off-site water supply wells or surface water intakes are at risk of coal ash-related impacts at Dynegy-related sites.

The evaluation for the 13 sites not owned by Dynegy identified two sites as having potable water supply wells and/or surface water intakes located potentially downgradient from the sites: Joliet 9 and Wood River. The downgradient wells identified at Joliet 9 included shallow wells that have been sealed and abandoned, and deeper wells that are unimpacted by site activities. Additional private wells located cross-gradient from the site have been sampled by IEPA and determined to be unimpacted by the site. At Wood River, the potentially downgradient wells are either incorrectly mapped, or unlikely to be used for potable purposes, based on their location. Based on the information reviewed, Ramboll's conclusion is that no identified active off-site water

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supply wells or surface water intakes are at risk of coal ash-related impacts at non-Dynegy-related coal ash impoundment sites.

Ramboll did identify a number of water supply wells and surface water intakes in state databases that mapped within 2,500 feet or one mile of coal ash impoundment sites in Illinois. However, upon Ramboll's review and detailed evaluation of hydrogeological data, well and surface water intake characteristics, and in some cases, groundwater quality data, consistent with IEPA's 2012 conclusion, Ramboll did not identify any active potable water supply wells or surface water intakes at risk of impact from coal ash impoundments. This detailed assessment performed by Ramboll does not support the conclusion and allegations of the Cap and Run report of "widespread" and "unsafe" groundwater impacts. The groundwater cannot be "unsafe" if the groundwater drinking water pathway is not complete.

Illinois was one of the first states in the country to promulgate groundwater quality protection standards, and to require groundwater monitoring and corrective action at coal ash surface impoundment sites.⁵ In response to the Tennessee Valley Authority (TVA) spill, the IEPA implemented more aggressive monitoring and assessment requirements.⁶ As described above in the 2010-2011 GPPB report, the IEPA tracks and assesses coal ash surface impoundments at coal-fired power plant sites. The US EPA published final federal rules in 2015 that established technical requirements for the siting, operation, monitoring, corrective action and closure of CCR surface impoundments and landfills. Currently, the State of Illinois is in the process of adopting another set of rules for CCR surface impoundments intended to be at least as protective as the federal rules, that include additional provisions for permitting of surface impoundments, increased public participation, prioritization of impoundments for closure, closure alternative analyses, and financial assurance.⁷ However, based on Ramboll's conclusion regarding the lack of "widespread" and "unsafe" groundwater impacts, it does not appear that additional regulation beyond what is required in the federal program is necessary to protect drinking water supplies.

Site-specific conclusions based on Ramboll's review of the available data and identified wells and surface water intakes are presented in Tables ES-1 and ES-2 beginning on the next page.

⁵ ICCG, 2012, p. 41.

⁶ Ibid.

⁷ <https://www2.illinois.gov/epa/topics/water-quality/watershed-management/ccr-surface-impoundments/Pages/default.aspx>

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Table ES-1: Results of Well and Water Supply Survey for Dynegey-Owned Sites

§	Site Name	2,500-foot Radius			1-mile Radius	
		Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
2.1	Baldwin	Present, but not at risk Twenty-two (22) water wells were identified and eight (8) are located potentially downgradient of the site. Based on Ramboll's review of groundwater data, these wells are unlikely to be impacted by releases from the site.	Absent	Absent	Present, but not at risk Two (2) active CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant.	Present, but not at risk One (1) CWS surface water intake was identified potentially downgradient of the site. Based on Ramboll's review of available information, this CWS surface water intake is unlikely to be impacted by releases from the site.
2.2	Coffeen	Present, but not at risk Thirty-four (34) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are abandoned, or they do not appear to be used for potable purposes. None of the off-site wells are located in a downgradient direction.	Present, but not at risk Three (3) non-CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or their inactive status.	Absent	Absent	Absent
2.3	Duck Creek	Present, but not at risk Three (3) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or they are abandoned. None of the off-site wells are located in a downgradient direction.	Absent	Absent	Absent	Absent

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Table ES-1: Results of Well and Water Supply Survey for Dynegy-Owned Sites

§	Site Name	2,500-foot Radius			1-mile Radius	
		Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
2.4	Edwards	Present, but not at risk Seven (7) water wells were identified and one (or possibly two) are located potentially downgradient of the site. Based on Ramboll's review of groundwater data, these wells are unlikely to be impacted by coal ash constituents.	Present, but not at risk One non-CWS well was identified; however, it is unlikely to be at risk because of its hydrogeologic location relative to the power plant.	Absent	Absent	Absent
2.5	Havana	Present, but not at risk Fifty-eight (58) water wells were identified and three (3) are located potentially downgradient of the site. However, information reviewed by Ramboll suggests that none of these wells are used to supply potable water. In addition, two of the three wells are located within an area covered by the City of Havana's groundwater use ordinance, which prohibits the installation of wells as a potable water supply.	Present, but not at risk Six (6) non-CWS wells were identified; however, all are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site, and/or they are owned by the utility.	Absent	Present, but inactive Seven (7) CWS wells were identified and are located potentially downgradient of the site; however, none are at risk because they are listed as inactive.	Absent
2.6	Hennepin	Present, but not at risk Sixteen (16) water wells were identified and one (1) is located potentially downgradient of the site. However, this well is unlikely to be present/in use based on its remote floodplain location and installation date (1884).	Present, but not at risk or inactive Three (3) non-CWS wells were identified; however, they are unlikely to be at risk because of their relative hydrogeologic position or inactive status.	Absent	Absent	Absent

Table ES-1: Results of Well and Water Supply Survey for Dynegey-Owned Sites						
§	Site Name	2,500-foot Radius			1-mile Radius	
		Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
2.7	Joppa	Present, but not at risk Forty-six (46) water wells were identified and 23 are located potentially downgradient of the site. However, only one (1) well is likely to be present and potentially used for drinking water. Based on Ramboll's review of groundwater data from the eastern portion of the site, it is unlikely that well P018 is at risk from coal ash constituents.	Absent	Absent	Present, but not at risk Two CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or their abandoned status.	Absent
2.8	Kincaid	Present, but not at risk Twelve (12) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or abandoned status. No off-site wells are located in the downgradient direction.	Absent	Present, but inactive One non-CWS surface water intake was identified; however, it is unlikely to be at risk because it is listed as inactive.	Absent	Absent

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Table ES-1: Results of Well and Water Supply Survey for Dynegey-Owned Sites						
§	Site Name	2,500-foot Radius			1-mile Radius	
		Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
2.9	Newton	Present, but not at risk Twenty-four (24) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are abandoned, and/or they are unlikely to be present based on the mapped location. None of the off-site wells are located in a downgradient direction.	Absent	Absent	Absent	Absent
2.10	Vermilion	Present, but not at risk Seventy-nine (79) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are abandoned, they do not appear to be used for potable purposes, and/or they are unlikely to be present based on the mapped location. None of the off-site wells are located in a downgradient direction.	Present, but not at risk Two CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or their inactive status.	Present, but inactive One non-CWS surface water intake was identified; however, it is unlikely to be at risk because it is listed with inactive status.	Absent	Absent

Table ES-2: Results of Well and Water Supply Survey for Sites not Owned by Dynegy						
§	Site Name	2,500-foot Radius			1-mile Radius	
		Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
3.1	Crawford	Present, but not at risk One (1) water well was identified; however, it is unlikely to be at risk because of its hydrogeologic location relative to the power plant. The well is not located in a downgradient direction.	Absent	Absent	Absent	Absent
3.2	Dallman/Lakeside	Present, but not at risk Two (2) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant. The single off-site well is located almost 2,500 feet from the property boundary, and not in a downgradient position.	Absent	Absent	Absent	Present, but not at risk One (1) CWS surface water intake was identified in Lake Springfield; however, it is unlikely to be at risk because of its hydrogeologic location relative to the coal ash impoundments.
3.3	Hutsonville	Present, but not at risk Seven (7) wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or they do not appear to be used for potable purposes. None of the off-site wells are located in a downgradient direction.	Present, but not at risk Two (2) non-CWS wells were identified; however, they are unlikely to be at risk since they are located on-site, utility-owned, and listed with inactive status.	Absent	Present, but not at risk One (1) CWS well was identified; however, it is unlikely to be at risk because of its hydrogeologic location relative to the power plant and its abandoned status.	Absent

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Table ES-2: Results of Well and Water Supply Survey for Sites not Owned by Dynegy

§	Site Name	2,500-foot Radius			1-mile Radius	
		Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
3.4	Joliet 9	Present, but not at risk One-hundred eighteen (118) water wells were identified and 81 are located potentially downgradient from the site. However, they are unlikely to be at risk because they are either inactive, not used for potable purposes, screened too deep to be impacted, or lie too distant or not downgradient from the Lincoln Stone Quarry.	Present, but not at risk Twelve (12) non-CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are abandoned, and/or they are on-site and owned by the utility. None of the off-site wells are located in a downgradient direction.	Absent	Present, but not at risk Twelve (12) CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or they are abandoned.	Absent
3.5	Joliet 29	Present, but not at risk Fifty-four (54) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site and/or owned by the utility, and/or they are unlikely to be present based on the mapped location. None of the off-site wells are located in a downgradient direction.	Present, but not at risk Fourteen (14) non-CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are listed with inactive status, and/or they are on-site and owned by the utility. None of the off-site wells are located in a downgradient direction.	Absent	Present, but not at risk Six (6) CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or their abandoned status.	Absent

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Table ES-2: Results of Well and Water Supply Survey for Sites not Owned by Dynegy

§	Site Name	2,500-foot Radius			1-mile Radius	
		Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
3.6	Marion	Present, but not at risk Five (5) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant. None of the off-site wells are located in a downgradient direction.	Absent	Absent	Absent	Present, but not at risk One (1) surface water intake was identified; however, it is unlikely to be at risk because of its hydrogeologic location and distance relative to the power plant.
3.7	Meredosia	Present, but not at risk Forty-eight (48) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site, and/or they are owned by the utility. None of the off-site wells are located in a downgradient direction.	Present, but not at risk Five (5) non-CWS wells were identified; however, they are unlikely to be at risk because they are located on-site, owned by the utility, and the associated non-CWS system is listed with inactive status. No off-site non-CWS wells were identified.	Absent	Present, but not at risk Five (5) CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or their abandoned status.	Absent
3.8	Pearl	Present, but not at risk Three (3) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site, and/or they are owned by the utility. None of the off-site wells are located in a downgradient direction.	Absent	Absent	Present, but not at risk Six (6) CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or their inactive or abandoned status.	Absent

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Table ES-2: Results of Well and Water Supply Survey for Sites not Owned by Dynegy						
§	Site Name	2,500-foot Radius			1-mile Radius	
		Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
3.9	Powerton	Present, but not at risk Thirty-six (36) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site, and/or they are owned by the utility. None of the off-site wells are located in a downgradient direction.	Present, but not at risk Nine (9) non-CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site, they are owned by the utility, and/or their status is inactive.	Absent	Absent	Absent
3.10	Venice	Present, but not at risk Thirteen (13) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they do not appear to be used for potable purposes, and/or they are unlikely to be present based on the mapped location. None of the off-site wells are located in a downgradient direction.	Absent	Absent	Absent	Present, but unlikely to be impacted One (1) CWS surface water intake was identified downstream of the site; however, it is unlikely to be impacted by groundwater at Venice given the mixing and dilution of the groundwater-surface water interaction and downstream transport.
3.11	Waukegan	Present, but not at risk Nine (9) water wells were identified; however, they are unlikely to be at risk based on their hydrogeologic location relative to the power plant. None of the off-site wells are located in a downgradient direction.	Absent	Absent	Absent	Absent

Table ES-2: Results of Well and Water Supply Survey for Sites not Owned by Dynegy						
§	Site Name	2,500-foot Radius			1-mile Radius	
		Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
3.12	Will County	Present, but not at risk Nineteen (19) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site, they are owned by the utility (or former utility entity), and/or they do not appear to be used for potable purposes. None of the off-site wells are located in a downgradient direction.	Present, but not at risk Eight (8) non-CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site and owned by the utility, and/or their inactive status.	Absent	Absent	Absent
3.13	Wood River	Present, but not at risk Twenty-six (26) water wells were identified and four (4) are potentially downgradient of the site. However, the wells are either unlikely to exist at the plotted location or are not used to supply drinking water.	Present, but not at risk Seven (7) non-CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant.	Present, but not at risk One (1) non-CWS surface water intake was identified; however, it is unlikely to be at risk because it is listed with inactive status.	Present, but not at risk Fifteen (15) CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or their abandoned status.	Absent

1. INTRODUCTION

1.1 Background

In November 2018, a collection of environmental non-profit groups⁸ released a report titled *Cap and Run: Toxic Coal Ash Left Behind by Big Polluters Threatens Illinois Water* (the "Cap and Run report"), which purports to provide an evaluation of groundwater data near coal ash disposal units at current or former coal power plants in Illinois, including 10 plants currently owned by Dynegy Midwest Generation, LLC; Kincaid Generation, LLC; Illinois Power Resources Generating Company; Illinois Power Generating Company; and Electric Energy Inc. or one of their affiliates (collectively referred to herein as Dynegy). The Cap and Run report compares publicly available groundwater sampling data at coal ash surface impoundments at each site to "health-based thresholds" derived mostly from maximum contaminant levels (MCLs) and EPA's Regional Screening Levels (RSLs).⁹ The report authors use vague and superlative language to describe groundwater impacts as "severe" and "widespread" which suggests that drinking water resources are impacted. Table titles read, for example, "the groundwater at Waukegan is unsafe for drinking", which gives the false impression that the community water supply is impacted and presents an actual unacceptable risk to residents. However, all data reviewed and presented in the Cap and Run report were collected on the plant sites near the surface impoundments. Although the report notes that its preparers were unaware to what extent the tested groundwater at the sites is used for drinking, the authors allege that groundwater at coal-fired power plants is "unsafe" and threatens drinking water resources. Allegations of the lack of "safety" imply an exposure to groundwater and a risk to human health that is not demonstrated.

Without making the necessary statistical calculations, the Cap and Run report also claims that statistically significant increases (SSIs) in contaminant concentrations are likely to exist in downgradient wells and suggests that additional characterization and corrective action may be needed. The Cap and Run report's authors opine that the proposed closure in-place strategies for many of the ash disposal units will be inadequate to prevent future deterioration of groundwater quality surrounding the sites. Further details regarding the Cap and Run report's discussion of specific sites are provided in Sections 2 and 3 of this report.

The Illinois Environmental Protection Agency (IEPA) began an extensive assessment of groundwater risks from coal ash surface impoundments in Illinois in 2009. The results of this assessment were first reported in the Groundwater Protection Program Biennial Report for calendar years 2010 and 2011 (the "2010-2011 GPPB report"), prepared by the Illinois Interagency Coordinating Committee on Groundwater (ICCG). The assessment included an evaluation of geological vulnerability to groundwater impact and the presence of potential users (receptors) of groundwater near each coal-fired power plant site to evaluate these risks, and assigned priority levels to each site (1 = highest risk; 2 = elevated risk; or, no priority). The evaluation of potential users of local groundwater was completed by conducting a well survey. The sites that were identified as Priority 1 or 2 sites were requested to conduct further evaluations.

The 2010-2011 GPPB report concluded that:

"Potable well surveys have been conducted at all facilities to field verify the proximity of drinking water supply wells off-site. These surveys have shown that currently there appear to be no drinking water supply wells that are being threatened down gradient of these sites."

⁸ The non-profit groups include the Environmental Integrity Project, Earth Justice, Prairie Rivers Network, and Sierra Club.

⁹ The three exceptions include the EPA Life-time Health Advisory for manganese, and EPA's Drinking Water Advisory for boron and sulfate.

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No subsequent IEPA and ICCG report¹⁰ reviewed by Ramboll regarding groundwater protection topics contained further discussion of individual sites or the general threat to drinking water posed by coal ash surface impoundments. The purpose of this report is to update the well survey completed by IEPA for the 2010-2011 GPPB report. Using currently available database information, Ramboll completed a well and water supply survey for the 23 coal-fired power plant sites identified in the Cap and Run report that contain a coal ash surface impoundment to determine the extent to which drinking water supplies in Illinois, both public and private, are present downgradient from these sites, and potentially at risk of impact. For sites where potential drinking water wells or surface water intakes are identified in the downgradient direction, further review of site-specific hydrogeology and groundwater quality was conducted to evaluate the potential for impacts from coal ash.

1.2 Sites

Ramboll conducted well and water supply surveys for 23 sites located in Illinois that currently or formerly operated as coal-fired power generation plants (see Table 1.2 below) and contain a coal ash surface impoundment identified by the IEPA in its Statement of Reasons submitted to the Illinois Pollution Control Board in March 2020.¹¹ See Table 1-A (attached tables) for a detailed list.

Owned by Dynegy or an affiliate		Not Owned by Dynegy	
Baldwin	Hennepin	Crawford	Pearl
Coffeen	Joppa	Dallman/Lakeside	Powerton
Duck Creek	Kincaid	Hutsonville	Venice
Edwards	Newton	Joliet 9	Waukegan
Havana	Vermilion	Joliet 29	Will County
		Marion	Wood River
		Meredosia	

1.3 Scope

A water well and water supply survey was conducted for each site noted in Section 1.2 in accordance with 35 IAC 1600.210 to identify all private, semi-private, and non-community water system (non-CWS)¹² wells and surface water intakes located at the site or within 2,500 feet of the site, all community water system (CWS)¹³ wells and surface water intakes located at the site or within one mile of the site, and all setback zones and regulated recharge areas (i.e., wellhead protection areas [WHPAs]) associated with non-CWS or CWS wells in which all or any portion of the site is located. The search radii were measured from the search site boundaries determined by Ramboll. In many cases, power generators or their affiliates own property beyond the power plant boundaries (in some cases, these holdings are extensive), so the search site boundary may exclude owned property located on the opposite side of a hydrogeologic divide relative to the power plant, large areas

¹⁰ The other documents reviewed by Ramboll include the publicly available "Illinois Groundwater Protection Program: Biennial Status and Self-Assessment Report" dated June 2014 (for calendar years 2012 through 2013) and "Illinois Groundwater Protection Program Biennial Report" dated December 2019 (for calendar years 2018 through 2019), as well as the IEPA "Annual Groundwater and Drinking Water Program Review" or "Annual Drinking Water Program Review" for reporting years 2014 through 2017.

¹¹ Illinois Environmental Protection Agency, 2020. "Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments: Proposed New 35 Ill. Adm. Code 845," prepared for the Illinois Pollution Control Board, March.

¹² According to the Illinois Department of Public Health (IDPH), non-community water systems are defined as "facilities, such as schools, factories, restaurants, resorts, and churches, served by their own water supply (usually a well)." Non-CWSs are regulated under the Safe Drinking Water Act (SDWA).

¹³ According to the United States Environmental Protection Agency (US EPA), a community water system is defined as a public water system that supplies water to the same population year-round.

of undeveloped property, or other miscellaneous land (e.g., agricultural land, rail lines, roads). See below for further discussion of the methodology used to determine the site boundaries used as the basis for the search radii. At some facilities, the "owned property" includes property potentially leased out and used for other purposes, such as agricultural, so a discussion of the "on-site" results of the well survey will be included in this report.

The well surveys were performed in accordance with the procedures outlined in 35 IAC 1600.210 and the IEPA Fact Sheet "Performing Well Surveys".¹⁴; however, Ramboll notes that the search radii (i.e., 2,500 feet for private/semi-private and non-CWS wells and one mile for CWS wells) were expanded beyond the IEPA's required search distances. In addition, non-CWS and CWS surface water intakes were included in the searches. Finally, Ramboll did not contact local public water supply entities to identify properties that receive potable water from a public water supply, as stipulated in 35 IAC 1600.210(b)(3). As such, Ramboll considered that private and semi-private water wells could be used for potable purposes, even if located within the property boundaries or near a municipality that supplies potable water to the local area.

The apparent local direction of shallow groundwater flow was identified for each site and used to determine whether identified wells and surface water intakes are located in a potential downgradient direction. For wells or intakes determined to be within search radii and potentially downgradient of a site, site-specific factors such as the surface impoundment location, well location and characteristics, hydrogeology and groundwater chemistry were considered to evaluate the potential for impact.

1.4 Methodology

The well surveys for each site relied on the references noted below and included the following tasks detailed below.

- **Determination of Site Boundaries.** Ramboll reviewed county assessor databases, Geographic Information System (GIS) mapping services, aerial photographs, and other publicly available information to identify approximate site boundaries.
 - *Owned Property Boundary.* Based on information available in county assessor databases and GIS mapping services, Ramboll identified the tax parcels that constitute the power plant, as well as any surrounding parcels also owned by the power plant owner and/or operator. The outermost boundary of the resulting aggregated parcels constitutes the "owned property boundary."
 - *Search Site Boundary.* For the purposes of the well survey, some owned site boundaries were modified to exclude owned property that that was determined to not pose a risk to local water supplies. Examples of excluded owned property include property located on the opposite side of a hydrogeologic divide relative to the power plant, undeveloped property located more than a mile away from the actual power plant, or other miscellaneous land (e.g., agricultural land, rail lines, roads). Site boundaries that account for these exclusions constitute "search site boundaries." The differences in the "owned site boundary" and "search site boundary" (if applicable) will be further described in the text and figures and for each site.
 - *Power Plant Boundary.* The power plant boundary is an estimated boundary of the developed and industrial portion of the site, based on prior report figures and aerial photographs. Power plant boundaries fall within both the "owned site boundary" and "search site boundary."
- **Review of Local Water Supply Entities.** Ramboll reviewed the following information sources to determine the local water supply entity and associated water sources in the vicinity of each site:

¹⁴ <https://www2.illinois.gov/epa/topics/cleanup-programs/lust/publications-regs/Pages/performing-well-survey.aspx>

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- IEPA's Source Water Assessment Protection Program (SWAPP) Factsheets database, which provides summary versions of the completed Source Water Assessments for CWSs in Illinois;
 - IEPA and USEPA Safe Drinking Water Information System (SDWIS) databases, which provide information on public water supply systems (i.e., CWSs, non-CWSs, and non-transient non-CWSs);
 - 2019 annual Consumer Confidence Report prepared by the local water supply entity;
 - If applicable, a review of the local municipality's groundwater ordinance.
- **Review of Hydrogeology.** A review of topographic maps, historical reports (e.g., coal ash impoundment corrective action and closure reports, Hydrogeological Assessment reports), and other publicly available information to determine the site hydrogeology and presumed groundwater flow direction. This information was used to identify which wells, if any, are located hydraulically downgradient from a site.
 - **Review of Wells and Surface Water Intakes.** A review of information contained in the following state datasets to determine the water supply wells and surface water intakes present within the search radii noted above (see Section 1.4 for limitations associated with these datasets):
 - IEPA's SWAPP GIS online map, which provides extensive information related to risk assessment of water sources in Illinois, including all CWS and non-CWS wells and surface water intakes (as well as setback zones and regulated recharge areas for wells). The IEPA's SWAPP GIS online map includes a copy of the Illinois State Geological Survey (ISGS) Illinois Water and Related Wells Interactive Map (ILWATER) dataset (see below);
 - ISGS ILWATER, which provides water and related (e.g., monitoring, dry, engineering, stratigraphic, observation, mineral test, outcrop, or mine-related) well records based on copies of well construction reports provided by the Illinois State Water Survey (ISWS) and other sources; and
 - IEPA and USEPA SDWIS databases (described on above) to provide supplemental information for non-CWS and CWS wells identified through the IEPA SWAPP dataset.
 - **Review of ISWS Domestic Wells Database.** To supplement the information available in the ISGS ILWATER dataset, Ramboll reviewed domestic well information available in the ISWS Domestic Wells database, which provides publicly available information on private domestic wells based on water well construction permits and construction reports submitted to the ISWS by local health departments (per 77 IAC 615.320(b), parts 7 & 12).¹⁵ Supplemental information available in the ISWS dataset (i.e., abandoned status) was added to the ISGS ILWATER dataset. Additionally, domestic wells that were not included in the ISGS ILWATER dataset were added and manually plotted in the GIS application (see below and discussion in Section 1.5). Ramboll notes that this additional cross-referencing step was only conducted for the Dynegey-owned sites and on an as-needed basis for the sites not owned by Dynegey.
 - **Review of Groundwater Quality Data.** Ramboll reviewed site-specific groundwater quality data for some sites identified as having wells in potentially downgradient locations. Relevant groundwater quality data was compared to upgradient data, Illinois Class I Groundwater Quality Standards (GQS) for Potable Resource Groundwater (herein referred to as "Class I GQS").¹⁶ and/or USEPA Regional Screening Levels (RSLs) for Superfund sites (herein referred to as "RSL").¹⁷
 - **Analysis of Risk to Drinking Water Supplies.** To determine the extent to which drinking water supplies are present downgradient of coal ash surface impoundments and are potentially at risk of groundwater

¹⁵ Per the "ISWS Groundwater Database Description and Policies and Procedures Regarding Access" (dated May 2009), due to security considerations following 9/11, only domestic well data is publicly available online. Data for any community, industrial, and commercial wells must be accessed by office visit or upon request.

¹⁶ Illinois Administrative Code (IAC) Section 620.410 (effective October 5, 2012).

¹⁷ USEPA Website (updated May 2020): <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>

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impacts, Ramboll evaluated the well survey results within the hydrogeological context of the site and surrounding area and also considered other well characteristics, such as depth, location, distance from surface impoundment, installation date, status (e.g., inactive or abandoned), likely use (e.g., potable vs. non-potable), accuracy of the mapped location, and, in some cases, chemical data. Ramboll then determined whether the wells were “at risk,” which is defined as at risk of exceeding the Illinois Class I QOSs, as defined in 35 IAC Section 620.410 (effective October 5, 2012).

1.5 Data Limitations

The well survey was limited to publicly available information, and as such, certain limitations to the data apply, as detailed below.

- ISGS Water and Related Wells Dataset (ILWATER) – The following Well Location Accuracy Statement is associated with this dataset:

“Most well point locations shown on ILWATER are approximate. Only some of the well points shown on ILWATER are displayed at the property or field location level of accuracy. This service is not intended to document the current status of wells shown or identify the current water supply to a given property.

Well points on ILWATER generally represent wells described by any historical data record or construction report provided to the Illinois State Geological Survey or Illinois State Water Survey.

Well points are displayed by default at the center of the ¼-¼-¼-section as described by the driller. The inherent resolution of this description is 10 acres. Additional location description, not reflected in the mapping, may be available on the source document, typically a driller’s well construction report. Since 2006, drillers increasingly have provided latitude and longitude coordinates on well construction reports.

In selected areas, ISGS staff have refined and corrected well point coordinates to the extent possible supported by source documents. However, in most areas, the location description on the source document has not been reviewed by Survey staff, and any part may be subject to future correction.”¹⁸

Because the well databases rely on well installation permits and abandonment records, they will not identify a well as inactive unless it has been formally abandoned, therefore some inactive wells are included in the database.

In addition, Ramboll notes that the ISGS Water and Related Wells Dataset includes two descriptions for wells: *Status* and *Well Type*. The *Status* field is available in the data that is exported from the online database; however, *Well Type* is only available in the Well log summaries available through the ILWATER application. See below for a summary of the two well descriptions. The “Well Type” field provided in the tables appended to this report is a hybrid of ISGS’s *Status* and *Well Type* fields, with preference given to the more detailed description (e.g., “dewatering well” is more descriptive than merely “water well”). The dataset also includes engineering test, mineral test, outcrop, observation, stratigraphic test and mine-related wells (not included in table below).

Subset of Water Well Descriptions in ISGS Water and Related Wells (ILWATER) Database	
STATUS	WELL TYPE
Water Well / Water Well, Plugged	Dewatering Well
	Domestic Water Well
	Household - Livestock Watering Well

¹⁸ <https://maps.isgs.illinois.edu/ilwater/>

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Subset of Water Well Descriptions in ISGS Water and Related Wells (ILWATER) Database	
STATUS	WELL TYPE
	Industrial Water Well
	Irrigation Well
	Monitoring
	Municipal Water Supply*
	Non-Potable Water Well
	Noncommunity - Public Water Well*
	Piezometer
	Private Water Well
	Semi-Private Water Well
	Water Well
	Water Well for Business
	Water Well for Commercial Operation
	Water Well Test Hole
Water Well Monitoring Well	Monitoring
Water Well Test Hole	Water Well Test Hole
Dry Hole (water well)	Dry Hole (water well)
Dry Hole (water well), Plugged	Dry Hole (water well), Plugged
<p>Notes: The filled gray descriptions noted above were not considered as potential water supply wells and as such, were not included in the in-depth risk evaluation. All wells identified within the search radii are included in the respective tables (including those filled gray above, which were eliminated as potential water supply wells). *Wells with WELL TYPE "Municipal Water Supply" and "Noncommunity – Public Water Well" were added to the CWS and Non-CWS datasets, respectively, and considered duplicates in the private and semi-private water wells dataset, unless specified otherwise.</p>	

- ISWS Domestic Wells Database – The following Disclaimer is associated with this dataset:

*"The data in the Domestic Wells Database is a listing of the non-community wells which are known to the Illinois State Water Survey. This information has been entered verbatim from well logs submitted by the driller, from chemical analysis reports, from well sealing forms, or well inventory forms from the 1930-34 well survey and other special projects. The accuracy of this data is controlled by those who submitted the form. Information in the Domestic Wells Database has not been verified."*¹⁹

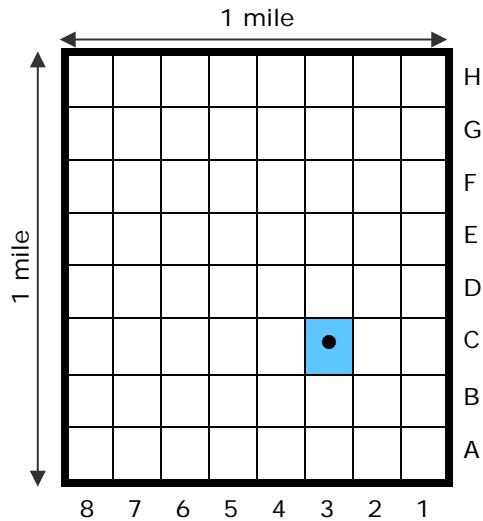
Ramboll notes that the ISWS Domestic Wells database does not include precise location data (i.e., latitude and longitude) for the wells. A large portion of wells have a "Plot" value (i.e., a coordinate identifying the location within a Section – see figure below), which provides an inherent resolution of 10 acres. Ramboll manually mapped ISWS wells with Plot values. However, some domestic wells did not have associated Plot values (referred to herein as "Unmapped wells") and therefore have an inherent resolution of one square-mile (i.e., the Section in which it is located) and as such, these wells are not depicted in the

¹⁹ <https://www.isws.illinois.edu/data/gwdb/legal.asp>

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figures due to the large margin of error. Unmapped wells are discussed in the report and included in the corresponding tables.



The square grid above represents a Section, as defined within the Public Land Survey System (PLSS). Each square within the grid represents a 10-acre "Plot" that is assigned a value (e.g., the dot above represents 3C). For ISWS wells with Plot values, the well is located somewhere within the 10-acre Plot. When manually plotting ISWS wells, Ramboll assumed the well was in the center of the Plot.

2. RECEPTOR SURVEY (DYNEGY-OWNED SITES)

2.1 Baldwin

The Baldwin Energy Complex is located at 10901 Baldwin Road in the town of Baldwin, in Randolph and St. Clair Counties, Illinois (the "Baldwin plant" or "site".²⁰). The Baldwin plant is situated along the southeastern and southern portions of Baldwin Lake and east of the Kaskaskia River. According to the Randolph and St. Clair Counties' assessor and GIS departments, Dynegy Midwest Generation LLC and affiliated entities own the parcels that comprise the "owned property boundary," which includes Baldwin Lake parcels and parcels located along the edge of Baldwin Lake. The search radii were based on the "search site boundary" determined by Ramboll, as the owned property boundary extends more than a mile to the north of the power plant boundary and/or is present on the opposite side of Baldwin Lake from the power plant. The Baldwin "site boundary" in this section refers to the search site boundary since it is the basis for the search radii.

Figure 2.01-A depicts estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary), search radii, and receptor survey data. All wells and surface water intakes identified to have been historically present within the respective search radii are detailed in Tables 2.01-A, 2.01-B, and 2.01-C.

The Cap and Run report alleges that groundwater at Baldwin is "unsafe" and contains lithium up to a maximum concentration of 178 mg/L. This is simply a unit error that overstates the value by a factor of 1,000. The table provided (19.1) shows that the correct concentration is, in fact, 178 µg/L. The Cap and Run report does not allege off-site impacts to public or private drinking water wells at Baldwin.

2.1.1 Local Water Supply

The town of Baldwin, which is the closest municipality to the site, adjoins the southeastern corner of the site. The Baldwin CWS (IL1570050) serves approximately 600 people with 273 service connections via surface water purchase. The town of Baldwin formerly operated two groundwater wells (Well 1 [C01] and Well 2 [C02]), which have been abandoned (see below for further discussion). No groundwater use ordinance is in place in the town of Baldwin. According to the SDWIS database, Baldwin purchases its municipal water supply from Egyptian Water Company (IL1570010), which in turn purchases its water from the Chester (IL1570100) and Sparta (IL1570600) water systems. Chester receives its water from a surface water intake at the Mississippi River (located over 15 miles southwest of the site at its closest point), and Sparta receives its water from surface water intakes at the Sparta Northwest Reservoir (located over nine miles southeast of the site) and the Kaskaskia River. The southerly-flowing Kaskaskia River is located approximately 1,100 feet west of the Baldwin plant at its closest point, and the Sparta CWS Kaskaskia River intake is located within a meander of the river at a point approximately 1,200 feet southwest of the nearest site boundary (see further discussion below).

2.1.2 Hydrogeology

Based on the topographic gradient of the area and limited groundwater elevation data included in the 2019 Annual Groundwater Monitoring and Corrective Action Reports²¹ at the southern end of the Baldwin site, groundwater likely flows generally west or southwest; however, groundwater beneath areas of the Baldwin plant property closer to Baldwin Lake may flow towards the north or northwest.

²⁰ The term "site" is used in Sections 2 and 3 to refer to the individual power plants discussed in each sub-section.

²¹ Ramboll, 2020. "2019 Annual Groundwater Monitoring and Corrective Action Report, Baldwin Fly Ash Pond System, Baldwin Energy Complex," prepared for Dynegy Midwest Generation, LLC, January 31; and, Ramboll, 2020. "2019 Annual Groundwater Monitoring and Corrective Action Report, Baldwin Bottom Ash Pond, Baldwin Energy Complex," prepared for Dynegy Midwest Generation, LLC, January 31.

2.1.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Baldwin site is provided in Table 2.1.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as “on-site” or “off-site;” *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

Table 2.1.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Twenty-two (22) water wells were identified and eight (8) are located potentially downgradient of the site. Based on Ramboll’s review of groundwater data, these wells are unlikely to be impacted by releases from the site.</p>	Absent	Absent	<p>Present, but not at risk Two (2) active CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant.</p>	<p>Present, but not at risk One (1) CWS surface water intake was identified potentially downgradient of the site. Based on Ramboll’s review of available information, this CWS surface water intake is unlikely to be impacted by releases from the site.</p>

Private and Semi-Private Wells

Ramboll reviewed the IEPA’s SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the search site boundary. See Table 2.1.3-B below for a summary of the results.

Table 2.1.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	90 private and semi-private wells (domestic water, engineering test, monitoring, piezometer, private water, water well, water well test hole)
Total number of <u>water</u> wells identified	22 water wells (5 confirmed to be plugged or sealed)
Unmapped wells ²² P020 and P022	2 unmapped domestic water wells (see discussion in the “Downgradient” row below)
On-Site Four (4) private and semi-private water wells are present on-site and range in depth from 15 to 160 feet bgs.	
Owned by Utility	None
Not Owned by Utility P001-P004	Four (4) private and semi-private water wells are present on-site and range in depth from 15 to 160 feet bgs. Three (3) of the on-site wells are confirmed to have been sealed and the remaining on-site well, which plots within the active portion of the site, has a record that indicates that drilling of the well resulted in a “dry hole.”

²² Unmapped wells are not depicted in the corresponding figure due to imprecise location information (i.e., one square-mile resolution).

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Table 2.1.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Off-Site	
Eighteen (18) private and semi-private water wells are present off-site and are listed as being owned by private individuals or "Baldwin City" and range in depth from 14 feet to 356 feet bgs. Two (2) of the off-site wells are confirmed to have been sealed.	
Downgradient Wells P007-P014	Eight (8) private and semi-private wells between the southern search site boundary and the Kaskaskia River are potentially downgradient. These wells are located south of the search site boundary ²³ at distances ranging from approximately 800 feet to 2,300 feet from the nearest search site boundary. The wells are listed with private owners, range in depth from 24 to 72 feet bgs, and were installed between 1947 and 1986 within unconsolidated geologic materials (predominantly clay, sand and gravel).
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide Unmapped: P020 and P022	<p>Ten (10) off-site wells are unlikely to be impacted by groundwater from the site based on their position on the opposite side of a water body representing a significant hydrogeologic divide (Baldwin Lake or the main branch or a channel of the Kaskaskia River) or their hydrogeologic position relative to the site (i.e., up- or cross-gradient).</p> <p>Two (2) of the 10 wells (P020 and P022) were identified in the ISWS wells database with imprecise location information (i.e., one square-mile resolution) and therefore are not depicted in Figure 2.01-A. P020 and P022 are located in township 4S, range 7W, Sections 8 and 17 (8-4S-7W and 17-4S-7W, respectively), which are located 1,200 or more feet west of the site. Well P022 is noted as being sealed. Well P020 is located in Section 17-4S-7W, the majority of which is located on the opposite side of the main branch of the Kaskaskia River, which represents a significant hydrogeologic divide. As such, these unmapped water wells are unlikely to be impacted by the site.</p>

Non-CWS Wells and Surface Water Intakes

Ramboll also reviewed the IEPA's SWAPP database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the search site boundary. No non-CWS wells or surface water intakes were identified within the search site boundary or within 2,500 feet of the search site boundary.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the search site boundary. A summary of CWS wells identified off-site and within one mile of the search site boundary is provided below in Table 2.1.3-C.

Table 2.1.3-C: CWS Wells within One Mile Radius	
Summary	
Total number of wells within search radius	Four (4) CWS wells
On-Site	
No CWS wells were identified within the owned property boundary.	
Off-Site	
Four (4) CWS wells were identified off-site and within one mile of the search site boundary.	
Downgradient C01, C02, C03, C04	Four (4) CWS wells were identified within one mile of the search site boundary, specifically to the southwest of the site. Two (2) of the CWS wells (C01 and C02) are abandoned wells that formerly supplied the Baldwin CWS. The two (2) remaining wells (C03 and C04) are active

²³ The search site boundary coincides with the owned property boundary and power plant boundary at the southern end of the site.

Table 2.1.3-C: CWS Wells within One Mile Radius	
	CWS wells that currently supply the City of Red Bud CWS. C03 and C04 are located on the west side of the Kaskaskia River (i.e., separated from the site by a significant hydrogeologic divide). These wells are located approximately 2,500 feet and 3,000 feet southwest of the nearest search site boundary, respectively. No portion of the site is located within any setback zones or WHPAs associated with the City of Red Bud's CWS wells.
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide	None

A summary of CWS surface water intakes identified off-site and within one mile of the search site boundary is provided below in Table 2.1.3-D.

Table 2.1.3-D: CWS Surface Water Intakes within One Mile Radius	
Summary	
Total number of surface water intakes within search radius	1 surface water intake
On-Site No CWS surface water intakes were identified within the owned property boundary.	
Off-Site One (1) CWS surface water intake was identified downgradient of the site boundary.	
Downgradient	The Sparta CWS Kaskaskia River surface water intake is located approximately 1,200 feet southwest (i.e., potentially downgradient) of the nearest site boundary. Approximately 4.5 acres of the CWS River Intake Zone 1 Protection Area for the Kaskaskia River is present within the southwestern corner of the site and appears undeveloped.
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide	None

2.1.4 Groundwater Quality at the Site

Ramboll reviewed groundwater data at Baldwin and an off-site investigation of groundwater between the property boundary and downgradient private wells.²⁴ No potential impact to the downgradient private wells was identified.

The Sparta surface water intake was studied by the ISWS. Based upon sampling and analysis of water from the intake, and a CORMIX mixing model of effluent from the Baldwin site, the ISWS concluded there was little potential for boron to exceed 1 mg/L in the Sparta intake.²⁵

2.1.5 Conclusions Regarding Potentially At-Risk Wells

As noted above in Section 2.1.3, eight (8) private and semi-private wells located south of the Baldwin site are potentially downgradient. These wells are located at distances ranging from approximately 800 feet to 2,300 feet from the nearest search site boundary. Based on Ramboll's review, these wells are unlikely to be impacted by releases from the site. In addition, the Sparta CWS Kaskaskia River surface water intake, located within a channel of the river approximately 1,200 feet southwest and downgradient of the site, is unlikely to be impacted by releases from the site based on data collected by the ISWS. In conclusion, based on

²⁴ Kelron Environmental, 2012. "Off-Site Groundwater Quality Results, Baldwin Energy Complex, Baldwin, Illinois," prepared for Dynege Operating Company, April.

²⁵ Office of River Water Quality, 1995. "Illinois Power Company – Baldwin Power Plant: Ash-Pond Effluent Boron Mixing with the Kaskaskia River," prepared for the Illinois Power Company, October.

Ramboll's review of the available data, the identified wells and surface water intakes are not at risk of impact from coal ash constituents.

2.2 Coffeen

The Coffeen Power Station power plant is located at 134 Cips Lane in Coffeen, Montgomery County, Illinois (the "Coffeen plant" or "site"). The Coffeen plant is located on the east side of Coffeen Lake, a man-made reservoir that flows southeastward and drains into East Fork Shoal Creek, a southward-flowing stream. According to the Montgomery County assessor and GIS departments, one or more affiliates of Dynegey owns the parcels that comprise the "owned property boundary," which includes Coffeen Lake parcels and parcels located along the edge of Coffeen Lake. The search radii were based on the "search site boundary" determined by Ramboll, as the owned property boundary extends more than a mile to the north of the power plant boundary and/or is present on the opposite side of Coffeen Lake (or its inlets) from the power plant. The Coffeen "site boundary" in this section refers to the search site boundary since it is the basis for the search radii.

Figure 2.02-A depicts estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Tables 2.02-A and 2.02-B.

The Cap and Run report claims that groundwater at Coffeen is "unsafe" and is likely to show SSIs. The report does not allege that any public or private water wells are impacted.

2.2.1 Local Water Supply

The city of Coffeen, which is the closest municipality to the site, is located approximately 600 feet northeast of the site boundary. The Coffeen CWS (IL1350150) supplies 685 people with 305 water connections via surface water purchase. A groundwater use ordinance has been established within Coffeen (city of Coffeen Ordinance No #2016-06) that prohibits the use of groundwater as a potable water supply within an approximately 1.7-acre area consisting of eight parcels on West Main Street. No wells were identified within this groundwater ordinance area. According to the SDWIS database, the Coffeen CWS purchases water from the Hillsboro CWS (IL1350300), which obtains water from the following surface water intakes: Lake Hillsboro Intake and Lake Glen Shoals Intake. These lakes are located over 6 miles to the northwest of the site boundary at its closest point.

2.2.2 Hydrogeology

According to a groundwater elevation map showing the majority of the site included in a 2019 Alternate Source Demonstration²⁶ for the Coffeen plant, the direction of groundwater flow beneath the site appears to primarily be influenced by Coffeen Lake, located west of the plant, as well as an unnamed tributary to the lake located northeast of the plant. Groundwater flow under most of the western portion of the Coffeen plant property, including the plant itself and the on-site landfill, is inferred to flow generally to the west. Shallow groundwater flow at Coffeen is complex and influenced by surface water, flowing either west to Coffeen Lake, or toward the unnamed tributary. There is a groundwater divide in the center of the site where groundwater flows either west to Coffeen Lake or east to the tributary. East of the tributary, the groundwater flows toward the west.

2.2.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Coffeen site is provided in Table 2.2.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject

²⁶ O'Brien & Gere Engineers, Inc. part of Ramboll, 2019. "40 C.F.R. § 257.94(e)(2): Alternate Source Demonstration, Coffeen Landfill," prepared for Illinois Power Generating Company, July 15.

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to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as “on-site” or “off-site;” *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

Table 2.2.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Thirty-four (34) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are abandoned, or they do not appear to be used for potable purposes. None of the off-site wells are located in a downgradient direction.</p>	<p>Present, but not at risk Three (3) non-CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or their inactive status.</p>	<p>Absent</p>	<p>Absent</p>	<p>Absent</p>

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the search site boundary. See Table 2.2.3-B below for a summary of the results.

Table 2.2.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	51 private and semi-private wells (domestic water, monitoring well, private water, semi-private water, water well)
Total number of <u>water</u> wells identified	34 water wells (one [1] confirmed to be sealed)
Unmapped wells ²⁷	None
On-Site	
Eight (8) water wells are mapped at various locations on site.	
<i>Owned by Utility</i>	None

²⁷ Unmapped wells are not depicted in the corresponding figure due to imprecise location information (i.e., one square-mile resolution).

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Table 2.2.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Not Owned by Utility P001-P008	Eight (8) on-site wells are listed as having private owners and reportedly range in depth from 26 to 50 feet bgs. Most of the private wells appear to be used for agricultural purposes based on their location in what appears to be agricultural land. One well (P007) is mapped within the plant boundary to the west of the unnamed tributary. While this well is located close to or potentially downgradient of operational areas of the site, it is unlikely that this well is used for drinking or agricultural purposes. None of the other on-site wells identified in the databases are likely to be impacted by groundwater from the site based on their hydraulic position relative to the active portion of the site (i.e., up- or cross-gradient locations or the locations on the opposite side of Coffeen Lake or the tributary to Coffeen Lake relative to operational areas of the plant).
Off-Site Twenty-six (26) of the private and semi-private wells are present off-site and are listed as being owned by private individuals and range in depth from 20 feet to 401 feet bgs.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide P009-P034	Twenty-six (26) off-site water wells located within 2,500 feet of the search site boundary are listed as being owned by private individuals and range in depth from 12 feet to 401 feet below ground surface; one (1) is listed as sealed (P034). Most of the off-site wells are located east of the site, some very close to the eastern search site boundary (which coincides with the owned property boundary). However, all of the off-site wells are located either west of Coffeen Lake, east of the unnamed tributary to the lake (i.e., on the opposite side of features likely to represent significant hydrogeologic divides) or are located generally cross-gradient (north) of the site.

Non-CWS Wells and Surface Water Intakes

Ramboll also reviewed the IEPA's SWAPP database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the search site boundary. A summary of non-CWS wells identified is provided in Table 2.2.3-C below. No non-CWS surface water intakes were identified within the search site boundary or within 2,500 feet of the search site boundary.

Table 2.2.3-C: Non-CWS Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	Three (3) non-CWS wells
On-Site	
Owned by Utility	None
Not Owned by Utility	None
Off-Site	
Downgradient	None

Table 2.2.3-C: Non-CWS Wells within 2,500-foot Radius	
<p><i>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</i> Wells NC01, NC02, and NC03</p>	<p>Three (3) non-CWS wells were identified within 2,500 feet of the search site boundary, two of which (NC01 and NC02) are listed with inactive status and have a 200-foot setback zone and a 1,000-foot Phase I WHPA (no status, setback or WHPA information was available for NC03). The non-CWS wells are located on the opposite (west) side of Coffeen Lake from the search site boundary. The wells are reportedly associated with the Coffeen Lake Wildlife Area (a recreational area operated by the Illinois Department of Conservation), Indian Grove Campground (a summer camp), and the Department of Conservation. No portion of the site is located within any setback zones or regulated recharge areas and Coffeen Lake likely provides a substantial hydrogeologic divide that would prevent groundwater from impacting the identified wells with setbacks and Phase I WHPAs.</p>

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the search site boundary. No CWS wells or surface water intakes were identified within search site boundary or within one mile of the search site boundary. As such, no portion of the site is located within any setback zones or WHPAs associated with the CWS wells.

2.2.4 Conclusions

Ramboll identified thirty-four (34) private or semi-private and three (3) non-CWS wells within the respective search radii, including eight (8) private or semi-private wells located within the owned property boundary. However, based on Ramboll's review, no drinking water wells are at risk of impacts from the site, as all of the identified wells are located either west of Coffeen Lake or east of the unnamed tributary to the lake (i.e., on the opposite side of features likely to represent significant hydrogeologic divides) or are generally cross-gradient (north) of the site. In conclusion, based on Ramboll's review of the available data, the identified wells are not at risk of impact from coal ash constituents.

2.3 Duck Creek

The Duck Creek Power Station is located at 17933 North Cilco Road in Canton, Fulton County, Illinois (the "Duck Creek plant" or "site"); the Duck Creek plant was closed in 2019. The Duck Creek plant is located approximately three miles northwest from the Illinois River at its closest point, and immediately west of the Duck Creek cooling pond, a reservoir created by damming Duck Creek, which then flows southward to the Illinois River. According to the Fulton County assessor and GIS departments, one or more affiliates of Dynegy own the parcels that comprise the "owned property boundary," which includes Duck Creek cooling pond parcels, parcels located along the edge of the Duck Creek cooling pond, and some miscellaneous roads extending from the owned property. The search radii were based on the "search site boundary" determined by Ramboll, as the owned property boundary include miscellaneous roads and/or are present on the opposite side of the Duck Creek cooling pond from the power plant. The Duck Creek "site boundary" in this section refers to the search site boundary since it is the basis for the search radii.

Figure 2.03-A depicts estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Table 2.02-A.

The Cap and Run report alleges that Duck Creek has groundwater at unsafe levels.

2.3.1 Local Water Supply

The village of Dunfermline, which is the closest municipality to the site, is located approximately 1.4 miles west of the site boundary at its closest point. The Dunfermline-St. David Water Commission CWS (IL0575150) serves approximately 850 people with approximately 528 service connections via surface water purchase from the Canton CWS (IL0570250). A groundwater use ordinance has been established in Canton (city of Canton Ordinance No. 1794), which prohibits the use of groundwater as a potable water supply within the corporate limits of Canton, except for such use of groundwater as a potable water supply at points of withdrawal by the city (the municipal boundaries of Canton lie entirely outside the one-mile search radius). The Canton CWS serves approximately 14,700 people with 5,770 service connections via groundwater under the influence of surface water. According to the SDWIS database, the city of Canton CWS receives its municipal water supply from Radial Collector Well 1 along with two emergency intakes (Intake 1 and Intake 2) in Canton Lake. Canton formerly utilized two groundwater wells (South Well and North Well), which are inactive. Canton Lake is located approximately 2.6 miles north of the site at its nearest point, and the active Canton CWS water supply well is not within one mile of the site boundary.

2.3.2 Hydrogeology

Based on the topographic gradient of the area and limited groundwater elevation data included in several Annual Groundwater Monitoring and Corrective Action Reports²⁸ for different areas of the Duck Creek plant property in 2019, groundwater beneath the majority of the site likely flows to the east. Groundwater along the western border of the southern part of the site, along North Cilco Road, likely flows west.

2.3.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Duck Creek site is provided in Table 2.3.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as “on-site” or “off-site;” *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

Table 2.3.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Three (3) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or they are abandoned. None of the off-site wells are located in a</p>	Absent	Absent	Absent	Absent

²⁸ Ramboll, 2020. “2019 Annual Groundwater Monitoring and Corrective Action Report, Duck Creek Landfill, Duck Creek Power Station,” prepared for Illinois Power Resources Generating, LLC, January 31; Ramboll, 2020. “2019 Annual Groundwater Monitoring and Corrective Action Report, Duck Creek Gypsum Management Facility Pond, Duck Creek Power Station,” prepared for Illinois Power Resources Generating, LLC, January 31; and, Ramboll, 2020. “2019 Annual Groundwater Monitoring and Corrective Action Report, Duck Creek Bottom Ash Basin, Duck Creek Power Station,” prepared for Illinois Power Resources Generating, LLC, January 31.

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Table 2.3.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
downgradient direction.				

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the search site boundary. See Table 2.3.3-B below for a summary of the results.

Table 2.3.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	3 private and semi-private wells (domestic water and private water)
Total number of <u>water</u> wells identified	3 water wells (one [1] confirmed to be sealed)
Unmapped wells ²⁹	None
On-Site	
Two (2) private or semi-private water wells are present on-site.	
Owned by Utility	None
Not Owned by Utility Wells P001 and P002	Two (2) private water wells (P001 and P002) are present within the owned property boundary. Well P001 is reported to be 95 feet deep, owned by a private individual, and located approximately 2,500 feet southeast of the search site boundary. As this well is located on the opposite (southeast) side of the Duck Creek cooling pond, which likely represents a significant hydrogeologic divide, impact to this well from groundwater is unlikely. Well P002 is reported to be 50 feet deep, owned by a private individual, and located in an undeveloped portion of the site. As the on-site well does not appear to be located close to or downgradient from the operational portion of the site, it is unlikely to have been impacted by groundwater.
Off-Site	
One (1) domestic water well is present off-site and within the 2,500-foot radius.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide Well P003	P003 is a 13-foot deep well located northwest of the site and is confirmed to have been sealed.

Non-CWS Wells and Surface Water Intakes

Ramboll also reviewed the IEPA's SWAPP database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the search site boundary. No non-CWS wells or surface water intakes were identified within the search site boundary or within 2,500 feet of the search site boundary.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the search site boundary. No CWS wells or surface water intakes were identified within the search site boundary.

²⁹ Unmapped wells are not depicted in the corresponding figure due to imprecise location information (i.e., one square-mile resolution).

2.3.4 Conclusions

Ramboll identified three (3) private wells within 2,500 feet of the search site boundary; one is listed as sealed. Based on Ramboll's review, neither of the remaining two wells are at risk of impacts from the site based on their upgradient or cross-gradient location relative to operational areas of the site, or on the opposite side of Duck Creek cooling pond, which likely represents a significant hydrogeologic divide. In conclusion, based on Ramboll's review of the available data, the identified wells are not at risk of impact from coal ash constituents.

2.4 Edwards

The Edwards Power Station is located at 7800 South Cilco Lane in Bartonville, Peoria County, Illinois (the "Edwards plant" or "site"). The Edwards plant is located on the west bank of the southwesterly-flowing Illinois River. According to the Peoria County assessor and GIS departments, one or more affiliates of Dynegy own the parcels that comprise the "owned property boundary."³⁰ The search radii were based on the owned property boundary, which is restricted to the power plant boundary. The Edwards "site boundary" in this section refers to the power plant boundary, the search site boundary, and the owned property boundary since they are equivalent and as such, the basis for the search radii.

Figure 2.04-A depicts estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary [collectively, the "site boundary"]), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Tables 2.04-A and 2.04-B.

The Cap and Run report makes the following claims regarding Edwards:

- The groundwater is unsafe;
- The groundwater has unsafe levels of arsenic, cobalt, lead and lithium;
- Coal ash is the source due to elevated levels of boron and sulfate;
- Groundwater impacts will indefinitely endanger users of the groundwater and the Illinois River in this highly populated area.

2.4.1 Local Water Supply

The village of Bartonville, which is the closest municipality on the west side of the Illinois river to the site, is located approximately 1,300 feet north of the site boundary at its closest point, although the developed area of Bartonville is located approximately 1.8 miles north of the site. Water for the village of Bartonville is supplied by the Illinois American Water Company Peoria Division (IL American-Peoria) CWS (IL1435030), which serves approximately 121,500 people with 53,719 service connections. No groundwater use ordinance is in place in the village of Bartonville. According to the SDWIS database, the IL American-Peoria CWS receives its water supply primarily from surface water, namely Illinois River Intake (located approximately 10.8 miles upstream of the site). Other active sources of water associated with IL American-Peoria include 14 wells, none of which are located within a one-mile radius of the site boundary (see discussion below).³¹

³⁰ Ameren Illinois Company is not affiliated with Dynegy; however, the parcel owned by Ameren Illinois Company is present in the central portion of the site and as such is included for the purposes of the well survey.

³¹ The following 14 active wells are associated with IL American-Peoria: Reserve Well, Griswold Well 02, Griswold Well 03, Dodge Street Well 03, Griswold Well 04, Dodge Well 04, Dodge Well 05, San Koty Well 12, San Koty Well 14, San Koty Well 15, San Koty Well 16, San Koty Well 17, San Koty Well 18, and Well 19. The following 10 inactive wells are also associated with IL American-Peoria: Inactive Well, Griswold Well 01, Abandoned Well 02, Abandoned Well 07, Abandoned Well 08, Abandoned Well 09, Abandoned Well 10, Abandoned Well 11, Abandoned Well 13, and Abandoned Dodge Well 1.

2.4.2 Hydrogeology

According to a 2013 Phase I Hydrogeologic Assessment for the Edwards plant prepared by Natural Resources Technology (NRT) (the "2013 Edwards Hydrogeologic Assessment report"³²), groundwater beneath the site is inferred to flow generally to the southeast.

2.4.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Edwards site is provided in Table 2.4.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as "on-site" or "off-site;" *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

Table 2.4.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Seven (7) water wells were identified and one (or possibly two) are located potentially downgradient of the site. Based on Ramboll's review of groundwater data, these wells are unlikely to be impacted by coal ash constituents.</p>	<p>Present, but not at risk One non-CWS well was identified; however, it is unlikely to be at risk because of its hydrogeologic location relative to the power plant.</p>	Absent	Absent	Absent

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the site boundary. See Table 2.4.3-B below for a summary of the results.

Table 2.4.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	14 private and semi-private wells (domestic water, engineering test, industrial water, semi-private water, water well)
Total number of <u>water</u> wells identified	7 water wells (none confirmed to be sealed)
Unmapped wells ³³	2 unmapped domestic water wells (P006 and P007); see discussion in the "Upgradient, cross-gradient, or opposite a significant hydrogeologic divide" row below
On-Site	
One (1) water well is mapped on-site.	

³² Natural Resource Technology Environmental Consultants (NRT), 2013. "Phase I Hydrogeological Assessment Report: Coal Combustion Product Impoundment, E.D. Edwards Energy Center, Peoria County, Illinois," prepared for Ameren Energy Resources Generating Company, March 19.

³³ Unmapped wells are not depicted in the corresponding figure due to imprecise location information (i.e., one square-mile resolution).

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Well/Water Supply Survey and Evaluation
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Table 2.4.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Owned by Utility	None
Not Owned by Utility Well P001	One (1) water well (P001) is mapped on-site. According to the available information, the well was installed in 2001 at a depth of 20 feet bgs; the well owner is listed as Cargill Fertilizer. According to the 2013 Edwards Hydrogeologic Assessment report, because this well is located on property owned by Ameren (a prior site owner) or its predecessor companies prior to 2001, the location information is "inaccurate" and "there is no well at this location." The southeast adjoining property was formerly owned by Cargill Inc. prior to 2004, and as such, well P001 may be located at this property as opposed to the site. If P001 is located at the southeast-adjointing property, it would be located downgradient of the site.
Off-Site Six (6) of the private and semi-private wells are present off-site and are listed as being owned by private individuals or commercial entities and range in depth from 28 feet to 65 feet bgs.	
Downgradient Well P002	One (1) well (P002), installed in 1968 at a depth of 30 feet, is present 215 feet south of the nearest site boundary on the southeast-adjointing property; the well owner is listed as Cargo Carriers. According to the 2013 Edwards Hydrogeologic Assessment report, "the existence of this well as a source of potable water supply has not been confirmed." Well P002 is located downgradient of the site. The southeast-adjointing property is currently owned by The Mosaic Company, a producer and distributor of potash and phosphate fertilizer. Based on aerial photographs, the property appears to be used for barge loading and unloading operations.
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide Wells P003-P007	Two (2) water wells are located 330 feet northwest (P004) and 620 feet northeast (P005) of the nearest site boundary. P004 is mapped on a rail line and as such, the location information may be inaccurate. According to the 2013 Edwards Hydrogeologic Assessment report, "the usage of these wells for potable water supply has not been confirmed." Due to their upgradient location, P004 and P005 are unlikely to be impacted by the site. P003 is present 1,900 feet northwest of the site boundary and is unlikely to be impacted by the site based on the relative hydrogeologic position (i.e., cross-gradient) and distance from the site. In addition, two (2) domestic water wells (P006 and P007) were present in the ISWS Domestic Wells database with imprecise location information (i.e., one square-mile resolution) and therefore are not depicted in Figure 2.4-A. The water wells are located in township 7N, range 7E, Section 1 (7N-7E-1), which is located 2,000 or more feet northeast (i.e., cross-gradient) of the site. Only a small portion (i.e., approximately 10 acres) of section 7N-7E-1 is located within the 2,500-foot radius. As such, these unmapped water wells are unlikely to be impacted by the site.

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the site. A summary of non-CWS wells identified is provided in Table 2.4.3-C below. No non-CWS surface water intakes were identified within the site boundary or within 2,500 feet of the site boundary.

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Table 2.4.3-C: Non-CWS Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	1 non-CWS well
On-Site	
Owned by Utility	None
Not Owned by Utility	None
Off-Site	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide Well NC01	One (1) non-CWS well (NC01), which is reportedly associated with the Freedom Gas Station (14301048), is located approximately 2,350 feet southwest of the nearest site boundary. No portion of the site is located within any setback zones or regulated recharge areas associated with NC01. According to the 2013 Edwards Hydrogeologic Assessment report, the Peoria County Health Department indicated that NC01 is not a potable well, and that potable water is hauled to the Freedom Gas Station for drinking purposes. ³⁴ Furthermore, the Freedom Gas Station is located cross-gradient of the site. As such, the Edwards Power Station is unlikely to represent a risk to NC01.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the site boundary. No CWS wells or surface water intakes were identified within the site boundary or within one mile of the site boundary.

2.4.4 Groundwater Quality at the Site

Ramboll reviewed up- and downgradient groundwater data at Edwards and, due to the similarity of up- and downgradient data, did not identify downgradient wells at risk from coal ash constituents.³⁵

2.4.5 Conclusions Regarding Potentially At-Risk Wells

As noted above in Section 2.4.3, well P002 is located downgradient of the site. P002 is present 215 feet south of the nearest site boundary on the southeast-adjoining property; the well owner is listed as Cargo Carriers. According to the 2013 Edwards Hydrogeologic Assessment report, "the existence of this well as a source of potable water supply has not been confirmed." Although well P001 is mapped on-site, this well, which is reportedly owned by Cargill Fertilizer, may be located at the southeast adjoining property, which was formerly owned by Cargill prior to 2004 (same property as where well P002 is depicted). Ramboll reviewed up- and downgradient groundwater data at Edwards and did not identify downgradient wells at risk from coal ash constituents. In conclusion, based on Ramboll's review of the available data, the identified wells are not at risk of impact from coal ash constituents.

³⁴ Ramboll did not independently verify that the Peoria County Health Department information cited in the 2013 Edwards Hydrogeologic Assessment report remains accurate.

³⁵ OBG 2017, 2018, and 2019 Annual Groundwater Monitoring and Corrective Action Report, Edwards Ash Pond, Edwards Generating Station.

2.5 Havana

The Havana power plant, which was retired in late 2019, is located at 15260 IL-78 in Havana, Mason County, Illinois (the "Havana plant" or "site"). The Havana plant is situated along the east bank of the Illinois River. According to the Mason County assessor and GIS departments, one or more affiliates of Dynegy owns the parcels that comprise the "owned property boundary." The search radii were based on the owned property boundary, which is restricted to the power plant boundary, with the exception of what may be undeveloped/agricultural land on the southern and southeastern portions of the site. The Havana "site boundary" in this section refers collectively to the power plant boundary, the search site boundary, and the owned property boundary since they are equivalent and as such, the basis for the search radii.

Figure 2.05-A depicts estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary [collectively, the "site boundary"]), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Tables 2.05-A, 2.05-B, and 2.05-C.

The Cap and Run report states that Havana groundwater is not unsafe (i.e., does not exceed health-based standards on an average basis).

2.5.1 Local Water Supply

The city of Havana, which is the closest municipality to the site, adjoins portions of the northern and eastern sides of the site boundary. The Havana CWS (IL1250200) serves approximately 3,300 people with 1,406 service connections. According to the SDWIS database, the Havana CWS receives its municipal water supply from three active groundwater wells (Well 2, Well 4, and Well 5). A groundwater use ordinance has been established for the corporate limits of the city of Havana (city of Havana Ordinance No. 1066) that prohibits installing water wells or sand points for any potable water use and requires a permit for installing non-potable water supply wells or sand points. The search radii north and east of the site encompasses a portion of the groundwater use ordinance area, although all parcels associated with the Havana plant are located outside the corporate limits of the city of Havana. As discussed below, none of the active Havana CWS water supply wells are within one mile of the site boundary.

2.5.2 Hydrogeology

Based on the topographic gradient of the area and limited groundwater elevation data included in the 2019 Annual Groundwater Monitoring and Corrective Action Report³⁶ for the Havana plant, groundwater likely flows to the west.

2.5.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Havana site is provided in Table 2.5.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as "on-site" or "off-site;" *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

³⁶ Ramboll, 2020. "2019 Annual Groundwater Monitoring and Corrective Action Report, Havana East Ash Pond (Cells 1,2,3, and 4), Havana Power Station," prepared for Dynegy Midwest Generation, LLC, January 31.

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Table 2.5.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Fifty-eight (58) water wells were identified and three (3) are located potentially downgradient of the site. However, information reviewed by Ramboll suggests that none of these wells are used to supply potable water. In addition, two of the three wells are located within an area covered by the City of Havana's groundwater use ordinance, which prohibits the installation of wells as a potable water supply.</p>	<p>Present, but not at risk Six (6) non-CWS wells were identified; however, all are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site, and/or they are owned by the utility.</p>	Absent	<p>Present, but inactive Seven (7) CWS wells were identified and are located potentially downgradient of the site; however, none are at risk because they are listed as inactive.</p>	Absent

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the site boundary. See Table 2.5.3-B below for a summary of the results.

Table 2.5.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	77 private and semi-private wells (domestic water, dry hole, industrial water, irrigation, monitoring, private water, stratigraphic test, water well)
Total number of <u>water</u> wells identified	58 water wells (one [1] confirmed to be sealed)
Unmapped wells ³⁷	None
On-Site	
Five (5) semi-private water wells are present on site and range in depth from 42 to 90 feet bgs; there is no information indicating that any of the wells have been sealed.	
Owned by Utility Wells P002 and P004	Two (2) on-site wells are owned by Illinois Power Company and Dynegy Midwest Generation, respectively, and are located in the west-central portion of the site; the wells were drilled in 1974 (to 83 feet) and 2007 (90 feet).

³⁷ Unmapped wells are not depicted in the corresponding figure due to imprecise location information (i.e., one square-mile resolution).

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Coal-Fired Power Plants in Illinois

Table 2.5.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
<p>Not Owned by Utility Wells P001, P003, and P005</p>	<p>Two (2) on-site water wells (P003 and P005), located in the southern portion of the site, are owned by private individuals and were drilled in 1996 and 1972 to depths of 42 and 75 feet bgs, respectively. The well record for P003 indicates the well is actually within a residential subdivision located south of the site (off-site well). Well P005 is located in an undeveloped area of the site with no potential on-site contaminant sources located upgradient (east) of the reported well location.</p> <p>Finally, one (1) water well is located in the northwestern portion of the site (P001), which is owned by the Illinois Division of Waterways Hydraulic Laboratory and was drilled to 62 feet (drilling date unspecified). Based on its reported location in the main plant area of the site and a record indicating that the well was installed by an irrigation company, it is unlikely that this well is located at its reported location and that it is used for potable purposes.</p>
<p>Off-Site Fifty-three (53) private and semi-private water wells are located off-site within 2,500 feet of the site boundary and range in depth from 17 to 98 feet bgs. The wells are owned by Illinois Department of Transportation (DOT), "local development," private companies, and private individuals.</p>	
<p>Downgradient Wells P023, P027 and P043</p>	<p>Three (3) water wells are located west of the northern end of the site, in a potentially downgradient direction, ranging from approximately 350 feet to 1,500 feet north or west from the nearest site boundary. The water wells are owned by the Illinois DOT (P023, 61 feet deep, installed in 1991), Jerry Netler (P027, 45 feet deep, installed in 1996), and RW Atwater Trust (P043, 46 feet deep, installed in 2007).</p> <p>Based on Ramboll's review of the well details and locations, the wells do not appear to be domestic wells used for potable water supply or are not likely present at the plotted locations. The downgradient well owned by Illinois DOT reportedly has a relatively large capacity (35 gallons per minute) and is owned by a governmental agency, suggesting it is used for engineering purposes and is not likely used as a potable water supply. In addition, the well location plots in a grassy area adjacent to a local road, with no evidence of an associated building. The downgradient well that is owned by Jerry Netler plots at the City of Havana's wastewater disposal plant adjacent to the Illinois River; as such, this private well is not likely present at the plotted location. Finally, the well owned by RW Atwater Trust is listed as an irrigation well, indicating that the well is not likely used for domestic purposes, including as a potable water supply.</p> <p>Further, it is noted that both well P027 and well P043 are located within the area of the City of Havana's groundwater use ordinance, which prohibits the use of wells as a potable water supply.</p>
<p>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</p>	<p>The remaining 50 off-site private and semi-private water wells are located in the presumed upgradient or cross-gradient direction of the site and are present between 350 to 2,500 feet from the site boundary, primarily clustered to the south of the site boundary but also located southeast and east of the site boundary. One (1) of these wells (P058), which is located approximately 500 feet to the south of the southern site boundary, is listed as abandoned.</p>

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the site boundary. A summary of non-CWS wells identified is provided in Table 2.5.3-C below. No non-CWS surface water intakes were identified within the site boundary or within 2,500 feet of the site boundary.

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Table 2.5.3-C: Non-CWS Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	6 non-CWS wells
On-Site	
Four (4) non-CWS wells were identified within the site boundary.	
Owned by Utility NC01-NC04	All four (4) on-site non-CWS wells (NC01-NC04) are active, owned by Dynegy Midwest Generation, and located in the central portion of the Havana plant. Each non-CWS well has a 200-foot setback zone and a 1,000-foot Phase I WHPA. Because these wells are owned by the utility and registered as non-CWS wells, they are assumed to be monitored regularly and are likely deep wells that would be unaffected by shallow groundwater. The depths of the wells were not provided.
Not Owned by Utility	None
Off-Site	
Two (2) non-CWS wells were identified within 2,500 feet of the site boundary.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide NC05-NC06	Two (2) non-CWS wells (NC05 and NC06) owned by Illinois Power are located approximately 2,200 feet south of the site boundary (i.e., cross-gradient). As such, these wells are unlikely to be at risk of impacts from the site.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the site boundary. A summary of CWS wells identified is provided in Table 2.5.3-D below. No CWS surface water intakes were identified within one mile of the site boundary.

Table 2.5.3-D: CWS Wells within One Mile Radius	
Summary	
Total number of wells within search radius	7 CWS wells (inactive)
On-Site	
No CWS wells were identified within the site boundary.	
Off-Site	
Seven (7) CWS wells were identified off-site and within 2,500 feet of the site boundary.	

Table 2.5.3-D: CWS Wells within One Mile Radius	
<p>Downgradient C01-C07</p>	<p>Seven (7) CWS wells were identified within 2,500 feet of the site boundary. All seven (7) CWS wells are owned by Scotts Mobile Home Park (Well IDs 50270 to 50276) and the public water system (PWS) status of all seven (7) wells indicates “inactive.”³⁸ This cluster of seven (7) wells is located approximately 420 feet north of the nearest site boundary, at a potentially downgradient location. Because the Scotts Mobile Home Park CWS is inactive, no portion of the site is located within any setback zones or WHPAs associated with the Scotts Mobile Home Park CWS wells. A recent aerial photo does not show a mobile home park in this location,³⁹ but historic aerial photos do indicate the presence of a mobile home park as late as 2005.⁴⁰ The mobile home park had disappeared by June 2006.⁴¹</p> <p>The three (3) active groundwater wells operated by the City of Havana CWS are located north/northeast of the Havana plant, outside of the one-mile search radius.</p>
<p>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</p>	<p>None</p>

2.5.4 Groundwater Quality at the Site

Ramboll reviewed groundwater quality data for Havana for the past two years and did not note exceedances of Class I GQS.⁴²

2.5.5 Conclusions Regarding Potentially At-Risk Wells

As noted above in Section 2.5.3, three (3) water wells are located west of the northern end of the site, in a potentially downgradient direction, ranging from approximately 350 feet to 1,500 feet north or west from the nearest site boundary. However as discussed above, these wells are either not present at the reported locations or are likely to be used for non-potable purposes. Further, no current exceedances of Class I GWS were noted, so no off-site impact is occurring. In conclusion, based on Ramboll’s review of the available data, the identified wells are not at risk of impact from coal ash constituents.

³⁸ The PWS is inactive; however, Ramboll notes that six of the wells are listed as active, and one is listed as inactive.

³⁹ Google Earth image dated June 16, 2016.

⁴⁰ Google Earth image dated June 30, 2005.

⁴¹ Google Earth image dated June 2, 2006.

⁴² OBG, 2018 and 2019 Annual Groundwater Monitoring and Corrective Action Report, Havana East Ash Pond, Havana Generating Station.

2.6 Hennepin

The Hennepin power plant, which was retired in late 2019, is located at 13498 East 800th Street in Hennepin, Putnam County, Illinois (the “Hennepin plant” or “site”). The Hennepin plant is situated along the south/east bank of the Illinois River. According to the Putnam County assessor and GIS departments, one or more affiliates of Dynegy own the parcels that comprise the “owned property boundary.” The search radii were based on the owned property boundary, which is coincident with the power plant boundary, with the exception of some undeveloped/agricultural land on the southern portion of the site. The Hennepin “site boundary” in this section refers to the power plant boundary, the search site boundary, and the owned property boundary since they are equivalent and as such, the basis for the search radii.

Figure 2.06-A depicts estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary [collectively, the “site boundary”]). All wells identified to have been historically present within the respective search radii are detailed in Tables 2.06-A and 2.06-B.

The Cap and Run report claims that the Hennepin groundwater is unsafe due to the presence of arsenic, boron, lithium, cobalt, molybdenum, and selenium, and that the site is at risk of inundation from flooding.

2.6.1 Local Water Supply

A portion of the site is located within the municipal boundary of the village of Hennepin, although the developed area of Hennepin is located approximately 2.7 miles southwest of the site at its closest point. The Hennepin CWS (IL1555100) serves approximately 750 people with 290 service connections. According to the SDWIS database, the Hennepin CWS receives its municipal water supply from three active groundwater wells (Well 3, Well 4, and Well 5). According to the SWAPP Factsheets database for the Hennepin CWS, the active wells are constructed in a confined aquifer. No groundwater use ordinance is in place in Hennepin. As discussed below, none of the active Hennepin CWS water supply wells are within one mile of the site boundary.

2.6.2 Hydrogeology

According to the 2019 Corrective Measures Assessment Reports⁴³ for the Hennepin plant, groundwater primarily flows to the north and northwest under the majority of the property. Groundwater mounding under the southwest portion of the property causes radial flow north, as well as localized flow to the southwest.

2.6.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Hennepin site is provided in Table 2.6.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as “on-site” or “off-site;” *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

⁴³ O'Brien & Gere Engineers, Inc. part of Ramboll, 2019. “Corrective Measures Assessment, Ash Pond No. 2, Hennepin Power Station, Hennepin, Illinois,” prepared for Dynegy Midwest Generation, LLC, September 5. and, O'Brien & Gere Engineers, Inc. part of Ramboll, 2019. “Corrective Measures Assessment, Old West Ash Pond (Pond No. 1 and Pond No. 3) and Polishing Pond, Hennepin Power Station, 13498 East 800th Street, Hennepin, Illinois,” prepared for Dynegy Midwest Generation, LLC, September 5.

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Table 2.6.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Sixteen (16) water wells were identified and one (1) is located potentially downgradient of the site. However, this well is unlikely to be present/in use based on its remote floodplain location and installation date (1884).</p>	<p>Present, but not at risk or inactive Three (3) non-CWS wells were identified; however, they are unlikely to be at risk because of their relative hydrogeologic position or inactive status.</p>	Absent	Absent	Absent

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the site boundary. See Table 2.6.3-B below for a summary of the results.

Table 2.6.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	16 private and semi-private wells (domestic water, irrigation, private water, semi-private water, water well)
Total number of <u>water</u> wells identified	16 water wells (none confirmed to be sealed)
Unmapped wells	None
On-Site	
Three (3) private or semi-private water wells were identified on site. All three (3) wells are owned by the utility.	
Owned by Utility Wells P001, P002 and P003	Three (3) wells are present on-site and range in depth from 113 to 115 feet bgs; the wells are owned by Illinois Power Company. One (1) of these wells is located in the developed central plant area (P003) and two (2) wells are mapped along the shore of the Illinois River ⁴⁴ (or slightly in the river; P001 and P002). It is assumed for the purposes of this survey that these wells were installed on land and are within the site boundary.
Not Owned by Utility	None
Off-Site	
Thirteen (13) of the private and semi-private water wells are present off-site and are listed as being owned by various industrial entities and private individuals. The wells range in depth from 17 feet to 303 feet bgs.	
Downgradient Well P013	One (1) well (P013) is located off-site in a potentially downgradient direction from the site within a wetland area, approximately 400 feet southwest of the western portion of the site. This well is owned by a private individual and was drilled to a depth of 30 feet bgs in 1884; based on the age of the well and its location in a wetland with no apparent associated structure, Ramboll considers it unlikely that the well is active.
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide Wells P004 through P012, P014-P016	Twelve (12) private and semi-private water wells are located off-site within 2,500 feet of the site boundary range at depths from 17 to 303 feet bgs. The wells are owned by Dynegy Midwest-Hennepin Power (P011), Esk Corporation (P004 and P005), Advanced Asphalt Co. (P006), and various private individuals (eight [8] wells). The 11 off-site water

⁴⁴ Due to their proximity to each other, these two wells appear as one in Figure 2.06-A.

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Well/Water Supply Survey and Evaluation
Coal-Fired Power Plants in Illinois

Table 2.6.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
	wells within 2,500 feet of the site boundary that are not owned by Dynegy are located between 230 to 2,500 feet from the site boundary and southwest, south, southeast, east, and northeast of the site (i.e., in the presumed upgradient or cross-gradient direction) and are not likely to be impacted by the site.

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the site boundary. A summary of non-CWS wells identified is provided in Table 2.6.3-C below. No non-CWS surface water intakes were identified within the site boundary or within 2,500 feet of the site boundary.

Table 2.6.3-C: Non-CWS Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	Three (3) non-CWS wells
On-Site	
Two (2) non-CWS wells were identified within the site boundary.	
Owned by Utility Wells NC01 and NC03	Two (2) non-CWS wells were identified within the site boundary (NC01 and NC03). According to available data, NC01 is an active industrial/agricultural well located in the central portion of the plant and has a 200-foot setback zone and a 1,000-foot Phase I WHPA, which are encompassed within the site boundary. The well is associated with the Dynegy non-CWS system (IL3076471), which is listed as inactive on the USEPA SDWIS database. NC03 is mapped along the shore of the Illinois River (or slightly in the river). It is assumed this well was installed on land and is within the site boundary. Limited data for NC03 indicates that the well is owned by Illinois Power Company, was drilled to 120 feet bgs in 1993, and has a capacity of up 500 gallons per minute (GPM). The Illinois Power Company non-CWS system (IL0076471) is listed as inactive on the USEPA SDWIS database.
Not Owned by Utility	None
Off-Site	
One (1) non-CWS is present off-site and within 2,500 feet of the site boundary.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide Well NC02	One (1) non-CWS well was identified within 2,500 feet of the site boundary (NC02). According to available data, the well is an active industrial/agricultural well and has a 200-foot setback zone and a 1,000-foot Phase I WHPA. The well is located approximately 350 feet east (i.e., upgradient) of the site boundary at its nearest point and is owned by Exolon. The setback zone for the off-site non-CWS well does not extend onto the site. Although the WHPA for NC02 extends onto the southeastern portion of the site, this portion of the site appears to be inactive.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the site boundary. No CWS wells or surface water intakes were identified within the site boundary or within one mile of the site. As such, no portion of the site is located within any setback zones or WHPAs associated with any CWS wells.

2.6.4 Conclusions Regarding Potentially At-Risk Wells

Ramboll identified 16 private or semi-private wells and three (3) non-CWS wells within the respective search radii, including three (3) private or semi-private water wells and two (2) non-CWS wells located within the site boundary. As noted above in Section 2.6.3, while one of the off-site private water wells (P013) is located potentially downgradient of the site within a wetland area, approximately 400 feet southwest of the western portion of the site, based on the age of the well (installed in 1884) and its location in a wetland with no apparent associated structure, Ramboll considers it unlikely that the well remains in use. In addition, based on Ramboll's review, the other private off-site water wells are unlikely to be at risk of impacts from the site, as they are located in presumed upgradient or cross-gradient directions. One active non-CWS well was identified; however, it is located upgradient of the site. The remaining two non-CWS wells are located on-site and listed as inactive. In conclusion, based on Ramboll's review of the available data, the identified wells are not at risk of impact from coal ash constituents.

2.7 Joppa

The Joppa Generating Station power plant is located at 2100 Portland Road in Metropolis, Massac County, Illinois (the "Joppa plant" or "site"). The Joppa Plant is bordered by the Ohio river to the south. According to the Massac County assessor and GIS departments, one or more affiliates of Dynegy owns the parcels that comprise the "owned property boundary."⁴⁵ The search radii were based on the owned property boundary, which are restricted to the power plant boundary, which includes a small narrow piece of undeveloped land that extends to the north from the power plant and a relatively small undeveloped primarily wooded area southeast of the power plant. The Joppa "site boundary" in this section refers to the collective power plant boundary, the search site boundary, and the owned property boundary since they are equivalent and as such, the basis for the search radii.

Figure 2.07-A depicts estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary [collectively, the "site boundary"]), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Tables 2.07-A and 2.07-B.

The Cap and Run report claims that groundwater at Joppa is unsafe due to concentrations of cobalt and lead.

2.7.1 Local Water Supply

The southeastern portion of the site is located within the municipal boundary of the village of Joppa. The Joppa CWS (IL1270100) serves approximately 531 people with 230 water service connections. No groundwater use ordinance is in place in Joppa. According to the SDWIS database, the Joppa CWS receives its municipal water supply from one active groundwater well (Well 2 [C01]); a second well (Well 1 [C02]) is abandoned. The SDWIS database also indicates that the Joppa CWS has an emergency connection to the Fort Massac Public Water District (PWD; IL275050), which in turn purchases groundwater from Southwater Inc. (IL0030020) and the Millstone PWD (IL1515050). The groundwater wells associated with the Southwest Inc. CWS and the Millstone PWD CWSs are not located within five miles of the site. According to the SWAPP Factsheets database for the Joppa CWS, the active well is constructed in a confined aquifer. The Joppa CWS water supply well is located within the 2,500-foot search site boundary, as discussed below.

⁴⁵ Affiliates of Dynegy also own a non-contiguous vacant parcel located approximately 4,500 feet southeast of the site, as well as non-contiguous railroad parcels north and northwest of the site. These miscellaneous parcels were not included as part of the owned property boundaries.

2.7.2 Hydrogeology

According to a groundwater elevation contour map included in a 2017 Hydrogeologic Monitoring Plan for the East Ash Pond area at the Joppa plant⁴⁶, groundwater in the eastern portion of the site flows in a southerly direction. According to a 2017 Hydrogeologic Monitoring Plan,⁴⁷ groundwater in the northwestern portion of the property flows in a south-southwestward direction. Although Ramboll did not obtain groundwater elevation data for the central portion of the Joppa plant property, based on the topographic gradient, groundwater in this area would also be expected to flow to the south-southwest.

2.7.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Joppa site is provided in Table 2.7.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as “on-site” or “off-site;” *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

Table 2.7.3-A: Summary of Well and Surface Water Intake Survey for Joppa				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Forty-six (46) water wells were identified and 23 are located potentially downgradient of the site. However, only one (1) well is likely to be present and potentially used for drinking water. Based on Ramboll’s review of groundwater data from the eastern portion of the site, it is unlikely that well P018 is at risk from coal ash constituents.</p>	Absent	Absent	<p>Present, but not at risk Two CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or their abandoned status.</p>	Absent

Private and Semi-Private Wells

Ramboll reviewed the IEPA’s SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the site boundary. See Table 2.7.3-B below for a summary of the results.

Table 2.7.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	80 private and semi-private wells (domestic water, household - livestock watering, industrial water, irrigation, monitoring, non-potable water,

⁴⁶ Natural Resource Technology, an OBG Company, 2017. “Hydrogeologic Monitoring Plan, Joppa East Ash Pond, CCR Unit ID 401, Joppa Power Station,” prepared for Electric Energy, Inc., October 17.

⁴⁷ Natural Resource Technology, an OBG Company, 2017. “Hydrogeologic Monitoring Plan, Joppa Landfill, CCR Unit ID 402, Joppa Power Station,” prepared for Electric Energy, Inc., October 17.

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Table 2.7.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
	private water, stratigraphic test, water well, water well for commercial operation, water well test hole)
Total number of <u>water</u> wells identified	46 water wells (none confirmed to be sealed)
Unmapped wells. ⁴⁸	1 unmapped domestic water well (P046); see discussion in the "Upgradient, cross-gradient, or opposite a significant hydrogeologic divide" row below
On-Site	
Eight (8) private or semi-private water wells were identified on site and range in depth from 52 to 350 feet bgs; however, as noted below, three of the wells that are not owned by the utility are unlikely to be present or used.	
Owned by Utility Wells P002, P003, P006 and P007	Four (4) on-site wells are utility owned (P002, P003, P006, and P007). According to a July 2013 Phase I Hydrogeological Assessment Report for the site prepared by NRT, there are seven (7) production wells not used for drinking water located on-site. While Ramboll did not identify seven (7) wells on-site that appear to be owned by the utility, this suggests that no utility-owned wells on site are used for drinking water. As such, none of the utility-owned wells at the site are a concern.
Not Owned by Utility Wells P001, P004, P005 and P008	Four (4) water wells owned by various other entities or private individuals not likely related to the power plant are present on site. Well P001 is located in an operational portion of the site. Based on the location of this private on-site well, which was drilled to 304 feet bgs in 1955 and is owned by Bechtel Corp, Ramboll believes that this well is unlikely to still be present at the site. Well P004 is located in an undeveloped portion of the site and is reportedly owned by Joppa Colored School and was installed in 1940. Based on the listed owner and the lack of any current nearby structures, this well is unlikely to be present or in use. Well P008 is owned by a private individual, but is unlikely operational, as it was reportedly installed in 1896 and there are no nearby structures except for a power line tower. Similarly, well P005 is owned by a private individual, but is unlikely operational, as it was reportedly installed in 1976 and is located on an undeveloped portion of the site.
Off-Site	
Thirty-eight (38) of the private and semi-private water wells are present off-site and are listed as being owned by private individuals or industrial entities. The wells range in depth from 61 feet to 451 feet bgs.	
Downgradient Wells P013, Lafarge plant wells (P009-P011, P024-P033, P040-P041), P034, P018	Well P013 is located just east of the eastern site boundary; the well was installed in 1941 at a depth of 156 feet and is owned by a private individual. Well P013 is mapped in the northwest corner of the Joppa High School property, which utilizes the Village of Joppa's CWS. There is no evidence of a current or abandoned house or other structure at or near the reported location of the well. Overall, it is unlikely that P013 is utilized for drinking water if it has not already been abandoned. Fifteen (15) wells (P009-P011, P024-P033, P040-P041) are located at the west-adjointing Lafarge Cement Plant site and are owned by Lafarge North America (or affiliates) and Missouri Portland Cement. The wells were installed between 1961 and 2010 (drill dates for P025-P033 are unknown) at depths ranging from 97 to 451 feet bgs. The wells are located between approximately 350 feet to 0.4 miles west of the western site boundary and approximately 0.65 miles or more south-southwest (downgradient) of the northwestern portion of the site. Because the 2013 Phase I Hydrogeological Assessment Report prepared for the site by NRT indicates that none of the wells located at the LaFarge plant are used as drinking water wells, these wells do not represent a potential concern.

⁴⁸ Unmapped wells are not depicted in the corresponding figure due to imprecise location information (i.e., one square-mile resolution).

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Table 2.7.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
	<p>In addition, the 15 Lafarge plant wells are located more than 2,500 feet from the upgradient portion of the site and are unlikely to be impacted from any release at that location.</p> <p>Well P034 was installed (unknown date) at a depth of 90 feet, is present within 50 feet of the southeast site boundary and is located approximately 0.4 miles south-southeast (and potentially downgradient) of the site; the well owner is listed as Electrical Energy Corporation (a former operator of the site). As no potable wells are reportedly associated with the site, this well does not represent a potential concern.</p> <p>Well P018 was installed in 1941 at a depth of 65 feet and is located approximately in the same position as P034.⁴⁹; the well is owned by a private individual. This well is mapped within the Village of Joppa; therefore, the property could be served by the CWS. However, the possibility that the well may be used for drinking water cannot be ruled out based on the available information.</p>
<p><i>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</i> P012, P014-P017, P019-P023, P035-P039, P042-P046</p>	<p>The remaining off-site wells are located upgradient (north) of the site with respect to groundwater flow or are located cross-gradient (east or west) of the site.</p> <p>One (1) of the remaining 20 wells (P046) was present in the ISWS Domestic Wells database with imprecise location information (i.e., one square-mile resolution) and therefore is not depicted in Figure 2.07-A. This well is likely located northwest of the site (in township 15S, range 3E, section 9) and is unlikely to be downgradient of the site.</p>

Non-CWS Wells and Surface Water Intakes

Ramboll also reviewed the IEPA's SWAPP database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the site boundary. No non-CWS wells or surface water intakes were identified within the site boundary or within 2,500 feet of the site boundary and no portion of the site is located within any setback zones or regulated recharge areas.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the site boundary. No CWS surface water intakes were identified within the site boundary or within one mile of the site boundary. A summary of identified CWS wells is provided in Table 2.7.3-C below.

Table 2.7.3-C: CWS Wells within One Mile Radius	
Summary	
Total number of wells within search radius	Two (2) CWS wells
On-Site	
No CWS wells were identified within the site boundary.	
Off-Site	
Two (2) CWS wells were identified within a one-mile radius of the site boundary.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide	Two (2) CWS wells were identified within a one-mile radius of the site boundary. One (1) of the CWS wells (C02) is an abandoned CWS well that formerly supplied the Village of Joppa. The remaining well (C01) is

⁴⁹ Due to their proximity to each other, these two wells appear as one well in Figure 2.07-A.

Table 2.7.3-C: CWS Wells within One Mile Radius	
Wells C01 and C02	an active CWS well that currently supplies the City of Joppa. This well has a 200-foot setback and a 1,000-foot Phase I WHPA. Wells C01 and C02 are located approximately 440 feet and 2,500 feet northeast of the southeast site boundary, respectively. An approximately seven-acre non-operational portion of the site is located within the WHPA for the Village of Joppa's active CWS well; however, this well is located cross-gradient and up-gradient from the site boundary.

2.7.4 Groundwater Quality at the Site

Quarterly assessment monitoring is performed at the site and includes analysis of metals, other inorganic constituents, radium, and physical/geochemical parameters. The monitoring results have shown only sporadic/inconsistent exceedances for pH in wells nearest the identified potentially downgradient private wells, but the similarities in pH values in upgradient and downgradient monitoring wells suggest that the measured pH values in all of the wells reflect background conditions.⁵⁰ A pH slightly less than 6.5 would not present a potential health risk. PH is regulated due to the potential for metals to be mobilized at extreme values of pH. No other constituent concentrations exceeded Illinois Class I QOSs in wells nearest the identified potentially downgradient wells.

2.7.5 Conclusions Regarding Potentially At-Risk Wells

As noted above, 18 off-site private or semi-private water wells were identified as being potentially located downgradient of the site. The majority of these wells are either not likely to be in use, have been abandoned, or are not used for drinking water. One well (P018) is owned by a private individual and is located potentially downgradient of the site. While this well is mapped within the Village of Joppa and the property on which the well is located may be served by the CWS, the possibility that the well may be used for drinking water cannot be ruled out based on the available information. However, based on Ramboll's review of quarterly assessment monitoring groundwater data from the east side of the site, it is unlikely that well P018 is at risk from coal ash constituents. In conclusion, based on Ramboll's review of the available data, the identified wells are not at risk of impact from coal ash constituents.

2.8 Kincaid

The Kincaid Generation LLC power plant is located at 199 IL-104 in Kincaid, Christian County, Illinois (the "Kincaid plant" or "site"). The Kincaid plant is located on the southern side of Sangchris Lake; an inlet of Sangchris Lake also runs through the central portion of the site. According to the Christian County assessor and GIS departments, one or more affiliates of Dynegy owns the parcels that comprise the "owned property boundary," which includes Sangchris Lake parcels and other miscellaneous rail line parcels.⁵¹ The search radii were based on the "search site boundary" based on the power plant site boundary as estimated by Ramboll, as the owned property boundary extends to the opposite side of Sangchris Lake (or its inlets) from the power plant. The Kincaid "site boundary" in this section refers to the search site boundary since it is the basis for the search radii.

Figure 2.08-A depicts the estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary), search radii, and receptor survey data. All wells and surface water intakes identified to have been historically present within the respective search radii are detailed in Tables 2.08-A and 2.08-B.

⁵⁰ OBG, 2017. 2018 and 2019 Annual Groundwater Monitoring Report, East Ash Pond, Joppa Power Station.

⁵¹ One or more affiliates of Dynegy owns most of the parcels that comprise Sangchris Lake; however, the majority of these parcels were not included as part of the owned property boundaries.

The Cap and Run report suggests that most monitoring wells “show pollution at safe levels,” and Dynegey is unlikely to find SSIs during assessment monitoring.

2.8.1 Local Water Supply

The Kincaid plant site boundary is located approximately 1.3 miles west of the village of Tovey at its closest point; Tovey is the nearest municipality/community to the site. The Tovey CWS (IL0210650) serves approximately 512 people with 205 service connections via surface water purchase. According to the SDWIS database, the Tovey CWS purchases its municipal water supply from the Kincaid CWS (IL0210250), which in turn purchases its water from the Taylorville CWS (IL0210600); the Tovey CWS also purchases water from the Pawnee CWS (IL1670850), which in turn purchases its water from the Otter Lake Water Commission (IL1175200). The Taylorville CWS obtains its water from Lake Taylorville Intake and four active groundwater supply wells (Well 10, Well 11, Well 12, Well 13), constructed in a confined aquifer. The Taylorville CWS formerly operated one additional groundwater well (Well 5), which has been abandoned. The Otter Lake Water Commission CWS obtains its water from Otter Lake Intake. None of the CWS wells or surface water intakes are located within one mile of the site boundary.

No groundwater use ordinance is in place in the village of Tovey or city of Kincaid (located approximately 2.94 miles east of the site boundary at its closest point). The city of Taylorville, which is located approximately 8.11 miles southeast of the site boundary at its nearest point, has an ordinance (No. 3463) prohibiting the use of groundwater as a potable water supply by the installation or use of potable water supply wells (or by any other method); however, the ordinance includes only the corporate limits of the city of Taylorville. Similarly, the village of Pawnee, which is located approximately 2 miles west of the site boundary at its closest point, has an ordinance (No. 12-01) prohibiting the use of groundwater as a potable water supply, although the prohibition applies only to a limited area within the Pawnee municipal boundary.

The municipalities discussed above are the only municipalities/communities located within five miles of the site.

2.8.2 Hydrogeology

Based on the topographic gradient of the area and limited groundwater elevation data included in a 2019 Annual Groundwater Monitoring and Corrective Action Report⁵² for the plant, groundwater may exhibit some localized radial flow, with the general direction of groundwater flow to the north or northeast. The topographic gradient at the site is consistent with groundwater flow to the north.

2.8.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Newton site is provided in Table 2.8.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as “on-site” or “off-site;” *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

⁵² Ramboll, 2019. “2019 Annual Groundwater Monitoring and Corrective Action Report, Kincaid Ash Pond, Kincaid Power Station,” prepared for Kincaid Generation, L.L.C., January 31.

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Table 2.8.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Twelve (12) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or abandoned status. No off-site wells are located in the downgradient direction.</p>	Absent	<p>Present, but inactive One non-CWS surface water intake was identified; however, it is unlikely to be at risk because it is listed as inactive.</p>	Absent	Absent

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the search site boundary. See Table 2.8.3-B below for a summary of the results.

Table 2.8.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	22 private and semi-private wells (domestic water, engineering test, monitoring, municipal water supply, private water, semi-private water, slope mine, water well for commercial operation, test hole)
Total number of <u>water</u> wells identified	12 water wells (one [1] confirmed to be sealed [P012])
Unmapped wells ⁵³	One (1) unmapped domestic water well (P012); see discussion below
On-Site	
Two (2) private or semi-private water wells were identified on site. As noted below, one of the wells (P002) that is not owned by the utility is unlikely to be present. Additionally, one (1) unmapped but sealed well (P012) may also be located on site, as discussed below.	
Owned by Utility Wells P001 and P012	One (1) on-site well (P001) is owned by Commonwealth Edison (a former site owner) and is located in a grassy area on the southeast corner of the site. This well was installed to a depth of 30 feet bgs in 1980. Because P001 is owned by a former utility, the well is presumed to be used for non-potable water or potentially no longer in use. One (1) unmapped well (P012) is located in township 13N, range 4W, section 12 and is owned by Commonwealth Edison; because the southeastern portion of the site overlaps with the northern half of Section 13N-4W-12, well P012 may be located on site. Well P012 is confirmed to be sealed and is not a concern.
Not Owned by Utility Well P002	The remaining on-site well (P002) is owned by Terra International Inc., was installed in 1996 to 68 feet bgs, and is mapped in an active and water-filled area in the eastern portion of the site. Based on the location of this private well, Ramboll believes that P002 is unlikely to be present at the site.

⁵³ Unmapped wells are not depicted in the corresponding figure due to imprecise location information (i.e., one square-mile resolution).

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Table 2.8.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Off-Site	
Nine (9) private and semi-private water wells are present off-site and are listed as being owned by various public or industrial entities, or private individuals. The wells range in depth from 30 feet to 47 feet bgs.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide Wells P003 through P011	Of the nine (9) off-site water wells located within 2,500 feet of the search site boundary, six (6) of the wells are listed as being owned by private individuals and the remaining three (3) are owned by Peabody Coal Company, Pawnee Transportation Co. and Sangchris State Park. The off-site wells range in depth from 30 to 47 feet bgs. One (1) of the off-site wells (P011) is located along the eastern bank of Sangchris Lake, approximately 1,250 feet north of the nearest search site boundary; this well is owned by Sangchris State Park and located in a cross-gradient position relative to the Kincaid site. The well owned by Pawnee Transportation Co. (P004) is located along the northern bank of Sangchris Lake approximately 700 feet north of the search site boundary; however, the well is located on the opposite (north) side of Sangchris Lake (i.e., likely a significant hydrogeologic divide) and as such, is unlikely to be impacted by the site. The six (6) wells owned by private individuals (P005-P010) and the well owned by Peabody Coal Company (P003) are situated 200 feet or more south (i.e., upgradient) of the Kincaid site and Sangchris Lake; as such, they are unlikely to be impacted by groundwater from the Kincaid site.

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the search site boundary. A summary of non-CWS surface water intakes identified is provided in Table 2.8.3-C below. No non-CWS wells were identified within the search site boundary or within 2,500 feet of the search site boundary. However, one (1) active non-CWS well, identified 2,600 feet north of the search site boundary across Sangchris Lake, is reportedly located within the Sangchris State Park (Well #5 west boat ramp). This non-CWS well has a 200-foot setback zone and a 1,000-foot Phase I WHPA. As the protection area for the non-CWS well does not extend onto the owned property boundary or search site boundary and the well does not lie downgradient from the site as it is located across the lake, the non-CWS well is unlikely to be impacted by groundwater from the Kincaid site.

Table 2.8.3-C: Non-CWS Surface Water Intake within 2,500-foot Radius	
Summary	
Total number of surface water intakes within search radius	One (1) non-CWS surface water intake
On-Site	
One (1) inactive non-CWS surface water intake is identified as being located on-site.	
Owned by Utility	One (1) inactive non-CWS surface water intake (owned by Kincaid Generation LLC) is identified as being located on-site. Because the surface water intake is inactive and owned by the utility, it does not represent a concern.
Not Owned by Utility	None
Off-Site	
No non-CWS surface water intakes were identified within 2,500 feet of the site boundary.	

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the search site boundary. No CWS wells or additional surface water intakes were identified within the search site boundary or within one mile of the search site boundary.

2.8.4 Conclusions

Ramboll identified 22 private or semi-private wells and one (1) inactive non-CWS surface water intake within the respective search radii. The private or semi-private water wells include two (2) confirmed on-site wells, one (1) unmapped but potentially on-site and abandoned well, and nine (9) off-site wells. Based on Ramboll's review, the identified water wells are unlikely to be at risk of impacts from the site, as they are located either in an upgradient or cross-gradient position relative to the site, located on the opposite (north) side of Sangchris Lake (i.e., likely a significant hydrogeologic divide), or have been abandoned. Because the non-CWS surface water intake identified in this survey is inactive, it is not considered to be a concern by Ramboll. In conclusion, based on Ramboll's review of the available data, the identified wells and surface water intake are not at risk of impact from coal ash constituents.

2.9 Newton

The Newton Power Plant is located at 6725 North 500th Street in Newton, Jasper County, Illinois (the "Newton plant" or "site"). The Newton plant is located on the northern sides of Sandy Creek and Laws Creek (which becomes Newton Lake further south). According to the Jasper County assessor and GIS departments, one or more affiliates of Dynegy owns the parcels that comprise the "owned property boundary," which includes large portions of Sandy Creek, Burgett Lake, Laws Creek, and Newton Lake parcels and miscellaneous roadway parcels. The search radii were based on the "search site boundary" which is most consistent with the power plant boundary as determined by Ramboll, as the owned property boundary extends more than a mile to the north of the power plant boundary and/or is present on the opposite side of Sandy Creek, Burgett Lake, Laws Creek, and/or Newton Lake (or its inlets) from the power plant. The Newton "site boundary" in this section refers to the search site boundary since it is the basis for the search radii.

Figure 2.09-A depicts the estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Table 2.09-A.

The Cap and Run report alleges that groundwater is unsafe at Newton due to arsenic concentrations, but admits that the upgradient wells show roughly the same concentrations. It also notes cobalt concentrations in one well, and suggests that SSIs may be found for cobalt, lead and lithium.

2.9.1 Local Water Supply

The site is located in a rural area of Jasper County. Bogota, an unincorporated community in Smallwood Township, is the nearest municipality or community to the site and is located approximately 1.3 miles southeast of the site boundary at its closest point. Bogota does not operate a CWS. The EJ Water Cooperative service area covers Jasper County, according to the EJ Water Cooperative website. As such, water supply to residences, businesses, and small communities in the vicinity of the Newton plant is likely from private water wells and/or the EJ Water Cooperative CWS (IL0790010), which obtains its water primarily from surface water intakes at the Kaskaskia River and Holland Energy Reservoir; 11 groundwater wells are also associated with the CWS. The EJ Water Cooperative CWS does not obtain surface water from intakes or groundwater wells within one mile of the site boundary.

2.9.2 Hydrogeology

According to a 2019 Annual Groundwater Monitoring and Corrective Action Report⁵⁴, groundwater generally flows to the south, with localized flow toward surface water, and the potential for localized radial flow.

⁵⁴ Ramboll, 2020. "2019 Annual Groundwater Monitoring and Corrective Action Report, Newton Landfill 2, Newton Power Station," prepared for Illinois Power Generating Company, January 31.

2.9.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Newton site is provided in Table 2.9.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as “on-site” or “off-site;” *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

Table 2.9.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
Present, but not at risk Twenty-four (24) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are abandoned, and/or they are unlikely to be present based on the mapped location. None of the off-site wells are located in a downgradient direction.	Absent	Absent	Absent	Absent

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the search site boundary. See Table 2.9.3-B below for a summary of the results.

Table 2.9.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	24 private and semi-private wells (domestic water, private water, and water well)
Total number of <u>water</u> wells identified	24 water wells (three [3] wells are confirmed to be sealed [P021, P023, and P024])
Unmapped wells ⁵⁵	2 unmapped domestic water wells (P023 and P024); see discussion in the “Upgradient, cross-gradient, or opposite a significant hydrogeologic divide” row below
On-Site Ten (10) private or semi-private water wells were identified on site and range in depth from 23 to 140 feet bgs.	
Owned by Utility Wells P001 through P005, and P007	Six (6) on-site wells are owned by Central Illinois Power Service (CIPS; a former operator of the Newton plant) or a related entity and are situated across the west branch of Newton Lake/Sandy Creek, opposite of the main plant area. The wells range in depth from 23 to 78 feet. Based on their distance and hydrogeologic position (i.e., across Newton Lake), these on-site CIPS-owned wells are unlikely to be impacted by groundwater from the Newton site.

⁵⁵ Unmapped wells are not depicted in the corresponding figure due to imprecise location information (i.e., one square-mile resolution).

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Table 2.9.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Not Owned by Utility Wells P006, P008, P009, and P022	Three (3) of the remaining on-site wells (P006, P008, and P009) are owned by private individuals and are located north to northwest and upgradient of the operational areas of the site. The other well (P022) is mapped in an active portion of the site and was installed to a depth of 25 feet bgs in 1991. Well P022 is owned by a private individual. Based on the location of this private on-site well and the lack of nearby structures that a well could potentially serve, Ramboll believes that this well is unlikely to still be present at the site.
Off-Site Fourteen (14) private and semi-private water wells are present off-site and are listed as being owned by private individuals. The wells range in depth from 17 feet to 60 feet bgs.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide Wells P010 through P021, P023, and P024	Of the 14 off-site water wells located within 2,500 feet of the site boundary, three (3) are noted as being sealed and are thus not a concern (P021, P023, and P024). Wells P023 and P024 were present in the ISWS Domestic Wells database with imprecise location information and therefore are not depicted in Figure 2.09-A. These wells are located to the southeast of the site boundary and on the east side of Newton Lake (township 6N, range 9E, section 30). ⁵⁶ The 11 remaining off-site water wells are owned by private individuals and are situated west/northwest and upgradient or cross-gradient of the plant area, or the wells are on the opposite side of a hydrogeologic divide such as Sandy Creek or Newton Lake relative to the plant. Because of their locations, these 11 wells are unlikely to be impacted by groundwater at the site.

Non-CWS Wells and Surface Water Intakes

Ramboll also reviewed the IEPA's SWAPP database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the search site boundary. No non-CWS wells or surface water intakes were identified within the search site boundary or within 2,500 feet of the search site boundary.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the search site boundary. No CWS wells or surface water intakes were identified within the search site boundary or within one mile of the search site boundary.

2.9.4 Conclusions

Ramboll identified 24 private or semi-private water wells within the search site boundary or within 2,500 feet of the search site boundary. Of these, 10 are located on-site and three (3) of the remaining 14 off-site wells are listed as having been sealed. Based on Ramboll's review, the identified water wells are unlikely to be at risk of impacts from the site based on their hydraulic position relative to the operational areas of the site, or their location upgradient/cross-gradient (west/northwest) from the site. Additionally, no non-CWS wells or surface water intakes, or CWS wells or surface water intakes were identified within their respective search radii. In conclusion, based on Ramboll's review of the available data, the identified wells are not at risk of impact from coal ash constituents.

⁵⁶ Because a small part of the western portion of this section is considered part of the owned property boundary for the Newton plant (<10% of the section), there is a possibility that these wells could be located within the owned property boundary. However, because these portions of the owned property boundary are heavily wooded and remote, wells P023 and P024 are unlikely to be within the owned property boundary and are thus considered off-site.

2.10 Vermilion

The Vermilion power plant is located at 10188 East 2150 North Road in Oakwood, Vermilion County, Illinois (the "Vermilion plant" or "site"). The Vermilion plant is situated on a bluff along the west bank of the Middle Fork of the Vermilion River and to the north of the Illinois Power Company Lake. According to the Vermilion County assessor and GIS departments, one or more affiliates of Dynegy owns the parcels that comprise the "owned property boundary." The search radii were based on the "search site boundary" determined by Ramboll, which coincides with the owned property boundary. The owned property boundary is coincident with the power plant boundary, with the exception of the Illinois Power Company Lake to the south and some undeveloped owned property on the south, southeastern, and north-central portions of the site. The Vermilion "site boundary" in this section refers to the search site boundary and the owned property boundary since they are equivalent and as such, the basis for the search radii.

Figure 2.10-A depicts the estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary), search radii, and receptor survey data. All wells and surface water intakes identified to have been historically present within the respective search radii are detailed in Tables 2.10-A, 2.10-B, and 2.10-C.

The Cap and Run report alleges that the groundwater at Vermilion is unsafe, and is seeping into the Middle Fork of the Vermilion River. It does not allege that this plant is threatening drinking water.

2.10.1 Local Water Supply

The site is located in a rural area of Vermilion County. Newtown, an unincorporated community in Oakwood Township, is the nearest municipality or community to the site and is located approximately 2,900 feet southwest of the site boundary at its closest point. Newtown does not operate a CWS. According to the SWAPP Factsheets database, the Aqua Illinois-Vermilion County CWS (IL1835120; formerly known as Consumers Illinois Water Co. Vermillion Division) provides water to unincorporated portions of Vermilion County. As such, water supply to residences, businesses, and small communities in the vicinity of the Vermillion plant, such as Newtown, is likely from private water wells and/or the Aqua Illinois-Vermilion County CWS. The Aqua Illinois-Vermilion County CWS obtains its water supply from surface water from Lake Vermilion intake 47698 located approximately 5.25 southeast of the site.

Other communities/municipalities located within five miles of the Vermillion plant include the following: village of Oakwood, located approximately 2.71 miles southwest of the site; Hartshorn and Hillery, unincorporated communities in Danville Township located approximately 3.18 miles southeast from the site; Collison, an unincorporated community in Pilot Township located approximately 3.31 miles northwest from the site; and, the city of Danville, located approximately 3.78 miles east of the site. Given the large distance between the Vermillion plant and the above-listed municipalities and communities, if these municipalities/communities were to operate a CWS for their municipal water supply, the water supply is unlikely to be impacted by groundwater from the site.

2.10.2 Hydrogeology

Based on the topographic gradient, groundwater likely flows to the east and northeast.

2.10.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Vermillion site is provided in Table 2.10.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as "on-site" or "off-site;" *on-site* refers to wells

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that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

Table 2.10.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Seventy-nine (79) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are abandoned, they do not appear to be used for potable purposes, and/or they are unlikely to be present based on the mapped location. None of the off-site wells are located in a downgradient direction.</p>	<p>Present, but not at risk Two CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or their inactive status.</p>	<p>Present, but inactive One non-CWS surface water intake was identified; however, it is unlikely to be at risk because it is listed with inactive status.</p>	Absent	Absent

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the site boundary. See Table 2.10.3-B below for a summary of the results.

Table 2.10.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	117 private and semi-private wells (domestic water, dry holes [including plugged], monitoring, mineral test, municipal water supply, private water, semi-private water, water, and water well test holes)
Total number of <u>water</u> wells identified	79 water wells (10 confirmed to be sealed, as described in below sections)
Unmapped wells ⁵⁷	15 unmapped domestic water wells; all but six (6) of the unmapped wells are very likely to be off-site. See additional discussion in "Upgradient, cross-gradient, or opposite a significant hydrogeologic divide" row below.
On-Site	
Eight (8) private or semi-private water wells were identified on site or directly on the site boundary that range in depth from 52 to 211 feet bgs.	
Owned by Utility Well P001	One (1) of the on-site wells (P001) is owned by Dynegy Midwest Generation and is located in the western portion of the central plant area. This well was installed to a depth of 211 feet bgs in 2005. Because this well is owned by the utility, it is assumed to be monitored regularly or used for non-potable purposes.

⁵⁷ Unmapped wells are not depicted in the corresponding figure due to imprecise location information (i.e., one square-mile resolution).

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Table 2.10.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Not Owned by Utility Wells P002 through P007 and P046	<p>All seven (7) of the on-site water wells not owned by the utility are owned by various private individuals or their ownership is unknown. The wells range in depth from 52 to 175 feet bgs.</p> <p>Two (2) of these water wells (P002 and P003) are located in what appears to be undeveloped land near the southern boundary of the plant area. Wells P002 and P003 were drilled in 1987 to depths of 131 and 139, respectively, and are mapped on top of one another in Figure 2.10-A. Based on their on-site location and absence of nearby structures, Ramboll believes that these wells are unlikely to still be present or in use as a drinking water supply.</p> <p>P007 is owned by a private individual and was installed at a depth of 51 feet bgs (drill date unknown). The well is reportedly a domestic water well but is located in the main plant area and as such, is either incorrectly mapped or no longer exists. P046⁵⁸ is listed as a municipal water supply owned by "Cundiff" and installed in 1967 at a depth of 175 feet bgs. Ramboll was unable to identify a municipal water system associated with Cundiff in the IEPA's SDWIS database and as such, P046 is unlikely to still be present. The remaining on-site wells that are not owned by the utility are either located upgradient of the operational areas of the plant (P004 and P006) or across the Illinois Power Company Lake (a likely hydrogeological divide; P005).</p>
Off-Site Seventy-one (71) of the private and semi-private water wells are present off-site and are primarily listed as being owned by private individuals. The wells range in depth from 15 to 197 feet bgs, ten (10) of which are confirmed to have been sealed/plugged.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide Wells P008-P045 and P047-P079	<p>Seventy-one (71) wells, which are all owned by private individuals, except for one well (P012) owned by the Hebrew United Methodist Church, are located off-site and within 2,500 feet of the site boundary. Ten (10) of these wells have been sealed. The majority of the off-site wells are clustered southwest of the site boundary on the opposite side (i.e., south) of the Illinois Power Company Lake, with an additional cluster to the west of the site boundary (i.e., upgradient).</p> <p>One (1) well (P079) found on the ISWS Domestic Wells database is located to the south of the Illinois Power Company Lake and is mapped within 100 feet of the southwest site boundary. Due to the limited spatial resolution and close proximity to the site boundary, it cannot be determined whether the well is on-site or off-site. Because the well has been sealed and is on the opposite side of the lake from the site, it is not considered a concern.⁵⁹</p> <p>Three (3) wells (P016, P020, and P065) are located southeast/east of the site boundary and are on the opposite side (i.e., east) of the Middle Fork of the Vermilion River. These wells were installed to depths of 70 feet bgs in 1978 (P016), 66 feet bgs in 1988 (P020), and 100 feet at an unknown date (P064). Well P064 has been sealed and is not a concern. Further, because the river likely acts as a hydrogeologic divide, the wells located on the east side of the river are unlikely to be impacted by the site.</p> <p>There are 15 unmapped wells (P047-P049, P052-P055, P057, P059, P067, P071-P073, P076, P078) that are estimated to be located</p>

⁵⁸ Well P046 is mapped directly on the site boundary. It is assumed for the purposes of this survey that this well is located on-site.⁵⁹ Due to its undetermined location and its approximate distance from the central plant area (0.6 miles), well P079 is included as an "off-site" well in the well counts listed in this table.

⁵⁹ Due to its undetermined location and its approximate distance from the central plant area (0.6 miles), well P079 is included as an "off-site" well in the well counts listed in this table.

Table 2.10.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
	northwest, west, and/or southwest of the search site boundary, or on the opposite side (i.e., east) of the Middle Fork of the Vermilion River. The unmapped wells are present in the ISWS Domestic Wells database with imprecise location information (i.e., one square-mile resolution). ⁶⁰ In summary, none of the off-site wells located within 2,500 feet of the search site boundary are located downgradient from the Vermilion site and therefore are unlikely to be impacted by the site.

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the search site boundary. A summary of identified non-CWS wells is provided below in Table 2.10.3-C.

Table 2.10.3-C: Non-CWS Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	Two (2) non-CWS wells
On-Site No non-CWS wells were identified within the search site boundary.	
Off-Site Two (2) non-CWS wells were identified within 2,500 feet of the search site boundary.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide Wells NC01 and NC02	One (1) active non-CWS well was identified within 2,500 feet of the site boundary (approximately 1,740 feet north of the nearest search site boundary) at the Oakwood Junior High School. This non-CWS well is unlikely to be impacted by groundwater due to its distance and upgradient position relative to the Vermilion plant. No portion of the site is located within the setback zone or WHPA for the well. Additionally, a second non-CWS well (NC02) was identified approximately 450 feet to the northwest of NC01, and is owned by Newton Middle School, which is presumably affiliated with the Oakwood Junior High School given the proximity of the wells and the lack of other nearby structures. According to the USEPA SDWIS database, "Newtown Consolidated Elementary School" (IL0005595) is listed as inactive as of October 1980. Furthermore, this non-CWS is not likely to be impacted by groundwater from the site for the same reasons as NC01.

A summary of identified non-CWS surface water intakes is provided below in Table 2.10.3-D.

Table 2.10.3-D: Non-CWS Surface Water Intakes within 2,500-foot Radius	
Summary	
Total number of surface water intakes within search radius	One (1) non-CWS surface water intake
On-Site One non-CWS surface water intake was identified within the owned property boundary.	
Owned by Utility	None
Not Owned by Utility	One (1) non-CWS surface water intake was identified within the owned property boundary to the southwest of the power plant boundary. The surface water intake is owned by the Vermilion Fishing Club and is inactive.

⁶⁰ All 15 unmapped wells are unlikely to be located on-site, with the exception of six (6) wells (P052-P055, P057, and P059). While these six (6) wells have a slightly greater chance of being located on-site due to the overlap of their respective sections with the site boundary, they are assumed to be off-site because the majority of each well's section area does not overlap with the site boundary.

Table 2.10.3-D: Non-CWS Surface Water Intakes within 2,500-foot Radius

Off-Site

No non-CWS surface water intakes were identified within 2,500 feet of the search site boundary.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the search site boundary. No CWS wells or surface water intakes were identified within the search site boundary or within one mile of the search site boundary. As such, no portion of the site is located within any setback zones or WHPAs associated with CWS wells.

2.10.4 Conclusions

Ramboll identified 117 private or semi-private wells, including 79 water wells, as well as two (2) non-CWS wells (one [1] of which is listed as active, the other of which is listed as inactive), and one (1) inactive non-CWS surface water intake. While four (4) on-site wells (P002, P003, P007, and P046) not owned by the utility are located in or adjacent to the plant area, they are unlikely to still exist or be used at the site. The other water wells (private, semi-private, and non-CWS) are not likely to be impacted by groundwater at the site because they are located either on the opposite side of a hydrogeologic divide such as the Illinois Power Company Lake or the Middle Fork of the Vermillion River, or they are located upgradient from the plant area. No identified off-site wells are located in a downgradient position. In conclusion, based on Ramboll's review of the available data, the identified wells and surface water intake are not at risk of impact from coal ash constituents.

3. RECEPTOR SURVEY (SITES NOT OWNED BY DYNEGY)

3.1 Crawford

The Crawford Generating Station, formerly owned and operated by Midwest Generation, LLC, is located at 3501 South Pulaski Road in Chicago, Cook County, Illinois (the "Crawford plant" or "site"). HRE Crawford LLC purchased the site from Midwest Generation, LLC in 2018, and demolition of the Crawford plant began in 2020. The Crawford plant is situated along the north bank of the Chicago Sanitary and Ship Canal. According to the Cook County assessor and GIS departments, various private entities own the parcels that comprise the "owned property boundary," "search site boundary," and "power plant boundary."⁶¹ Thus, the Crawford "site boundary" in this section refers to the above-listed boundaries since they are interchangeable for this site and are the basis for the search radii.

Figure 3.01-A depicts estimated site-related boundaries (including the power plant/search site/owned property boundary [collectively, the "site boundary"]), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Tables 3.01-A.

The Cap and Run report claims that two on-site wells have unsafe levels of cobalt, manganese and sulfate.

3.1.1 Local Water Supply

The Chicago CWS serves approximately 2,700,000 people with 484,979 service connections via surface water source. According to the SDWIS database, the City of Chicago CWS (IL0316000) receives its municipal water supply from the following four active surface water intakes on Lake Michigan: Jardine Shore Intake (00104); Sayer Plant Shore Intake (00105); Dunne Intake Crib (01305); and Jardine Dever Intake Crib (01306). The Chicago CWS also formerly utilized Wilson Avenue Intake (01621), which is abandoned. According to the SWAPP factsheet, the two intake cribs are located two miles offshore and the two shore intakes are located within the property of the water treatment plants (i.e., Jardine Water Purification Plant and South Water Purification Plant). A groundwater use ordinance has been established in Chicago (City of Chicago Ordinance No. 097990) that prohibits the use of groundwater as a potable water supply after the effective date of the ordinance, except at points of withdrawal by the City of Chicago or approved local government units. The ordinance applies to all areas within the corporate limits of the City of Chicago. As discussed below, none of the active or abandoned Chicago CWS surface water intakes are located within one mile of the site boundary.

3.1.2 Hydrogeology

Based on the topographic gradient, groundwater likely flows to the south-southeast.

3.1.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Crawford site is provided in Table 3.1.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as "on-site" or "off-site;" *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

⁶¹ Midwest Generation EME acquired the power-generation assets from Commonwealth Edison (ComEd) in 1999. As such, ComEd parcels have been included as part of the site to be conservative.

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Table 3.1.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
Present, but not at risk One (1) water well was identified; however, it is unlikely to be at risk because of its hydrogeologic location relative to the power plant. The well is not located in a downgradient direction.	Absent	Absent	Absent	Absent

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the site boundary. See Table 3.1.3-B below for a summary of the results.

Table 3.1.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	75 private and semi-private wells (engineering test wells, water well)
Total number of <u>water</u> wells identified	1 water well
On-Site No private or semi-private wells were identified within the owned property boundary.	
Off-Site One (1) water well is present off-site and is listed as being owned by a commercial entity with a depth of 1,558 feet bgs. The well was installed in 1934, prior to the City of Chicago's groundwater use ordinance.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide Well P001	P001 is located off-site approximately 2,500 feet northeast (in a presumed cross-gradient direction) from the site boundary. The water well is owned by Liquid Carbonic Co. and was installed in 1934 to 1,558 feet. Based on the cross-gradient location of P001, the water well is unlikely to be impacted by the site.

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the site boundary. No non-CWS wells or surface water intakes were identified within the search site boundary or within 2,500 feet of the search site boundary.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the site boundary. CWS wells or surface water intakes were identified within the site boundary or within one mile of the site boundary.

3.1.4 Conclusions

Ramboll identified one (1) private or semi-private well within the search distance; however, based on Ramboll's review, the well is unlikely to be at risk of impacts from the site, as it is located in a cross-gradient direction (northeast) relative to the site. In conclusion, based on Ramboll's review of the available data, the identified well is not at risk of impact from coal ash constituents.

3.2 Dallman/Lakeside

The Dallman Power Plant, operated by the City of Springfield City Water, Light, and Power (CWLP) department, is located at 3100 Adlai Stevenson Drive in Springfield, Sangamon County, Illinois (the "Dallman/Lakeside plant" or "site"). The Dallman/Lakeside plant is located on the shore of the northern portion of Lake Springfield. According to the Sangamon County assessor and GIS departments, the City of Springfield owns the parcels that comprise the "owned property boundary," which includes a portion of Springfield Lake parcels and undeveloped parcels located along the edges of Springfield Lake. The search radii were based on "search site boundary" determined by Ramboll, as the owned property boundary extends to the opposite side of Springfield Lake (including its inlets) and Sugar Creek. Sugar Creek flows northeasterly, away from Lake Springfield.⁶² The Dallman/Lakeside "site boundary" in this section refers to the search site boundary since it is the basis for the search radii.

Figure 3.02-A depicts estimated site-related boundaries (including the power plant/search site boundary and the owned property boundary), search radii, and receptor survey data. All wells and surface water intakes identified to have been historically present within the respective search radii are detailed in Tables 3.02-A and 3.02-B.

The Cap and Run report contends that "there is a serious contamination issue at the site" due to boron concentrations in "downgradient" wells. The report also states that sulfate and arsenic exceed health-based levels on-site. It concludes that capping of the ash ponds will continue to allow the "contamination of groundwater and Sugar Creek, and potentially Lake Springfield to continue indefinitely." As Lake Springfield is the local source of drinking water, this is a very serious claim.

3.2.1 Local Water Supply

The Springfield CWS operated by CWLP serves approximately 119,400 people with 52,672 service connections via surface water source. According to the SDWIS database, the City of Springfield CWS (IL1671200) receives its municipal water supply from two intakes in Lake Springfield: the primary intake (IN52140; see further discussion in Table 3.2.3-C below), which has five ports at varying depths in the lake, and a backup intake (IN52080) located at the juncture of Horse Creek and the "South Fork." A groundwater use ordinance has been established for a portion of Springfield (City of Springfield Ordinance No. 257-8-13) that prohibits the construction of new potable water wells within a designated boundary. Although the Dallman/Lakeside plant is located within the City of Springfield, the site is located approximately 0.9 miles southeast of the groundwater use ordinance area at its closest point to the site boundary.

3.2.2 Hydrogeology

Based on the topographic gradient, groundwater in the vicinity of the ash ponds (northern portion of the site) generally flows to the west and north toward Sugar Creek. Lake Springfield drains to Sugar Creek which flows to the northeast. Groundwater in the vicinity of the Dallman/Lakeside plant itself, which is surrounded by Lake Springfield on three sides, likely flows radially from the northwest to the northeast (clockwise).

3.2.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Dallman/Lakeside site is provided in Table 3.2.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as "on-site" or "off-site;" *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

⁶² CDM Smith, 2014. "Lake Springfield Watershed TMDL Stage I Report." September.

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Table 3.2.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Two (2) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant. The single off-site well is located almost 2,500 feet from the property boundary, and not in a downgradient position.</p>	Absent	Absent	Absent	<p>Present, but not at risk One (1) CWS surface water intake was identified in Lake Springfield; however, it is unlikely to be at risk because of its hydrogeologic location relative to the coal ash impoundments.</p>

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the search site boundary. See Table 3.2.3-B below for a summary of the results.

Table 3.2.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	23 private and semi-private wells (engineering test, geothermal heating and cooling, monitoring, and water wells)
Total number of <u>water</u> wells identified	2 water wells (private water well and water well)
On-Site One (1) water well is mapped on-site.	
Owned by Utility	None
Not Owned by Utility Well P001	P001 is owned by a private individual and was drilled in 1968 to 20 feet; this well maps to a location approximately 1,300 feet west (hydraulically upgradient) of the main plant area. The well plots within a partially cleared open field area with no apparent residential structures located nearby.
Off-Site One (1) water well is present off-site within 2,500 feet of the search site boundary.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide Well P002	P002 is owned by a private individual and was drilled to 24 feet; this well maps to a location approximately 2,500 feet northwest of the plant area. However, this well is located on the opposite (north) side of Sugar Creek, which is interpreted as a hydrogeologic divide to potential migration of contaminants in groundwater from the site. In addition, this well maps to the area of a parking lot for a large commercial facility with no apparent residential structures located nearby.

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the search site boundary. No non-CWS wells or surface water intakes were identified within the search site boundary or within 2,500 feet of the search site boundary.

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CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the search site boundary. A summary of CWS surface water intakes identified is provided in Table 3.2.3-C below. No CWS wells were identified within the search site boundary or within one mile of the search site boundary.

Table 3.2.3-C: CWS Surface Water Intakes within One Mile Radius	
Summary	
Total number of surface water intakes within search radius	1 surface water intake
On-Site	
One (1) CWS surface water intake was identified within the owned property boundary.	
Owned by Utility	The Springfield surface water intake is located in Lake Springfield approximately 200 feet north of the nearest plant boundary. The intake is listed as active. However, Lake Springfield is upstream from the ash ponds and drains to Sugar Creek, which flows to the northeast.
Not Owned by Utility	None
Off-Site	
No CWS surface water intakes were identified outside of the owned property boundary.	

The Dallman ash ponds are located north of Lake Springfield along Sugar Creek. As Lake Springfield basin drains to Sugar Creek to the northeast, the ash ponds are downstream (downgradient) of the surface water intake and the City's water supply is not affected by the ash ponds. The Springfield City Water Light and Power (CWLP) reacted thusly to the Cap and Run report allegations:

"The ash ponds, located downstream and downgradient from Lake Springfield, do not pose a risk to the City's water supply. There are not any privately-owned potable wells at risk from CWLP ash ponds in that area."⁶³

3.2.4 Conclusions

The City of Springfield has an ordinance prohibiting the installation of new wells for potable purposes but does not prohibit the use of existing wells. Ramboll identified two (2) private or semi-private wells and one active CWS surface water intake within the respective search radii, including one (1) private or semi-private well located within the owned property boundary. However, based on Ramboll's review, the identified water wells are unlikely to be at risk of impacts from the site, as the on-site well (P001) is located generally upgradient or cross-gradient of operational areas of the site with respect to the inferred groundwater flow direction and the off-site well (P002) is located on the opposite side of Sugar Creek, a feature likely to represent a hydrogeologic divide. In addition, neither of the wells appear to be associated with a structure; therefore, neither well is likely to be used as a current potable water supply. The CWS intake in Lake Springfield is upstream of the ash ponds and therefore not impacted by them. In conclusion, based on Ramboll's review of the available data, the identified wells and surface water intake are not at risk of impact from coal ash constituents.

⁶³ Henderson, A., 2018. "New report says Lake Springfield has toxins in it, CWLP reacts." November 28. Accessed at <https://newschannel20.com/news/local/new-report-says-lake-springfield-has-toxins-in-it-cwlp-reacts>.

3.3 Hutsonville

The Hutsonville Power Plant, formerly owned and operated by Ameren Corporation (Ameren), is located at 15142 East 1900th Avenue in Hutsonville, Crawford County, Illinois (the "Hutsonville plant" or "site"); the plant was demolished in 2015. The Hutsonville plant is located at the south bank of the Wabash River. According to the Crawford County assessor and GIS departments, one or more affiliates of Ameren owns the parcels that comprise the "owned property boundary." The search radii were based on the owned property boundary. The Hutsonville "site boundary" in this section refers to the search site boundary and the owned property boundary since they are equivalent and as such, the basis for the search radii. The plant boundary differs from the search site boundary and owned property boundary.

Figure 3.03-A depicts estimated site-related boundaries (including the power plant boundary and the owned property/search site boundary), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Tables 3.03-A, 3.03-B, and 3.03-C.

The Cap and Run report claims that groundwater at Hutsonville is unsafe to drink, but makes no specific claim of threat to drinking water supplies.

3.3.1 Local Water Supply

The Hutsonville CWS serves approximately 600 people with 240 service connections via groundwater purchase. The Village of Hutsonville formerly operated three groundwater wells (47810, 47811, 00164), which have been abandoned (see Section 3.3.3 below for further discussion). No groundwater use ordinance is in place in the Village of Hutsonville. According to the SDWIS database, Hutsonville (IL0330100) purchases its municipal water supply from Robinson-Palestine Water Commission (IL0335030), which obtains water from five active groundwater wells (47806, 00791, 00982, 01959, and 02026), none of which are located within one mile of the site boundary.

3.3.2 Hydrogeology

Based on the topographic gradient, groundwater likely flows to the northeast.

3.3.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Hutsonville site is provided in Table 3.3.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as "on-site" or "off-site;" *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

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Table 3.3.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Seven (7) wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or they do not appear to be used for potable purposes. None of the off-site wells are located in a downgradient direction.</p>	<p>Present, but not at risk Two (2) non-CWS wells were identified; however, they are unlikely to be at risk since they are located on-site, utility-owned, and listed with inactive status.</p>	Absent	<p>Present, but not at risk One (1) CWS well was identified; however, it is unlikely to be at risk because of its hydrogeologic location relative to the power plant and its abandoned status.</p>	Absent

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the site boundary. See Table 3.3.3-B below for a summary of the results.

Table 3.3.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	8 private and semi-private wells (industrial, irrigation, oil test, private water, and water wells)
Total number of <u>water</u> wells identified	7 water wells (industrial, irrigation, private water well, and water well)
On-Site	
Two (2) water wells are mapped on-site.	
Owned by Utility P001 and P002	P001 and P002 were installed to depths of 90 feet and 88 feet in 1976 and 1983, respectively. The wells are owned by C.I.P.S.-Hutsonville Unit and Central Illinois Public Service Company (collectively, CIPS, a former operator of the Hutsonville Plant) and are located near the southeast boundary, near the Wabash River. P002 is listed as an industrial water well. The site is inactive, so these are not expected to be used for potable purposes.
Not Owned by Utility	None
Off-Site	
Five (5) of the private and semi-private wells are present off-site and are listed as being owned by private individuals and range in depth from 60 to 90 feet bgs. With the exception of one well (P004), all of the private and semi-private off-site wells are listed as irrigation wells.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide P003-P007	Five off-site water wells, ranging in depth from 60 to 90 feet bgs, are located between 130 and 2,200 feet northwest or south of the search site boundary. One of the off-site water wells (P004), located approximately 130 feet west of the northwest corner of the search site boundary and approximately 1,600 feet northwest of the plant area, is listed as a private water well (the remaining off-site wells are listed as irrigation wells). None of the off-site water wells are likely to be impacted based on their upgradient or cross-gradient positions relative to operational areas of the site.

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Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the site boundary. A summary of identified non-CWS wells is provided below in Table 3.3.3-C. No surface water intakes were identified within the site boundary or within 2,500 feet of the site boundary.

Table 3.3.3-C: Non-CWS Wells within 2,500 feet	
Summary	
Total number of wells within search radius	2 non-CWS wells
On-Site	
Two (2) non-CWS wells were identified within the owned property boundary.	
Owned by Utility NC01 and NC02	NC01 and NC02 are active wells, owned by Ameren Energy Generating, and located in the southeastern portion of the Hutsonville plant. Each non-CWS well has a 200-foot setback zone and a 1,000-foot Phase I WHPA. The protection areas for these non-CWS wells extend to the eastern portion of the site. It is noted the water supply system status for these wells is listed as "inactive."
Not Owned by Utility	None
Off-Site	
No non-CWS wells were identified off-site and within 2,500 feet of the site boundary.	

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the site boundary. A summary of CWS wells identified is provided in Table 3.3.3-D below. No CWS surface water intakes were identified within the site boundary or within one mile of the site boundary.

Table 3.3.3-D: CWS Wells within One Mile Radius	
Summary	
Total number of wells within search radius	1 CWS well
On-Site	
No CWS wells were identified within the owned property boundary.	
Off-Site	
One (1) CWS well was identified off-site and within one mile of the site boundary.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide C01	One (1) CWS well associated with the Hutsonville CWS (as discussed above) was identified 4,600 feet south of the site boundary. The CWS is listed with abandoned status.

3.3.4 Conclusions

Ramboll identified seven (7) private or semi-private wells, two (2) non-CWS wells and one (1) CWS well within the respective search radii, including two (2) private or semi-private wells and two non-CWS wells located within the owned property boundary. The off-site private water wells are unlikely to be at risk of impacts from the site, as all of the identified wells are located generally upgradient or cross-gradient (south or northwest) of the site with respect to the inferred groundwater flow direction. In addition, four of the five off-site private or semi-private wells are listed as irrigation wells, which are unlikely to be used as a potable water supply. The off-site CWS well has been abandoned. The Ameren Energy Generating water supply system associated with the two (2) on-site non-CWS wells is listed as inactive and identified on-site private wells are unlikely to be used for potable purposes. In conclusion, based on Ramboll's review of the available data, the identified wells are not at risk of impact from coal ash constituents.

3.4 Joliet 9

The Joliet 9 Generating Station power plant, owned and operated by Midwest Generation LLC (Midwest Generation), is located at 1601 South Patterson Road in Joliet, Will County, Illinois (the "Joliet 9 plant" or "site"). The plant and the immediate surrounding area, however, are not located within the Joliet municipal boundary. The Joliet 9 plant is located on the southern bank of the Des Plaines River, opposite of the Joliet 29 plant (located on the northern bank of the Des Plaines River; see Section 3.5). According to the Will County assessor and GIS departments, one or more affiliates of Midwest Generation own the parcels that comprise the "owned property boundary."⁶⁴ The Lincoln Stone Quarry is permitted as a landfill by the Illinois EPA (Permit No. 1994-241-LFM), and has been permitted as a landfill since the late 1970's.⁶⁵ The search radii were based on the owned property boundary. The Joliet 9 "site boundary" in this section refers to the search site boundary and the owned property boundary since they are equivalent and as such, the basis for the search radii. The plant boundary differs from the search site boundary and owned property boundary. Notably, Boyd's Quarry, located on the eastern portion of the owned property, is not included within the plant boundary.

Figure 3.04-A depicts estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary [collectively, the "site boundary"]), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Tables 3.04-A, 3.04-B, and 3.04-C.

The Cap and Run report alleges that the groundwater at Joliet 9 is unsafe due to concentrations of arsenic, boron, lithium and molybdenum, and flows toward residential areas. It also alleges that the current containment system is not preventing impacts from moving off-site.

3.4.1 Local Water Supply

According to the SDWIS database and the "2019 Joliet Drinking Water Quality Report" prepared by the City of Joliet Department of Public Utilities in June 2020, the City of Joliet community water system (IL1970450) draws its groundwater supply from 21 deep wells (bedrock; drilled to 1,000 feet bgs) in the Ironton Galesville aquifer, a 1,000-foot deep aquifer that is hydraulically isolated from near surface groundwater, and five shallow (gravel) wells drilled to 80 feet bgs. The supply provides an average of 18 million gallons per day to a population of 148,693 (at 44,302 service connections). As discussed below several active CWS wells owned by Joliet and other municipalities are mapped within one mile of the site boundary.

The Village of Rockdale is located to the north of the site across the Des Plaines River. According to the SDWIS database, the Village of Rockdale CWS (IL1970850) uses groundwater as the primary source of groundwater from four active wells (00174, 00175, 00176, 01967) and one emergency connection to the Joliet community water system (discussed above). The Rockdale CWS serves a population of approximately 1,900 (852 service connections). See below for further discussion of the Rockdale CWS wells, as well as CWS wells owned by other entities.

A groundwater use ordinance for Olin Corporation/Will County has been established for a limited area that intersects with the southwestern portion of the site. The ordinance was established in 2005 in association with a No Further Remediation letter issued for the former Olin Corporation Property. No identified wells are present within the groundwater use ordinance area. In addition, Ramboll notes that a groundwater use

⁶⁴ Midwest Generation EME acquired the power-generation assets from Commonwealth Edison (ComEd) in 1999. The ComEd parcels comprise portions of the Lincoln Stone Quarry ash pond footprint and as such, the ComEd parcels have been included as part of the site to be conservative.

⁶⁵ Midwest Generation LLC disputes the Illinois EPA's determination that the Lincoln Stone Quarry is no longer a permitted landfill and is now subject to the Section 22.59 of the Act and the underlying regulations.

ordinance has been established for a limited area in Joliet (150 and 158 North Scott Street; Ordinance No. 17147) that prohibits the use of groundwater as a potable water supply; however, the Joliet 9 plant site boundary is located approximately 1.9 miles southwest of the applicable ordinance area. Some private homes to the east and southeast of the site rely on groundwater as their source of potable water, but according to the information reviewed by Ramboll, the site is not causing impacts to the active private wells.

3.4.2 Hydrogeology

According to groundwater elevation maps included in a 2019 CCR Compliance Annual Groundwater Monitoring and Corrective Action Report (the "2019 CCR report")⁶⁶ for the Joliet 9 plant, groundwater in the vicinity of the main ash disposal unit (Lincoln Stone Quarry) naturally flows to the northwest and to the west. However, groundwater also flows from the Lincoln Stone Quarry to the south and southeast due to dewatering operations conducted at the nearby Vulcan Quarry, located approximately 1,000 feet southeast of the ash disposal unit. In addition, a line of groundwater extraction wells is present in an east-west orientation along the south border of the ash disposal unit. As discussed further below, the extraction wells were installed to create a hydraulic trough to re-establish an inward hydraulic gradient (to the north) along the southern property line to meet the landfill operating permit conditions and mitigate off-site migration of metals in groundwater towards the south and southeast. Based on groundwater elevation maps contained in the above-referenced report, groundwater in the off-site area south of the ash disposal unit flows to the south and then curves to the east, towards the Vulcan Quarry due to the ongoing dewatering operations at that site. The Des Plaines River acts as a hydrogeologic divide to shallow groundwater migrating to the northwest.

3.4.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Joliet 9 site is provided in Table 3.4.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as "on-site" or "off-site;" *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of owned property boundary.

Table 3.4.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk One-hundred eighteen (118) water wells were identified and 81 are located potentially downgradient from the site. However, they are unlikely to be at risk because they are either inactive, not used for potable purposes, screened too deep to be impacted, or lie too distant or not downgradient from the Lincoln Stone Quarry.</p>	<p>Present, but not at risk Twelve (12) non-CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are abandoned, and/or they are on-site and owned by the utility. None of the off-site wells are located in a downgradient direction.</p>	<p>Absent</p>	<p>Present, but not at risk Twelve (12) CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or they are abandoned.</p>	<p>Absent</p>

⁶⁶ KPRG and Associates, Inc., 2020. "CCR Compliance Annual Groundwater Monitoring and Corrective Action Report – 2019, Midwest Generation, LLC, Joliet #9 Generating Station, 1601 South Patterson Road, Joliet, Illinois," prepared for Midwest Generation LLC, January 31.

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Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the site boundary. See Table 3.4.3-B below for a summary of the results.

Table 3.4.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	170 private and semi-private wells (dewatering well, dry hole water [plugged], engineering test, industrial water, private water, semi-private water, stratigraphic test, water well, water well for business, water well for commercial operation)
Total number of <u>water</u> wells identified	118 water wells (water well, semi-private water well, private water well, water well used for commercial operation, water well for business, and industrial water well)
On-Site	
Six (6) water wells are mapped on-site.	
<i>Owned by Utility</i> Wells P001, P002, P004, P005	Four (4) of the water wells (P001, P002, P004, and P005) are owned by Lincoln Stone Co., Commonwealth Edison, and Public Service Co. The wells were installed at depths ranging from 280 to 1,595 feet bgs between 1940 and 1992. Well P001 is mapped on the eastern edge of the plant area; no buildings/structures are present in the reported area of the well. Wells P002 and P004 are mapped in the main plant area and appear to be deep industrial production wells associated with plant operations. Well P005 is mapped in the western portion of the main plant area and is owned by Commonwealth Edison (a former site owner). P005 was installed in 1992 at a depth of 740 feet bgs.
<i>Not Owned by Utility</i> Well P003 and P032	Two (2) wells (P003 and P032) are owned by private individuals and were installed at depths of 153 and 161 feet bgs in 1937 and 1970, respectively. Well P003 is mapped within the ash pond, with no apparent nearby buildings/structures. Well P032 is mapped in an area south of the ash pond with no apparent associated buildings/structures. Based on the provided information, the location information for both of these wells is either incorrect or the wells no longer exist.
Off-Site	
One hundred twelve (112) of the private and semi-private wells are present off-site and are listed as being owned by commercial entities and private individuals and range in depth from 80 to 1,610 feet bgs.	
<i>Downgradient</i> Wells P023 and P025 (downgradient to the north of the ash disposal unit) Wells P026-P028, P039-P042, P044, P049-P065, P067-P078, P081, P082, P086, P090 (east and northeast of the ash disposal unit) Wells P033, P034, P079, P084, P091, P093, P094, and P095 (downgradient to the south and southeast of the ash disposal unit and within Groundwater Management Zone [GMZ]) Wells P083-P085, P088, P092, P096-P112, P116, P117	<u>Downgradient to the north of the ash disposal unit</u> Both well P023 and P025 plot in the area of off-site roadways or rail ways located between the ash pond and the Des Plaines River. As no structures appear to be associated with the wells, which were installed in 1975 and 1978 and have private individual owners, the location information for these wells is either incorrect or the wells no longer exist. <u>East and northeast of the ash disposal unit</u> Numerous wells are mapped in the off-site residential area east and northeast of the ash disposal unit, which is known as the Smiley Subdivision. Based on groundwater elevation maps provided in the 2019 CCR report, it does not appear that there is an eastward component of groundwater flow from the ash disposal unit (i.e., this neighborhood is not downgradient from Lincoln Stone Quarry). The wells in this area lie downgradient of Boyd's quarry, which was not used for coal ash disposal, but was purchased by the utility to support regulation of groundwater levels in the area. According to the 2019 CCR report, monitoring wells G20S and R16D at the northeast corner of the plant property and adjacent to P062 do not indicate exceedances of Class I GQS. Further, according to the 2010-2011 GPPB report, the IEPA and the Will County

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Table 3.4.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
(downgradient to the south and east of the GMZ)	<p>Health Department sampled private wells in this area and found that the inorganic analytes were consistent with background. They concluded that the private wells were not impacted by the site.</p> <p>Wells P039-P042 are present on the former American Cyanamid & Chemical Corp. (also known as Cytec) property, which is located to the east of McKinley Street (1306 S. McKinley St) between Zurich and Patterson Rd.⁶⁷ The wells are owned by American Cyanamid & Chemical Corp., (P039 and P040), Superior Alum Works (P041), and a private individual (P042). Because the Cytec property is no longer operational, these wells are likely inactive, used for groundwater monitoring, or no longer present. The Cytec Site is registered in the Illinois Site Remediation Program due to impacts from former inorganic chemical manufacture. On-site groundwater is contaminated with various metals, and off-site groundwater to the west contains sulfate above its Class I GQS as a result of historical releases at that site. In response, Cytec has provided municipal water service to impacted homes on the east side of the Smiley neighborhood and abandoned impacted private wells.⁶⁸</p> <p>P087 is located further east of the site (beyond the Cytec Site), is owned by a private individual, and was installed at a depth of 140 bgs in 1978. P087 is mapped near a residence and as such, may be used as potable water. However, based on Ramboll's review of available groundwater quality and flow information and due to the distance of the well from the ash disposal unit and GMZ, this well is unlikely to be impacted by Joliet 9, but more likely could be impacted by the Cytec Site.</p> <p><u>Downgradient to the south and southeast of the ash disposal unit and within the GMZ</u></p> <p>As discussed above, there is also a localized component of groundwater flow from the ash disposal unit (main quarry) to the south and southeast, away from the Des Plaines River due to dewatering operations conducted at the nearby Vulcan Quarry. As discussed in the 2019 CCR report, a line of extraction wells located along the southern border of the ash disposal unit was installed to create a hydraulic trough to re-establish an inward hydraulic gradient (to the north) along the southern property line to meet the landfill operating permit conditions and mitigate the off-site migration of metals in groundwater to the south. However, certain off-site monitoring wells installed on the south side of the line of extraction wells, which are sampled as part of the site's semi-annual CCR assessment monitoring program, have contained metals concentrations (lithium, molybdenum, arsenic and cobalt) above site-specific Groundwater Protection Standards (GWPS) but below the existing landfill operational Applicable Groundwater Quality Standards (AGQSS) established by the Illinois EPA within the landfill operating permit. The impacted off-site area, which extends approximately 2,000 feet south and southeast of the ash disposal unit is within an Illinois EPA approved GMZ pursuant to 35 IAC 620.250, and is delineated by two monitoring wells that have not had detections of metals above the GWPS.</p>

⁶⁷ Illinois Department of Public Health (under a cooperative agreement with the Agency for Toxic Substances and Disease Registry), 2007. "Health Consultation: American Cyanamid-Cytec Industries: Joliet, Will County, Illinois, EPA Facility ID: ILD000675264," October 16.

⁶⁸ Environmental Resources Management (ERM), 2017. "Re: 1978090003/Will County, Joliet/Cytec Industries, Site Remediation/Technical Reports," prepared for the Illinois Bureau of Land, Division of Remediation Management, April 28.

Table 3.4.3-B: Private and Semi-Private Wells within 2,500-foot Radius

	<p>Eight (8) private wells (P033, P034, P079, P084, P091, P093, P094, P095) are located within the GMZ. Six (6) of the wells (P033, P034, P091, P093, P094, P095) were installed in 2006 and range in depth from 877 to 920 feet bgs. According to drill logs obtained from the ISGS ILWATER database, these wells were constructed in conjunction with the abandonment and sealing of older and shallower wells. Based on Ramboll's review, P084 was sealed and replaced by P094 and P079 was sealed and replaced by P093. The remaining older/shallower wells that P033, P034, P091, and P095 replaced do not appear to be listed in the databases reviewed by Ramboll. Based on the depth of the active wells (i.e., 877 to 920 feet bgs), these downgradient residential wells are not at risk of shallow groundwater impacts from the site due to their depth and screening within a deeper, hydraulically isolated aquifer.</p> <p><u>Downgradient to the south and east of the GMZ</u></p> <p>P088, located to the east of the GMZ, is owned by a private individual and was installed to a depth of 156 feet bgs in 1975. Additionally, P036-P038 are located further southeast of the GMZ, are owned by East Joliet Aerie., Laraway School, Ranch Liquors and Pharmacy, respectively, and are listed as water wells for business (no drill dates or depths provided). P043 is also located in the vicinity of P036-P038, is owned by a private individual, and drilled to a depth of 108 feet bgs in 1942. Because these wells appear to be located within a developed portion of the Vulcan Materials Company property, the location information for these wells is likely incorrect or the wells are no longer present. Ramboll notes that Laraway Elementary School is located further south and Ranch Liquors is located further east, both outside of the 2,500-foot radius.</p> <p>P080 is located further east of the GMZ (across railroad tracks), is owned by a private individual, and was installed at a depth of 225 bgs in 1993. P080 is mapped near a residence and as such, may be used as potable water. However, based on Ramboll's review of available groundwater quality information and due to the distance of the well from the ash disposal unit (more than 2,500 feet) and the GMZ, this well is unlikely to be impacted by the site.</p> <p>According to drill logs obtained from the ISGS ILWATER database, the other residential wells located to the south of the GMZ have been sealed and replaced with deeper wells ranging from 900 to 920 feet bgs: P083 sealed and replaced by P092, P085 sealed and replaced by P097, P098 sealed and replaced by P099, P100 sealed and replaced by P116, P101 sealed and replaced by P102, P103 sealed and replaced by P104, P105 and P106 sealed and replaced by P107, P108 sealed and replaced by P117, P109 sealed and replaced by P112, P110 sealed and replaced by P111, and P084 sealed and replaced by P096. Based on the depth of the active wells (i.e., 877 to 920 feet bgs), these downgradient residential wells are not at risk of impacts from the site due to their depth and screening within a deeper, hydraulically isolated aquifer.</p>
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Table 3.4.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
<p><i>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</i> Wells P006-P025, P029-P031, P035, P045-P048, P066, P113-P115, P118</p>	<p>The remaining 31 off-site private or semi-private wells are mapped at various distances from the search site boundary. Wells located to the southwest of the site are located within industrial properties and are considered cross-gradient from the coal ash disposal unit. In addition, several wells are located across the Des Plaines River (i.e., a significant hydrogeologic divide) at the Joliet 29 plant (see Section 3.5) or beyond. Finally, three wells (P012, P015, and P031) are plotted in the Des Plaines River, indicating that their mapped location is likely inaccurate. P012 and P015 are owned by Blockson Chemical Co., which was formerly located southwest of the site. P031 is owned by Commonwealth Edison and is/was likely located on-site. As none of these wells are located generally downgradient (northwest) of the site (i.e., between the site and the Des Plaines River), none of these wells are likely to be impacted by groundwater from the site.</p>

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the site boundary. A summary of identified non-CWS wells is provided below in Table 3.4.3-C. No non-CWS surface water intakes were identified within the search site boundary or within 2,500 feet of the search site boundary.

Table 3.4.3-C: Non-CWS Wells within 2,500 feet	
Summary	
Total number of wells within search radius	12 non-CWS wells
On-Site	
Three (3) non-CWS wells were identified within the owned property boundary.	
<i>Owned by Utility</i> NC01-NC03	Non-CWS wells NC01, NC02 and NC03 are owned by Midwest Generation, are characterized as industrial/agricultural wells and are located in the main plant area. Each non-CWS well has a 200-foot setback zone and a 1,000-foot Phase I WHPA; none of the protection areas extend to the ash ponds. Because these wells are owned by the utility and registered as non-CWS wells, they are assumed to be monitored regularly and are likely deep wells that would be unaffected by shallow groundwater impacts. The depths of the wells were not provided.
<i>Not Owned by Utility</i>	None
Off-Site	
Nine (9) non-CWS wells were identified off-site and within 2,500 feet of the site boundary.	
<i>Downgradient</i>	None
<i>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</i> NC04-NC11	The remaining nine (9) non-CWS wells are owned by various entities and are located either on the opposite (north) side of the Des Plaines River or northeast (i.e., cross-gradient) of the site. All of these wells have an inactive status, except for two wells located north of the Des Plaines River, which are owned by Midwest Generation and are located at the Joliet 29 plant (see Section 3.5). As none of these additional off-site non-CWS wells are located generally downgradient (northwest) of the site, none of these wells are likely to be impacted by groundwater from the site.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the site boundary. A summary of CWS wells identified is provided in Table 3.4.3-D below. No CWS surface water intakes were identified within the site boundary or within one mile of the site boundary.

Table 3.4.3-D: CWS Wells within One Mile Radius	
Summary	
Total number of wells within search radius	12 CWS wells
On-Site No CWS wells were identified within the owned property boundary.	
Off-Site 12 CWS wells were identified off-site and within one mile of the site boundary.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide C01 through C12	Twelve (12) CWS wells owned by municipal water supply systems for various municipalities and other entities (Joliet, Rockdale, SE Joliet Sewer District, Clearview Subdivision and Modern Mobile Home Park [MHP]) were identified in off-site areas either north of the Des Plaines River (seven [7] wells – C01-C06 and C08) or between approximately 2,300 and 4,400 feet northeast and east of the site (C07, C09-C12). Seven of the CWS wells (C01, C06-C11) are listed with inactive or abandoned status. The remaining five active CWS wells (C02-C05, C12) have a 200-foot setback zone and a 1,000-foot Phase I WHPA. The setback zones and WHP areas do not intersect any of the site boundaries. As none of the CWS wells are located downgradient (northwest) of the site, none of these wells are likely to be impacted by groundwater from the site.

3.4.4 Conclusions

Ramboll identified one-hundred eighteen (118) private or semi-private wells, twelve (12) non-CWS wells and twelve (12) CWS wells within the respective search radii, including six (6) private or semi-private wells and three (3) non-CWS wells located within the owned property boundary. However, based on Ramboll's review, the water wells are unlikely to be at risk of impacts from the site, as the identified wells are either: 1) non-CWS water supply wells owned by the utility; 2) located north or northwest of the Des Plaines River (i.e., on the opposite side of a features likely to represent a significant hydrogeologic divide); 3) located generally cross-or up-gradient (northeast, south or southwest) of the site; 4) completed within a deeper, hydraulically isolated aquifer, at a depth not impacted by the Lincoln Stone Quarry, or 5) not currently present at or near the mapped location based on a lack of an associated building/structure indicating that the well is unlikely to be used as a potable water supply. In conclusion, based on Ramboll's review of the available data, the identified active wells are not at risk of impact from coal ash constituents.

3.5 Joliet 29

The Joliet Generating Station power plant is located at 1800 Channahon Road in Joliet, Will County, Illinois (the "Joliet 29 plant" or "site"). The Joliet 29 plant is located on the northern bank of the Des Plaines River, opposite of the Joliet 9 plant (located on the southern bank of the Des Plaines River; see Section 3.4). Midwest Generation LLC (and Unicom Investments Inc. on behalf of Midwest Generation LLC) and Commonwealth Edison Co. own the parcels that comprise the "owned property boundary."⁶⁹ The search radii were based on the owned property boundary. The Joliet 29 "site boundary" in this section refers to the search site boundary and the owned property boundary since they are equivalent and as such, the basis for the search radii. The plant boundary differs from the search site boundary and owned property boundary.

Figure 3.05-A depicts estimated site-related boundaries (including the power plant boundary and the owned property/search site boundary), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Tables 3.05-A, 3.05-B, and 3.05-C.

⁶⁹ Midwest Generation EME acquired the power-generation assets from Commonwealth Edison (ComEd) in 1999. As such, the ComEd parcels have been included as part of the site to be conservative.

The Cap and Run report alleges that groundwater monitoring at the Joliet 29 site has exhibited unsafe levels of cobalt, manganese, and sulfate. Additionally, the Cap and Run report indicates that the old coal ash landfills (near which there are no monitoring wells) “may also be contaminating the groundwater or Des Plaines River.”

3.5.1 Local Water Supply

According to the SDWIS database and the “2019 Joliet Drinking Water Quality Report” prepared by the City of Joliet Department of Public Utilities in June 2020, the City of Joliet community water system (IL1970450) draws its groundwater supply from 21 deep wells (bedrock; drilled to 1,000 feet bgs) in the Ironton Galesville aquifer, a 1,000-foot deep aquifer that is hydraulically isolated from near surface groundwater and five shallow (gravel) wells drilled to 80 feet bgs. The supply provides an average of 18 million gallons per day to a population of 148,693 (at 44,302 service connections). As discussed below, one CWS well owned by the City of Joliet is located within one mile of the site boundary.

The Village of Rockdale is located directly north of the site. According to the SDWIS database, the Village of Rockdale CWS (IL1970850) uses groundwater from four active wells (00174, 00175, 00176, 01967) as the primary source of water from and one emergency connection to the Joliet community water system (discussed above). The Rockdale CWS serves a population of approximately 1,900 (852 service connections). As discussed below, five Rockdale CWS wells are located within one mile of the site boundary.

A groundwater use ordinance for Olin Corporation/Will County has been established for a limited area on the south side of the Des Plaines River. The ordinance was established in 2005 in association with a No Further Remediation letter issued for the former Olin Corporation Property. No identified wells are present within the groundwater use ordinance area. In addition, Ramboll notes that a groundwater use ordinance has been established for a limited area in Joliet (150 and 158 North Scott Street; Ordinance No. 17147) that prohibits the use of groundwater as a potable water supply; however, the Joliet 29 plant site boundary is located approximately two miles southwest of the applicable ordinance area.

3.5.2 Hydrogeology

According to groundwater elevation maps included in a 2019 CCR Compliance Annual Groundwater Monitoring and Corrective Action Report⁷⁰ for the Joliet 29 plant, groundwater in the vicinity of the eastern portion of the site flows to the south or southeast. This is consistent with anticipated flow direction based on the topographic gradient interpretations. The Des Plaines River acts as a hydrogeologic divide to shallow groundwater migrating to the south.

3.5.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Joliet 29 site is provided in Table 3.5.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as “on-site” or “off-site;” *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

⁷⁰ KPRG and Associates, Inc., 2020. “CCR Compliance Annual Groundwater Monitoring and Corrective Action Report – 2019, Midwest Generation, LLC, Joliet #29 Generating Station, 1800 Channahon Road, Joliet, Illinois,” prepared for Midwest Generation LLC, January 31.

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Table 3.5.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Fifty-four (54) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site and/or owned by the utility, and/or they are unlikely to be present based on the mapped location. None of the off-site wells are located in a downgradient direction.</p>	<p>Present, but not at risk Fourteen (14) non-CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are listed with inactive status, and/or they are on-site and owned by the utility. None of the off-site wells are located in a downgradient direction.</p>	Absent	<p>Present, but not at risk Six (6) CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or their abandoned status.</p>	Absent

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the site boundary. See Table 3.5.3-B below for a summary of the results.

Table 3.5.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	114 private and semi-private wells (engineering test, industrial water, monitoring, private water, semi-private water, stratigraphic test, water well, water well for business, water well for commercial operation)
Total number of <u>water</u> wells identified	54 water wells (water well, water well for commercial operation, water well for business, semi-private water, private water, and industrial water)
On-Site	
Four (4) water wells are mapped on-site.	
Owned by Utility P007, P008, and P017	P007, P008, and P017 are owned by Commonwealth Edison Co. and Public Service Co. Sta. 9. The wells are 1,525 feet deep (P007 and P017) and 525 feet deep (P008) and are likely industrial production wells used by the site.
Not Owned by Utility Well P009	One (1) on-site water well owned by a private individual was drilled in 1947 to a depth of 103 feet bgs; this well maps to the northeastern portion of the site, approximately 2,000 feet northeast of the nearest operational portion of the site. According to information provided by Midwest Generation, no private well that is not owned by Midwest Generation exists on the site. ⁷¹ As such, the location information for well P009 is either incorrect or the well no longer exists.
Off-Site	
Fifty (50) of the private and semi-private wells are present off-site and are listed as being owned by commercial entities, private individuals, and the Village of Rockdale and range in depth from 100 feet to 1,595 feet bgs.	
Downgradient	None

⁷¹ Midwest Generation LLC, 2020. Private communication. August.

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Table 3.5.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
<p><i>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</i> P001-P006, P010-P016, P018-P054</p>	<p>Fifty (50) upgradient/cross-gradient water wells were identified within the 2,500-foot buffer distance from the search site, primarily in areas between 100 feet and 2,400 feet north and northeast of the site and on the opposite (southeast) side of the Des Plaines River. In addition, three wells (P012, P015, and P031) are plotted in the Des Plaines River, indicating that the provided location information is likely inaccurate. As none of these off-site wells are located generally downgradient (south or southeast) of the site (i.e., between the site and the Des Plaines River), none of these wells are likely to be impacted by groundwater from the site.</p>

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the site boundary. A summary of identified non-CWS wells is provided below in Table 3.5.3-C. No non-CWS surface water intakes were identified within the search site boundary or within 2,500 feet of the search site boundary.

Table 3.5.3-C: Non-CWS Wells within 2,500 feet	
Summary	
Total number of wells within search radius	14 non-CWS wells
On-Site	
Two (2) non-CWS wells are mapped on-site.	
<i>Owned by Utility</i> NC05 and NC06	NC05 and NC06 are active industrial/agricultural wells that are owned by Midwest Generation and are located in the main plant area. Each non-CWS well has a 200-foot setback zone and a 1,000-foot Phase I WHPA. Because these wells are owned by the utility and registered as non-CWS wells, they are assumed to be monitored regularly and are likely deep wells that would be unaffected by shallow groundwater impacts. The depths of the wells were not provided.
<i>Not Owned by Utility</i>	None
Off-Site	
Twelve (12) non-CWS wells were identified off-site and within 2,500 feet of the site boundary.	
<i>Downgradient</i>	None
<i>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</i> NC01-NC04 and NC07-NC14	The twelve (12) off-site non-CWS wells are owned by several entities, including Midwest Generation, Caterpillar, Inc., UIC, Kaluzny Brothers Johns Mansville, and Will County Forest Preserves. According to the USEPA SDWIS database, the non-CWS systems associated with six (6) of the non-CWS wells are inactive (Caterpillar, Inc. [NC04, NC08, NC11, NC12]; UIC [NC07]; and Will County Forest Preserve [NC14]). The remaining eight (6) active non-CWS wells are located between approximately 500 feet and 2,000 feet northwest of the site (NC09, NC10, NC13) and on the opposite (southeast) side of the Des Plaines River at the Joliet 9 plant (see Section 3.4; NC01, NC02, NC03). The Phase I WHPA for NC13 extends onto a non-operational portion of the site; however, this well is unlikely to be impacted by groundwater from the site.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the site boundary. A summary of CWS wells identified is provided in Table 3.5.3-D below. No CWS surface water intakes were identified within the site boundary or within one mile of the site boundary.

Table 3.5.3-D: CWS Wells within One Mile Radius	
Summary	
Total number of wells within search radius	6 CWS wells
On-Site No CWS wells were identified within the owned property boundary.	
Off-Site Six (6) CWS wells were identified off-site and within one mile of the site boundary.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide C01 through C06	Six (6) CWS wells (C01-C06) associated with the Joliet (C01) and the Rockdale (C02-C06) CWS (as discussed above) were identified within 1,300 to 3,500 feet of the site boundary at locations southwest (C01) and north (C02-C06) of the site. The wells range in depth from 225 to 1,575 feet bgs. All of the wells have a 200- or 400-foot setback zone and a 1,000-foot Phase I WHPA, except for C06 (abandoned). None of the setbacks or WHPAs intersect the site boundary. All of the CWS wells have an active status except for C01 (inactive) and C06 (abandoned). As none of the CWS wells are located downgradient (south or southeast) of the site, none of these wells are likely to be impacted by groundwater from the site.

3.5.4 Conclusions

Ramboll identified fifty-four (54) private or semi-private wells, fourteen (14) non-CWS wells and six (6) CWS wells within the respective search radii, including four (4) private or semi-private wells and two (2) non-CWS wells located within the owned property boundary. However, based on Ramboll’s review, the water wells are unlikely to be at risk of impacts from the site, as the identified wells are either: 1) on-site industrial water supply wells owned by the utility; 2) located southeast of the Des Plaines River (i.e., on the opposite side of a feature likely to represent a significant hydrogeologic divide); or 3) located generally upgradient or cross-gradient (north or southwest) of the site. In conclusion, based on Ramboll’s review of the available data, the identified wells are not at risk of impact from coal ash constituents.

3.6 Marion

The Southern Illinois Power plant is located at 10825 Lake Egypt Road in Marion, Williamson County, Illinois (the “Marion plant” or “site”). The plant is situated on the northwestern side of the Lake of Egypt. According to the Johnson and Williamson Counties’ assessor and GIS departments,⁷² Southern Illinois Power Coop owns the parcels that comprise the “owned property boundary,” which includes Lake of Egypt parcels and parcels located along the edge of Lake of Egypt. The search radii were based on “search site boundary” determined by Ramboll, as the owned property boundary extends to undeveloped land or to the opposite side of Lake of Egypt (or its inlets) from the power plant. The Marion “site boundary” in this section refers to the search site boundary since it is the basis for the search radii.

Figure 3.06-A depicts estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Tables 3.06-A and 3.06-B.

The Cap and Run report alleges that the groundwater is unsafe, particularly due to unsafe levels of arsenic, boron, cobalt, selenium, lithium, and thallium. In addition, the Cap and Run report indicates that monitoring is conducted only at Emery Pond, which comprises only a small portion of the site and that “the condition of groundwater around the rest of the property is largely a mystery.”

⁷² Johnson County’s property information was not publicly available and as such, was purchased from Real Estate Portal, USA (<https://reportallusa.com/search.php>).

3.6.1 Local Water Supply

The Marion plant is surrounded by primarily rural land, both agricultural cropland and woodland, as well as small lakeside communities along Lake of Egypt. The Lake of Egypt PWD CWS serves approximately 10,345 people with 4,402 service connections via surface water source. According to the SDWIS database, the Lake of Egypt PWD CWS (IL1995200) receives its municipal water supply from one intake (IN71840) in Lake of Egypt. The Lake of Egypt PWD CWS intake is further discussed below.

The City of Marion community water system (IL1990550) water supply is purchased surface water from Rend Lake Inter-City Water System (IL0555100) and Herrin (IL1990400). According to the SDWIS database and City of Marion's 2019 Annual Drinking Water Quality Report, Marion provides potable water to a population of approximately 17,500 (at 9,659 service connections).

A groundwater use ordinance has been established in Marion (Ordinance No# 1949) that prohibits the use of groundwater as a potable water supply; however, the Marion plant is located outside of the ordinance limits.

3.6.2 Hydrogeology

Based on the regional topographic gradient, groundwater flows generally to the east or southeast. Locally, in the northern portion of the site, groundwater likely flows radially from the northwest to the northeast (clockwise). Groundwater in the vicinity of the western portion of the site flows to the east.⁷³

3.6.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Marion site is provided in Table 3.6.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as "on-site" or "off-site;" *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

Table 3.6.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Five (5) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant. None of the off-site wells are located in a downgradient direction.</p>	Absent	Absent	Absent	<p>Present, but not at risk One (1) surface water intake was identified; however, it is unlikely to be at risk because of its hydrogeologic location and distance relative to the power plant.</p>

⁷³ Hanson Professional Services Inc., 2019. "2019 Annual Groundwater Monitoring and Corrective Action Report, Marion Power Plant, Southern Illinois Power Cooperative, Marion, Williamson County Illinois," prepared for the Southern Illinois Power Cooperative.

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Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the search site boundary. See Table 3.6.3-B below for a summary of the results.

Table 3.6.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	9 private and semi-private wells (engineering test, irrigation well, and private water well)
Total number of <u>water</u> wells identified	5 water wells (private water well and irrigation well)
On-Site One (1) water well is mapped on-site.	
Owned by Utility	None
Not Owned by Utility Well P001	P001 is owned by a private individual and was drilled in 1968 to 95 feet; this well maps to the southwest portion of the owned site area and is generally upgradient of the operational areas of the site.
Off-Site Four (4) of the private and semi-private wells are present off-site and are listed as being owned by private individuals and range in depth from 98 to 260 feet bgs.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide P002, P003, P004 and P005	P005 is listed as a private irrigation well and the remaining three wells are listed as private water wells. Wells P002 and P005 are located approximately 1,000 feet northwest of the site, across Little Saline Creek. These wells are unlikely to be impacted by the site, as groundwater beneath the northern portion of the plant likely flows to the Little Saline Creek/the South Fork of the Saline River. Well P003 is located near the owned property boundary on the opposite (east) side of the South Fork of the Saline River and Lake of Egypt and is therefore unlikely to be impacted by site discharges. Finally, well P004 is located approximately 1,300 feet south and cross-gradient of the nearest plant boundary.

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the search site boundary. No non-CWS wells or surface water intakes were identified within the search site boundary or within 2,500 feet of the search site boundary.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the search site boundary. A summary of CWS surface water intakes identified is provided in Table 3.6.3-C below. No CWS wells were identified within the search site boundary or within one mile of the search site boundary.

Table 3.6.3-C: CWS Surface Water Intakes within One Mile Radius	
Summary	
Total number of surface water intakes within search radius	1 surface water intake
On-Site One CWS surface water intake was identified within the owned property boundary.	
Owned by Utility	None
Not Owned by Utility	One surface water intake associated with the Lake of Egypt PWD is located along the northeastern bank of the Lake of Egypt, on the opposite side of the lake from the main operational areas of the Marion plant.

Table 3.6.3-C: CWS Surface Water Intakes within One Mile Radius

Off-Site

No CWS surface water intakes were identified off-site and within one mile of the site boundary.

3.6.4 Conclusions

Ramboll identified five (5) private or semi-private and one (1) CWS surface water intake within the respective search radii, including one (1) private or semi-private well located within the owned property boundary. However, based on Ramboll’s review, the water wells are unlikely to be at risk of impacts from the site, as all of the identified wells are located either on the opposite side of Lake of Egypt, a feature likely to represent a significant hydrogeologic divide, or are generally upgradient or cross-gradient (northwest, southwest or south) of the operational areas of the site. In conclusion, based on Ramboll’s review of the available data, the identified wells and surface water intake are not at risk of impact from coal ash constituents.

3.7 Meredosia

The Meredosia Power Plant, which was formerly owned and operated by Ameren Energy Medina Valley Cogen LLC, a wholly-owned subsidiary of Ameren, is located at 800 South Washington Street adjacent to the Illinois River in Meredosia, Morgan County, Illinois (the “Meredosia plant” or “site”); the plant was shut down in 2011. The Meredosia plant is situated on the east bank of the Illinois River. According to the Morgan County assessor and GIS departments, one or more affiliates of Ameren and other private entities own the parcels that comprise the “owned property boundary.”⁷⁴ The search radii were based on the owned property boundary, which are restricted to the power plant boundary. The Meredosia “site boundary” in this section refers to the power plant boundary, the search site boundary, and the owned property boundary since they are equivalent and as such, the basis for the search radii.

Figure 3.07-A depicts estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary [collectively, the “site boundary”]), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Tables 3.07-A, 3.07-B, and 3.07-C.

The Cap and Run report suggests that concentrations of arsenic and boron above health-based levels were identified in groundwater monitoring wells at the site and that groundwater modeling shows that “groundwater flows into the Illinois River, discharging 15,000 lbs of boron and 112 lbs of arsenic into the river annually.” In regards to the site’s Closure Plan, the Cap and Run report alleges that closure in place “does not stop groundwater from...picking up toxic contamination.” The report does not allege damage to drinking water supplies.

3.7.1 Local Water Supply

The Meredosia CWS serves approximately 1,041 people with 430 service connections. According to the SDWIS database, the Village of Meredosia CWS (IL1370300) receives its municipal water supply from two active groundwater wells, Well 5 (50255) and Well 6 (01416). The following inactive, abandoned wells are associated with the Meredosia CWS: Well 2 (50252), Well 3 (50253), and Well 4 (50254). No groundwater use ordinance is in place in Meredosia. As discussed below, the active Village of Meredosia water supply wells are within one mile of the Site boundary.

3.7.2 Hydrogeology

Based on the topographic gradient, groundwater likely flows to the northwest.

⁷⁴ The Meredosia Power Plant was shut down in 2011. Environmental Liability Transfer, Inc. (ELT) acquired portions of the site in late 2019. Sunrise Ag Energy LLC is a separate entity that appears to operate a bulk oil terminal co-located at the site.

3.7.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Meredosia plant is provided in Table 3.7.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as “on-site” or “off-site;” *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

Table 3.7.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
Present, but not at risk Forty-eight (48) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site, and/or they are owned by the utility. None of the off-site wells are located in a downgradient direction.	Present, but not at risk Five (5) non-CWS wells were identified; however, they are unlikely to be at risk because they are located on-site, owned by the utility, and the associated non-CWS system is listed with inactive status. No off-site non-CWS wells were identified.	Absent	Present, but not at risk Five (5) CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or their abandoned status.	Absent

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the site boundary. See Table 3.7.3-B below for a summary of the results.

Table 3.7.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	56 private and semi-private wells (industrial water well, non-potable water well, semi-private water well, test hole, water well)
Total number of <u>water</u> wells identified	48 water wells (industrial water well, non-potable water well, semi-private water well, water well)
On-Site	
Thirty-eight (38) water wells are mapped on-site.	
<i>Owned by Utility</i> P001-P035	Thirty-five (35) of the on-site water wells (P001-P035) are owned by Central Illinois Public Service Company (a former utility name) and range in depth from 25 to 109 feet bgs. Because the wells are utility-owned, located on-site, and the power plant is no longer operational, these wells are unlikely to be used for potable purposes.
<i>Not Owned by Utility</i> Well P036-P038	Three (3) on-site water wells are owned by National Starch (Prod./Chemical Co.) and were drilled between 1958 and 1991 to depths between 81 and 92 feet bgs. Because these wells are located on property owned by Ameren Service Company and the power plant is no longer operational, these wells are unlikely to be used for potable purposes.

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Table 3.7.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Off-Site Ten (10) of the private and semi-private wells are present off-site and are listed as being owned by commercial entities and range in depth from 60 to 100 feet bgs.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide P039-P048	Ten (10) water wells were identified within the 2,500-foot search radius; nine (9) of the wells are located between approximately 100 and 900 feet south of the site and are owned by Central Illinois Public Service Company, National Starch or T.A. Terminal. One of the 10 off-site wells (P039) plots in the Illinois River and is owned by Central Illinois Public Service (this well is likely located on site). The off-site wells located south of the site appear to be upgradient/cross-gradient of the site.

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the site boundary. A summary of identified non-CWS wells is provided below in Table 3.7.3-C. No non-CWS surface water intakes were identified within the site boundary or within 2,500 feet of the site boundary.

Table 3.7.3-C: Non-CWS Wells within 2,500 feet	
Summary	
Total number of wells within search radius	Five (5) non-CWS wells
On-Site Five (5) non-CWS wells were identified within the owned property boundary.	
Owned by Utility NC01-NC05	The utility-owned (Ameren CIPS/CIPS) non-CWS wells are located in the plant area in the northern portion of the site and are described as "industrial/agricultural" wells. Three of the wells are listed as being "active;" the well status was not available for the other two non-CWS wells. According to the IEPA and USEPA SDWIS databases, the status of the Ameren CIPS/Janine Maxwell water system is inactive.
Not Owned by Utility	None
Off-Site No non-CWS wells were identified off-site and within 2,500 feet of the site boundary.	

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the site boundary. A summary of CWS wells identified is provided in Table 3.7.3-D below. No CWS wells were identified within the site boundary or within one mile of the site boundary.

Table 3.7.3-D: CWS Wells within One Mile Radius	
Summary	
Total number of wells within search radius	5 CWS wells
On-Site No CWS wells were identified within the owned property boundary.	
Off-Site Five (5) CWS wells were identified off-site and within one mile of the site boundary.	
Downgradient	None

Table 3.7.3-D: CWS Wells within One Mile Radius	
<i>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</i> C01-C05	Five (5) CWS wells (C01-C05), owned by the Village of Meredosia, are located approximately 3,500 feet north of the site. Two of the wells, C01 and C02, are listed as being active, with the remaining three wells listed as being abandoned. No portion of the site is located within any setback zones or WHPAs associated with the CWS wells. All the identified CWS wells are located in a presumed cross-gradient direction and are unlikely to be impacted by the site.

3.7.4 Conclusions

Ramboll identified forty-eight (48) private or semi-private, five (5) non-CWS wells and five (5) CWS wells within the respective search radii, including thirty-eight (38) private or semi-private wells and five (5) non-CWS wells located within the owned property boundary. However, based on Ramboll’s review, the water wells are unlikely to be at risk of impacts from the site, as none of the off-site wells appear to be downgradient of the site with respect to the inferred northwestward groundwater flow direction (i.e., none of the wells are located between the site and the Illinois River). In conclusion, based on Ramboll’s review of the available data, the identified wells are not at risk of impact from coal ash constituents.

3.8 Pearl

The Pearl Generation Station, which was owned and operated by Prairie Power, Inc., is located at 13747 State Highway 100 in Pearl, Pike County, Illinois (the “Pearl plant” or “site”); the plant closed in 2012. The Pearl plant is situated on the west bank of the Illinois River. According to Pike County property information,⁷⁵ Prairie Power, Inc. (PPI) owns the parcels that comprise the “owned property boundary.” The search radii were based on the owned property boundary, which include some property on the western and northern portions of the site that appear to be undeveloped or agricultural.⁷⁶ The Pearl “site boundary” in this section refers to the search site boundary and the owned property boundary since they are equivalent and as such, the basis for the search radii. The plant boundary differs from the search site boundary and owned property boundary.

Figure 3.08-A depicts estimated site-related boundaries (including the power plant boundary, and the owned property/search site boundary), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Tables 3.08-A and 3.08-B.

The Cap and Run report claims that several groundwater monitoring wells at the site exhibited unsafe levels of boron, manganese, and sulfate. Furthermore, the Cap and Run report claims that although the unlined coal ash impoundment has been capped, capping “does not prevent continued groundwater flow through ash left in unlined impoundments.”

3.8.1 Local Water Supply

The Pearl CWS serves approximately 166 people with 64 service connections. According to the SDWIS database, the Village of Pearl CWS (IL1490650) receives its municipal water supply from two active groundwater wells, Well 3 (01173) and Well 4 (01169). The following inactive, abandoned wells are associated with the Pearl CWS: Test Well (01214) and Well 1 (50199). No groundwater use ordinance is in place in Pearl. As discussed below, the active Pearl water supply wells are within the site boundary.

⁷⁵ Pike County’s property information was not publicly available and as such, was purchased from Real Estate Portal, USA (<https://reportallusa.com/search.php>).

⁷⁶ Based on aerial photographs, large portions of the owned property appear to be subject to inundation by the Illinois River during certain times of the year.

3.8.2 Hydrogeology

Based on the topographic gradient, groundwater likely flows to the east.

3.8.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Pearl site is provided in Table 3.8.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as "on-site" or "off-site;" *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

Table 3.8.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Three (3) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site, and/or they are owned by the utility. None of the off-site wells are located in a downgradient direction.</p>	Absent	Absent	<p>Present, but not at risk Six (6) CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or their inactive or abandoned status.</p>	Absent

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the site boundary. See Table 3.8.3-B below for a summary of the results.

Table 3.8.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	19 private and semi-private wells (engineering test, monitoring, water well, water well for commercial operation)
Total number of <u>water</u> wells identified	3 water wells (water well and water well for commercial operation)
On-Site	
One (1) water well is mapped on-site.	
Owned by Utility Well P001	P001 is owned by Soyland Power Coop (former utility name) and was installed at a depth of 102 feet bgs in 2000. Because the well is utility-owned, located on-site, and the power plant is no longer operational, this well is unlikely to be used for potable purposes.
Not Owned by Utility	None
Off-Site	
Two (2) of the private and semi-private wells are present off-site and are listed as being owned by private individuals and range in depth from 28 to 265 feet bgs.	
Downgradient	None

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Table 3.8.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
<i>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</i> P002 and P003	Well P002 (265 feet deep, installed in 1968) is located approximately 400 feet southwest of the northernmost portion of the site and is interpreted as being upgradient of the site. Well P003 (28 feet deep, installed in 1977) is located approximately 1,100 feet south of the site and is interpreted as being cross-gradient of the site.

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the site boundary. No non-CWS wells or surface water intakes were identified within the site boundary or within 2,500 feet of the site boundary.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the site boundary. A summary of CWS wells identified is provided in Table 3.8.3-C below. No CWS surface water intakes were identified within the site boundary or within one mile of the site boundary.

Table 3.8.3-C: CWS Wells within One Mile Radius	
Summary	
Total number of wells within search radius	6 CWS wells
On-Site	
Four (4) CWS wells were identified within the owned property boundary.	
<i>Owned by Utility</i>	None
<i>Not Owned by Utility</i> C01-C03, C05	All of the on-site CWS wells are owned by the Village of Pearl, are located in the northern portion of the site approximately 3,000 feet north of the plant area, and range in depth from 62 to 72 feet bgs. Two of the wells are listed as being active (C01 and C02), one of the wells is assumed to be inactive (C05), ⁷⁷ and one of the wells (C03) is listed as being abandoned. The two active CWS wells (C01 and C02) are not located in the inferred downgradient direction from the power plant (east).
Off-Site	
Two (2) CWS wells were identified off-site and within one mile of the site boundary.	
<i>Downgradient</i>	None
<i>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</i> C04 and C06	Two (2) off-site CWS wells (C04 and C06) are owned by the Village of Pearl and are 56 and 58 feet deep, respectively. Well C04 is listed as being abandoned and was located just west of the northern portion of the site; well C06 is assumed to be inactive ⁷⁰ and is located just south of the site, approximately 1,400 feet west of the plant area. No portion of the site is located within any setback zones or WHPAs associated with the CWS wells and none of the CWS wells are located in the inferred downgradient direction from the site (east).

3.8.4 Conclusions

Ramboll identified three (3) private or semi-private and six (6) CWS wells within the respective search radii, including one (1) private or semi-private well and four (4) CWS wells located within the owned property boundary, two of which have an active status. However, based on Ramboll's review, none of the off-site private wells are located downgradient (generally east) of the site with respect to the inferred groundwater flow direction and the active CWS wells are located in a remote, undeveloped portion of the site,

⁷⁷ C05 and C06 are assumed to be inactive according to the 2019 Consumer Confidence Report for Pearl (IL1490650), which indicates that only C01 and C02 are active sources of drinking water.

approximately 3,000 feet and hydraulically cross-gradient from the main plant area. In conclusion, based on Ramboll's review of the available data, the identified wells are not at risk of impact from coal ash constituents.

3.9 Powerton

The Powerton Generating Station, owned and operated by Midwest Generation LLC, is located at 13082 East Manito Road in Pekin, Tazewell County, Illinois (the "Powerton plant" or "site"). The Powerton plant is situated on the south/east bank of the Illinois River and Powerton Fish and Wildlife Area. Midwest Generation LLC owns the parcels that comprise the "owned property boundary," which includes Powerton Lake parcels and parcels located along the edge of Powerton Lake. The search radii were based on the "search site boundary" determined by Ramboll, as the owned property boundary extends to the opposite side of Powerton Lake from the power plant. The Powerton "site boundary" in this section refers to the search site boundary since it is the basis for the search radii.

Figure 3.09-A depicts estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Tables 3.09-A and 3.09-B.

The Cap and Run report alleges that the groundwater at Powerton is unsafe due to arsenic concentrations present at up to fifty times safe levels, in addition to unsafe levels of boron, cobalt, sulfate, manganese, and thallium.

3.9.1 Local Water Supply

Drinking water for the City of Pekin, as well as for the nearby federal prison and other businesses, is supplied by the Illinois American Water Company Pekin Division (IL American-Pekin) CWS, which serves approximately 35,000 people with 14,674 service connections. According to the SDWIS database, IL American-Pekin (IL1795040) receives its water supply from the following seven active groundwater wells: Well 1 (50056); Well 2 (50057); Well 3 (50058); Well 5 (50060); Well 6 (50061); Well 8 (50063); and, Well 9 (01844). The following two inactive, abandoned wells are also associated with the IL American-Pekin CWS: Well 4 (50059) and Well 7 (50062). No groundwater use ordinance is in place in Pekin. As discussed below, none of the active water supply wells maintained by IL American-Pekin are located within one mile of the site boundary.

3.9.2 Hydrogeology

According to groundwater elevation maps included in a 2019 CCR Compliance Annual Groundwater Monitoring and Corrective Action Report⁷⁸ for the Powerton plant, groundwater within the shallow sand/gravel unit in the vicinity of the current and former ash basins primarily flows in a northerly direction. The maps also show that a localized shallow unit of silt/clay is present at the surface; groundwater within this unit flows to the west and discharges to a north-south trending man-made channel. Based on the topographic gradient, groundwater likely flows to the north under the other portions of the property.

3.9.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Powerton site is provided in Table 3.9.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as "on-site" or "off-site;" *on-site* refers to wells

⁷⁸ KPRG and Associates, Inc., 2020. "CCR Compliance Annual Groundwater Monitoring and Corrective Action Report – 2019, Ash By-Pass Basin and Ash Surge Basin, Midwest Generation, LLC, Powerton Station, 13082 E. Manito Rd., Pekin, IL 61554," prepared for Midwest Generation, LLC, January 31.

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that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

Table 3.9.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Thirty-six (36) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site, and/or they are owned by the utility. None of the off-site wells are located in a downgradient direction.</p>	<p>Present, but not at risk Nine (9) non-CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site, they are owned by the utility, and/or their status is inactive.</p>	Absent	Absent	Absent

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the search site boundary. See Table 3.9.3-B below for a summary of the results.

Table 3.9.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	88 private and semi-private wells (engineering test, industrial water well, irrigation well, monitoring well, non-potable water well, water well, water well for commercial operation)
Total number of <u>water</u> wells identified	36 water wells (water well, industrial water well, water well for commercial operation, non-potable water well, irrigation well)
On-Site	
Eight (8) water wells are mapped on-site.	
<i>Owned by Utility</i> P001-P008	According to information provided by Midwest Generation, no private wells are present on-site (see Table 3.9.3-C below regarding an on-site non-CWS well). ⁷⁹ The eight (8) on-site wells listed on the ISGS database were owned by Super Power Co. of Illinois (or Superpower of Illinois – former utility name) or Midwest Generation, LLC. Wells P001-P006 were installed in 1930, P008 (noted as an industrial water well) was installed in 2007, and no drill date was provided for P007. P001, P007, and P008 were installed at depths ranging from 58 to 76 feet bgs (no depths were provided for P002-P006).
<i>Not Owned by Utility</i>	None
Off-Site	
Twenty-eight (28) of the private and semi-private wells are present off-site and are listed as being owned by commercial entities and private individuals and range in depth from 31 to 112 feet bgs.	
<i>Downgradient</i>	None

⁷⁹ Midwest Generation LLC, 2020. Private communication. August.

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Table 3.9.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
<p><i>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</i> P009-P036</p>	<p>P022 is located off-site (on property owned by ComEd) but falls within the operational areas of the power plant. P022 is owned by Super Power Co. of Illinois (a former utility name) and was installed at a depth of 61 feet bgs in 1936. Because P022 is located within the operational areas of the plant and is owned by a former operator of the site, it is unlikely that P022 is being used for potable water purposes.</p> <p>The remaining 27 water wells are either upgradient/cross-gradient or located on the opposite side of a significant hydrogeologic divide, primarily in areas northeast, southeast and south of the site at distances ranging from 300 to 2,500 feet from the nearest site boundary. Thirteen (13) of the off-site wells are located northeast of the site, but on the opposite side of a north-south trending tributary channel (Lost Creek)</p>

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the search site boundary. A summary of identified non-CWS wells is provided below in Table 3.9.3-C. No non-CWS surface water intakes were identified within the search site boundary or within 2,500 feet of the search site boundary.

Table 3.9.3-C: Non-CWS Wells within 2,500 feet	
Summary	
Total number of wells within search radius	9 non-CWS wells
On-Site	
Two (2) non-CWS wells were identified within the owned property boundary.	
<i>Owned by Utility</i> NC01	NC01 is owned by Midwest Generation – Powerton, is listed with active status, and has a 200-foot setback zone and a 1,000-foot Phase I WHPA. NC01 is located in an area considered cross-gradient from the operational areas of the site given the inferred northward groundwater flow direction. Furthermore, according to information provided by Midwest Generation, NC01 is monitored regularly and is likely a deep well that would be unaffected by shallow groundwater impacts.
<i>Not Owned by Utility</i> NC07	NC07 is owned by Commonwealth Edison. According to the SDWIS database, the transient non-CWS “Commonwealth Edison Co.” (IL0055541) is listed as inactive. NC07 is located in an area considered cross-gradient from the operational areas of the site given the inferred northward groundwater flow direction.
Off-Site	
Seven (7) non-CWS wells were identified off-site and within 2,500 feet of the site boundary.	
<i>Downgradient</i>	None
<i>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</i> NC02-NC06, NC08, NC09	The seven (7) off-site non-CWS wells are associated with the Midwest Generation – Powerton, Tobin Nanning-Marine Corps, and Commonwealth Edison non-CWS systems. The Tobin Nanning-Marine Corps (NC06) and Commonwealth Edison (NC07-NC09) non-CWS systems are listed with inactive status on the USEPA SDWIS database. The remaining off-site wells (NC02-NC05) are owned by Midwest Generation-Powerton, listed as active, and have a 200-foot setback zone and a 1,000-foot Phase I WHPA. NC02-NC05 are located in an area west of the power plant that is owned by Commonwealth Edison. This area is considered cross-gradient from the operational areas of the site given the inferred northward groundwater flow direction. Therefore, the non-CWS wells are unlikely to be impacted by groundwater from the site.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the search site boundary. No CWS wells or surface water intakes were identified within the search site boundary or within one mile of the search site boundary. Ramboll notes that a portion of an adopted maximum setback zone for a CWS well falls partially within the one-mile radius, approximately 0.9 mile to the northeast of the site. This setback zone is associated with well 50062 of the IL American-Pekin CWS; however, well 50062 is listed as abandoned. The nearest active IL American-Pekin well is located approximately 1.5 miles northeast (i.e., cross-gradient) of the nearest site boundary.

3.9.4 Conclusions

Ramboll identified thirty-six (36) private or semi-private and nine (9) non-CWS wells within the respective search radii, including eight (8) private or semi-private wells and two (2) non-CWS wells located within the owned property boundary. The on-site private/semi-private and non-CWS wells are owned by the current or former utility and other than the non-CWS well, no longer exist.⁸⁰ P022 is located off-site (on property owned by ComEd) but falls within the operational areas of the power plant and is owned by a former utility; as such, P022 is not likely to be used for potable purposes. Based on Ramboll's review, the remaining water wells are unlikely to be at risk of impacts from the site, as all of the identified wells are located generally upgradient (south) or cross-gradient (east or west) of the operational areas of the power plant with respect to the inferred groundwater flow direction or are located on the opposite side of a hydrogeologic divide (i.e., the tributary channel to the Illinois River located northeast of the site). In addition, four (4) of the non-CWS wells are associated with non-CWS systems listed with inactive status on the USEPA SDWIS database. In conclusion, based on Ramboll's review of the available data, the identified wells are not at risk of impact from coal ash constituents

3.10 Venice

The Venice Generating Station, which is owned and operated by Ameren, is located at 701 North Main Street in Venice, Madison and St. Clair Counties, Illinois (the "Venice plant" or "site"). The plant originally operated as a coal-fired plant from the early 1940s to the mid-1970s, when it was converted to burn natural gas and oil.⁸¹ The Venice plant is situated on the east bank of the Mississippi River. According to the Madison and St. Clair Counties' assessor and GIS departments, one or more affiliates of Ameren own the parcels that comprise the "owned property boundary." The search radii were based on the owned property boundary, which is coincident with the power plant boundary. The Venice "site boundary" in this section refers to the power plant boundary, the search site boundary, and the owned property boundary since they are equivalent and as such, the basis for the search radii.

Figure 3.10-A depicts estimated site-related boundaries (including the power plant/search site/owned property boundary [collectively, the "site boundary"]), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Tables 3.10-A and 3.10-B.

The Cap and Run report alleges that Venice's ash ponds are contaminating groundwater. In particular, unsafe levels of arsenic, boron, manganese, and sulfate were observed in 2011 results for samples collected along the Mississippi River. The Cap and Run report claims that the coal ash is in contact with groundwater and as such, "toxic contaminants will continue to leach into groundwater indefinitely."

3.10.1 Local Water Supply

Drinking water for the City of Venice, as well as for the nearby Village of Brooklyn, is supplied by the Illinois American Water Company Granite City Division (IL American-Granite City) CWS, which serves approximately

⁸⁰ Migwest Generation. Private Communication, August 2020.

⁸¹ The plant reportedly burned down in 2003 and three new natural gas units were installed starting in 2004.

40,541 people with 16,125 service connections. According to the SDWIS database, the IL American-Granite City CWS (IL1195030) obtains water primarily from a surface water intake (intake ID 60236) in the Mississippi River. IL American-Granite City also purchases water from the IL-American East St. Louis system (IL635040), which receives its water supply from two surface water intakes: Mississippi River Intake 60237 (see discussion in Table 3.10.3-C below) and Mississippi-Chouteau Island Intake 60236. A limited groundwater use ordinance has been established in Venice (City of Venice Ordinance No. 01-1, amending No. 00-6) in an approximately two-acre area located approximately 4,400 feet northeast of the site boundary at its nearest point. As such, this groundwater ordinance does not impact the results of the well and surface water intakes discussed below in Section 3.10.3.

3.10.2 Hydrogeology

According to a 2010 Closure Request Letter⁸², groundwater flows to the west-southwest during normal river stage, which is most of the year. During high river stage, groundwater flow is reversed and flows to the east-northeast.

3.10.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Venice site is provided in Table 3.10.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as “on-site” or “off-site;” *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

Table 3.10.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Thirteen (13) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they do not appear to be used for potable purposes, and/or they are unlikely to be present based on the mapped location. None of the off-site wells are located in a downgradient direction.</p>	Absent	Absent	Absent	<p>Present, but unlikely to be impacted One (1) CWS surface water intake was identified downstream of the site; however, it is unlikely to be impacted by groundwater at Venice given the mixing and dilution of the groundwater-surface water interaction and downstream transport.</p>

⁸² Union Electric Company d/b/a AmerenUE, 2010. Letter. “Subject: Ash Pond Closures at AmerenUE’s Venice Plant,” addressed to Illinois Environmental Protection Agency, March 25.

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Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the site boundary. See Table 3.10.3-B below for a summary of the results.

Table 3.10.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	52 private and semi-private wells (dewatering well, engineering test, irrigation well, non-potable water well, non-community public water well, stratigraphic test, test hole, water well, monitoring well)
Total number of <u>water</u> wells identified	13 water wells (water well, non-community public water well, non-potable water well, irrigation well)
On-Site	
No water wells are present within the owned property boundary.	
Off-Site	
All 13 of the private and semi-private wells are present off-site and are listed as being owned by commercial and municipal entities and range in depth from 45 to 115 feet bgs.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide P001-P013	<p>Thirteen (13) cross-gradient water wells were identified within the 2,500-foot search radius, primarily north and northeast of the site. The wells are mapped between 200 feet and 2,200 feet from the site. Wells P001 and P002 are listed as water wells owned by Missouri-Illinois Materials Co. and the Illinois Department of Transportation (IDOT). Wells P003-P007 are identified as "Noncommunity – Public Water Well[s]" associated with Illinois Department of Transportation. The drill date of these wells is unknown and Ramboll was unable to identify a non-CWS associated with these wells in the SDWIS database. Wells P008-P011 are listed as non-potable water wells owned by Southwestern Illinois Flood Prevention and Beelman River Terminal. One (1) off-site water well (P012) is mapped within the Mississippi River to the west of the site and is listed as an irrigation well. P012 is owned by US Carries Beelman Rv Term and as such, is likely located on the north-adjointing property, which is operated by Beelman River Terminal. Based on their cross-gradient locations relative to the site, none of these wells are likely to be impacted by groundwater from the site.</p> <p>Based on the latitude/longitude coordinates provided in the ISGS Water and Related Wells database, P013 is mapped 250 feet south of the southern site boundary and is listed as an irrigation well owned by a private individual and installed in 2013 to a depth of 99 feet bgs. Ramboll notes that the ISGS Water and Related Wells database and ISGS ILWATER drill log indicate that this well is located in Section 2N-8W-6 and as such, the latitude/longitude coordinates appear to be incorrect. Section 2N-8W-6 is more than seven miles east of the site.</p>

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the site boundary. No non-CWS wells or surface water intakes were identified within the site boundary or within 2,500 feet of the site boundary.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the site boundary. A summary of CWS surface water intakes identified is provided in Table 3.10.3-C below. No CWS wells were identified within the site boundary or within one mile of the site boundary.

Table 3.10.3-C: CWS Surface Water Intakes within One Mile Radius	
Summary	
Total number of surface water intakes within search radius	One (1) surface water intake
On-Site No CWS surface water intakes were identified within the owned property boundary.	
Off-Site One (1) CWS surface water intake was identified downstream of the site.	
Downgradient	The Illinois American Water Co (IAWC) East St. Louis surface water intake (IN60237) is located approximately 3,600 feet south (i.e., downstream) of the nearest site boundary. Given the mixing and dilution of the groundwater-surface water interaction and downstream transport, this intake is unlikely to be impacted by groundwater at Venice. Ramboll notes that the majority of the Venice plant is located within the CWS River Intake Zone 1 Protection Area for IAWC East St. Louis.
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide	None

3.10.4 Conclusions

Ramboll identified thirteen (13) private or semi-private wells and one (1) CWS surface water intake within the respective search radii. None of the wells or the surface water intake are located within the owned property boundary. As the identified wells are generally cross-gradient (north and south) of the site with respect to the inferred groundwater flow direction, they are unlikely to be impacted by groundwater from the site. Additionally, the downstream CWS surface water intake is unlikely to be impacted by groundwater at Venice given the mixing and dilution of the groundwater-surface water interaction and downstream transport. In conclusion, based on Ramboll’s review of the available data, the identified wells and surface water intake are not at risk of impact from coal ash constituents.

3.11 Waukegan

The Waukegan Generating Station is located at 401 East Greenwood Avenue in Waukegan, Lake County, Illinois (the “Waukegan plant” or “site”). The Waukegan plant is situated on the western shore of Lake Michigan. Midwest Generation LLC owns the parcel that comprises the “owned property boundary.” The search radii were based on the owned property boundary, which is coincident with the power plant boundary. The Waukegan “site boundary” in this section refers to the power plant boundary, the search site boundary, and the owned property boundary since they are equivalent and as such, the basis for the search radii.

Figure 3.11-A depicts estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary [collectively, the “site boundary”]), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Table 3.11-A.

The Cap and Run report alleges that groundwater at the Waukegan plant is unsafe due to elevated concentrations of arsenic, boron, chromium, lithium, molybdenum, sulfate, and manganese. The Cap and Run report also alleges that monitoring wells designated as upgradient may be impacted by coal ash and “other sources of contamination” due to elevated levels of arsenic, chromium, boron, lithium, molybdenum, and sulfate observed in upgradient wells, and that if assessment monitoring were to be conducted, SSIs would not be observed due to the potential impact in upgradient wells.

3.11.1 Local Water Supply

The City of Waukegan CWS (IL0971900) sources its water from two active surface water intakes in Lake Michigan (IN01516 and IN01517). The Waukegan CWS also has two emergency connections to the North

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Chicago and Gurnee water systems. According to the IEPA SDWIS database, the Waukegan supply serves a population of approximately 88,000 (at 22,000 service connections).

A number of groundwater use ordinances have been established in Waukegan (Ordinance Nos# 98-0-121, 08-0-38, 11-0-64, 11-0-96, 11-0-100, 12-0-112, 13-0-8, 16-0-76 and 17-0-81) that prohibit the use of groundwater as a potable water supply for limited areas of the City; however, the Waukegan plant is located outside of the ordinance limits.

3.11.2 Hydrogeology

According to groundwater elevation maps included in a 2019 CCR Compliance Annual Groundwater Monitoring and Corrective Action Report.⁸³ for the Waukegan plant, groundwater primarily flows to the southeast.

3.11.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Waukegan site is provided in Table 3.11.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as "on-site" or "off-site;" *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

Table 3.11.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
Present, but not at risk Nine (9) water wells were identified; however, they are unlikely to be at risk based on their hydrogeologic location relative to the power plant. None of the off-site wells are located in a downgradient direction.	Absent	Absent	Absent	Absent

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the site boundary. See Table 3.11.3-B below for a summary of the results.

Table 3.11.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	170 private and semi-private wells (dewatering well, engineering test well, monitoring well, stratigraphic test well, water well)
Total number of <u>water</u> wells identified	9 water wells

⁸³ KPRG and Associates, Inc., 2020. "CCR Compliance Annual Groundwater Monitoring and Corrective Action Report – 2019, Midwest Generation, LLC, Waukegan Station, 401 E. Greenwood Avenue, Waukegan, Illinois," prepared for Midwest Generation, LLC, January 31.

Table 3.11.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
On-Site No water wells are present within the owned property boundary.	
Off-Site All nine (9) of the private and semi-private wells are present off-site and are listed as being owned by commercial entities and range in depth from 95 to 1,670 feet bgs.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide	Nine (9) upgradient/cross-gradient water wells were identified within the 2,500-foot search radius, primarily located between approximately 300 and 1,600 feet north, west and southwest of the site. Based on their upgradient or cross-gradient locations relative to the site, none of these wells are likely to be impacted by groundwater from the site.

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the site boundary. No non-CWS wells or surface water intakes were identified within the site boundary or within 2,500 feet of the site boundary.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the site boundary. No CWS wells or surface water intakes were identified within the site boundary or within one mile of the site boundary.

3.11.4 Conclusions

Ramboll identified nine (9) private or semi-private wells within the respective search radii, none of which were mapped as being located within the owned property boundary. As the identified wells are generally upgradient or cross-gradient (north, west or southwest) of the site with respect to the reported groundwater flow direction, they are unlikely to be impacted by groundwater from the site. In conclusion, based on Ramboll's review of the available data, the identified wells are not at risk of impact from coal ash constituents.

3.12 Will County

The Will County Generating Station, which is owned and operated by Midwest Generation LLC, is located at 529 Romeo Road in Romeoville, Will County, Illinois (the "Will County plant" or "site"). The Will County plant is bounded by the Des Plaines River to the west and the Chicago Sanitary and Ship Canal to the east. Midwest Generation LLC owns the parcels that comprise the "owned property boundary." The search radii were based on the owned property boundary. The Will County "site boundary" in this section refers to the search site boundary and the owned property boundary since they are equivalent and as such, the basis for the search radii. The plant boundary differs from the search site boundary and owned property boundary.

Figure 3.12-A depicts estimated site-related boundaries (including the power plant boundary and search site/owned property boundary), search radii, and receptor survey data. All wells identified to have been historically present within the respective search radii are detailed in Tables 3.12-A and 3.12-B.

The Cap and Run report claims that the groundwater at the Will County plant has unsafe levels of arsenic, boron, sulfate, and manganese. It also claims that the upgradient wells are "affected by coal ash" and as such, "there is virtually no statistical difference between up- and downgradient sampling results," and predicts that if assessment monitoring was conducted, SSIs would be identified for arsenic. The Cap and Run report claims that two of four unlined coal ash ponds are wrongly excluded from applicability to CCR regulations and also notes that there is "a layer of coal ash between five and twelve feet thick buried in the ground along the eastern side of the ash ponds, partially saturated with groundwater" and that an upgradient monitoring well is installed within this fill layer. The Cap and Run report also claims that removal of coal ash from two of the

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four ponds is insufficient and that coal ash should be removed from the remaining two ponds, as well as the fill layer.

3.12.1 Local Water Supply

The Romeoville CWS serves approximately 52,000 people with 16,678 service connections. According to the SDWIS database, the Village of Romeoville CWS (IL1970900) receives its municipal water supply from the following 12 active groundwater wells: Well 1 (22124); Well 2 (22125); Well 3 (22126); Well 4 (22127); Well 5 (22128); Well 7 (00621); Well 8 (00619); Well 9 (00618); Well 10 (00620); Well 11 (01115); Well 12 (01281); and, Well 13 (01282). The following inactive/plugged wells are associated with the Romeoville CWS: Well 14 (01994) and Well 15 (02015). A groundwater use ordinance has been established in Romeoville (Village of Romeoville Ordinance No. ORD10-0867) that prohibits the use of groundwater as a potable water supply within a certain defined area within the Village of Romeoville corporate limits (located approximately 0.9-mile northwest of the site boundary at its nearest point).

3.12.2 Hydrogeology

According to groundwater elevation maps included in a 2019 Annual Groundwater Monitoring and Corrective Action Report⁸⁴ for the Will County plant, groundwater in the vicinity of the western portion of the site flows to the west. Although no groundwater flow information was provided in the report for other portions of the property, based on the topographic gradient and the plant's location in between the Des Plaines River and the Chicago Sanitary and Ship Canal, groundwater under the eastern portion of the property likely flows to the east and groundwater under the majority of the western portion of the property likely flows to the west. Groundwater under the small area of the site located west of the Des Plaines River likely flows to the east. The Des Plaines River and Chicago Sanitary and Ship Canal act as hydrogeologic divides to shallow groundwater migrating off the site.

3.12.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Will County site is provided in Table 3.12.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as "on-site" or "off-site;" *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

Table 3.12.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
Present, but not at risk Nineteen (19) water wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site, they are owned by	Present, but not at risk Eight (8) non-CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant, they are on-site and owned by the utility,	Absent	Absent	Absent

⁸⁴ KPRG and Associates, Inc., 2020. "CCR Compliance Annual Groundwater Monitoring and Corrective Action Report – 2019, Midwest Generation, LLC, Will County, 259 E. 135th Street, Romeoville, Illinois," prepared for Midwest Generation, LLC, January 31.

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Table 3.12.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
the utility (or former utility entity), and/or they do not appear to be used for potable purposes. None of the off-site wells are located in a downgradient direction.	and/or their inactive status.			

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the site boundary. See Table 3.12.3-B below for a summary of the results.

Table 3.12.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	421 private and semi-private wells (engineering test, industrial water well, non-potable water well, private water well, semi-private water well, stratigraphic test, test hole, water well, water well for commercial operation)
Total number of <u>water</u> wells identified	19 water wells (water well, water well for commercial operation, semi-private water well, private water well, non-potable water well, industrial water well)
On-Site	
One (1) water well is mapped on-site.	
<i>Owned by Utility</i> Well P001	P001 is listed as being owned by Public Service (a former utility) and was drilled to a depth of 1,536 feet bgs in 1952. According to information provided by Midwest Generation, P001 (and P003 and P004, which are mapped slightly off-site; see below) is now owned by Midwest Generation LLC and is a non-CWS well. ⁸⁵ As such, P001, P003, and P004 are likely duplicate wells, identified in the IEPA SWAPP database also as non-CWS wells; see further discussion of non-CWS wells in Table 3.12.3-C below.
<i>Not Owned by Utility</i>	None
Off-Site	
Eighteen (18) of the private and semi-private wells are present off-site and are listed as being owned by commercial entities, private individuals and the US Army Corps of Engineers and range in depth from 60 to 1,535 feet bgs.	
<i>Downgradient</i>	None
<i>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</i> P002-P019	Well P003 is mapped east of the site boundary, is listed as being owned by Commonwealth Edison Co. (a former utility) and was drilled to a depth of 1,509 feet in 1957. Well P004 is mapped slightly north of the site boundary, is listed as being owned by Public Service Co. (a former utility) and was drilled to a depth of 1,535 feet in 1952. According to information provided by Midwest Generation, P003 and P004 (as well as P001; see above) are owned by Midwest Generation LLC and are non-CWS wells. ⁸⁶ As such, P001, P003 and P004 are likely duplicate wells, identified in the IEPA SWAPP database also as non-CWS wells; see further discussion of non-CWS wells in Table 3.12.3-C below.

⁸⁵ Midwest Generation LLC, 2020. Private communication. August.

⁸⁶ Midwest Generation LLC, 2020. Private communication. August.

Table 3.12.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
	The remaining sixteen (16) wells were identified upgradient/cross-gradient or on the opposite side of a significant hydrogeologic divide at variable distances and directions from the search site. Most of the wells are located on the opposite side of two waterways relative to the site—the Des Plaines River and Chicago Sanitary and Ship Canal. As groundwater beneath the site is inferred to flow either to the west or to the east these hydrogeologic divides intercept any shallow groundwater impacts. Wells located south (P002, P007, P008 and P011) are interpreted as being located cross-gradient from the site and therefore are unlikely to be at risk for impacts from the site's groundwater. Well P002, located close to the southern site boundary, is a deep (300 feet) commercial well owned by a ready-mix concrete company. While this well is too deep to be impacted by shallow groundwater, it also is unlikely to be used for potable purposes. In addition, groundwater elevation maps included in the 2019 Annual Groundwater Monitoring and Corrective Action Report do not indicate a northward or southward component of the local groundwater flow in the vicinity of the ash ponds.

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the site boundary. A summary of identified non-CWS wells is provided below in Table 3.12.3-C. No non-CWS surface water intakes were identified within the site boundary or within 2,500 feet of the site boundary.

Table 3.12.3-C: Non-CWS Wells within 2,500 feet	
Summary	
Total number of wells within search radius	8 non-CWS wells
On-Site Four (4) non-CWS wells were identified within the owned property boundary.	
Owned by Utility Wells NC01-NC03	Wells NC01-NC03 are owned by Midwest Generation, are listed as industrial/agricultural wells with active status and have a 200-foot setback zone and a 1,000-foot Phase I WHPA. NC01-NC03 appear to be duplicated by P001, P003, and P004 in the ISGS database, which were drilled to depths of approximately 1,500 feet (discussed above in Table 3.12.3-B). NC01-NC03 are located in the operational portion of the plant. According to information provided by Midwest Generation, only two of these wells are active. They draw groundwater from a deep aquifer below the Maquoketa confining unit and are routinely analyzed for constituents; the results are submitted to the Illinois Department of Public Health. ⁸⁷ Because these wells are hydraulically isolated, they are not impacted by shallow groundwater.
Not Owned by Utility Well NC08	Well NC08 is owned by a restaurant, Chick's Romeo Tavern, and is listed with inactive status.
Off-Site Four (4) non-CWS wells were identified off-site and within 2,500 feet of the site boundary.	
Downgradient	None
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide NC04-NC07	Well NC04 is an active institutional well described as "Isle a la Cache flowing well" and well NC05 is an active well associated with Isle a la Cache museum. As both of these wells are mapped on Isle a la Cache, on the opposite (west) side of a channel of the Des Plaines River, these wells are unlikely to be impacted by groundwater from the site. Wells NC06 and NC07 are inactive and owned by restaurants; furthermore, as

⁸⁷ Midwest Generation LLC, 2020. Private communication. August.

Table 3.12.3-C: Non-CWS Wells within 2,500 feet	
	both of these wells are located on the opposite side of a significant hydrogeologic divide (the Des Plaines River and Chicago Sanitary and Ship Canal, respectively), these wells are not impacted by shallow groundwater from the site.

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the site boundary. No CWS wells or surface water intakes were identified within the site boundary or within one mile of the site boundary.

3.12.4 Conclusions

Ramboll identified nineteen (19) private or semi-private wells and eight (8) non-CWS wells within the respective search radii, including one (1) private or semi-private well and three (3) non-CWS wells located within the owned property boundary. However, based on Ramboll's review, the water wells are unlikely to be at risk of impacts from the site, as all of the identified wells are located either west of the Des Plaines River or east of the Chicago Sanitary and Ship Canal (i.e., on the opposite side of features likely to represent significant hydrogeologic divides), are generally cross-gradient (north or south) of the site, and/or are too deep to be impacted by shallow groundwater. Furthermore, the active on-site non-CWS wells are owned by the utility and monitored regularly. In conclusion, based on Ramboll's review of the available data, the identified wells are not at risk of impact from coal ash constituents.

3.13 Wood River

The Wood River power plant is located at 1 Chesson Lane in Alton, Madison County, Illinois (the "Wood River plant" or the "site"). Ownership of the Wood River plant was transferred to CTI Development, LLC (subsidiary of Commercial Liability Partners, LLC) in 2019, at which point demolition began. The Wood River plant is situated along the north/east bank of the Mississippi River. CTI Development LLC owns the parcels that comprise the "owned property boundary." The search radii were based on the owned property boundary, which is coincident with the power plant boundary. The Wood River "site boundary" in this section refers to the power plant boundary, the search site boundary, and the owned property boundary since they are equivalent and as such, the basis for the search radii.

Figure 3.13-A depicts the estimated site-related boundaries (including the power plant boundary, the search site boundary, and the owned property boundary [collectively, the "site boundary"]), search radii, and receptor survey data. All wells and surface water intakes identified to have been historically present within the respective search radii are detailed in Tables 3.13-A, 3.13-B, 3.13-C, and 3.13-D.

The Cap and Run report claims that Wood River is "a menace to our neighbors in Missouri," and has unsafe groundwater with "dangerously elevated levels of arsenic, boron, lithium, molybdenum, and sulfate." It does not specifically allege impacts or threats to drinking water.

3.13.1 Local Water Supply

The Wood River plant is located within the village of East Alton. The East Alton CWS (IL1190200) serves approximately 6,300 people with 2,891 service connections. According to the SDWIS database, the East Alton CWS receives its municipal water supply from eight active groundwater wells (Well 2 [C06], Well 3 [C07], Well 4 [C08], Well 5 [C05], Well 6 [C01], Well 7 [C02], Well 8 [C03], and Well 9 [C04]); one abandoned, inactive well (Well 1 [C09]) is also associated with the East Alton CWS. According to the SWAPP Factsheets database

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for the East Alton CWS, the active wells are constructed in a confined aquifer. No groundwater use ordinance is in place in East Alton.⁸⁸ See below for discussion of the East Alton CWS groundwater wells.

Although the Wood River plant is located within the village of East Alton, the municipal boundary of the city of Alton is coincident with a portion of the southern site boundary and a portion of the northern site boundary. Also, the municipal boundary of the city of Wood River is located approximately 2,500 feet east of the site at its closest point.

Drinking water for the city of Alton is supplied by the Illinois American Water Company Alton Division (IL American-Alton) CWS (IL1195150), which serves approximately 58,375 people with 22,534 service connections. According to the SDWIS database, IL American-Alton receives its water supply from surface water, namely Mississippi River Intake. In addition, IL American-Alton formerly used an intake called "Mississippi River at River Mile 203.5," which is inactive. A groundwater use ordinance has been established in Alton (city of Alton Ordinance No. 6376), which prohibits the use of groundwater from within the limits of the city of Alton for potable water supply except for "uses or methods" in existence prior to the June 16, 1999 effective date of the ordinance. The ordinance was approved subject to a Memorandum of Understanding with the IEPA, which was completed on June 23, 1999. Although no portion of the site is located within the city of Alton municipal boundary, portions of the city of Alton groundwater ordinance applicability area are present within the 2,500-foot radius north and south of the site. The southerly-flowing Mississippi River is located to the south of the site, and the IL American-Alton CWS Mississippi River intake is located approximately 3.5 miles northwest of the nearest site boundary.

The city of Wood River CWS (IL2291150) serves approximately 12,750 people via approximately 4,550 service connections via groundwater sources. According to the SDWIS database, the Wood River CWS obtains water from five active groundwater wells (Well 1 [C10], Well 2 [C11], Well 6, Well 7, and Well 8 [C12]); three inactive, abandoned groundwater wells (Well 3 [C15], Well 4 [C13], and Well 5 [C14]) are also associated with the Wood River CWS. A groundwater use ordinance has been established in Wood River (city of Wood River Ordinance No. 02-01 codified as Chapter 54: Groundwater Potable Water Supply of the city of Wood River Code of Ordinances) that prohibits the use of groundwater from within the limits of the city of Wood River for potable water supply except at points of withdrawal by the city of Wood River. See below for discussion of the Wood River CWS groundwater wells. There are no water wells located within 2,500 feet of the site boundary that are also located within the Wood River ordinance applicability area.

3.13.2 Hydrogeology

Based on the topographic gradient, groundwater in the vicinity of the eastern portion of the Wood River plant likely flows to the southeast. The topographic gradient near the western portion of the plant suggests that groundwater likely flows to the southwest.

3.13.3 Survey of Wells and Surface Water Intakes

A summary of the well and surface water intake survey for the Wood River site is provided in Table 3.13.3-A below. The conclusions are based on information available to Ramboll at the time of the assessment and are subject to data limitations, as discussed in Chapter 1. See the subsequent tables for further details. Ramboll notes that the subsequent tables group the identified wells as "on-site" or "off-site;" *on-site* refers to wells that are mapped within the owned property boundary. Likewise, *off-site* indicates the well is mapped outside of the owned property boundary.

⁸⁸ According to the IEPA Groundwater Ordinance Status database, Madison County proposed a groundwater use ordinance in 2013 for an area of East Alton located over three miles northeast of the Wood River plant; the ordinance was rejected.

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Table 3.13.3-A: Summary of Well and Surface Water Intake Survey				
2,500-foot Radius			1-mile Radius	
Private and Semi-Private Wells	Non-CWS Wells	Non-CWS Surface Water Intakes	CWS Wells	CWS Surface Water Intakes
<p>Present, but not at risk Twenty-six (26) water wells were identified and four (4) are potentially downgradient of the site. However, the wells are either unlikely to exist at the plotted location or are not used to supply drinking water.</p>	<p>Present, but not at risk Seven (7) non-CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant.</p>	<p>Present, but not at risk One (1) non-CWS surface water intake was identified; however, it is unlikely to be at risk because it is listed with inactive status.</p>	<p>Present, but not at risk Fifteen (15) CWS wells were identified; however, they are unlikely to be at risk because of their hydrogeologic location relative to the power plant and/or their abandoned status.</p>	Absent

Private and Semi-Private Wells

Ramboll reviewed the IEPA's SWAPP GIS, ISGS, and ISWS databases to evaluate the presence of private and semi-private wells within 2,500 feet of the site boundary. See Table 3.13.3-B below for a summary of the results.

Table 3.13.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
Summary	
Total number of wells within search radius	207 private and semi-private wells (dewatering, engineering test, industrial water, irrigation, monitoring, non-potable water, stratigraphic test, water well, water well for commercial operation, water well test hole)
Total number of <u>water</u> wells identified	26 water wells (water wells, water wells used for commercial operations, irrigation well, industrial well and non-potable well)
Unmapped wells. ⁸⁹	None
On-Site	
One (1) water well is mapped on-site.	
Owned by Utility	
None	
Not Owned by Utility	
Well P001	One (1) on-site water well (P001) is owned by Kienstra Cement, Inc. and was drilled in 1990 to 79 feet; this well maps to the northwestern portion of the site. As the nearest Kienstra Cement facility is located over one mile southeast of the site, it is likely that the reported location for this well is incorrect.
Off-Site	
Twenty-five (25) of the private and semi-private wells are present off-site and are listed as being owned by commercial entities and the US Army Corps of Engineers and range in depth from 50 feet to 117 feet bgs.	
Downgradient	
Wells P004, P005 and P026	Wells P004 and P005 are reportedly located approximately 100 feet southwest of the western site boundary, on or adjacent to State Highway 143, and are listed as "water well for commercial operation." The wells are owned by Alberici-Eby (a large maritime construction contractor) and were installed in 1990. P004 and P005 are reported to be 112 and 90 feet deep, respectively, and constructed with 30-inch diameter boreholes and 16-inch diameter well screens. Because P004 and P005 have large diameters, are owned by Alberici-Eby, and are located near a lock on the Mississippi river, they were most likely installed in relation to the Lock

⁸⁹ Unmapped wells are not depicted in the corresponding figure due to imprecise location information (i.e., one square-mile resolution).

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Table 3.13.3-B: Private and Semi-Private Wells within 2,500-foot Radius	
	<p>and Dam 26 project on the Mississippi River for engineering purposes and are unlikely to be used for potable purposes..⁹⁰</p> <p>Well P026 is reportedly located in the Mississippi River west of the northern portion of the site and is 50 feet deep. As the well is characterized as an industrial well and is reportedly owned by the US Army Corps of Engineers, it is unlikely used for potable purposes.</p>
<p><i>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</i> P002-P003, P006-P025</p>	<p>Twenty-two (22) upgradient/cross-gradient water wells were identified within the 2,500-foot buffer distance from the search site, primarily within several clusters located between 400 and 2,300 feet north and northwest of the site. Most of the off-site clusters of upgradient/cross-gradient wells are within the area of the City of Alton's groundwater use ordinance (i.e., on the northern side of the rail line that runs along the northern site boundary).</p> <p>In addition, well P003 plots in the Mississippi River at a location southeast of the site, was installed in 1958 and is 87 feet deep. P003 is owned by "Mathieson, Olin Chemical Corp." Olin Winchester LLC (appears to be an affiliate of Mathieson, Olin Chemical Corp.) owns property to east of the Wood River site, on the opposite side of Wood River. Because the well is likely on the opposite side of Wood River, which represents a significant hydrogeologic divide, this well is unlikely to be at risk.</p> <p>Finally, P023 is located approximately 850 feet east of the site, but on the opposite (east) side of the Wood River, which is interpreted as a significant hydrogeologic divide to potential migration of contaminants in groundwater from the site.</p>

Non-CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of non-CWS wells and surface water intakes within 2,500 feet of the site boundary. A summary of identified non-CWS wells is provided below in Table 3.13.3-C.

Table 3.13.3-C: Non-CWS Wells within 2,500 feet	
Summary	
Total number of wells within search radius	7 non-CWS wells
On-Site	
No non-CWS wells were identified within the site boundary.	
Off-Site	
Seven (7) non-CWS wells were identified off-site and within 2,500 feet of the site boundary.	
Downgradient	None
<p><i>Upgradient, cross-gradient, or opposite a significant hydrogeologic divide</i> NC01-NC07</p>	<p>All seven (7) non-CWS wells are owned by Olin Corporation; four (4) are listed as active and have a 200-foot setback zone and a 1,000-foot Phase I WHPA (no status, setback zone, or WHPA information was available for NC05-NC07). The non-CWS wells are located 1,300 feet to 2,300 feet east of the site, across the Wood River. The protection areas for the four (4) non-CWS wells do not extend onto the site or across Wood River (i.e., towards the site). Since the Wood River represents a significant hydrogeologic divide between the site and the non-CWS wells, and since the well protection areas do not extend onto the subject site, the non-CWS wells are unlikely to be impacted by groundwater from the site.</p>

⁹⁰ Ramboll notes that these wells appear to be located within the area of the City of Alton's groundwater use ordinance, which prohibits the use of groundwater from within the limits of the city of Alton for potable water supply except for "uses or methods" in existence prior to the June 16, 1999 effective date of the ordinance. Wells P004 and P005 were installed in 1990, which predates enactment of the groundwater ordinance.

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Table 3.13.3-C: Non-CWS Wells within 2,500 feet	
	Furthermore, according to the USEPA SDWIS database, the primary source of water for the Olin Winchester LLC water system (IL3095893) is surface water purchased from the East Alton water system. As such, although these wells are listed as active, they do not appear to be the primary source of water for the Olin Corporation/Olin Winchester LLC non-CWS system.

A summary of identified non-CWS surface water intakes is provided below in Table 3.13.3-D.

Table 3.13.3-D: Non-CWS Surface Water Intakes within 2,500-foot Radius	
Summary	
Total number of surface water intakes within search radius	1 surface water intake
On-Site	
One (1) non-CWS surface water intake was identified within the site boundary.	
Owned by Utility	
None	
Not Owned by Utility	
One (1) non-CWS surface water intake was identified within the site boundary at the southeastern portion of the site; the surface water intake is owned by Olin Corporation and is inactive.	
Off-site	
No non-CWS surface water intakes were identified off-site and within 2,500 feet of the site boundary.	

CWS Wells and Surface Water Intakes

Ramboll reviewed the IEPA's SWAPP GIS database to evaluate the presence of CWS wells and surface water intakes within one mile of the site boundary. A summary of CWS wells identified is provided in Table 3.13.3-E below.

Table 3.13.3-E: CWS Wells within One Mile Radius	
Summary	
Total number of wells within search radius	15 CWS wells
On-Site	
No CWS wells were identified within the site boundary.	
Off-Site	
15 CWS wells were identified off-site and within one mile of the site boundary.	
Downgradient	
None	
Upgradient, cross-gradient, or opposite a significant hydrogeologic divide	
C01 through C15	Nine (9) CWS wells (C01-C09) associated with the East Alton CWS (as discussed above) were identified within 2,300 to 3,100 feet northeast of the site boundary. Additionally, six (6) CWS wells (C10-C15) associated with the Wood River CWS are located within 0.8 to one mile southeast of the site boundary (and two additional Wood River CWS wells are located just outside the one-mile search radius); of the eight (8) Wood River CWS wells, five (5) are active (C10, C11, C12 and two outside of the one-mile radius [60232 and 01817]) and three (3) are abandoned (C13, C14, C15). No portion of the site is located within any setback zones or WHPAs associated with the East Alton or Wood River CWS wells. All the identified CWS wells are located across (east of) the Wood River and therefore are unlikely to be impacted by the site.

No CWS surface water intakes were identified within the site boundary or within one mile of the site boundary. However, Ramboll notes that the southern and eastern portions of the site are located in a CWS River Intake Zone 1 Protection Area. The nearest CWS surface water intakes are the IAWC Alton intakes (IN01412 and

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Coal-Fired Power Plants in Illinois

IN60006) located approximately 3.25 to 3.5 miles northwest (i.e., upstream) of the Wood River plant. Intake IN01412 is listed as active and IN60006 is listed as inactive.

3.13.4 Conclusions Regarding Potentially At-Risk Wells

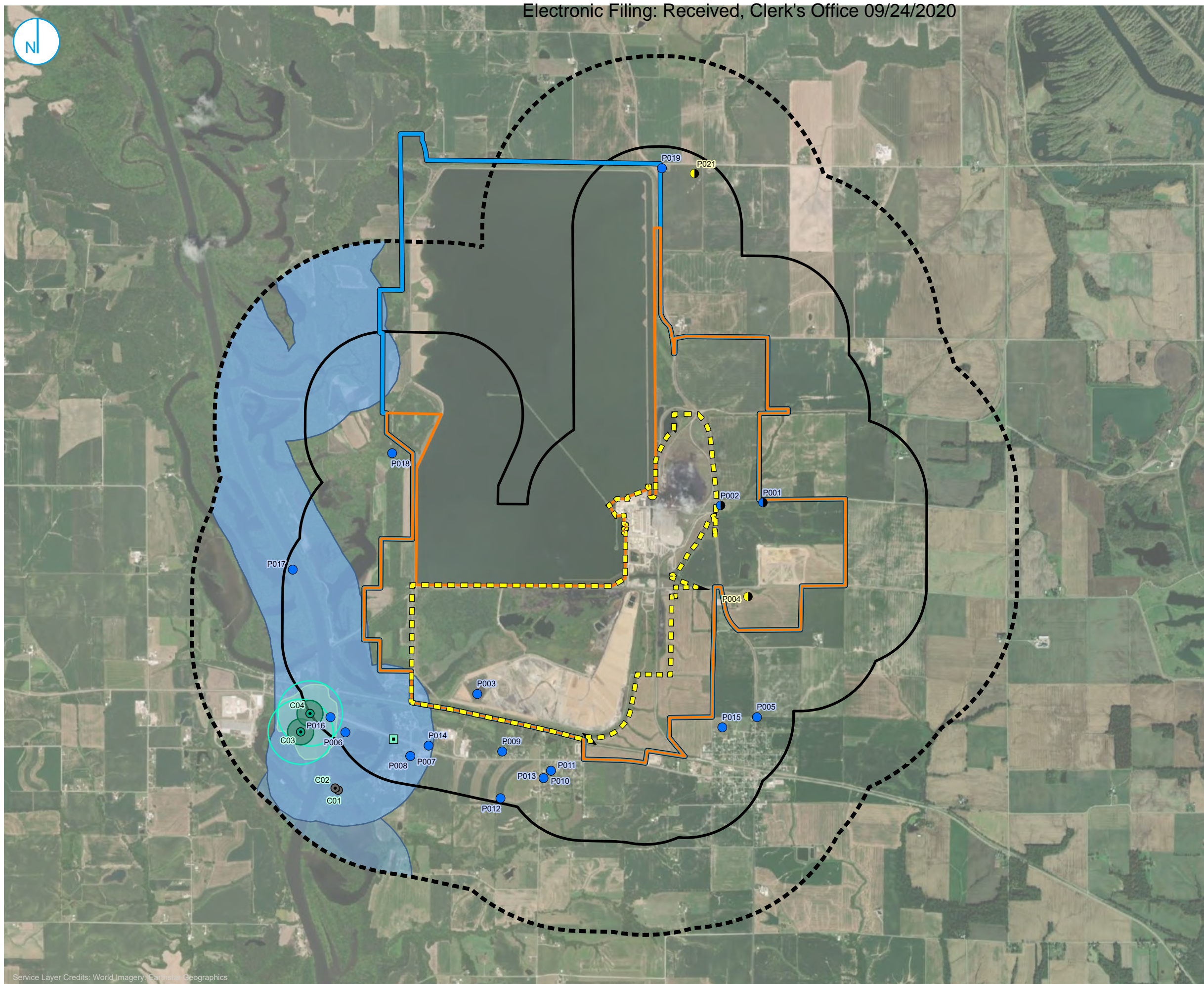
Twenty-six (26) private or semi-private wells were identified, 22 of which are located upgradient. Though the remaining four (4) wells are located potentially downgradient of the site, the wells are either unlikely to exist at the mapped location or are not used to supply drinking water. In conclusion, based on Ramboll's review of the available data, the identified wells and surface water intakes are not at risk of impact from coal ash constituents.

Well/Water Supply Survey and Evaluation
Coal-Fired Power Plants in Illinois

FIGURES



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- Boundaries**
- Owned Property Boundary
 - Search Site Boundary
 - Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- ISWS Well (*Sealed*)
 - Private and Semi-Private Well
 - Private and Semi-Private Well (*Sealed*)
 - CWS Well
 - CWS Well (*Abandoned*)
 - CWS Surface Water Intake
 - CWS Well Minimum Setback Zone
 - CWS Well Phase I WHPA
 - CWS Well Phase II WHPA
 - CWS River Intake Zone 1 Protection Area

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, ISWS/ University of Illinois Domestic Wells Database, Randolph and St. Clair Counties.

- The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information. Some domestic water wells added from the ISWS Domestic Wells database are not depicted in the figure due to the large margin of error associated with their location information. These wells are identified in the corresponding tables.

Data extracted as follows:

- ISGS Water and Related Wells - 5/1/2020 (all fields via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)
- IEPA SWAPP - 5/1/2020
- ISWS Domestic Wells Database - between 4/20/2020 and 5/18/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- ISWS = Illinois State Water Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area

0 0.25 0.5
Miles

RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

Baldwin
10901 Baldwin Road
Baldwin, Randolph and St. Clair Counties, Illinois

FIGURE 2.01-A

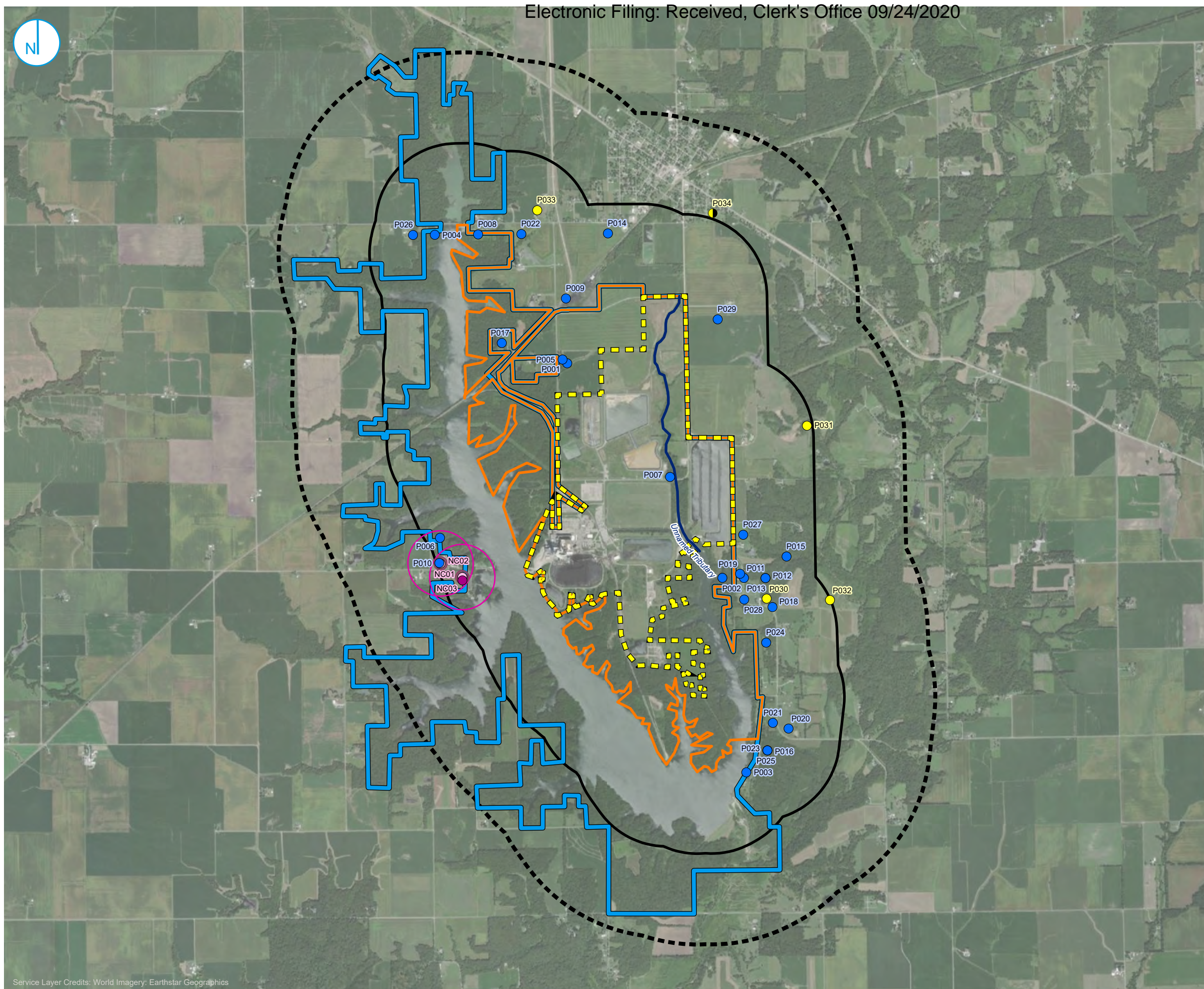
RAMBOLL US CORPORATION
A RAMBOLL COMPANY



PROJECT: 1690015671 | DATED: 9/16/2020 | DESIGNER: KBERG



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- Boundaries**
- Owned Property Boundary
 - Search Site Boundary
 - Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- ISWS Well
 - ISWS Well (*Sealed*)
 - Private and Semi-Private Well
 - Non-CWS Well
 - Non-CWS Well (*Inactive*)
 - Non-CWS Well Minimum Setback Zone
 - Non-CWS Well Phase I WHPA

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, ISWS/ University of Illinois Domestic Wells Database, Montgomery County.

- The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information. Some domestic water wells added from the ISWS Domestic Wells database are not depicted in the figure due to the large margin of error associated with their location information. These wells are identified in the corresponding tables.

Data extracted as follows:

- ISGS Water and Related Wells - 5/1/2020 (all fields via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)
- IEPA SWAPP - 5/1/2020
- ISWS Domestic Wells Database - between 4/20/2020 and 5/18/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- ISWS = Illinois State Water Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area



RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

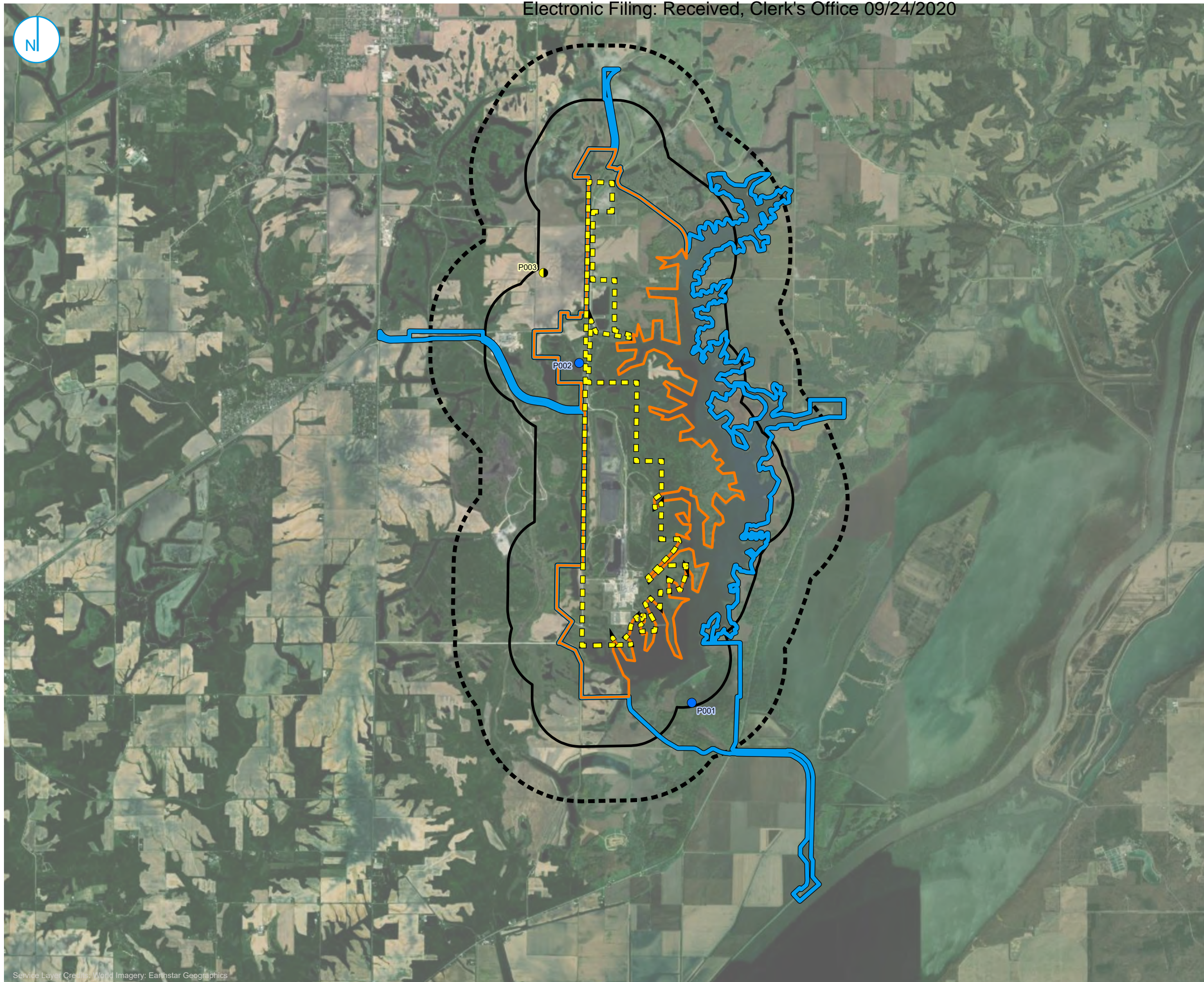
Coffeen
134 Cips Lane
East Fork Township, Montgomery County, Illinois

FIGURE 2.02-A

RAMBOLL US CORPORATION
A RAMBOLL COMPANY



PROJECT: 1690015671 | DATED: 9/16/2020 | DESIGNER: KBERG



- Boundaries**
- Owned Property Boundary
 - Search Site Boundary
 - Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- ISWS Well (Sealed)
 - Private and Semi-Private Well

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, ISWS/ University of Illinois Domestic Wells Database, Fulton County.

- The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information. Some domestic water wells added from the ISWS Domestic Wells database are not depicted in the figure due to the large margin of error associated with their location information. These wells are identified in the corresponding tables.

Data extracted as follows:

- ISGS Water and Related Wells - 5/1/2020 (all fields via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)
- IEPA SWAPP - 5/1/2020
- ISWS Domestic Wells Database - between 4/20/2020 and 5/18/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- ISWS = Illinois State Water Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area

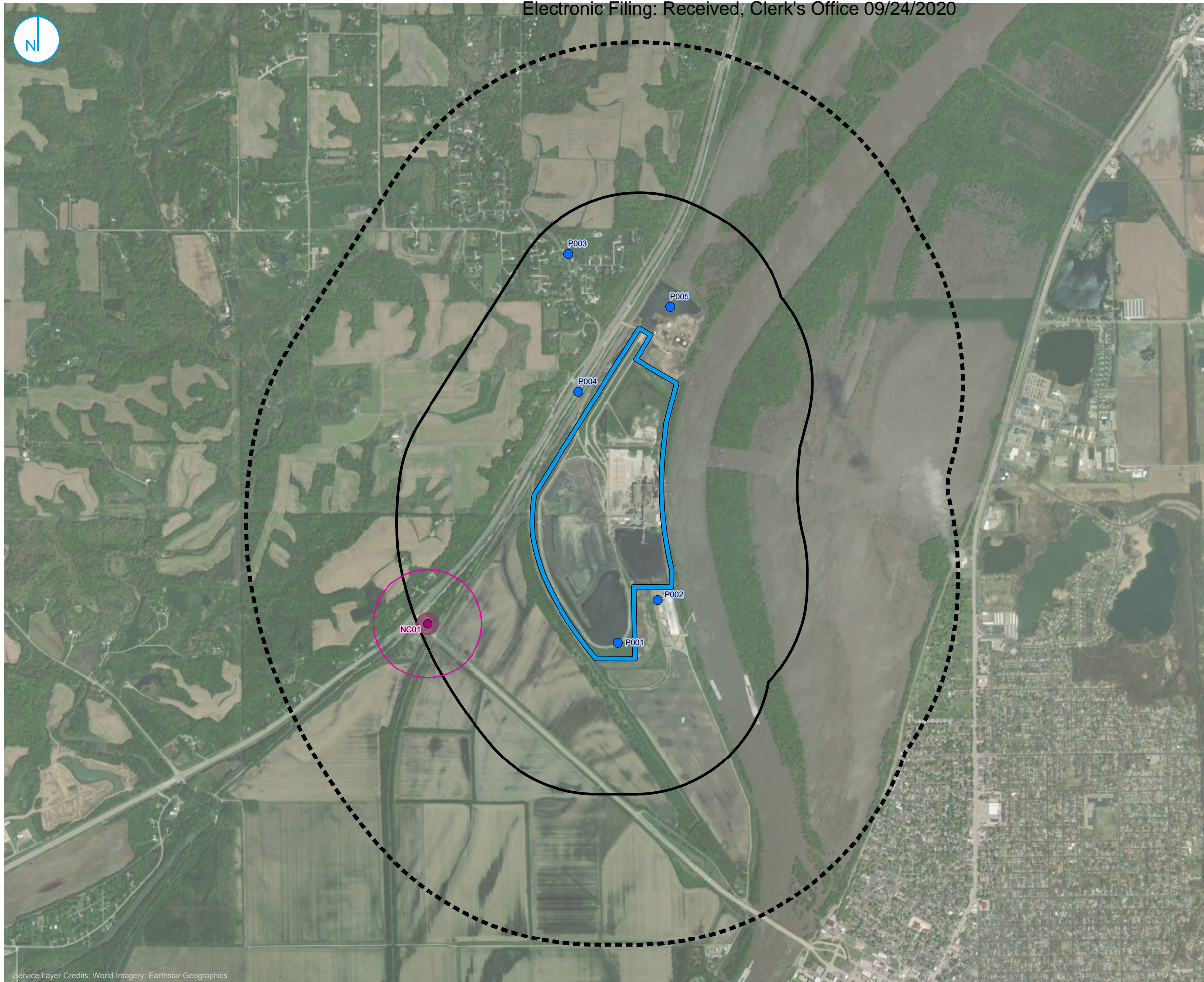


RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

Duck Creek
 17933 North Cilco Road
 Canton, Fulton County, Illinois

FIGURE 2.03-A





Boundaries

- Owned Property, Search Site, and Plant Boundary
- 2,500-Foot Search Radius
- 1-Mile Search Radius

Receptors

- Private and Semi-Private Well
- Non-CWS Well
- Non-CWS Well Minimum Setback Zone
- Non-CWS Well Phase I WHPA

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, ISWS/ University of Illinois Domestic Wells Database, Peoria County.
 • The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information. Some domestic water wells added from the ISWS Domestic Wells database are not depicted in the figure due to the large margin of error associated with their location information. These wells are identified in the corresponding tables.

Data extracted as follows:

- ISGS Water and Related Wells - 5/1/2020 (all fields via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)
- IEPA SWAPP - 5/1/2020
- ISWS Domestic Wells Database - between 4/20/2020 and 5/18/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- ISWS = Illinois State Water Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area

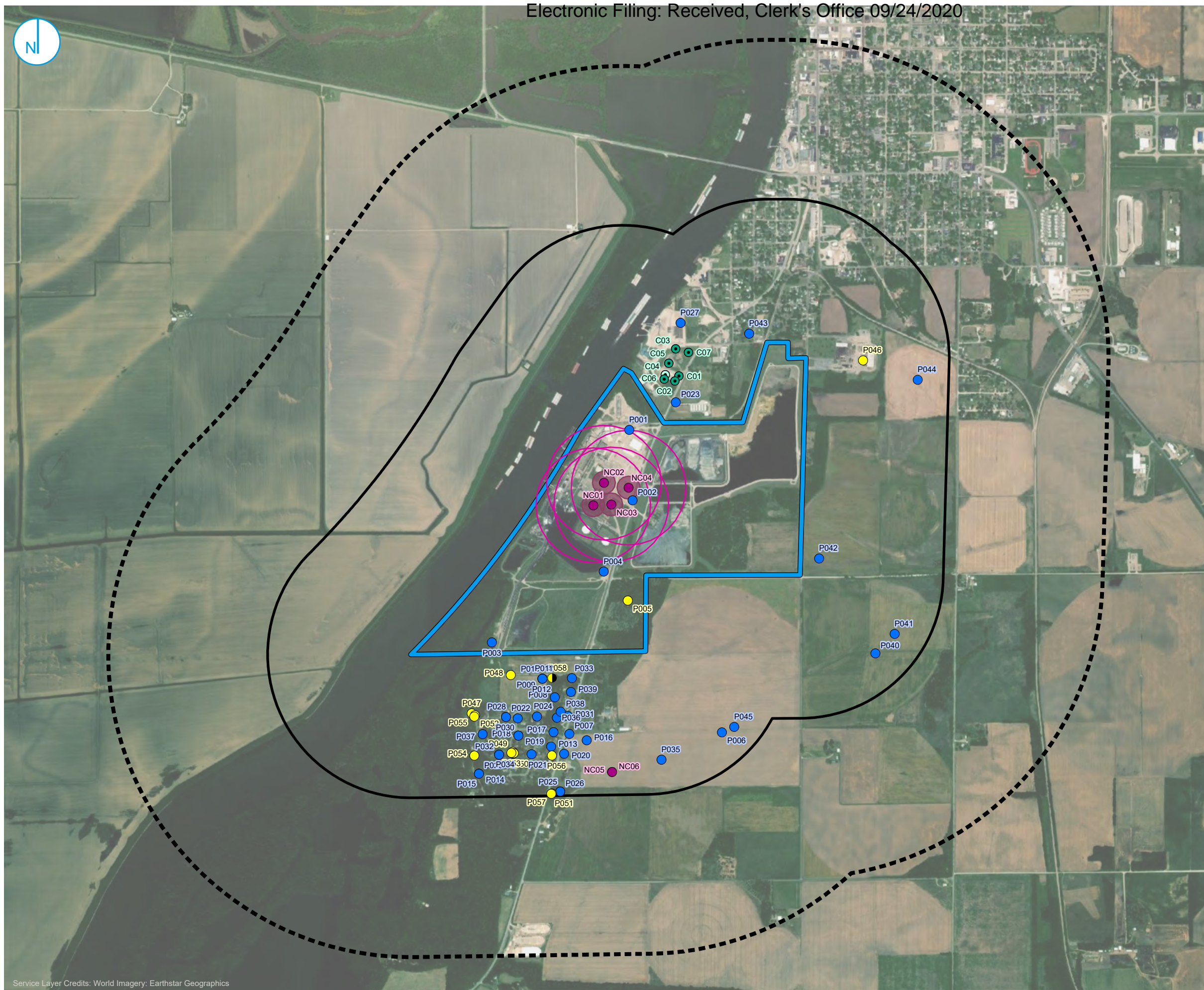


RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

Edwards
 7800 South Cilco Lane
 Bartonville, Peoria County, Illinois

FIGURE 2.04-A





- Boundaries**
- Owned Property, Search Site, and Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- ISWS Well
 - ISWS Well (Sealed)
 - Private and Semi-Private Well
 - Non-CWS Well
 - Non-CWS Well Minimum Setback Zone
 - Non-CWS Well Phase I WHPA
 - CWS Well
 - CWS Well (Inactive)

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, ISWS/ University of Illinois Domestic Wells Database, Mason County.

- The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information. Some domestic water wells added from the ISWS Domestic Wells database are not depicted in the figure due to the large margin of error associated with their location information. These wells are identified in the corresponding tables.

Data extracted as follows:

- ISGS Water and Related Wells - 5/1/2020 (all fields via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)
- IEPA SWAPP - 5/1/2020
- ISWS Domestic Wells Database - between 4/20/2020 and 5/18/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- ISWS = Illinois State Water Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area



RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

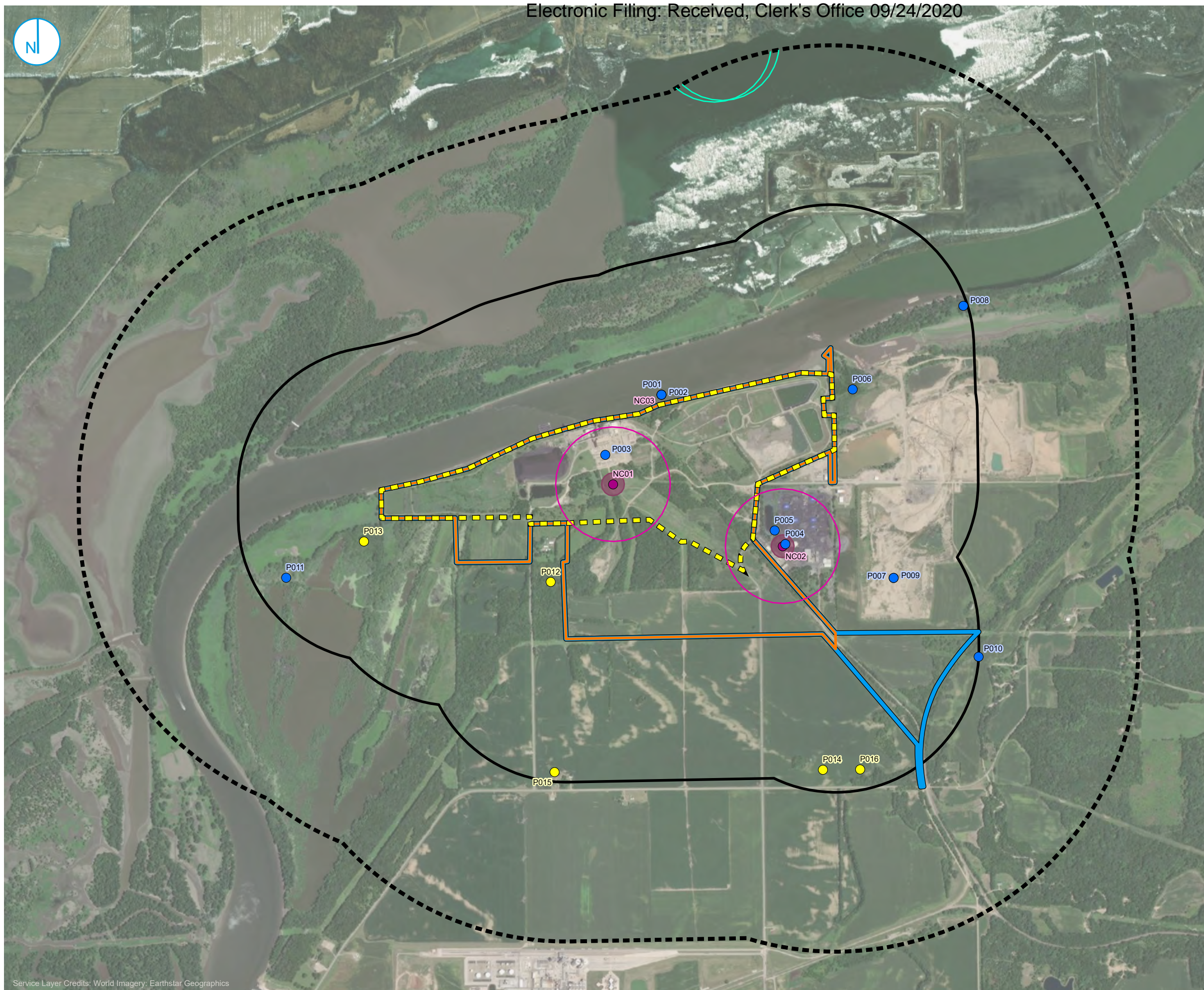
Havana
 15260 IL-78
 Havana, Mason County, Illinois

FIGURE 2.05-A





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- Boundaries**
- Owned Property Boundary
 - Search Site Boundary
 - Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- ISWS Well
 - Private and Semi-Private Well
 - Non-CWS Well
 - Non-CWS Well Minimum Setback Zone
 - Non-CWS Well Phase I WHPA
 - CWS Well Phase I WHPA

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, ISWS/ University of Illinois Domestic Wells Database, Putnam County.

- The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information. Some domestic water wells added from the ISWS Domestic Wells database are not depicted in the figure due to the large margin of error associated with their location information. These wells are identified in the corresponding tables.

Data extracted as follows:

- ISGS Water and Related Wells - 5/1/2020 (all fields via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)
- IEPA SWAPP - 5/1/2020
- ISWS Domestic Wells Database - between 4/20/2020 and 5/18/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- ISWS = Illinois State Water Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area



RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

Hennepin
 13498 East 800th Street
 Hennepin, Putnam County, Illinois

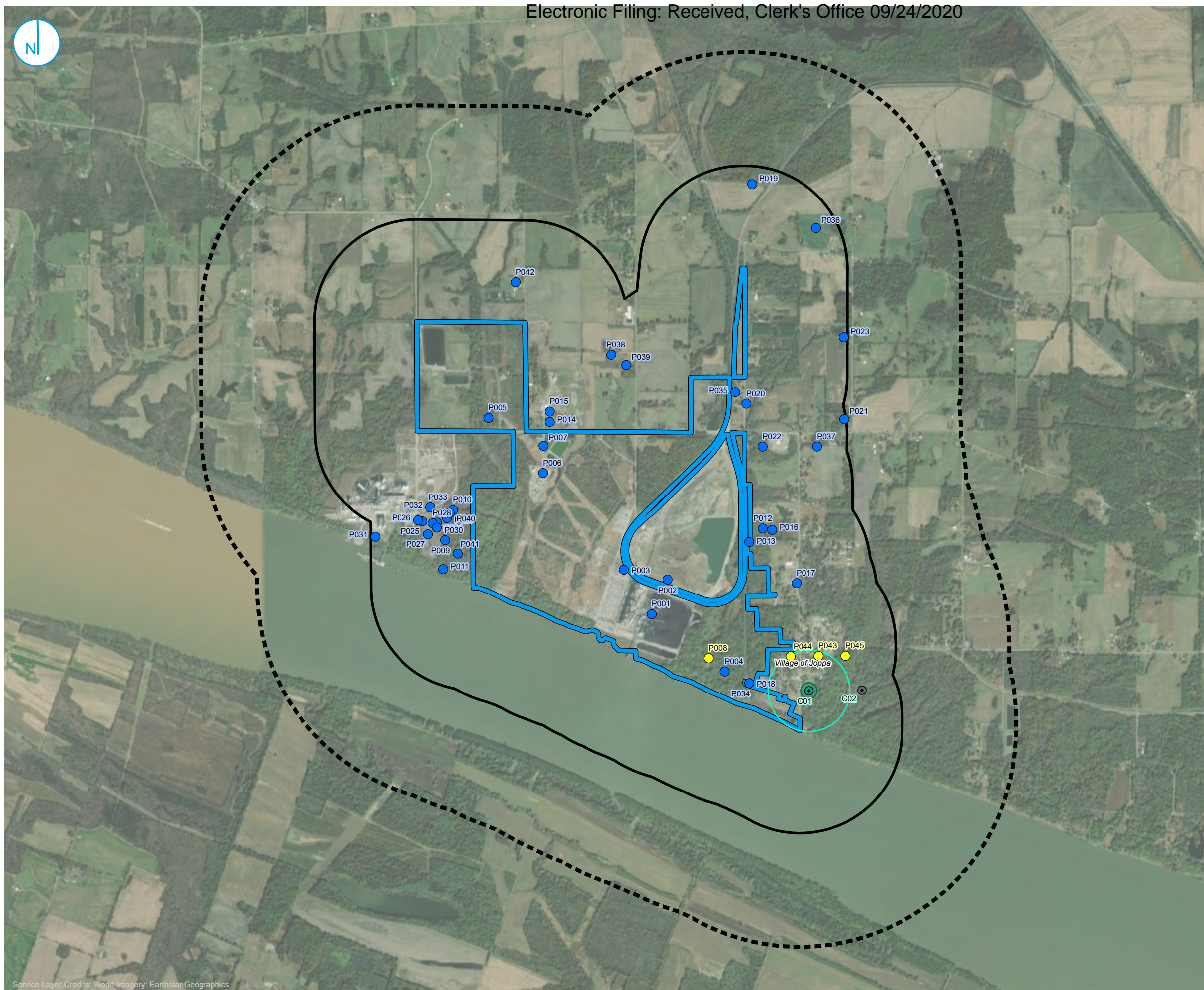
FIGURE 2.06-A

RAMBOLL US CORPORATION
 A RAMBOLL COMPANY





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- Boundaries**
- Owned Property, Search Site, and Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- ISWS Well
 - Private and Semi-Private Well
 - CWS Well
 - CWS Well (Abandoned)
 - CWS Well Minimum Setback Zone
 - CWS Well Phase I WHPA

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, ISWS/ University of Illinois Domestic Wells Database, Massac County.

- The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information. Some domestic water wells added from the ISWS Domestic Wells database are not depicted in the figure due to the large margin of error associated with their location information. These wells are identified in the corresponding tables.

Data extracted as follows:

- ISGS Water and Related Wells - 5/1/2020 (all fields via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)
- IEPA SWAPP - 5/1/2020
- ISWS Domestic Wells Database - between 4/20/2020 and 5/18/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- ISWS = Illinois State Water Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area



RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

Joppa
 2100 Portland Road
 Joppa, Massac County, Illinois

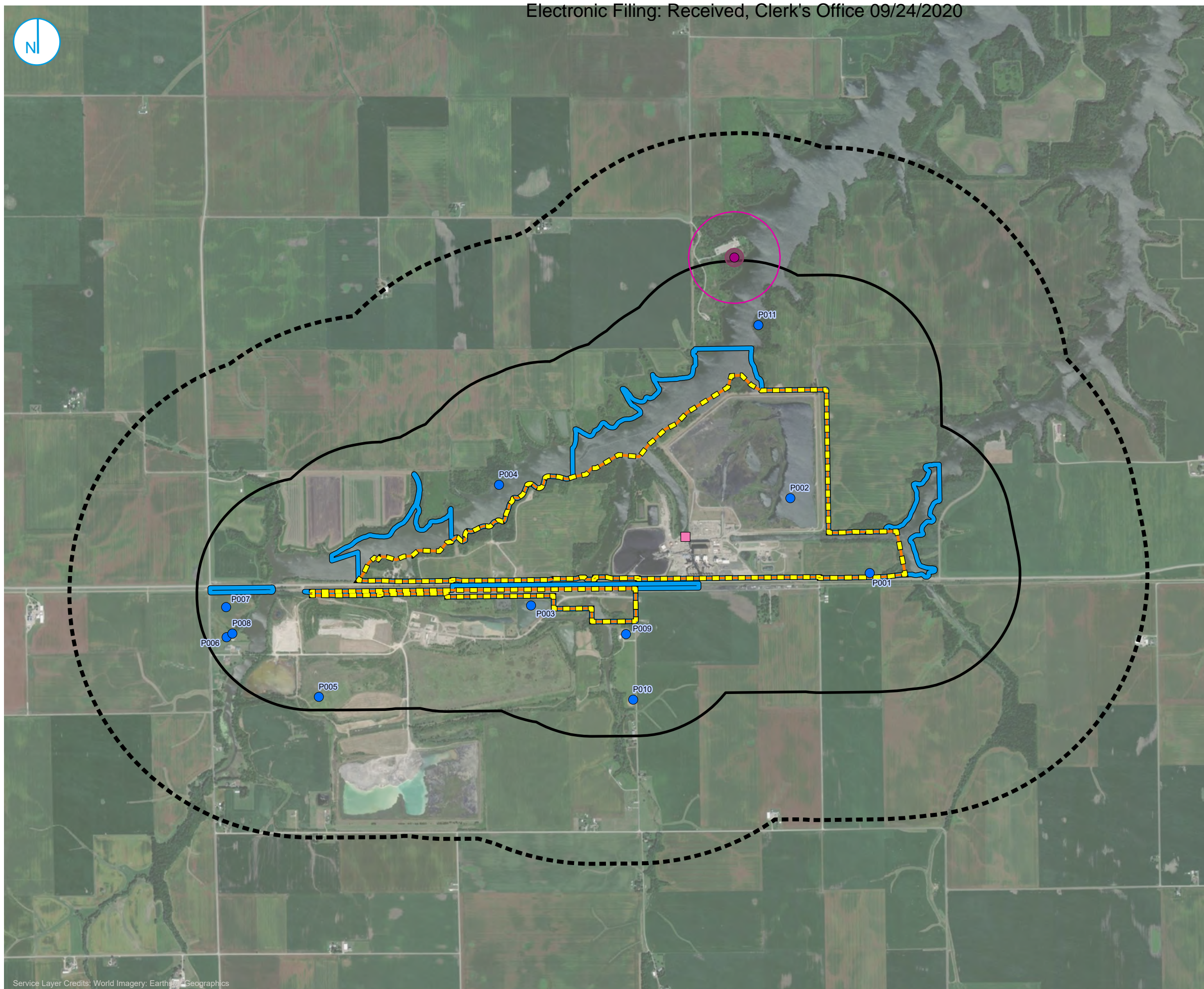
FIGURE 2.07-A

RAMBOLL US CORPORATION
 A RAMBOLL COMPANY





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- Boundaries**
- Owned Property Boundary
 - Search Site Boundary
 - Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- Private and Semi-Private Well
 - Non-CWS Well
 - Non-CWS Surface Water Intake
 - Non-CWS Well Minimum Setback Zone
 - Non-CWS Well Phase I WHPA

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, ISWS/ University of Illinois Domestic Wells Database, Christian County.

- The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information. Some domestic water wells added from the ISWS Domestic Wells database are not depicted in the figure due to the large margin of error associated with their location information. These wells are identified in the corresponding tables.

Data extracted as follows:

- ISGS Water and Related Wells - 5/1/2020 (all fields via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)
- IEPA SWAPP - 5/1/2020
- ISWS Domestic Wells Database - between 4/20/2020 and 5/18/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- ISWS = Illinois State Water Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area



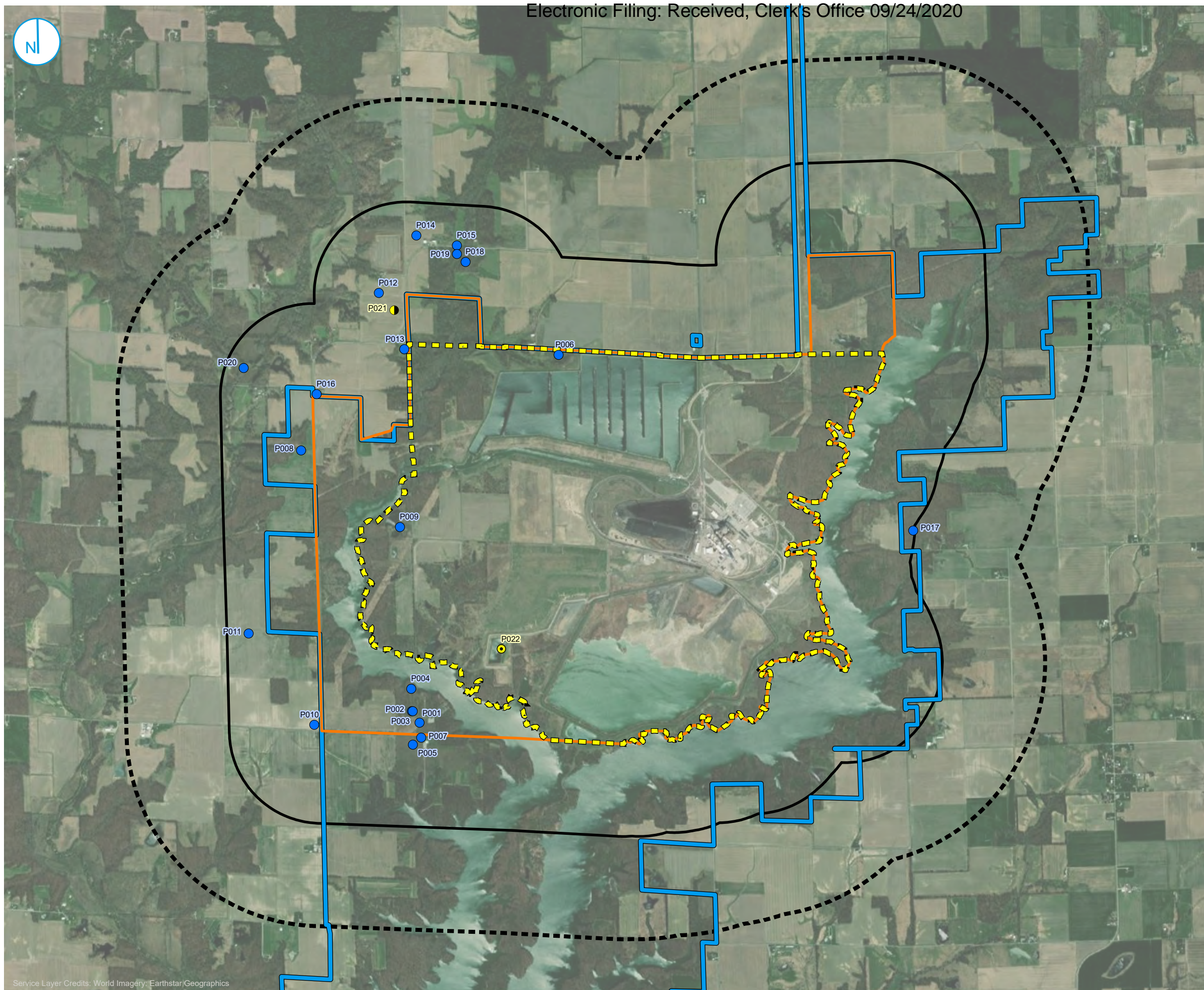
RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

Kincaid
 199 IL-104
 Kincaid, Christian County, Illinois

FIGURE 2.08-A

RAMBOLL US CORPORATION
 A RAMBOLL COMPANY





- Boundaries**
- Owned Property Boundary
 - Search Site Boundary
 - Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- ISWS Well (Plugged)
 - ISWS Well (Sealed)
 - Private and Semi-Private Well

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, ISWS/ University of Illinois Domestic Wells Database, Jasper County.

- The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information. Some domestic water wells added from the ISWS Domestic Wells database are not depicted in the figure due to the large margin of error associated with their location information. These wells are identified in the corresponding tables.

Data extracted as follows:

- ISGS Water and Related Wells - 5/1/2020 (all fields via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)
- IEPA SWAPP - 5/1/2020
- ISWS Domestic Wells Database - between 4/20/2020 and 5/18/2020
- Some owned property to the north and south is not depicted here.

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- ISWS = Illinois State Water Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area

0 0.25 0.5
Miles

RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

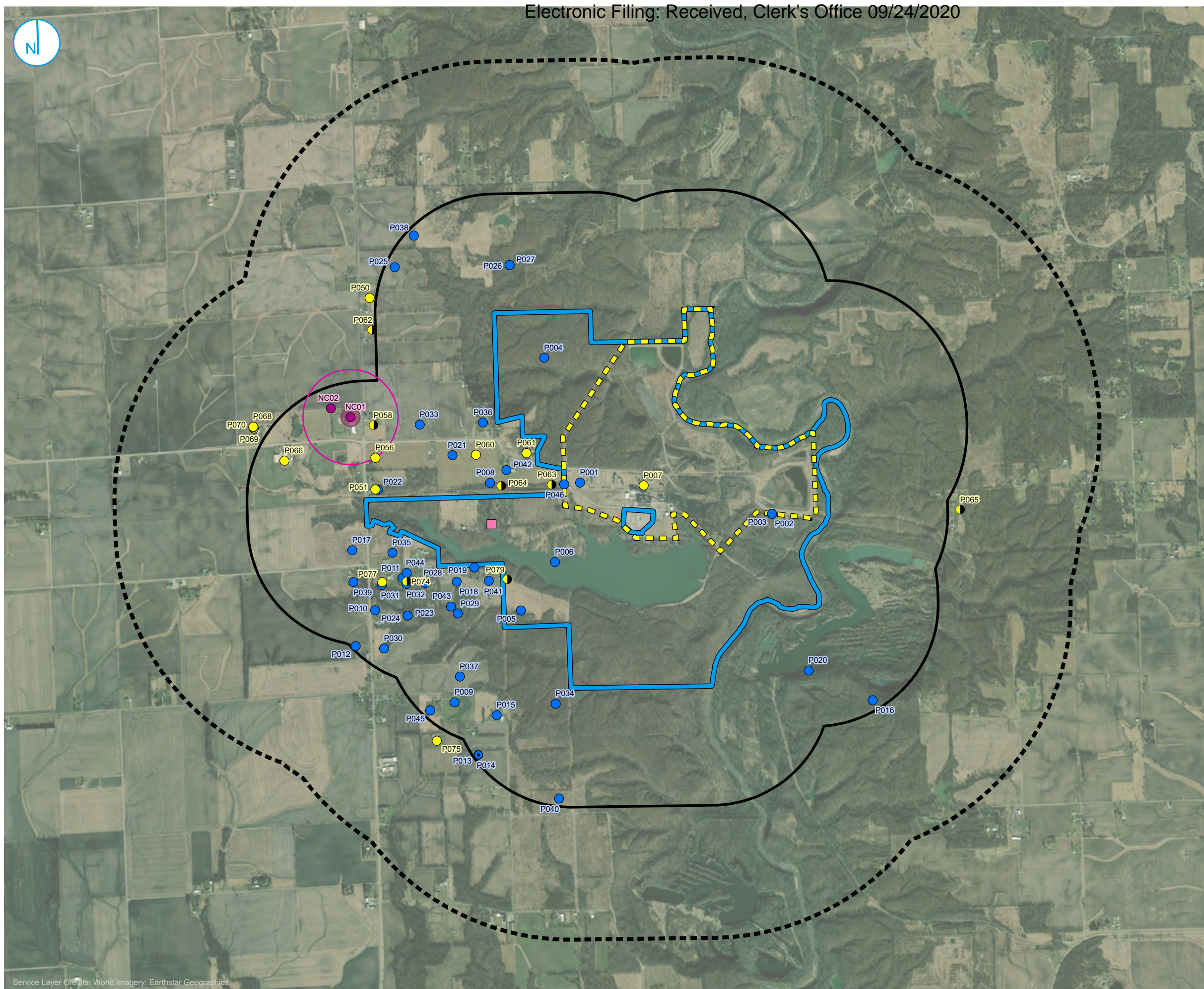
Newton
6725 North 500th Street
Newton, Jasper County, Illinois

FIGURE 2.09-A





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- Boundaries**
- Owned Property and Search Site
 - Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- ISWS Well
 - ISWS Well (Sealed)
 - Private and Semi-Private Well
 - Private and Semi-Private Well (Plugged)
 - Non-CWS Well
 - Non-CWS Surface Water Intake
 - Non-CWS Well Minimum Setback Zone
 - Non-CWS Well Phase I WHPA

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, ISWS/ University of Illinois Domestic Wells Database, Vermilion County.

- The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information. Some domestic water wells added from the ISWS Domestic Wells database are not depicted in the figure due to the large margin of error associated with their location information. These wells are identified in the corresponding tables.

Data extracted as follows:

- ISGS Water and Related Wells - 5/1/2020 (all fields via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)
- IEPA SWAPP - 5/1/2020
- ISWS Domestic Wells Database - between 4/20/2020 and 5/18/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- ISWS = Illinois State Water Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area



RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

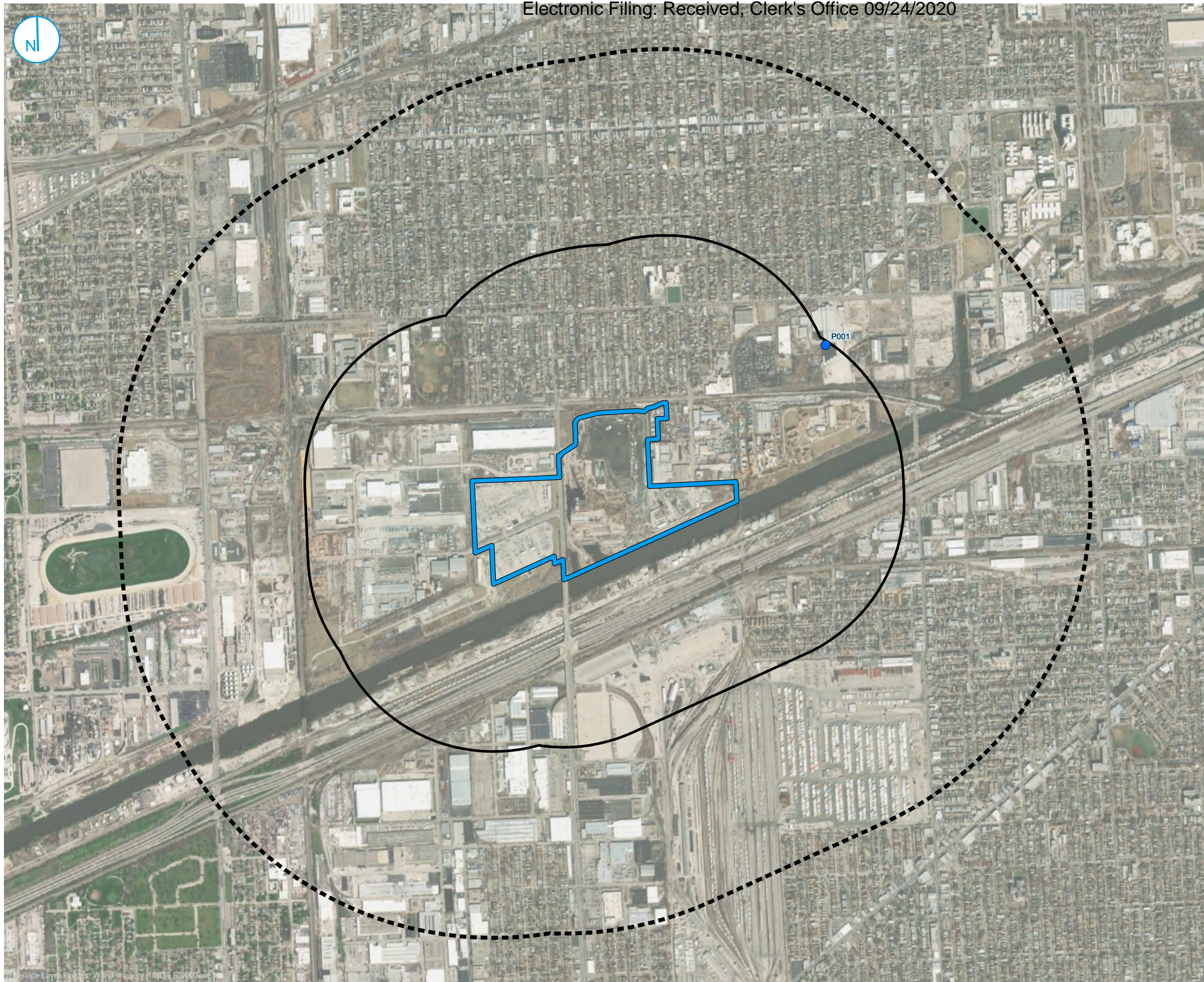
Vermilion
 10188 East 2150 North Road
 Oakwood, Vermilion County, Illinois

FIGURE 2.10-A

RAMBOLL US CORPORATION
 A RAMBOLL COMPANY



PROJECT: 1690015671 | DATED: 9/16/2020 | DESIGNER: KBERG



Boundaries

Owned Property, Search Site, and Plant Boundary

2,500-Foot Search Radius

1-Mile Search Radius

Receptors

Private and Semi-Private Well

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, Cook County.
• The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information.

Data Extraction: ISGS Water and Related Wells - ISGS Water and Related Wells - 6/24/2020 (all fields via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application); IEPA SWAPP - 6/24/2020

Acronyms:

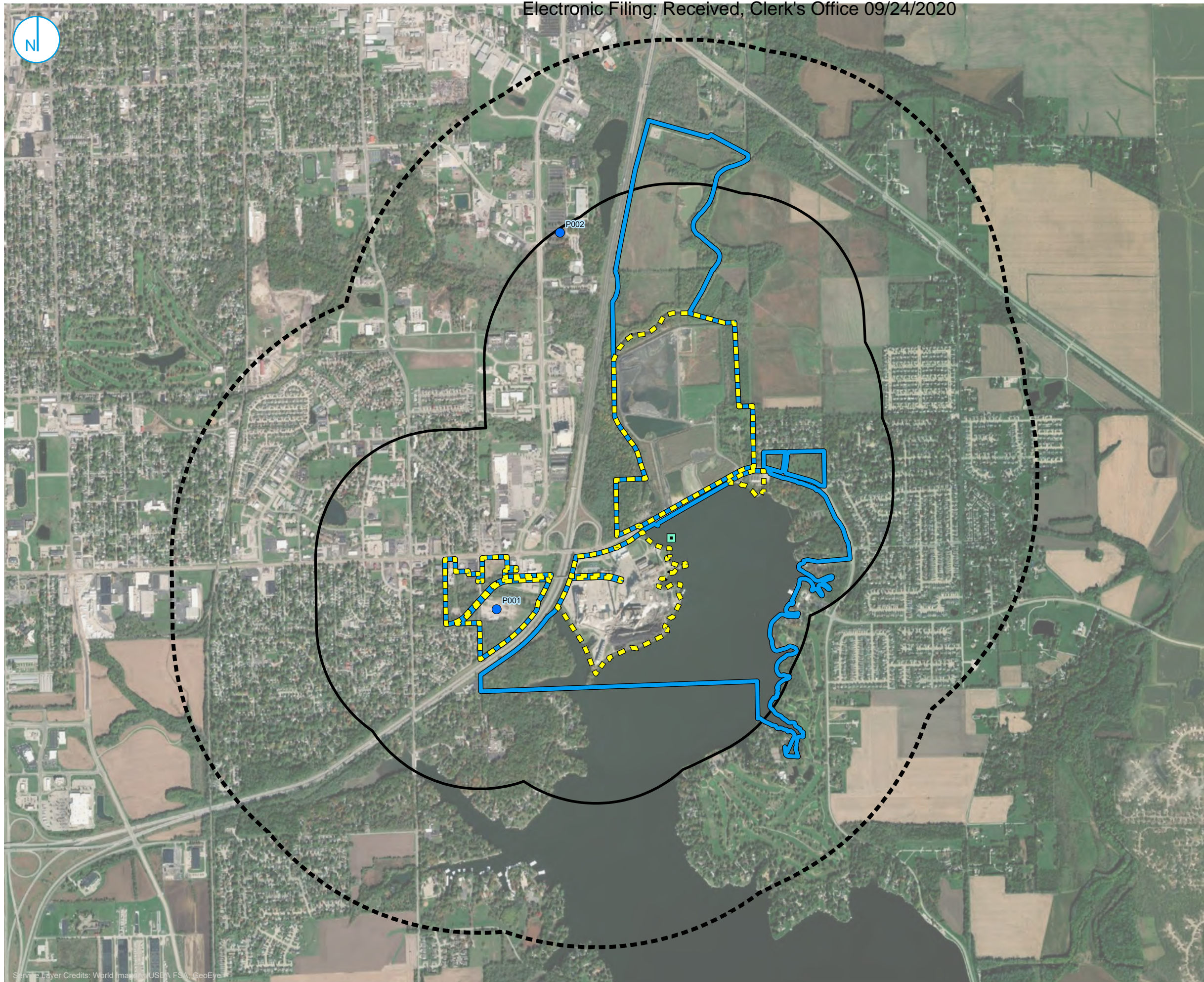
- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area



RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

Crawford
South Pulaski Road
Chicago, Cook County, Illinois

FIGURE 3.01-A



- Boundaries**
- Owned Property Boundary
 - Search Site and Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- Private and Semi-Private Well
 - CWS Surface Water Intake

Notes
Data Sources: ISGS Water and Related Wells, IEPA SWAPP, Sangamon County.
 • The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information.
Data Extraction: ISGS Water and Related Wells - ISGS Water and Related Wells - 6/24/2020 (all fields via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application); IEPA SWAPP - 6/24/2020
Acronyms:
 • CWS = Community Water System
 • ISGS = Illinois State Geological Survey
 • IEPA = Illinois Environmental Protection Agency
 • SWAPP = Source Water Assessment Protection Program
 • WHPA = Wellhead Protection Area

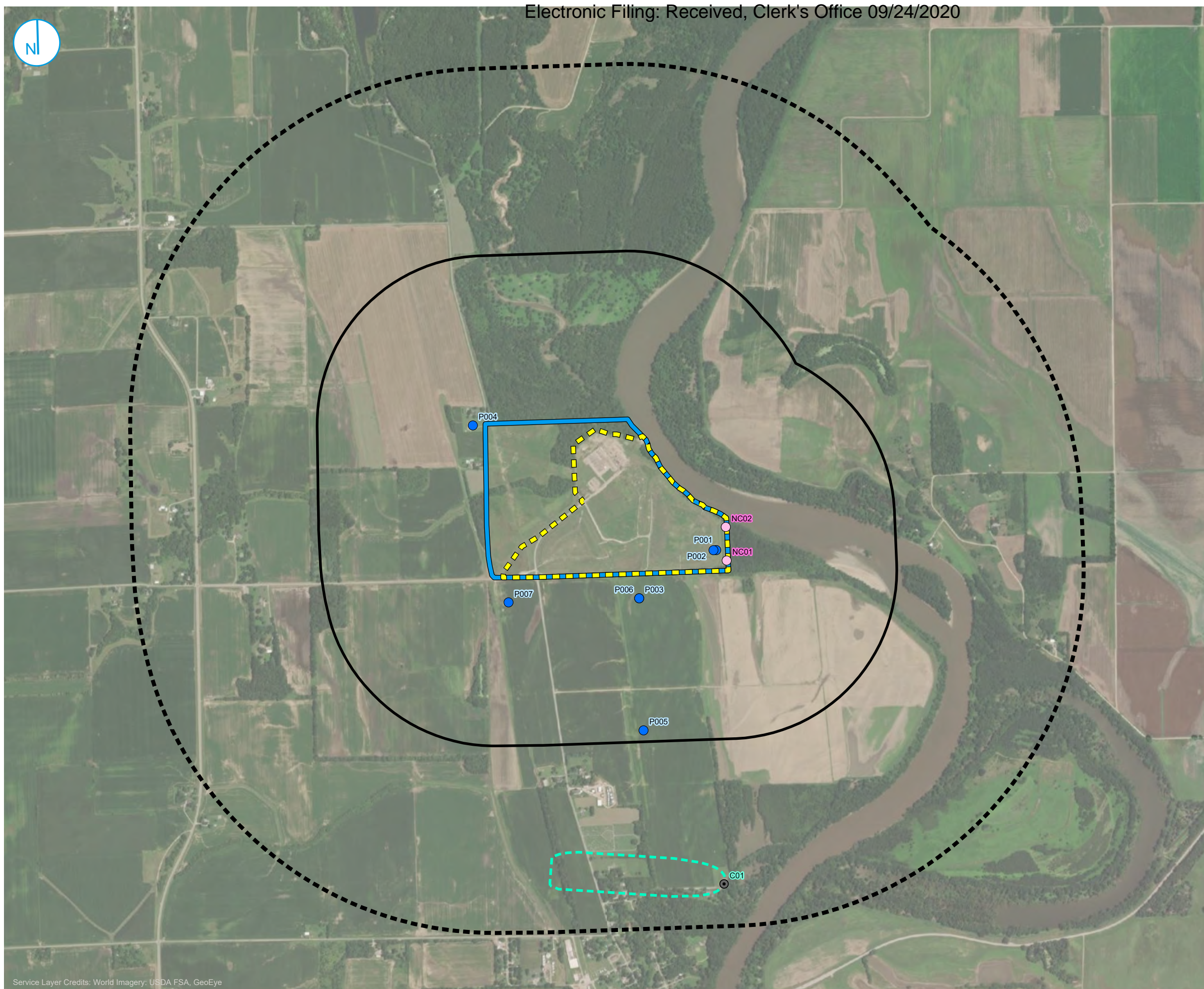


RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

Dallman/Lakeside
 3100 Adlai Stevenson Drive
 Springfield, Sangamon County, Illinois

FIGURE 3.02-A





- Boundaries**
- Owned Property and Search Site
 - Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- Private and Semi-Private Well
 - Non-CWS Well (*Inactive*)
 - CWS Well (*Abandoned*)
 - CWS Well Adopted Maximum Setback Zone

Notes
 Data Sources: ISGS Water and Related Wells, IEPA SWAPP, Crawford County.
 • The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information.
 Data Extraction: ISGS Water and Related Wells - ISGS Water and Related Wells - 6/24/2020 (all fields via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application); IEPA SWAPP - 6/24/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area



RECEPTOR SURVEY
 WELLS AND SURFACE WATER INTAKES
 WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

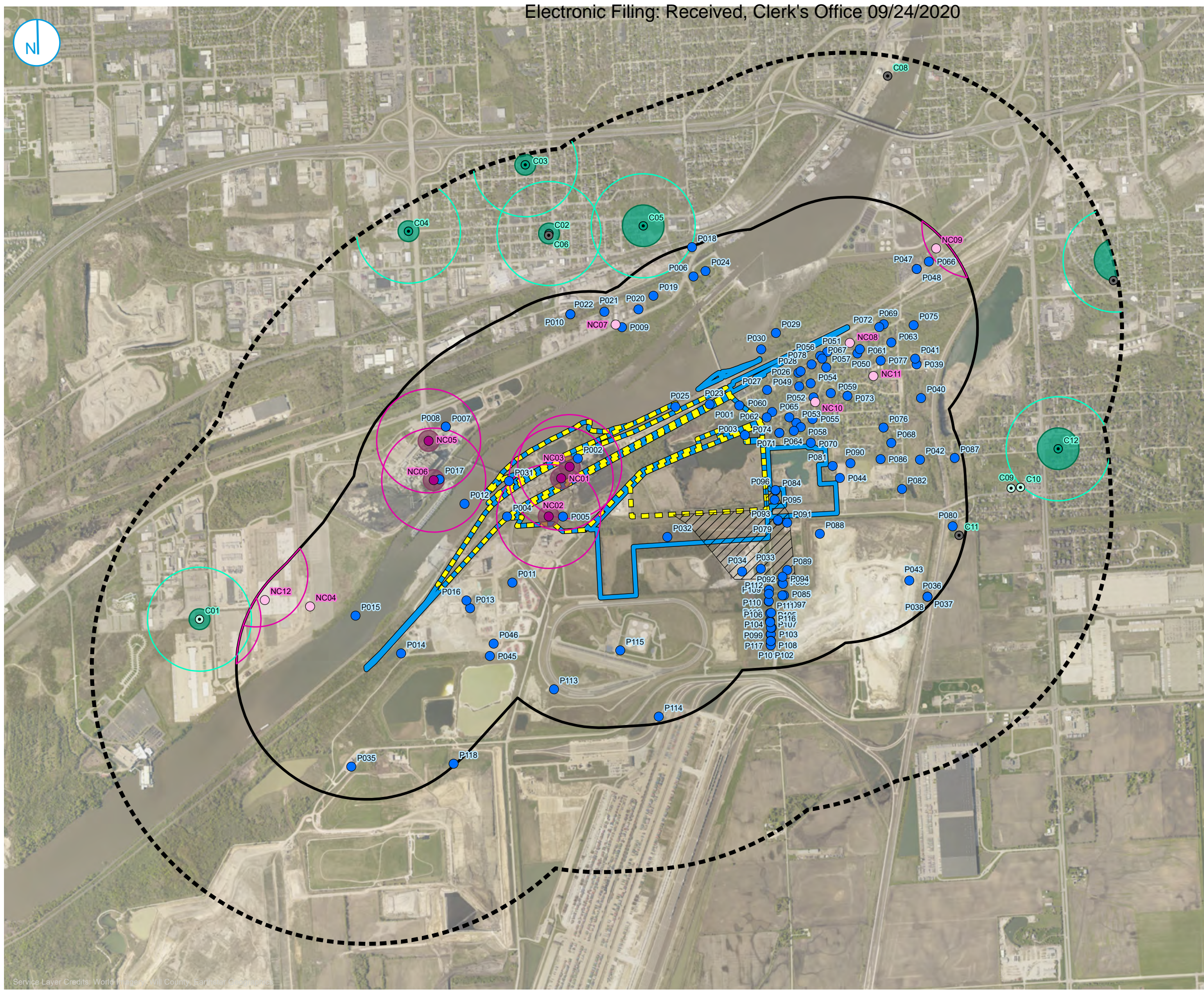
Hutsonville
 15142 East 1900th Avenue
 Hutsonville, Crawford County, Illinois

FIGURE 3.03-A





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- Boundaries**
- Owned Property and Search Site
 - Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- Private and Semi-Private Well
 - Non-CWS Well
 - Non-CWS Well (Inactive)
 - Non-CWS Well Minimum Setback Zone
 - Non-CWS Well Phase I WHPA
 - CWS Well
 - CWS Well (Abandoned)
 - CWS Well (Inactive)
 - CWS Well Minimum Setback Zone
 - CWS Well Phase I WHPA
- Miscellaneous**
- Groundwater Management Zone

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, Will County.

- The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information.

Data Extraction: ISGS Water and Related Wells - ISGS Water and Related Wells - 6/24/2020 (all fields via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application); IEPA SWAPP - 6/24/2020

- Groundwater flowing to the south and southeast from the Lincoln Stone Quarry is caused by dewatering operations performed at the quarry located to the southeast of the site.

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area

0 0.25 0.5 Miles

**RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE
(CWS) OF THE SITE**

Joliet 9
1601 South Patterson Road
Joliet, Will County, Illinois

FIGURE 3.04-A

RAMBOLL US CORPORATION
A RAMBOLL COMPANY

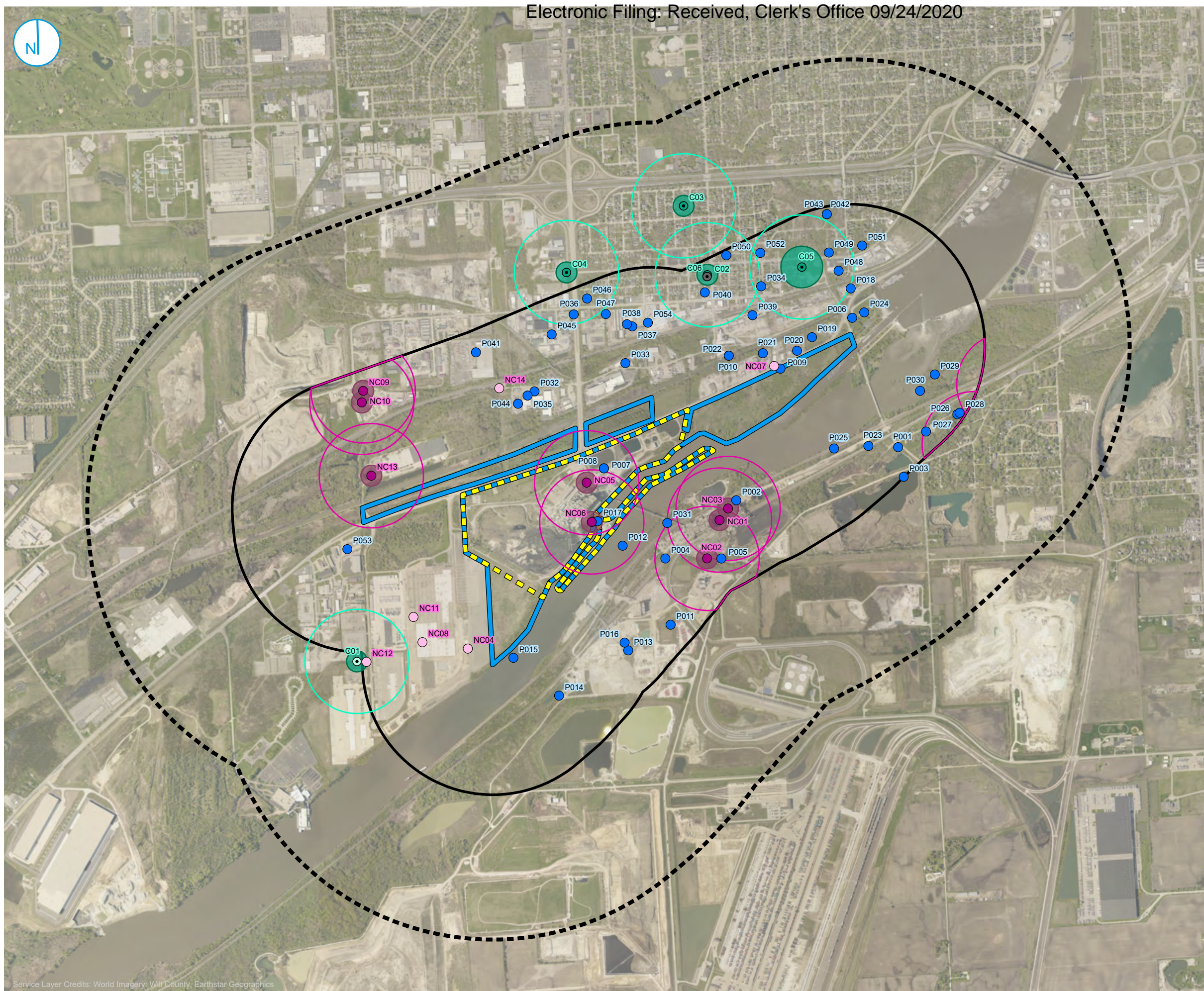


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Service Layer Credits: World Imagery, Will County, Earthstar Geo Services



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- Boundaries**
- Owned Property and Search Site
 - Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- Private and Semi-Private Well
 - Non-CWS Well
 - Non-CWS Well (Inactive)
 - Non-CWS Well Minimum Setback Zone
 - Non-CWS Well Phase I WHPA
 - CWS Well
 - CWS Well (Abandoned)
 - CWS Well (Inactive)
 - CWS Well Minimum Setback Zone
 - CWS Well Phase I WHPA

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, Will County.

- The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information.

Data Extraction: ISGS Water and Related Wells - ISGS Water and Related Wells - 6/24/2020 (all fields via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application); IEPA SWAPP - 6/24/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area



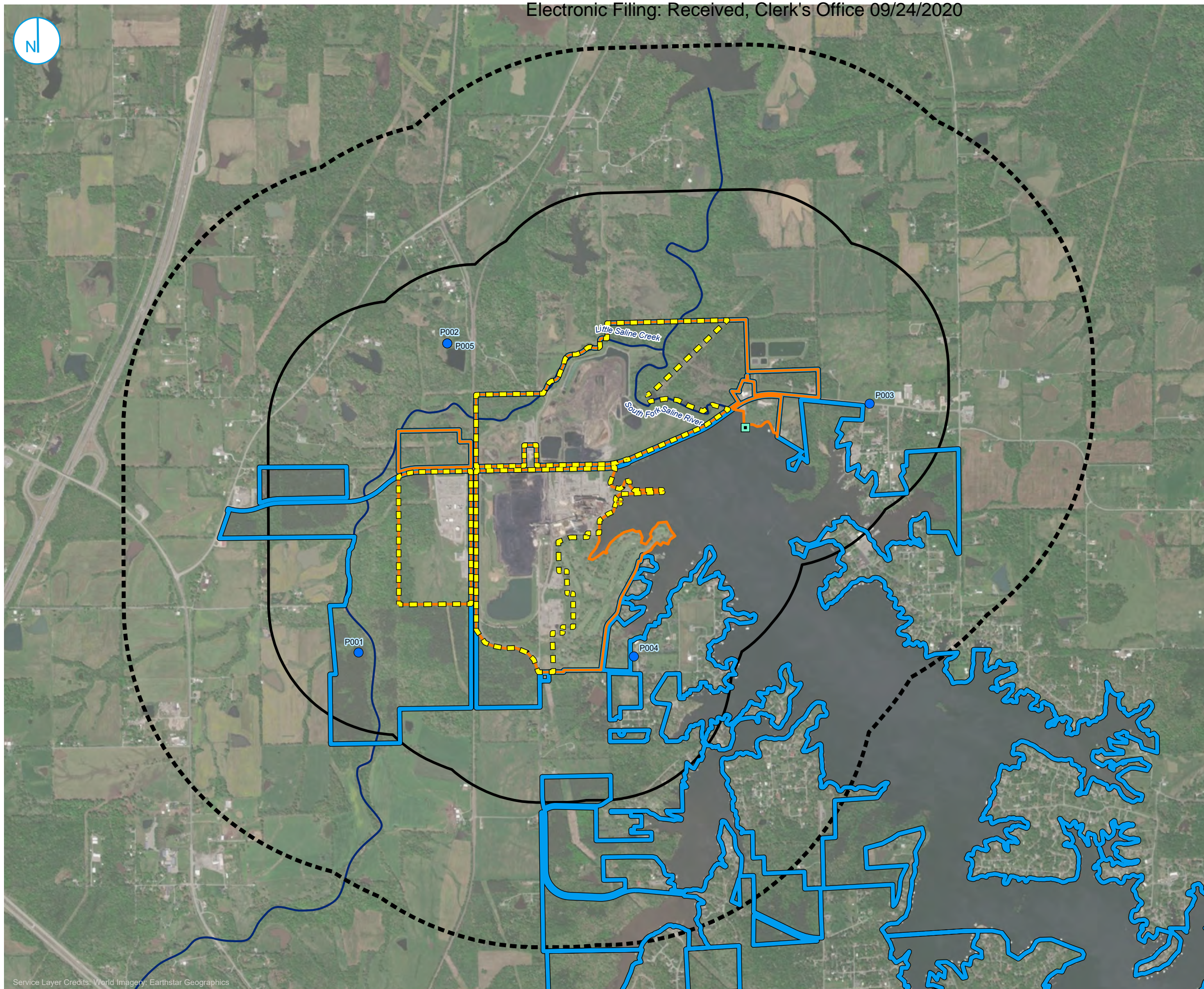
RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

Joliet 29
 1800 Channahon Road
 Joliet, Will County, Illinois

FIGURE 3.05-A

RAMBOLL US CORPORATION
 A RAMBOLL COMPANY





- Boundaries**
- Owned Property Boundary
 - Search Site Boundary
 - Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- Private and Semi-Private Well
 - CWS Surface Water Intake

Notes
Data Sources: ISGS Water and Related Wells, IEPA SWAPP, Williamson County.
 • The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information.
Data Extraction: ISGS Water and Related Wells - ISGS Water and Related Wells - 6/24/2020 (all fields via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application); IEPA SWAPP - 6/24/2020
 • Some owned property to the south is not depicted here.
Acronyms:
 • CWS = Community Water System
 • ISGS = Illinois State Geological Survey
 • IEPA = Illinois Environmental Protection Agency
 • SWAPP = Source Water Assessment Protection Program
 • WHPA = Wellhead Protection Area



RECEPTOR SURVEY
 WELLS AND SURFACE WATER INTAKES
 WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

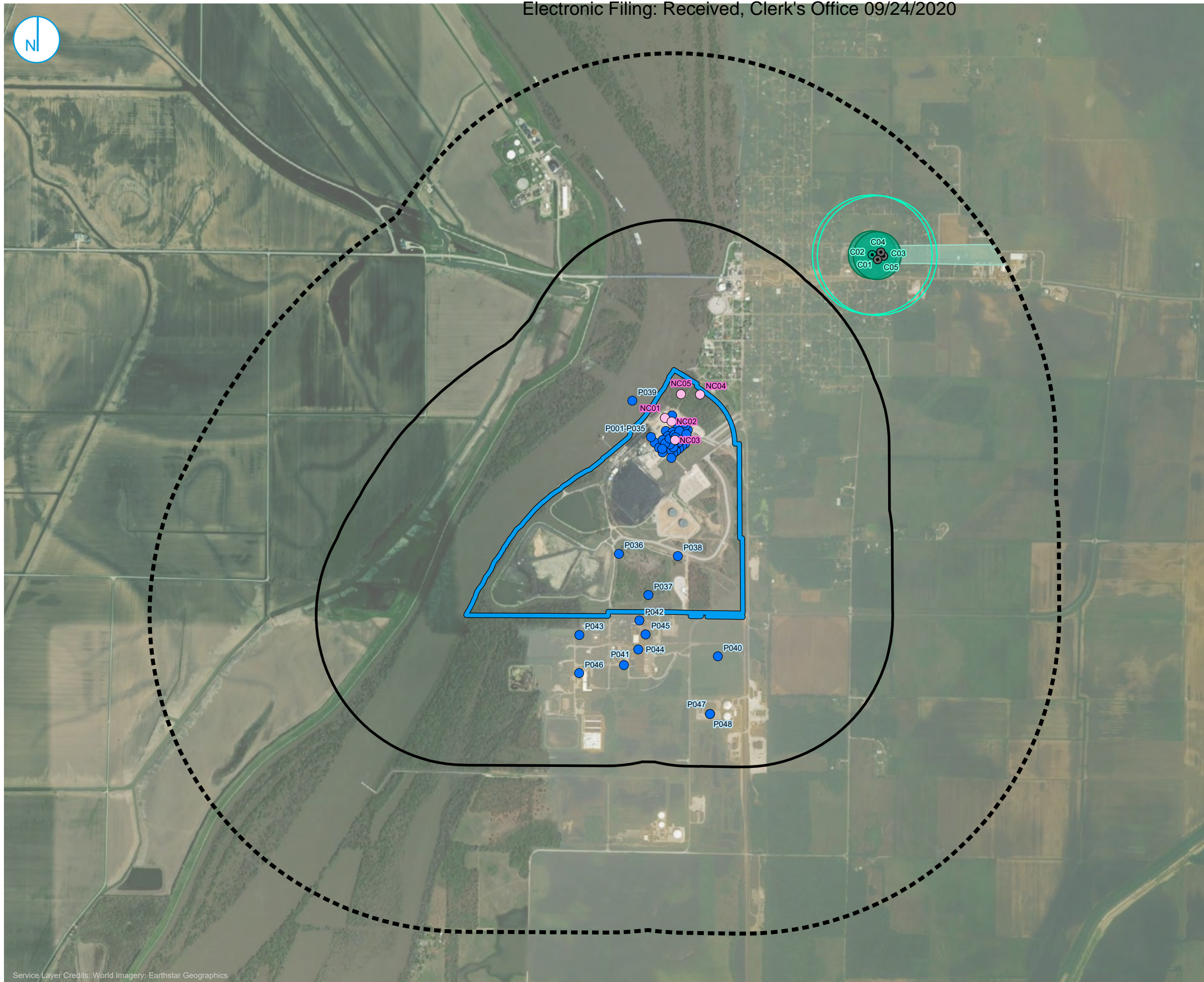
Marion
 10825 Lake Egypt Road
 Marion, Williamson County, Illinois

FIGURE 3.06-A





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Boundaries

Owned Property, Search Site, and Plant Boundary

2,500-Foot Search Radius

1-Mile Search Radius

Receptors

Private and Semi-Private Well

Non-CWS Well (*Inactive*)

CWS Well

CWS Well (*Abandoned*)

CWS Well Minimum Setback Zone

CWS Well Phase I WHPA

CWS Well Phase II WHPA

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, Morgan County.

• The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information.

Data Extraction: ISGS Water and Related Wells - ISGS Water and Related Wells - 6/24/2020 (all fields via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application); IEPA SWAPP - 6/24/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area



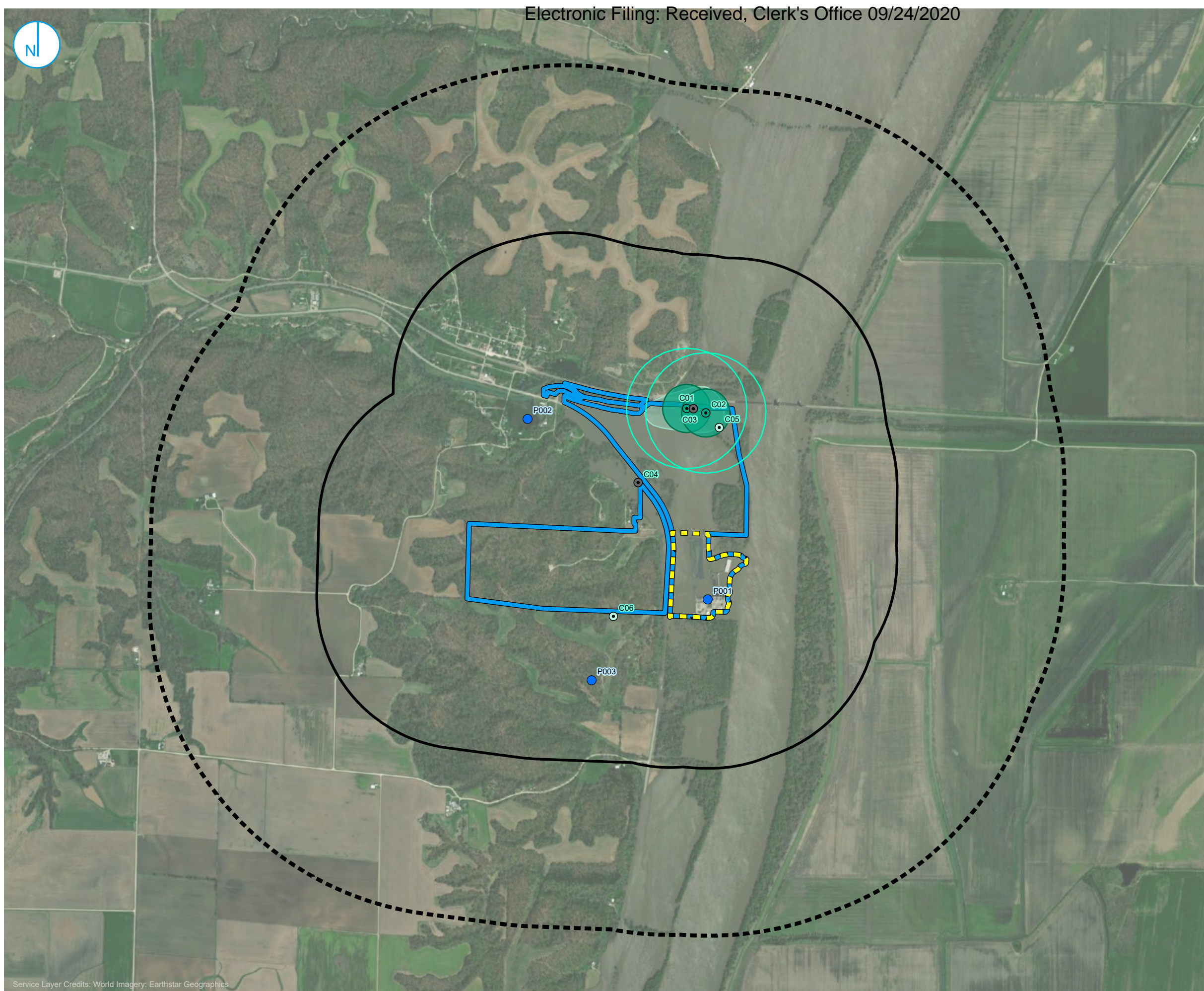
RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

Meredosia
800 South Washington Street
Meredosia, Morgan County, Illinois

FIGURE 3.07-A

RAMBOLL US CORPORATION
A RAMBOLL COMPANY





- Boundaries**
- Owned Property and Search Site
 - Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- Private and Semi-Private Well
 - CWS Well
 - CWS Well (Abandoned)
 - CWS Well (Inactive)
 - CWS Well Minimum Setback Zone
 - CWS Well Phase I WHPA
 - CWS Well Phase II WHPA

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, Pike County.

- The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information.

Data Extraction: ISGS Water and Related Wells - ISGS Water and Related Wells - 6/24/2020 (all fields via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application); IEPA SWAPP - 6/24/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area



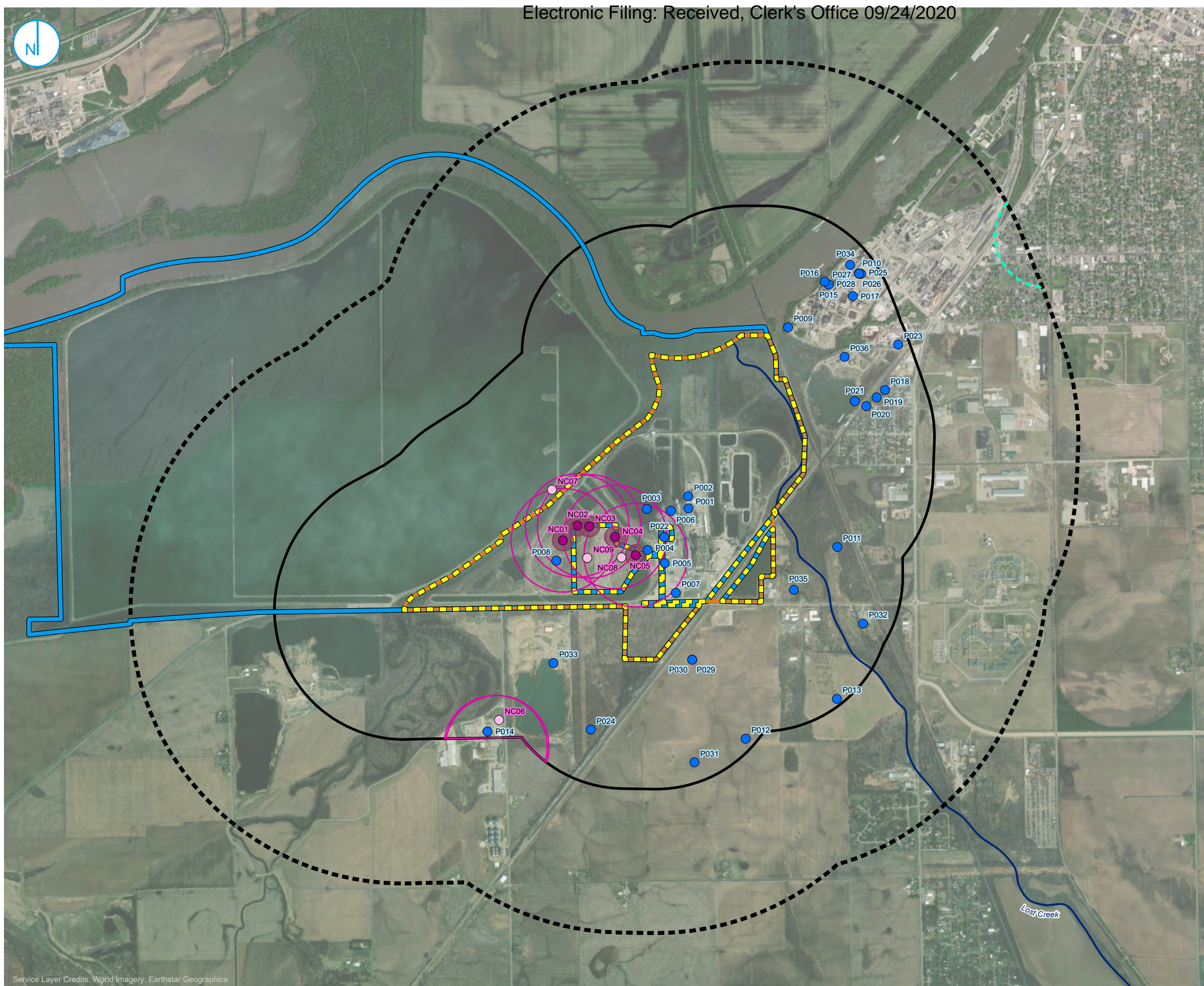
RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

Pearl
 13747 State Highway 100
 Pearl, Pike County, Illinois

FIGURE 3.08-A



PROJECT: 1690015671 | DATED: 9/17/2020 | DESIGNER: KBERG



Boundaries

- Owned Property Boundary
- Search Site Boundary
- Plant Boundary
- 2,500-Foot Search Radius
- 1-Mile Search Radius

Receptors

- Private and Semi-Private Well
- Non-CWS Well
- Non-CWS Well (Inactive)
- Non-CWS Well Minimum Setback Zone
- Non-CWS Well Phase I WHPA
- CWS Well Adopted Maximum Setback Zone

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, Tazewell County.

- The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information.

Data Extraction: ISGS Water and Related Wells - ISGS Water and Related Wells - 6/24/2020 (all fields via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application); IEPA SWAPP - 6/24/2020

- Some owned property to the West is not depicted here.

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area



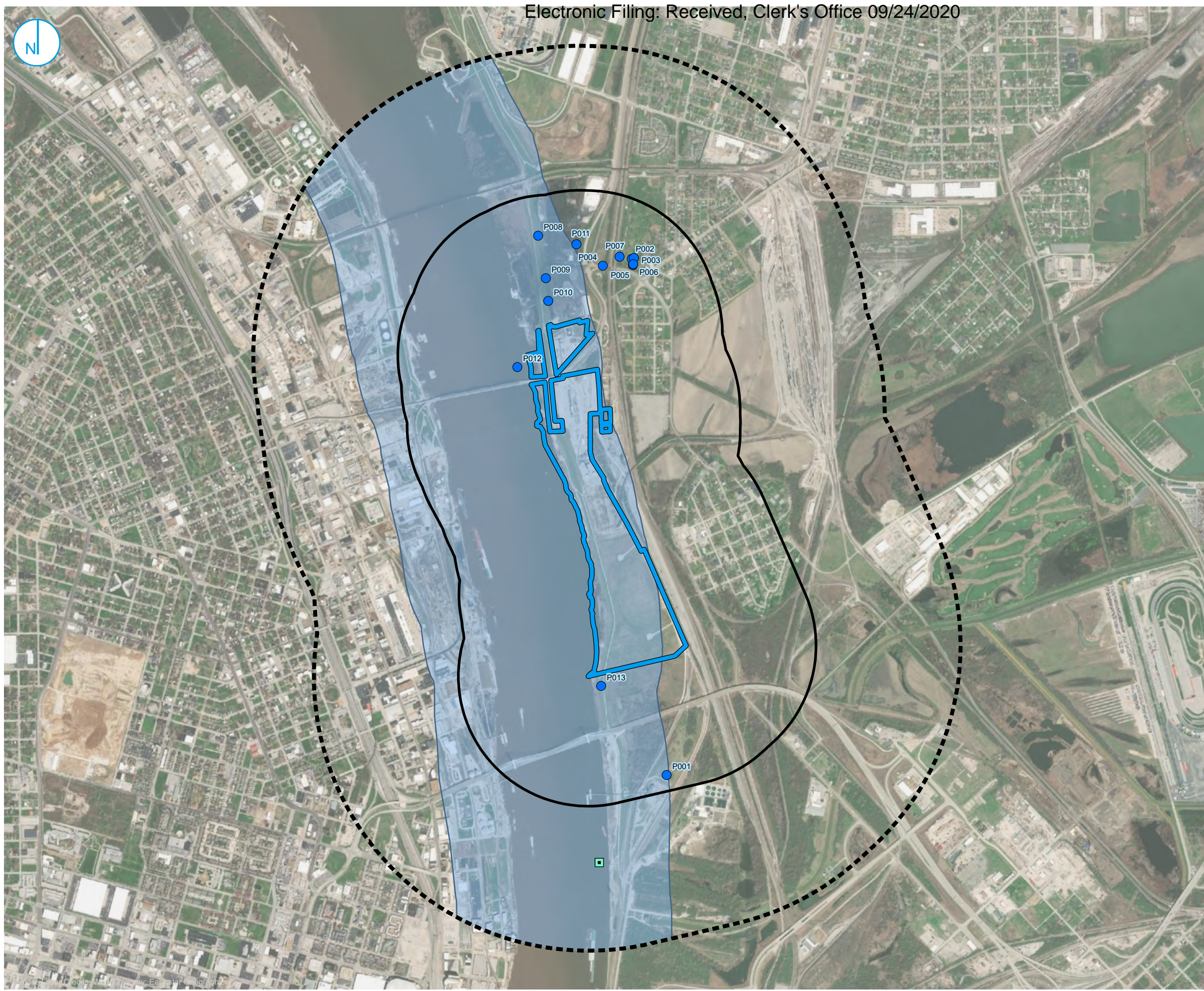
RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

Powerton
 13082 East Manito Road
 Pekin, Tazewell County, Illinois

FIGURE 3.09-A



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Boundaries

- Owned Property, Search Site, and Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- Private and Semi-Private Well
 - CWS Surface Water Intake
 - CWS River Intake Zone 1 Protection Area

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, Madison County.

- The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information.

Data Extraction: ISGS Water and Related Wells - ISGS Water and Related Wells - 6/24/2020 (all fields via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application); IEPA SWAPP - 6/24/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area



RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

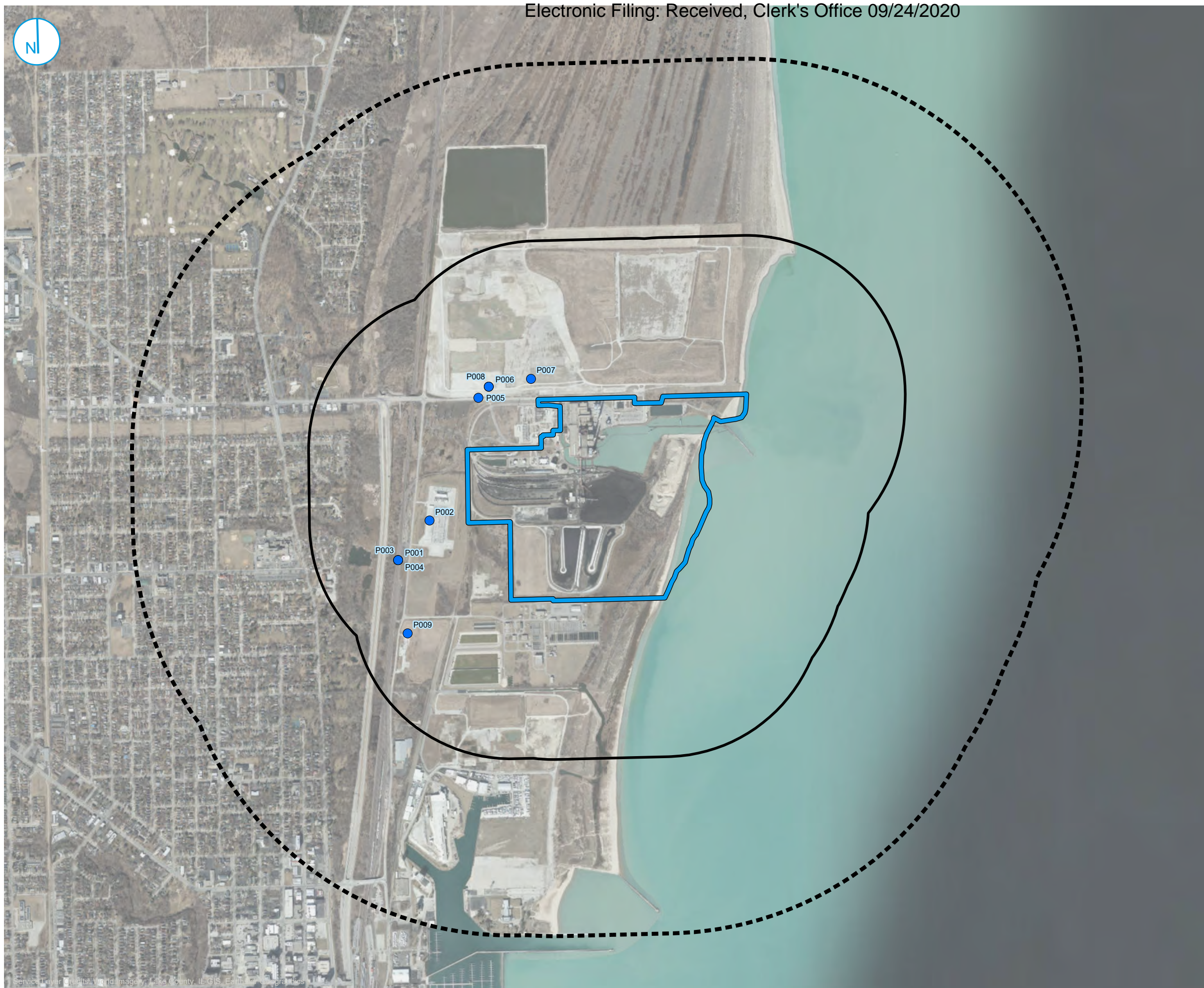
Venice
 701 North Main Street
 Venice, Madison County, Illinois

FIGURE 3.10-A





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Boundaries

Owned Property, Search Site, and Plant Boundary

2,500-Foot Search Radius

1-Mile Search Radius

Receptors

Private and Semi-Private Well

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, Lake County.
• The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information.

Data Extraction: ISGS Water and Related Wells - ISGS Water and Related Wells - 6/24/2020 (all fields via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application); IEPA SWAPP - 6/24/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area



RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

Waukegan
 401 East Greenwood Avenue
 Waukegan, Lake County, Illinois

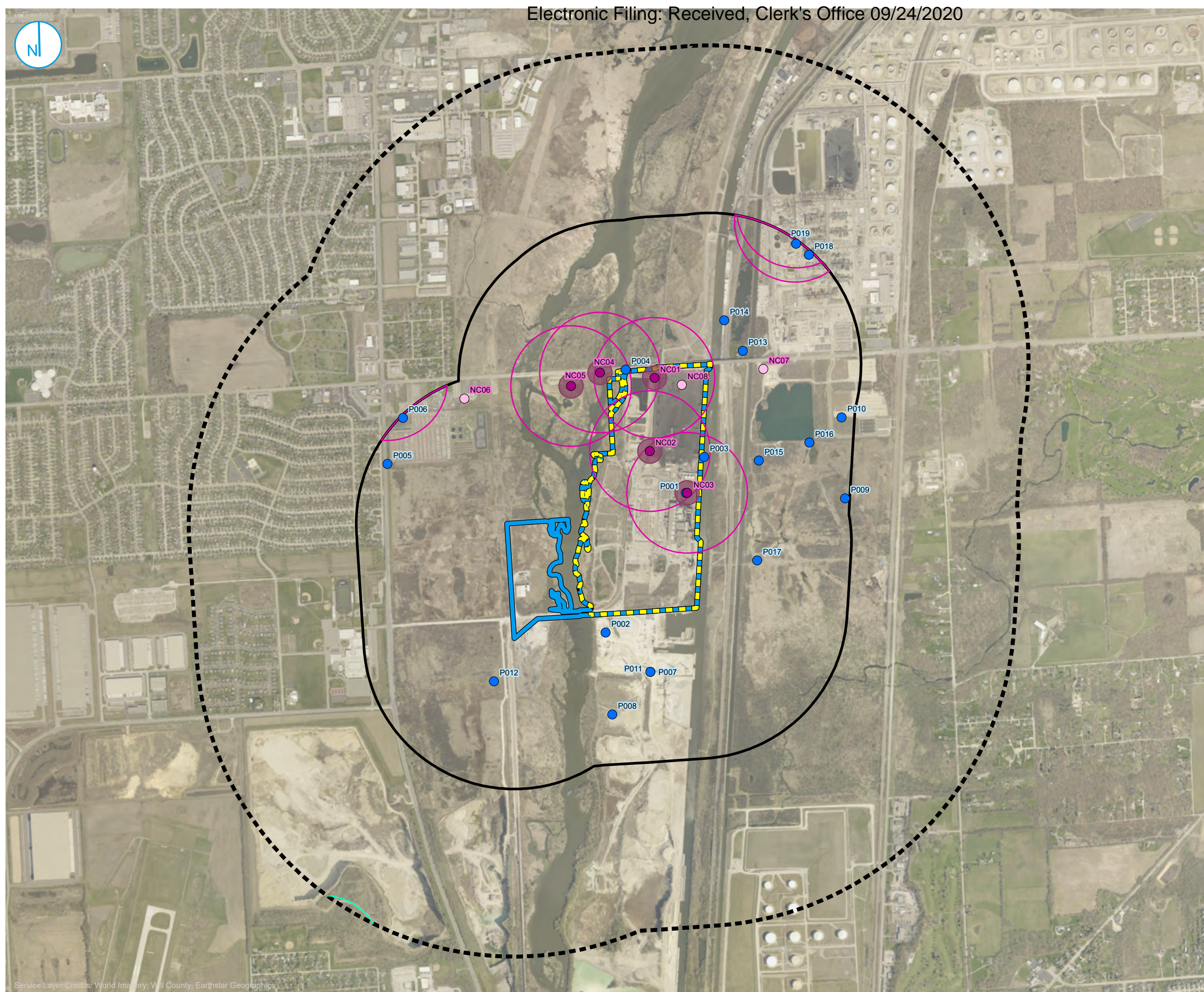
FIGURE 3.11-A

RAMBOLL US CORPORATION
 A RAMBOLL COMPANY



PROJECT: 1690015671 | DATED: 9/17/2020 | DESIGNER: KBERG

Service layer credits: Map data © Lake County, IL GIS, Earthstar Geographics



- Boundaries**
- Owned Property and Search Site
 - Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- Private and Semi-Private Well
 - Non-CWS Well
 - Non-CWS Well (Inactive)
 - Non-CWS Well Minimum Setback Zone
 - Non-CWS Well Phase I WHPA
 - CWS Well Phase I WHPA

Notes
Data Sources: ISGS Water and Related Wells, IEPA SWAPP, Will County.
 • The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information.
Data Extraction: ISGS Water and Related Wells - ISGS Water and Related Wells - 6/24/2020 (all fields via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application); IEPA SWAPP - 6/24/2020
Acronyms:
 • CWS = Community Water System
 • ISGS = Illinois State Geological Survey
 • IEPA = Illinois Environmental Protection Agency
 • SWAPP = Source Water Assessment Protection Program
 • WHPA = Wellhead Protection Area

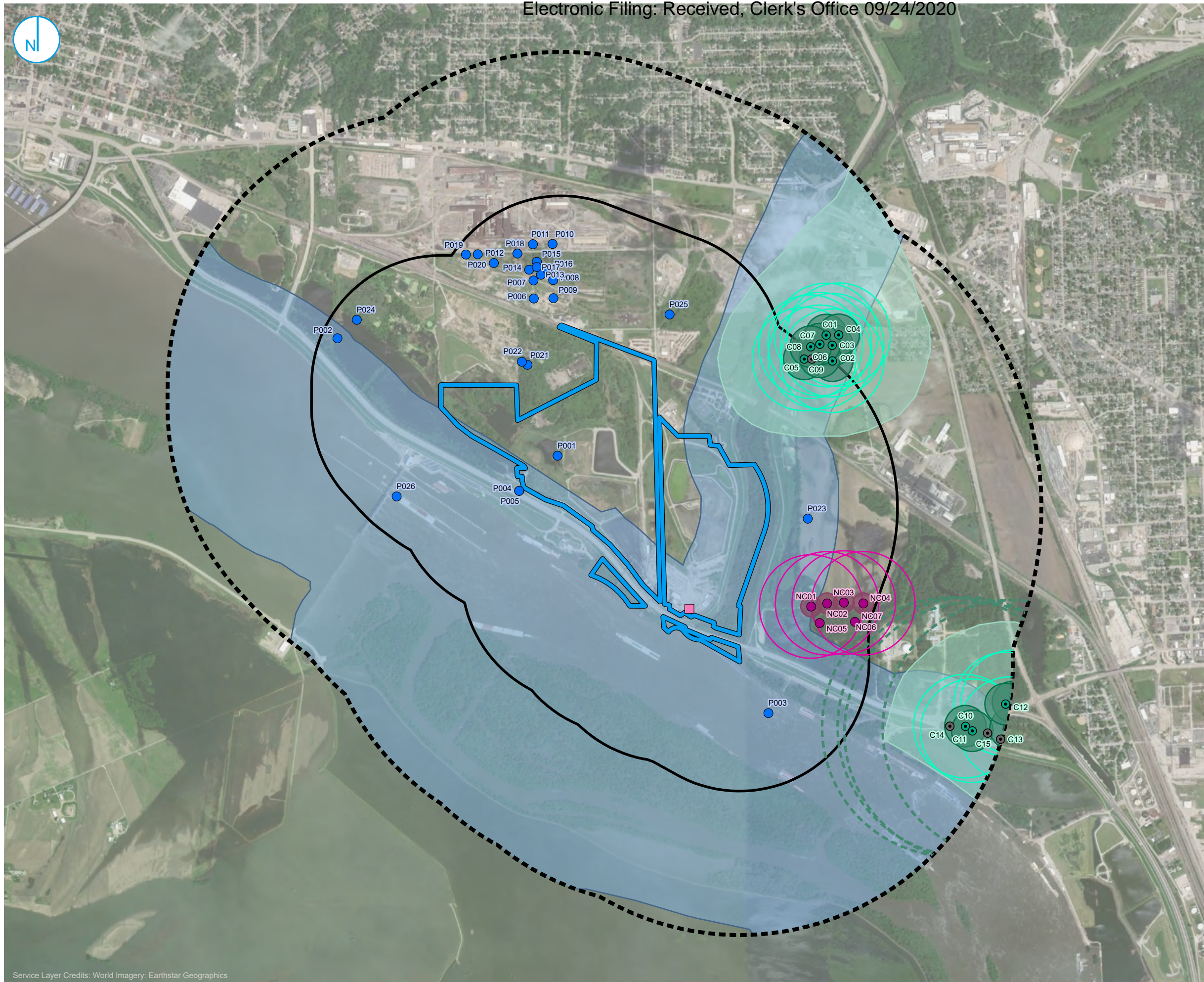


RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

Will County
 529 Romeo Road
 Romeoville, Will County, Illinois

FIGURE 3.12-A





- Boundaries**
- Owned Property, Search Site, and Plant Boundary
 - 2,500-Foot Search Radius
 - 1-Mile Search Radius
- Receptors**
- Private and Semi-Private Well
 - Non-CWS Well
 - Non-CWS Surface Water Intake
 - Non-CWS Well Minimum Setback Zone
 - Non-CWS Well Phase I WHPA
 - CWS Well
 - CWS Well (Abandoned)
 - CWS Well Minimum Setback Zone
 - CWS Well Phase I WHPA
 - CWS Well Adopted Maximum Setback Zone
 - CWS Well Phase II WHPA
 - CWS River Intake Zone 1 Protection Area

Notes

Data Sources: ISGS Water and Related Wells, IEPA SWAPP, ISWS/ University of Illinois Domestic Wells Database, Madison County.

- The location accuracy of the wells varies from precise GPS-verified data to imprecise Section-level (one square-mile) data. See tables for well-specific information. Some domestic water wells added from the ISWS Domestic Wells database are not depicted in the figure due to the large margin of error associated with their location information. These wells are identified in the corresponding tables.

Data extracted as follows:

- ISGS Water and Related Wells - 5/1/2020 (all fields via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)
- IEPA SWAPP - 5/1/2020
- ISWS Domestic Wells Database - between 4/20/2020 and 5/18/2020

Acronyms:

- CWS = Community Water System
- ISGS = Illinois State Geological Survey
- ISWS = Illinois State Water Survey
- IEPA = Illinois Environmental Protection Agency
- SWAPP = Source Water Assessment Protection Program
- WHPA = Wellhead Protection Area



RECEPTOR SURVEY
WELLS AND SURFACE WATER INTAKES
WITHIN 2,500 FEET (PRIVATE, SEMI-PRIVATE, AND NON-CWS) AND 1 MILE (CWS) OF THE SITE

Wood River
 1 Chessen Lane
 Alton, Madison County, Illinois

FIGURE 3.13-A



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Well/Water Supply Survey and Evaluation
Coal-Fired Power Plants in Illinois

TABLES

Site Name	Current Owners and Operators	Address	City	County	State	ZIP	Latitude	Longitude
Baldwin	Dynegy and/or affiliates	10901 Baldwin Road	Baldwin	Randolph and St. Clair	IL	62217	38.204	-89.855
Coffeen	Dynegy and/or affiliates	134 Cips Lane	East Fork Township	Montgomery	IL	62017	39.059	-89.403
Duck Creek	Dynegy and/or affiliates	17933 North Cilco Road	Canton	Fulton	IL	61520	40.465	-89.984
Edwards	Dynegy and/or affiliates	7800 South Cilco Lane	Bartonville	Peoria	IL	61607	40.596	-89.663
Havana	Dynegy and/or affiliates	15260 IL-78	Havana	Mason	IL	62644	40.281	-90.078
Hennepin	Dynegy and/or affiliates	13498 East 800th Street	Hennepin	Putnam	IL	61327	41.303	-89.315
Joppa	Dynegy and/or affiliates	2100 Portland Road	Joppa	Massac	IL	62960	37.209	-88.858
Kincaid	Dynegy and/or affiliates	199 IL-104	Kincaid	Christian	IL	62540	39.591	-89.496
Newton	Dynegy and/or affiliates	6725 North 500th Street	Newton	Jasper	IL	62448	38.937	-88.276
Vermilion	Dynegy and/or affiliates	10188 East 2150 North Road	Oakwood	Vermilion	IL	61858	40.178	-87.746
Crawford	Private entities (developers)	South Pulaski Road	Chicago	Cook	IL	60623	41.829	-87.723
Dallman/Lakeside	City of Springfield (City Water, Light, and Power [CWLP])	3100 Adlai Stevenson Drive	Springfield	Sangamon	IL	62712	39.755	-89.602
Hutsonville	Ameren	15142 East 1900th Avenue	Hutsonville	Crawford	IL	62433	39.134	-87.660
Joliet 9	Midwest Generation LLC	1601 South Patterson Road	Joliet	Will	IL	60436	41.494	-88.113
Joliet 29	Midwest Generation LLC	1800 Channahon Road	Joliet	Will	IL	60436	41.496	-88.125
Marion	Southern Illinois Power	10825 Lake Egypt Road	Marion	Williamson and Johnson	IL	62959	37.625	-88.937
Meredosia	Ameren	800 South Washington Street	Meredosia	Morgan	IL	62665	39.823	-90.566
Pearl	Prairie Power, Inc.	13747 State Highway 100	Pearl	Pike	IL	62361	39.449	-90.614
Powerton	Midwest Generation LLC	13082 East Manito Road	Pekin	Tazewell	IL	61554	40.541	-89.680
Venice	Ameren	701 North Main Street	Venice	Madison	IL	62090	38.665	-90.178
Waukegan	Midwest Generation LLC	401 East Greenwood Avenue	Waukegan	Lake	IL	60087	42.382	-87.814
Will County	Midwest Generation LLC	529 Romeo Road	Romeoville	Will	IL	60446	41.633	-88.062
Wood River	CTI Development, LLC	1 Chessen Lane	Alton	Madison	IL	62002	38.864	-90.134

Table 2.01-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Baldwin Power Station - Baldwin, Randolph and St. Clair, Illinois

Figure ID	API	ISWS P Number	On-site/ Off-site	Abandoned Status (Source)	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121572657300		On-site		Engineering Test	38.220494	-89.881538	4-4S-7W		Baldwin Damsite	1967-01-01	20	
	121572657400		On-site		Engineering Test	38.215287	-89.877284	4-4S-7W		Baldwin Damsite	1967-01-01	45	
	121572657500		On-site		Engineering Test	38.215789	-89.879325	4-4S-7W		Baldwin Damsite	1967-01-01	34	
	121572657600		On-site		Engineering Test	38.215735	-89.878602	4-4S-7W		Baldwin Damsite	1967-01-01	30	
	121572657700		On-site		Engineering Test	38.215547	-89.878062	4-4S-7W		Baldwin Damsite	1967-01-01	30	
	121572657800		On-site		Engineering Test	38.212633	-89.876538	4-4S-7W		Baldwin Damsite	1967-01-01	16	
	121572657900		On-site		Engineering Test	38.210646	-89.8784	4-4S-7W		Baldwin Damsite	1967-01-01	30	
	121572658000		On-site		Engineering Test	38.189502	-89.878826	16-4S-7W		Baldwin Damsite	1967-01-01	17	
	121572658100		On-site		Engineering Test	38.190492	-89.877227	16-4S-7W		Baldwin Damsite	1967-01-01	23	
	121572658200		On-site		Engineering Test	38.211558	-89.879038	4-4S-7W		Baldwin Damsite	1967-01-01	46	
	121572658300		Off-site		Engineering Test	38.194338	-89.887925	9-4S-7W		Baldwin Damsite	1967-01-01	57	
	121572659000		Off-site		Engineering Test	38.186695	-89.881935	16-4S-7W		IL 154/Kaskaskia River Overflow	1985-11-07	46	
	121572663300		On-site		Engineering Test	38.205632	-89.84738	11-4S-7W	Digital Orthophoto Quad	Baldwin P.S./Turkey Hill	1969-01-01	46	
	121572663400		On-site		Engineering Test	38.208293	-89.847669	2-4S-7W	Digital Orthophoto Quad	Baldwin P.S./Turkey Hill	1969-01-01	35	
	121572663500		On-site		Engineering Test	38.21691	-89.850763	2-4S-7W	Digital Orthophoto Quad	Baldwin P.S./Turkey Hill	1969-01-01	52	
	121572663600		On-site		Engineering Test	38.219273	-89.852622	3-4S-7W	Digital Orthophoto Quad	Baldwin P.S./Turkey Hill	1969-01-01	43	
	121572663900		On-site		Engineering Test	38.211964	-89.848624	2-4S-7W	Location from a log	IL Power Transmission	1968-05-27	47	
	121572664000		On-site		Engineering Test	38.205609	-89.847667	11-4S-7W	Location from a log	IL Power Transmission	1968-06-03	52	
	121575604100		Off-site		Engineering Test	38.188752	-89.889115	17-4S-7W		SBI 170 over Kaskaskia River	1964-10-01	76	
	121633082800		On-site		Engineering Test	38.224333	-89.853001	34-3S-7W	Digital Orthophoto Quad	Baldwin P.S./Turkey Hill	1969-01-01	40	
	121633082900		On-site		Engineering Test	38.226885	-89.85294	34-3S-7W	Digital Orthophoto Quad	Baldwin P.S./Turkey Hill	1969-01-01	35	
	121633083000		On-site		Engineering Test	38.229451	-89.85294	34-3S-7W	Digital Orthophoto Quad	Baldwin P.S./Turkey Hill	1969-01-01	26	
	121633083100		On-site		Engineering Test	38.232004	-89.852839	34-3S-7W	Digital Orthophoto Quad	Baldwin P.S./Turkey Hill	1969-01-01	37	
	121633083200		On-site		Engineering Test	38.234518	-89.853037	34-3S-7W	Digital Orthophoto Quad	Baldwin P.S./Turkey Hill	1969-01-01	35	
	121633095100		On-site		Engineering Test	38.231957	-89.85314	34-3S-7W	Location from a log	IL Power Transmission	1968-03-11	40	
	121633095700		On-site		Engineering Test	38.234615	-89.854202	34-3S-7W	Location from a log	IL Power Transmission	1968-05-12	40	
	121572594000		On-site		Monitoring	38.205526	-89.857289	10-4S-7W	Location from the driller	Illinois Power	1992-08-24	23	silty - clay
	121572594100		On-site		Monitoring	38.205526	-89.857289	10-4S-7W	Location from the driller	Illinois Power	1992-08-26	18	brown silty clay
	121572594200		On-site		Monitoring	38.205526	-89.857289	10-4S-7W	Location from the driller	Illinois Power	1992-08-26	18	silty clay
	121572594300		On-site		Monitoring	38.205526	-89.857289	10-4S-7W	Location from the driller	Illinois Power	1992-08-26	18	silty clay, med sand

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)

ISWS Domestic Wells Database (maintained on behalf of the University of Illinois) - Extracted between 4/20/2020 and 5/18/2020

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
ISWS	Illinois State Water Survey
SWAPP	Source Water Assessment Protection Program

Key

<i>Italics</i>	Well added from ISWS Domestic Wells database and is depicted in the figure
<i>Bold Italics</i>	Well added from ISWS Domestic Wells database and is not depicted in figure due to the low level of accuracy associated with the location information (i.e., well could be located anywhere within the one square-mile Section)

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available

Dates were adjusted to exclude time

Table 2.01-B
Receptor Survey Results (CWS Wells < 1 mile)
Baldwin Power Station - Baldwin, Randolph and St. Clair, Illinois

Figure ID	API	CWS Well ID	On-site/Off-site	CWS Name	Status	Susceptibility	Aquifer Policy	Minimum Setback	Depth	Aquifer Type	Ambient Well	Latitude	Longitude	PWS Status	PWS Number
C01	121572631400	60010	Off-site	BALDWIN	B	AX	U	0	65	0101	0	38.18206	-89.88734	A	IL1570050
C02	121572631500	60011	Off-site	BALDWIN	B	AX	U	0	60	0101	0	38.18223	-89.88767	A	IL1570050
C03	121572631600	00318	Off-site	RED BUD	A	AX	U	400	72	0101	0	38.18698	-89.89134	A	IL1570450
C04	121572631800	00718	Off-site	RED BUD	A	B2	U	400	68	0101	0	38.18853	-89.89033	A	IL1570450

Sources

IEPA SWAPP GIS Tool - Extracted 5/1/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
Status	Status of Well (A = Active; B = Abandoned; I = Inactive)
Susceptibility	IEPA's Susceptibility Designation based on soil geology
Aquifer Policy	IEPA-Determined Aquifer Policy (U = Unconfined; C = Confined)
Minimum Setback	Minimum Setback Zone (feet)
Ambient Well	Indicates whether the well is part of the IEPA's monitoring network (0 = not in network; 1 = active; 2 = historically in network and historical data available)
PWS Status	Status of Public Water System (PWS) that the well is associated with (A = Active; I = Inactive)

Table 2.01-C

Receptor Survey Results (CWS Surface Water Intakes < 1 mile)
 Baldwin Power Station - Baldwin, Randolph and St. Clair, Illinois

On-Site/Off-Site	Facility Name	Facility Number	Intake ID	Watershed ID	Source	Status	Basin Name	Latitude	Longitude
Off-site	Sparta	IL1570600	IN60183	1570600WS01	Kaskaskia River	A	Lower Kaskaskia	38.18634	-89.8814

Sources

IEPA SWAPP GIS Tool - Extracted 5/1/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program

Field Definitions

On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
Status	Status of Surface Water Intake (A = Active; I = Inactive)

Table 2.02-A

Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)

Coffeen Power Station - East Fork Township, Montgomery, Illinois

Figure ID	API	ISWS P Number	On-site/ Off-site	Abandoned Status (Source)	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	121350172500	115200	On-site		Water Well	39.07411	-89.402784	3-7N-3W	Location from permit	Lafuria, Mick	1971-02-04	26	clay
P002	121350171700	115228	On-site		Private Water Well	39.055977	-89.386252	14-7N-3W	Location from permit	Marfield, Mac	1970-09-15	29	clay
P003	121350172700		On-site		Private Water Well	39.039623	-89.383852	23-7N-3W	Location from permit	Wright, Elmer	1971-02-04	38	clay
P004	121352282700	115204	On-site		Private Water Well	39.084998	-89.416941	3-7N-3W	Location from permit	Hammer, Bernard		29	clay
P005	121352282800	115201	On-site		Private Water Well	39.074433	-89.403283	3-7N-3W	Location from permit	Hull, Steve	1983-10-17	35	gravel & sand
P006	121352283100	115350	On-site		Private Water Well	39.059539	-89.416652	10-7N-3W	Location from permit	Sidner, Joe	1984-06-06	50	gravel
P007	121352283200	115215	On-site		Private Water Well	39.064493	-89.391801	11-7N-3W	Location from permit	Wibel, William	1981-11-30	39	
P008	121352334500	237427	On-site		Private Water Well	39.085	-89.412273	3-7N-3W	Location from permit	Moreland, Brooks	1992-08-31	48	clay-sand
P009	121352390800	310435	Off-site		Semi-Private Water Well	39.079557	-89.402861	3-7N-3W	Location from permit	Stan Blast Abrasives	1999-06-14	53	gravelly clay
P010	121350164400	115213	Off-site		Private Water Well	39.057424	-89.416746	10-7N-3W	Location from permit	Flori, Eugene	1969-05-19	20	sand
P011	121350172600	115224	Off-site		Private Water Well	39.055952	-89.383929	14-7N-3W	Location from permit	Schuler, Paul	1971-02-04	32	sand
P012	121352182400	115230	Off-site		Private Water Well	39.055928	-89.381606	14-7N-3W	Location from permit	Hueitt, Bill	1974-05-05	32	clay
P013	121352182500	115229	Off-site		Private Water Well	39.055928	-89.381606	14-7N-3W	Location from permit	Stahl, Louis	1974-05-05	32	clay
P014	121352190100	198702	Off-site		Private Water Well	39.084994	-89.398274	2-7N-3W	Location from permit	Young, Dave	1974-11-28	36	sand
P015	121352191500	115218	Off-site		Private Water Well	39.057723	-89.379316	12-7N-3W	Location from permit	Czieniewski, Gene	1975-01-22	44	clay
P016	121352199900		Off-site		Private Water Well	39.041451	-89.381556	23-7N-3W	Location from permit	Theninutt, Edmore	1975-06-25	39	sand
P017	121352209200	115203	Off-site		Private Water Well	39.075863	-89.409815	3-7N-3W	Location from permit	Emerson, Danny	1976-07-17	40	sand
P018	121352221300	115222	Off-site		Private Water Well	39.053487	-89.380881	14-7N-3W	Location from permit	Gadshlen, Clarence	1977-05-12	156	sandstone
P019	121352221400	115227	Off-site		Private Water Well	39.056309	-89.384343	14-7N-3W	Location from permit	Warfield, William	1977-05-10	151	sandstone
P020	121352283300		Off-site		Private Water Well	39.043268	-89.379262	13-7N-3W	Location from permit	Holtzclaw, Jerry		26	sand
P021	121352300600	115226	Off-site		Private Water Well	39.043761	-89.380946	14-7N-3W	Location from permit	Jump, James	1986-12-03	41	ground-clay
P022	121352310600	115202	Off-site		Private Water Well	39.084999	-89.407608	3-7N-3W	Location from permit	Young, Terri	1987-06-02	62	gravel
P023	121352316300		Off-site		Private Water Well	39.041451	-89.381556	23-7N-3W	Location from permit	Luebke, Richard E.	1989-01-01	54	
P024	121352334900	243174	Off-site		Private Water Well	39.050503	-89.38159	14-7N-3W		Monk, Lawrence & Anita	1993-10-07	382	gray sandstone
P025	121352340900		Off-site		Private Water Well	39.041451	-89.381556	23-7N-3W	Location from permit	Luebke, Richard	1994-05-16	41	gravelly clay
P026	121352376100	286123	Off-site		Private Water Well	39.084997	-89.419293	4-7N-3W	Location from permit	Reynolds, Dairl	1996-03-22	54	gravelly-sandy clay
P027	121352380200	290232	Off-site		Private Water Well	39.05958	-89.383966	11-7N-3W		O'Dell, Kenneth & Chong	1996-08-06	363	light gray sandstone
P028	121352380300	290231	Off-site		Private Water Well	39.054141	-89.383921	14-7N-3W		Childers, Joe	1996-08-05	401	gry-lt gry sandstone
P029	121352387300	303715	Off-site		Private Water Well	39.077695	-89.386518	2-7N-3W	Location from permit	Combs, Jack	1998-07-15	27	gravelly clay
P030		115223	Off-site		Domestic Water Well			14-7N-3W	ISWS - Section/Plot	Wanfield, W	1997-05-10	151	
P031		115217	Off-site		Domestic Water Well			12-7N-3W	ISWS - Section/Plot	E Whitten	1983-02-10	39	
P032		115220	Off-site		Domestic Water Well			13-7N-3W	ISWS - Section/Plot	R Leitschult	1973-11-26	27	
P033		115418	Off-site		Domestic Water Well			34-8N-3W	ISWS - Section/Plot	W Kershaw	1980-10-10	32	
P034		450606	Off-site	Sealed (ISWS)	Domestic Water Well			35-8N-3W	ISWS - Section/Plot	Mike Thacker		12	
	121352396900		On-site		Water Well for Business	39.048688	-89.407144	15-7N-3W		Coffeen Lake Fish & Wildlife		0	
	121352423200		On-site		Monitoring	39.059715	-89.400243	10-7N-3W		Illinois Power Holdings, LLC	2015-09-08	20	sand
	121352423300		On-site		Monitoring	39.06506	-89.388679	11-7N-3W		Illinois Power Holdings, LLC	2015-09-04	16	sand
	121352423400		On-site		Monitoring	39.065091	-89.393333	11-7N-3W		Illinois Power Holdings, LLC	2015-09-04	18	silt
	121352423500		On-site		Monitoring	39.06506	-89.388679	11-7N-3W		Illinois Power Holdings, LLC	2015-09-17	19	sand
	121352423600		On-site		Monitoring	39.068727	-89.398038	11-7N-3W		Illinois Power Holdings, LLC	2015-09-11	18	sand
	121352425400		On-site		Monitoring	39.068593	-89.394164	11-7N-3W		Coffeen Power Station	2017-03-20	16	sand
	121352310800	115231	Off-site		Noncommunity - Public Water Well	39.055951	-89.414273	15-7N-3W	Location from permit	Dept. of Conservation	1987-06-23	70	sandy clay
	121352400700		Off-site		Noncommunity - Public Water Well	39.057742	-89.416636	10-7N-3W		Indian Grove Campground		0	
	121352361400		Off-site		Monitoring	39.069551	-89.380585	11-7N-3W	Location from the driller	White & Brewer	1993-11-17	40	
	121352361500		Off-site		Monitoring	39.068212	-89.388821	11-7N-3W	Location from the driller	White & Brewer	1993-11-18	35	
	121352361600		Off-site		Monitoring	39.066898	-89.381266	11-7N-3W	Location from the driller	White & Brewer		17	
	121352361700		Off-site		Monitoring	39.066488	-89.382322	11-7N-3W	Location from the driller	White & Brewer		25	
	121352361800		Off-site		Monitoring	39.068862	-89.382456	11-7N-3W	Location from the driller	White & Brewer		23	
	121352361900		Off-site		Monitoring	39.068452	-89.383158	11-7N-3W	Location from the driller	White & Brewer		40	
	121352362000		Off-site		Monitoring	39.068397	-89.383229	11-7N-3W	Location from the driller	White & Brewer		20	
	121352362100		Off-site		Monitoring	39.065884	-89.38313	11-7N-3W	Location from the driller	White & Brewer		33	
	121352362300		Off-site		Monitoring	39.067833	-89.380319	12-7N-3W	Location from the driller	White & Brewer	1994-01-28	48	
	121352362400		Off-site		Monitoring	39.067664	-89.379894	12-7N-3W	Location from the driller	White & Brewer	1994-01-28	24	
	121352362700		Off-site		Monitoring	39.065637	-89.378771	12-7N-3W	Location from the driller	White & Brewer	1994-01-28	39	

Table 2.02-A

**Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Coffeen Power Station - East Fork Township, Montgomery, Illinois**

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)
ISWS Domestic Wells Database (maintained on behalf of the University of Illinois) - Extracted between 4/20/2020 and 5/18/2020

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
ISWS	Illinois State Water Survey
SWAPP	Source Water Assessment Protection Program

Key

<i>Italics</i>	Well added from ISWS Domestic Wells database and is depicted in the figure
Gray Fill	Well is a duplicate non-CWS or CWS well

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available
Dates were adjusted to exclude time

Table 2.02-B
 Receptor Survey Results (Non-CWS Wells < 2,500 feet)
 Coffeen Power Station - East Fork Township, Montgomery, Illinois

Figure ID	API	Well ID	On-site/Off-site	System Status	Facility Name	Facility Number	City	County	Status	Type	Latitude	Longitude	Township	Range	Section
NC01	121352396900	13500061	Off-site	I	COFFEEN LAKE WILDLIFE AREA	IL3121285	COFFEEN	Montgomery	I	RECREATION AREA	39.05622118	-89.41427866	7N	3W	15
NC02	121352400700	13500012	Off-site	I	INDIAN GROVE CAMPGROUND	IL3034496	COFFEEN	Montgomery	I	SUMMER CAMP	39.05737891	-89.41661055	7N	3W	10
NC03	121352310800		Off-site		DEPT. OF CONSERVATION			Montgomery			39.055951	-89.414273	7N	3W	15

Sources

IEPA SWAPP GIS Tool - Extracted 5/1/2020

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)

USEPA SDWIS - System status extracted 7/3/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program
SDWIS	Safe Drinking Water Information System
USEPA	United States Environmental Protection Agency

Key

Gray	Added from ISGS Water and Related Wells
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
System Status	Status of non-CWS system according to the USEPA SDWIS website (A = Active; I = Inactive)
Status	Status of Well (A = Active; I = Inactive)

Notes

Blank cells indicate that the data was not available

Table 2.03-A

Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)

Duck Creek Power Station - Canton, Fulton, Illinois

Figure ID	API	ISWS P Number	On-site/ Off-site	Abandoned Status (Source)	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	120572429500		On-site		Private Water Well	40.450391	-89.972372	5-5N-5E	Location from permit	Schaub, Nicholas & Theresa	1990-06-27	95	sand & gravel
P002	120572475200	291995	On-site		Private Water Well	40.497903	-89.992863	13-6N-4E	Location from permit	Obertino, Buck	1996-12-02	50	clay
P003		459745	Off-site	Sealed (ISWS)	Domestic Water Well			12-6N-4E	ISWS - Section/Plot	Robert M Mettert Estate		13	

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)

ISWS Domestic Wells Database (maintained on behalf of the University of Illinois) - Extracted between 4/20/2020 and 5/18/2020

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
ISWS	Illinois State Water Survey
SWAPP	Source Water Assessment Protection Program

Key

<i>Italics</i>	Well added from ISWS Domestic Wells database and is depicted in the figure
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available

Dates were adjusted to exclude time

Table 2.04-A

Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Edwards Power Station - Bartonville, Peoria, Illinois

Figure ID	API	ISWS P Number	On-site/ Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	121433424000	332808	On-site	Semi-Private Water Well	40.588081	-89.664793	14-7N-7E	Location from permit	Cargill Fertilizer	2001-08-17	20	clay
P002	121430133300		Off-site	Water Well	40.590234	-89.662127	14-7N-7E	Location from the driller	Cargo Carriers	1968-04-05	30	Gilbert gravel
P003	121430151500	119112	Off-site	Water Well	40.60777	-89.667938	11-7N-7E	Location from permit	Lewis, Eddie	1969-11-25	43	yellow clay gravel
P004	121432221000	119111	Off-site	Water Well	40.600805	-89.667324	11-7N-7E	Location from permit	Frazier, Sam	1978-08-19	65	rock
P005	121432356000	119113	Off-site	Industrial Water Well	40.605076	-89.661192	12-7N-7E	Location from permit	Clark Oil & Refining		60	
P006		119067	Off-site	Domestic Water Well			1-7N-7E	ISWS -Section	Mckaskey (obs Well)		28	
P007		121710	Off-site	Domestic Water Well			1-7N-7E	ISWS -Section	Mckaskey		28	
	121432480200		Off-site	Engineering Test	40.588073	-89.660552	13-7N-7E		Bridge FA R25&75,Il.River	1971-10-01	95	
	121432525900		Off-site	Engineering Test	40.587184	-89.659272	13-7N-7E		Bridge over Illinois River at Pekin	1971-09-30	51	
	121432526000		Off-site	Engineering Test	40.587184	-89.659272	13-7N-7E		Bridge over Illinois River @ Pekin	1971-10-01	96	
	121432526100		Off-site	Engineering Test	40.587184	-89.659272	13-7N-7E		Bridge over Illinois River @ Pekin	1971-11-01	96	
	121432526200		Off-site	Engineering Test	40.587184	-89.659272	13-7N-7E		Bridge over Illinois River @ Pekin	1971-11-01	92	
	121432526300		Off-site	Engineering Test	40.587184	-89.659272	13-7N-7E		Bridge over Illinois River @ Pekin	1971-11-01	92	
	121432526400		Off-site	Engineering Test	40.587184	-89.659272	13-7N-7E		Bridge over Illinois River @ Pekin	1971-11-01	35	

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)

ISWS Domestic Wells Database (maintained on behalf of the University of Illinois) - Extracted between 4/20/2020 and 5/18/2020

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
ISWS	Illinois State Water Survey
SWAPP	Source Water Assessment Protection Program

Key

<i>Bold Italics</i>	Well added from ISWS Domestic Wells database and is not depicted in figure due to the low level of accuracy associated with the location information (i.e., well could be located anywhere within the one square-mile Section)
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available

Dates were adjusted to exclude time

The **Abandoned Status (Source)** column is not included in the above table because no information was available in this field for any of the identified wells

Table 2.04-B
Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Edwards Power Station - Bartonville, Peoria, Illinois

Figure ID	Well ID	On-site/Off-site	System Status	Facility Name	Facility Number	City	County	Status	Type	Latitude	Longitude	Township	Range	Section
NC01	14301048	Off-site	A	FREEDOM GAS STATION	IL3119552	BARTONVILLE	Peoria	A	SERVICE STATION	40.58909817	-89.67741324	7N	7E	14

Sources

IEPA SWAPP GIS Tool - Extracted 5/1/2020
 USEPA SDWIS - System status extracted 7/3/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program
SDWIS	Safe Drinking Water Information System
USEPA	United States Environmental Protection Agency

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
System Status	Status of non-CWS system according to the USEPA SDWIS website (A = Active; I = Inactive)
Status	Status of Well (A = Active; I = Inactive)

Table 2.05-A
Receptor Survey Results (ISWS Water and Related Wells < 2,500 feet)
Havana Power Station - Havana, Mason, Illinois

Figure ID	API	ISWS P Number	On-site/ Off-site	Abandoned Status (Source)	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	121250022400		On-site		Water Well	40.28185	-90.076928	11-21N-9W		II Div. Waterways, Hydraulic lab		62	
P002	121252056800		On-site		Water Well	40.278476	-90.076724	11-21N-9W		Ill Power Co	1974-09-01	83	
P003	121252155900	292265	On-site		Private Water Well	40.271677	-90.08553	14-21N-9W	Location from permit	Shoemaker, Richard	1996-05-23	42	
P004	121252247300	440256	On-site		Industrial Water Well	40.275067	-90.078533	11-21N-9W	Location from permit	Dynegy Midwest Generation	2007-12-13	90	
P005		171211	On-site		Domestic Water Well			14-21N-9W	ISWS - Section/Plot	J W Mcharry Md	1972-02-22	75	
P006	121250012900	171204	Off-site		Water Well	40.267357	-90.071152	13-21N-9W		Bonnett, Gerald	1965-01-01	91	
P007	121250013100		Off-site		Water Well	40.267291	-90.080691	14-21N-9W		Bonnett, Gerald	1967-01-01	74	
P008	121250031100	171210	Off-site		Water Well	40.269045	-90.081599	14-21N-9W		Schad, Rusty	1972-02-01	52	
P009	121250032900	97698	Off-site		Water Well	40.269935	-90.082374	14-21N-9W		Blessman Agency	1972-11-01	50	
P010	121250033000	171217	Off-site		Water Well	40.269935	-90.082374	14-21N-9W		Blessman Agency	1972-11-01	50	
P011	121250033100	171216	Off-site		Water Well	40.269935	-90.082374	14-21N-9W		Stigall John	1972-11-01	56	
P012	121250033200	171213	Off-site		Water Well	40.269935	-90.082374	14-21N-9W		Watson John	1972-10-01	48	
P013	121252035900	171219	Off-site		Water Well	40.266684	-90.081831	14-21N-9W		Bonnett Gerald	1974-03-01	55	
P014	121252039600	171240	Off-site		Water Well	40.265387	-90.086348	14-21N-9W		Hainline, Jim Ent.	1974-12-01	80	
P015	121252039700	171220	Off-site		Water Well	40.265387	-90.086348	14-21N-9W		Wiggle F L	1974-12-01	62	
P016	121252042000	171222	Off-site		Water Well	40.266985	-90.079607	14-21N-9W		Bonnett G	1975-07-01	45	
P017	121252042200	171221	Off-site		Water Well	40.267375	-90.081682	14-21N-9W		Bonnett G	1975-07-01	51	
P018	121252047400	171206	Off-site		Water Well	40.267212	-90.083878	14-21N-9W		Hastings Thos Jr	1976-04-01	58	
P019	121252047500	171207	Off-site		Water Well	40.267212	-90.083878	14-21N-9W		Local Dvlpmnt	1976-04-01	78	
P020	121252056900	171223	Off-site		Water Well	40.266341	-90.081021	14-21N-9W		Bonnett	1977-03-01	44	
P021	121252057000	171212	Off-site		Water Well	40.26632	-90.083057	14-21N-9W		Heaver H	1978-06-01	54	
P022	121252057100		Off-site		Water Well	40.26804	-90.083918	14-21N-9W		Stewart J	1977-04-01	65	
P023	121252118200		Off-site		Private Water Well	40.283169	-90.074017	12-21N-9W	Location from permit	IL Dept of Transportation	1991-06-18	61	sand & gravel
P024	121252118300	171215	Off-site		Private Water Well	40.268126	-90.082715	14-21N-9W	Location from permit	Brownfield, Wilbur	1989-06-23	59	
P025	121252147200		Off-site		Private Water Well	40.264529	-90.081269	14-21N-9W	Location from permit	Porter, George	1995-09-06	58	
P026	121252147300		Off-site		Private Water Well	40.264529	-90.081269	14-21N-9W	Location from permit	Whetsell, Ray	1995-09-06	53	
P027	121252155800	292260	Off-site		Private Water Well	40.286973	-90.07371	12-21N-9W	Location from permit	Netler, Jerry	1996-06-28	45	
P028	121252156800	298094	Off-site		Private Water Well	40.268103	-90.084653	14-21N-9W	Location from permit	Ward, Brian	1997-06-20	40	
P029	121252167300	302755	Off-site		Private Water Well	40.266299	-90.085088	14-21N-9W	Location from permit	Athey, Charles	1997-10-22	30	top of ground
P030	121252189700	322781	Off-site		Private Water Well	40.268103	-90.084653	14-21N-9W	Location from permit	Unruh, Ann	2000-05-02	36	
P031	121252193800	329869	Off-site		Private Water Well	40.268152	-90.080777	14-21N-9W	Location from permit	Johnson, Curtis	2001-03-02	40	
P032	121252221400	365321	Off-site		Private Water Well	40.266299	-90.085088	14-21N-9W	Location from permit	Graham, Sherry	2004-10-14	37	
P033	121252221900	365547	Off-site		Private Water Well	40.269963	-90.080529	14-21N-9W	Location from permit	Doss, Nancy	2004-11-09	40	
P034	121252233600	383320	Off-site		Private Water Well	40.266336	-90.084217	14-21N-9W	Location from permit	Lewis, Phillip	2006-09-14	40	
P035	121252247400	440222	Off-site		Private Water Well	40.26605	-90.074933	14-21N-9W	Location from permit	Landshire Inc.	2007-07-12	48	
P036	121252250000	440379	Off-site		Private Water Well	40.268067	-90.081467	14-21N-9W	Location from permit	Winson, Harold	2007-08-13	36	
P037	121252250700	441716	Off-site		Private Water Well	40.267283	-90.086117	14-21N-9W	Location from permit	Luttrell, Joel D % Fletcher, James	2008-08-29	40	
P038	121252251600	441993	Off-site		Private Water Well	40.26835	-90.081233	14-21N-9W	Location from permit	Moehring, Steve & Kay	2008-11-18	42	
P039	121252293300	485656	Off-site		Private Water Well	40.269298	-90.080593	14-21N-9W	Location from permit	Steele, Jack	2014-11-04	62	sand & gravel
P040	121252079100	171203	Off-site		Irrigation Well	40.271133	-90.061551	13-21N-9W	Location from permit	Stelter, Jim	1985-04-16	90	
P041	121252141500		Off-site		Irrigation Well	40.272064	-90.060344	13-21N-9W	Location from permit	Stelter, Donna Kay	1993-05-13	97	
P042	121252190000	322773	Off-site		Irrigation Well	40.275681	-90.065063	12-21N-9W	Location from permit	Stelter, Jim & Eric	2000-04-04	96	
P043	121252247200	440239	Off-site		Irrigation Well	40.286453	-90.069423	12-21N-9W	Location from permit	Atwater, R.W. Trust	2007-09-22	46	top of ground
P044	121252265700	459648	Off-site		Irrigation Well	40.284233	-90.058883	12-21N-9W	GPS verified	Blakely, Wade	2012-02-14	98	
P045	121252269000	464399	Off-site		Irrigation Well	40.267617	-90.070383	13-21N-9W	GPS verified	S & D Farms	2012-10-17	92	
P046		171202	Off-site		Domestic Water Well			12-21N-9W	ISWS - Section/Plot	Henry Anderson	1975-07-10	70	
P047		171225	Off-site		Domestic Water Well			14-21N-9W	ISWS - Section/Plot	Bonnett Inc	1978-04-25	58	
P048		171218	Off-site		Domestic Water Well			14-21N-9W	ISWS - Section/Plot	D Blessman Agy #4lot18	1972-11-03	50	
P049		171214	Off-site		Domestic Water Well			14-21N-9W	ISWS - Section/Plot	Don Blessman Lot #4	1979-03-06	50	
P050		372097	Off-site		Domestic Water Well			14-21N-9W	ISWS - Section/Plot	Fred Kruse	2005-06-02	53	
P051		274185	Off-site		Domestic Water Well			14-21N-9W	ISWS - Section/Plot	George Porter #757	1995-09-06	17	
P052		171228	Off-site		Domestic Water Well			14-21N-9W	ISWS - Section/Plot	James Hainline	1975-07-18	68	
P053		171209	Off-site		Domestic Water Well			14-21N-9W	ISWS - Section/Plot	James Ludwig Lot #28	1979-08-28	57	
P054		171224	Off-site		Domestic Water Well			14-21N-9W	ISWS - Section/Plot	Jewel Stelter	1977-03-31	63	
P055		171226	Off-site		Domestic Water Well			14-21N-9W	ISWS - Section/Plot	John Stewart #1	1997-04-01	57	
P056		171227	Off-site		Domestic Water Well			14-21N-9W	ISWS - Section/Plot	Mark Schmink	1977-05-19	38	
P057		274184	Off-site		Domestic Water Well			14-21N-9W	ISWS - Section/Plot	Ray Whetsell #756	1995-09-06	21	
P058		441999	Off-site	Sealed (ISWS)	Domestic Water Well			14-21N-9W	ISWS - Section/Plot	Steve and Kay Moehring		30	
	121252061900		On-site		Stratigraphic Test	40.280459	-90.07856	11-21N-9W		Ill Power Co.		85	
	121252062000		On-site		Stratigraphic Test	40.278087	-90.077315	11-21N-9W		Ill Power Co.		95	

Table 2.05-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Havana Power Station - Havana, Mason, Illinois

Figure ID	API	ISWS P Number	On-site/ Off-site	Abandoned Status (Source)	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121252062100		On-site		Stratigraphic Test	40.281653	-90.077651	11-21N-9W		Ill Power Co.		90	
	121252062200		On-site		Stratigraphic Test	40.27831	-90.081817	11-21N-9W		Ill Power Co.		80	
	121252062300		On-site		Stratigraphic Test	40.276654	-90.080138	11-21N-9W		Ill Power Co.		85	
	121252153100		On-site		Stratigraphic Test	40.277435	-90.078041	11-21N-9W		Ill Power Co.		95	
	121252153300		On-site		Stratigraphic Test	40.279338	-90.079289	11-21N-9W		Ill Power Co.		95	
	121252153400		On-site		Stratigraphic Test	40.277772	-90.078941	11-21N-9W		Ill Power Co.		85	
	121252153200		Off-site		Stratigraphic Test	40.278055	-90.083821	11-21N-9W		Ill Power Co.		86	
	121252199700		Off-site		Noncommunity - Public Water Well	40.285071	-90.073863	12-21N-9W		Scotts Mobile Home Park		64	
	121252199800		Off-site		Noncommunity - Public Water Well	40.285071	-90.073863	12-21N-9W		Scotts Mobile Home Park		43	
	121252199900		Off-site		Noncommunity - Public Water Well	40.285071	-90.073863	12-21N-9W		Scotts Mobile Home Park		34	
	121252200000		Off-site		Noncommunity - Public Water Well	40.285071	-90.073863	12-21N-9W		Scotts Mobile Home Park		43	
	121252200100		Off-site		Noncommunity - Public Water Well	40.285071	-90.073863	12-21N-9W		Scotts Mobile Home Park		43	
	121252200200		Off-site		Noncommunity - Public Water Well	40.285071	-90.073863	12-21N-9W		Scotts Mobile Home Park		34	
	121252200300		Off-site		Noncommunity - Public Water Well	40.285071	-90.073863	12-21N-9W		Scotts Mobile Home Park		64	
	121252204300		Off-site		Noncommunity - Public Water Well	40.265464	-90.078024	14-21N-9W		Illinois Power		0	
	121252204400		Off-site		Noncommunity - Public Water Well	40.265464	-90.078024	14-21N-9W		Illinois Power		0	
	121252145700		On-site		Monitoring	40.278962	-90.079905	11-21N-9W	Location from the driller	Illinois Power Co.	1994-08-23	33	sand
	121252145800		On-site		Monitoring	40.278962	-90.079905	11-21N-9W	Location from the driller	Illinois Power Co.	1994-08-24	34	sand
	121252145900		On-site		Monitoring	40.278962	-90.079905	11-21N-9W	Location from the driller	Illinois Power Co.	1994-08-24	33	
	121252146000		On-site		Monitoring	40.278962	-90.079905	11-21N-9W	Location from the driller	Illinois Power Co.	1994-08-24	33	
	121252043400		On-site		Dry Hole (water well)	40.277401	-90.081452	11-21N-9W		Well		70	
	121252043500		On-site		Dry Hole (water well)	40.277473	-90.081381	11-21N-9W		Well		70	
	121252043600		On-site		Dry Hole (water well)	40.277556	-90.081335	11-21N-9W		Well		70	
	121252043700		On-site		Dry Hole (water well)	40.277611	-90.081454	11-21N-9W		Well		70	
	121252043800		On-site		Dry Hole (water well)	40.277536	-90.081529	11-21N-9W		Well		70	
	121252043900		On-site		Dry Hole (water well)	40.277453	-90.081572	11-21N-9W		Well		70	

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)
 ISWS Domestic Wells Database (maintained on behalf of the University of Illinois) - Extracted between 4/20/2020 and 5/18/2020

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
ISWS	Illinois State Water Survey
SWAPP	Source Water Assessment Protection Program

Key

<i>Italics</i>	Well added from ISWS Domestic Wells database and is depicted in the figure
Gray Fill	Well is a duplicate non-CWS or CWS well

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available
 Dates were adjusted to exclude time

Table 2.05-B
 Receptor Survey Results (Non-CWS Wells < 2,500 feet)
 Havana Power Station - Havana, Mason, Illinois

Figure ID	API	Well ID	On-site/Off-site	System Status	Facility Name	Facility Number	City	County	Status	Type	Latitude	Longitude	Township	Range	Section
NC01		12500385	On-site	A	DYNEGY MIDWEST GENERATION	IL3112615	HAVANA	Mason	A	INDUSTRIAL/AGRICULTURAL	40.27823441	-90.07917672	21N	9W	11
NC02		12500393	On-site	A	DYNEGY MIDWEST GENERATION	IL3112615	HAVANA	Mason	A	INDUSTRIAL/AGRICULTURAL	40.27931525	-90.07851287	21N	9W	11
NC03		12500401	On-site	A	DYNEGY MIDWEST GENERATION	IL3112615	HAVANA	Mason	A	INDUSTRIAL/AGRICULTURAL	40.2782737	-90.07805206	21N	9W	11
NC04		12500419	On-site	A	DYNEGY MIDWEST GENERATION	IL3112615	HAVANA	Mason	A	INDUSTRIAL/AGRICULTURAL	40.27907923	-90.07697069	21N	9W	11
NC05	121252204300		Off-site		Illinois Power			Mason			40.265464	-90.078024	21N	9W	14
NC06	121252204400		Off-site		Illinois Power			Mason			40.265464	-90.078024	21N	9W	14

Sources

IEPA SWAPP GIS Tool - Extracted 5/1/2020

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)

USEPA SDWIS - System status extracted 7/3/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program
SDWIS	Safe Drinking Water Information System
USEPA	United States Environmental Protection Agency

Key

Gray	Added from ISGS Water and Related Wells
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
System Status	Status of non-CWS system according to the USEPA SDWIS website (A = Active; I = Inactive)
Status	Status of Well (A = Active; I = Inactive)

Notes

Blank cells indicate that the data was not available

Table 2.05-C
 Receptor Survey Results (CWS Wells < 1 mile)
 Havana Power Station - Havana, Mason, Illinois

Figure ID	API	CWS Well ID	On-site/Off-site	CWS Name	Status	Susceptibility	Aquifer Policy	Minimum Setback	Depth	Aquifer Type	Ambient Well	Latitude	Longitude	PWS Status	PWS Number
C01	121252199700	50270	Off-site	SCOTTS MHP	A	AX	U	400	64	0101	0	40.28443	-90.07382	I	IL1255325
C02	121252199800	50271	Off-site	SCOTTS MHP	A	AX	U	400	43	0101	0	40.28419	-90.07407	I	IL1255325
C03	121252199900	50273	Off-site	SCOTTS MHP	A	AX	U	400	34	0101	0	40.28573	-90.07402	I	IL1255325
C04	121252200000	50275	Off-site	SCOTTS MHP	I	AX	U	400	0	0101	0	40.28449	-90.07467	I	IL1255325
C05	121252200100	50276	Off-site	SCOTTS MHP	A	AX	U	400	43	0101	0	40.28504	-90.07445	I	IL1255325
C06	121252200200	50274	Off-site	SCOTTS MHP	A	AX	U	400	34	0101	0	40.28428	-90.07474	I	IL1255325
C07	121252200300	50272	Off-site	SCOTTS MHP	A	AX	U	400	64	0101	0	40.28556	-90.07322	I	IL1255325

Sources

IEPA SWAPP GIS Tool - Extracted 5/1/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
Status	Status of Well (A = Active; B = Abandoned; I = Inactive)
Susceptibility	IEPA's Susceptibility Designation based on soil geology
Aquifer Policy	IEPA-Determined Aquifer Policy (U = Unconfined; C = Confined)
Minimum Setback	Minimum Setback Zone (feet)
Ambient Well	Indicates whether the well is part of the IEPA's monitoring network (0 = not in network; 1 = active; 2 = historically in network and historical data available)
PWS Status	Status of Public Water System (PWS) that the well is associated with (A = Active; I = Inactive)

Table 2.06-A
 Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
 Hennepin Power Station - Hennepin, Putnam, Illinois

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	121550012800		On-site	Water Well	41.304882	-89.31122	26-33N-2W		Illinois Power	1968-09-01	113	
P002	121552059800		On-site	Water Well	41.304882	-89.31122	26-33N-2W		Il. Power Co.		114	
P003	121552059900		On-site	Water Well	41.302031	-89.314826	26-33N-2W		Il. Power Co. Test		115	
P004	121552025800		Off-site	Water Well	41.297672	-89.303448	26-33N-2W		Esk Corporation	1978-07-01	128	
P005	121552029200		Off-site	Water Well	41.298332	-89.304115	26-33N-2W		Esk Corporation	1978-09-01	109	
P006	121552045800	269330	Off-site	Semi-Private Water Well	41.30505	-89.299075	25-33N-2W	Location from permit	Advanced Asphalt Co.	1995-06-12	114	Sankoty
P007	121552051800	314693	Off-site	Private Water Well	41.296001	-89.296594	25-33N-2W	Location from permit	Brown, Kenneth	1999-08-25	72	sand & gravel
P008	121552062200	343982	Off-site	Private Water Well	41.308994	-89.291995	24-33N-2W		Sikora, Joe	2001-07-30	303	sand
P009	121552068500	359951	Off-site	Private Water Well	41.296001	-89.296594	25-33N-2W	Location from permit	Brown, Kenneth	2002-11-15	64	sand & gravel
P010	121552081400	442353	Off-site	Private Water Well	41.292183	-89.29125	36-33N-2W	Location from permit	Biagi, Brian	2008-08-20	208	sand
P011	121552070200		Off-site	Irrigation Well	41.296294	-89.335163	27-33N-2W	Location from permit	Dynergy Midwest-Hennepin Power	2004-08-11	83	sand
<i>P012</i>		<i>125916</i>	<i>Off-site</i>	<i>Domestic Water Well</i>			<i>26-33N-2W</i>	<i>ISWS - Section/Plot</i>	<i>Chas Nash</i>	<i>1922-01-01</i>	<i>17</i>	
<i>P013</i>		<i>125917</i>	<i>Off-site</i>	<i>Domestic Water Well</i>			<i>27-33N-2W</i>	<i>ISWS - Section/Plot</i>	<i>Tom Dore</i>	<i>1884-01-01</i>	<i>30</i>	
<i>P014</i>		<i>125919</i>	<i>Off-site</i>	<i>Domestic Water Well</i>			<i>35-33N-2W</i>	<i>ISWS - Section/Plot</i>	<i>J E Bonjes</i>	<i>1909-01-01</i>	<i>127</i>	
<i>P015</i>		<i>125922</i>	<i>Off-site</i>	<i>Domestic Water Well</i>			<i>35-33N-2W</i>	<i>ISWS - Section/Plot</i>	<i>Chas Nash</i>	<i>1920-01-01</i>	<i>160</i>	
<i>P016</i>		<i>125927</i>	<i>Off-site</i>	<i>Domestic Water Well</i>			<i>36-33N-2W</i>	<i>ISWS - Section/Plot</i>	<i>J E Bonjes</i>	<i>1874-01-01</i>	<i>85</i>	
	121552043500		On-site	Noncommunity - Public Water Well	41.304882	-89.31122	26-33N-2W		Illinois Power Co.	1993-09-30	120	sand & gravel
	121552049700	405443	Off-site	Noncommunity - Public Water Well	41.298186	-89.302211	26-33N-2W	Location from permit	Exolon - ESK Company	1996-10-17	124	sand & gravel

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)
 ISWS Domestic Wells Database (maintained on behalf of the University of Illinois) - Extracted between 4/20/2020 and 5/18/2020

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
ISWS	Illinois State Water Survey
SWAPP	Source Water Assessment Protection Program

Key

<i>Italics</i>	Well added from ISWS Domestic Wells database and is depicted in the figure
Gray Fill	Well is a duplicate non-CWS or CWS well

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available
 Dates were adjusted to exclude time
 The **Abandoned Status (Source)** column is not included in the above table because no information was available in this field for any of the identified wells

Table 2.06-B
 Receptor Survey Results (Non-CWS Wells < 2,500 feet)
 Hennepin Power Station - Hennepin, Putnam, Illinois

Figure ID	API	Well ID	On-site/Off-site	System Status	Facility Name	Facility Number	City	County	Status	Type	Latitude	Longitude	Township	Range	Section
NC01		15500226	On-site	I	DYNEGY	IL3076471	HENNEPIN	Putnam	A	INDUSTRIAL/AGRICULTURAL	41.30061191	-89.3143486	33N	02W	26
NC02		15500143	Off-site	A	EXOLON	IL3117408	HENNEPIN	Putnam	A	INDUSTRIAL/AGRICULTURAL	41.29756562	-89.30361527	33N	02W	26
NC03	121552043500		On-site	I	ILLINOIS POWER CO.	IL0076471	HENNEPIN	Putnam			41.304882	-89.31122	33N	02W	26

Sources

IEPA SWAPP GIS Tool - Extracted 5/1/2020

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)

USEPA SDWIS - System status extracted 7/3/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program
SDWIS	Safe Drinking Water Information System
USEPA	United States Environmental Protection Agency

Key

Gray	Added from ISGS Water and Related Wells
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
System Status	Status of non-CWS system according to the USEPA SDWIS website (A = Active; I = Inactive)
Status	Status of Well (A = Active; I = Inactive)

Notes

Blank cells indicate that the data was not available

Table 2.07-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Joppa Power Station - Joppa, Massac, Illinois

Figure ID	API	ISWS P Number	On-site/ Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121272099200		Off-site	Stratigraphic Test	37.236044	-88.854961	2-15S-3E	Field verified	Rodgers, Jimmy		25	
	121272100000		Off-site	Stratigraphic Test	37.23571	-88.852548	2-15S-3E	Field verified	Rodgers, Jimmy		20	
	121272100100		Off-site	Stratigraphic Test	37.23607	-88.855652	2-15S-3E	Field verified	Rodgers, Jimmy		30	
	121272100200		Off-site	Stratigraphic Test	37.236058	-88.853926	2-15S-3E	Field verified	Rodgers, Jimmy		20	
	121272100300		Off-site	Stratigraphic Test	37.235978	-88.85151	2-15S-3E	Field verified	Rodgers, Jimmy		20	
	121272110900	422538	On-site	Monitoring	37.227853	-88.874897	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-11-28	73	sand
	121272111000	422539	On-site	Monitoring	37.227808	-88.872581	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-11-27	60	sand
	121272111100	422540	On-site	Monitoring	37.225979	-88.872612	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-12-04	66	sand
	121272111200	422541	On-site	Monitoring	37.222321	-88.872675	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-12-05	61	sand
	121272111300	422542	On-site	Monitoring	37.22415	-88.872644	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-12-06	73	sand
	121272111400	422543	On-site	Monitoring	37.226024	-88.874927	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-11-14	81	sand
	121272111500	422544	On-site	Monitoring	37.222321	-88.872675	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-11-29	68	sand
	121272111600	422545	On-site	Monitoring	37.227853	-88.874897	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-11-17	71	sand
	121272111700	422546	On-site	Monitoring	37.22415	-88.872644	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-11-10	81	sand
	121272111800	422547	On-site	Monitoring	37.222365	-88.874989	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-12-01	68	sand
	121272111900	422548	On-site	Monitoring	37.227853	-88.874897	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-11-28	29	silt
	121272112000	422549	On-site	Monitoring	37.227808	-88.872581	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-11-27	12	silt
	121272112100	422550	On-site	Monitoring	37.225979	-88.872612	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-12-04	20	clayey sand
	121272112200	422551	On-site	Monitoring	37.222321	-88.872675	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-12-05	13	clayey sand
	121272112300	422552	On-site	Monitoring	37.22415	-88.872644	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-12-06	18	silt
	121272112400	422553	On-site	Monitoring	37.226024	-88.874927	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-11-14	27	silt
	121272112500	422554	On-site	Monitoring	37.222321	-88.872675	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-11-29	16	silt
	121272112600	422555	On-site	Monitoring	37.227853	-88.874897	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-11-17	23	silt & sand
	121272112700	422556	On-site	Monitoring	37.22415	-88.872644	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-11-10	24	silty sand
	121272112800	422557	On-site	Monitoring	37.222365	-88.874989	10-15S-3E	Location from the driller	Electric Energy, Inc.	2006-12-01	20	silt

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)

ISWS Domestic Wells Database (maintained on behalf of the University of Illinois) - Extracted between 4/20/2020 and 5/18/2020

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
ISWS	Illinois State Water Survey
SWAPP	Source Water Assessment Protection Program

Key

<i>Italics</i>	Well added from ISWS Domestic Wells database and is depicted in the figure
<i>Bold Italics</i>	Well added from ISWS Domestic Wells database and is not depicted in figure due to the low level of accuracy associated with the location information (i.e., well could be located anywhere within the one square-mile Section)
Gray Fill	Well is a duplicate non-CWS or CWS well

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available

Dates were adjusted to exclude time

The **Abandoned Status (Source)** column is not included in the above table because no information was available in this field for any of the identified wells

Table 2.07-B
Receptor Survey Results (CWS Wells < 1 mile)
Joppa Power Station - Joppa, Massac, Illinois

Figure ID	API	CWS Well ID	On-site/Off-site	CWS Name	Status	Susceptibility	Aquifer Policy	Minimum Setback	Depth	Aquifer Type	Ambient Well	Latitude	Longitude	PWS Status	PWS Number
C01	121272105600	70901	Off-site	JOPPA	A	A2	C	200	240	3040	0	37.20368	-88.84379	A	IL1270100
C02	121272105700	70900	Off-site	JOPPA	B	C5	C	0	448	3040	0	37.20367	-88.83935	A	IL1270100

Sources

IEPA SWAPP GIS Tool - Extracted 5/1/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
Status	Status of Well (A = Active; B = Abandoned; I = Inactive)
Susceptibility	IEPA's Susceptibility Designation based on soil geology
Aquifer Policy	IEPA-Determined Aquifer Policy (U = Unconfined; C = Confined)
Minimum Setback	Minimum Setback Zone (feet)
Ambient Well	Indicates whether the well is part of the IEPA's monitoring network (0 = not in network; 1 = active; 2 = historically in network and historical data available)
PWS Status	Status of Public Water System (PWS) that the well is associated with (A = Active; I = Inactive)

Table 2.08-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Kincaid Power Station - Kincaid, Christian, Illinois

Figure ID	API	ISWS P Number	On-site/ Off-site	Abandoned Status (Source)	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	120212346200		On-site		Water Well for Commercial Operation	39.590652	-89.483559	12-13N-4W	Platbook verified	Commonwealth Edison	1980-03-04	30	clay
P002	120212464200		On-site		Private Water Well	39.595172	-89.489659	12-13N-4W	Location from permit	Terra International Inc.	1996-02-14	68	clay-sandstone
P003	120212398800		Off-site		Water Well for Commercial Operation	39.58886	-89.509788	11-13N-4W	Location from permit	Peabody Coal Company	1981-02-17	43	sand
P004	120212471100		Off-site		Semi-Private Water Well	39.5961	-89.512197	11-13N-4W	Location from permit	Pawnee Transportation Co.	1997-08-20	42	sandy brn clay-sand
P005	120212490200	324342	Off-site		Private Water Well	39.58348	-89.526257	10-13N-4W	Location from permit	Dennis, Damon & Gail	2000-05-16	31	
P006	120212514900	363930	Off-site		Private Water Well	39.587092	-89.533364	10-13N-4W	Location from permit	Fickas, John	2004-07-27	36	
P007	120212524600	380802	Off-site		Private Water Well	39.588894	-89.533383	10-13N-4W	Location from permit	Siciliono, Frank	2006-03-30	34	
P008	120212538100	452320	Off-site		Private Water Well	39.587306	-89.532917	10-13N-4W	Location from permit	Klebe, Bob	2010-10-12	39	brown sandy silt
P009	120212555200	483790	Off-site		Private Water Well	39.587102	-89.502455	11-13N-4W	GPS verified	Mottar, Ralli	2014-03-13	30	
P010	120212560600		Off-site		Private Water Well	39.583177	-89.501938	11-13N-4W	GPS verified	Dennison, Darin	2015-09-16	33	
P011	120212289800		Off-site		Municipal Water Supply*	39.605548	-89.492034	1-13N-4W	Location from permit	SangChris State Park	1975-04-01	47	drift
P012		446193	Cannot be determined	Sealed (ISWS)	Domestic Water Well			12-13N-4W	ISWS -Section	Commonwealth Edison (schapp House)	1940-01-01	24	
	120212563500		On-site		Monitoring	39.592463	-89.502743	11-13N-4W	Location from the driller	Kincaid Generation, LLC	2016-07-20	26	sand
	120212563600		On-site		Monitoring	39.592463	-89.502743	11-13N-4W	Location from the driller	Kincaid Generation, LLC	2016-07-19	26	silty clay
	120212563700		On-site		Monitoring	39.592463	-89.502743	11-13N-4W	Location from the driller	Kincaid Generation, LLC	2016-07-19	20	silty clay
	120212563800		On-site		Monitoring	39.592463	-89.502743	11-13N-4W	Location from the driller	Kincaid Generation, LLC	2016-07-19	24	clay
	120212563900		On-site		Monitoring	39.592463	-89.502743	11-13N-4W	Location from the driller	Kincaid Generation, LLC	2016-07-19	20	silty clay
	120212564000		On-site		Monitoring	39.592463	-89.502743	11-13N-4W	Location from the driller	Kincaid Generation, LLC	2016-07-19	20	sand
	120212449100		Off-site		Water Well Test Hole	39.590657	-89.478728	12-13N-4W	Location from the driller	SBI 104 test		21	
	120210023800		Off-site		Slope Mine	39.588878	-89.516862	10-13N-4W		Mine		1	
	120210245400		On-site		Engineering Test	39.589794	-89.534571	10-13N-4W	Location from the driller	SBI 104	1964-07-23	28	
	120210245500		On-site		Engineering Test	39.59156	-89.479955	12-13N-4W	Location from the driller	SBI 104	1964-07-01	28	

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)

ISWS Domestic Wells Database (maintained on behalf of the University of Illinois) - Extracted between 4/20/2020 and 5/18/2020

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
ISWS	Illinois State Water Survey
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Key

Bold Italics Well added from ISWS Domestic Wells database and is not depicted in figure due to the low level of accuracy associated with the location information (i.e., well could be located anywhere within the one square-mile Section)

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available

Dates were adjusted to exclude time

*Ramboll was unable to identify a municipal water system associated with well P011 (owned by SangChris State Park) in the IEPA's Safe Drinking Water Information System (SDWIS) database. As such, this well remained in the private and semi-private well dataset.

Table 2.08-B

Receptor Survey Results (Non-CWS Surface Water Intakes < 2,500 feet)

Kincaid Power Station - Kincaid, Christian, Illinois

Intake Number	Name	Latitude	Longitude	Status
3093062	KINCAID GENERATION LLC	39.592895	-89.49779035	I

Sources

IEPA SWAPP GIS Tool - Extracted 5/1/2020

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)

Acronyms

GIS	Geographic Information System
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SWAPP	Source Water Assessment Protection Program

Field Definitions

Status	Status of Surface Water Intake (A = Active; I = Inactive)
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Table 2.09-A

Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)

Newton Power Station - Newton, Jasper, Illinois

Figure ID	API	ISWS P Number	On-site/ Off-site	Abandoned Status (Source)	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	120792274700		On-site		Water Well	38.923184	-88.305977	27-6N-8E		C. I. P. S.	1978-01-01	65	
P002	120792274800		On-site		Water Well	38.92405	-88.30669	27-6N-8E		C. I. P. S.	1978-01-01	23	
P003	120792274900		On-site		Water Well	38.924046	-88.306602	27-6N-8E		C. I. P. S.	1978-01-01	65	
P004	120792275000		On-site		Water Well	38.92571	-88.306701	27-6N-8E		C. I. P. S.	1978-01-01	63	
P005	120792275100		On-site		Water Well	38.921562	-88.306654	34-6N-8E		C. I. P. S.	1978-01-01	65	
P006	120792290300		On-site		Water Well	38.950274	-88.292049	23-6N-8E	Platbook verified	Marshall, Bernard	1977-07-18	40	sandy clay
P007	120792290600		On-site		Water Well	38.922073	-88.30585	34-6N-8E	Location from permit	CIPS & Dept.of Conservation	1978-09-27	78	drift
P008	120792481700		On-site		Private Water Well	38.94357	-88.316706	21-6N-8E	Location from permit	Johnson, Donald	1991-05-09	25	sand gravel
P009	120792485500	259922	On-site		Private Water Well	38.937733	-88.30746	22-6N-8E	Location from permit	Johnson, Mike	1992-03-16	140	
P010	120790222400		Off-site		Water Well	38.923187	-88.315986	28-6N-8E	Location from permit	Cockron, Lawrence	1968-10-01	26	sand
P011	120790240700		Off-site		Water Well	38.930062	-88.322043	28-6N-8E	Location from permit	Johnson, Dee	1972-09-12	31	sand
P012	120792259400		Off-site		Water Well	38.955142	-88.309013	15-6N-8E	Location from permit	King, Gradon	1976-01-14	25	yellow sand
P013	120792259500		Off-site		Water Well	38.950928	-88.306705	22-6N-8E	Location from permit	Elmore, Paul	1975-12-08	32	yellow sand
P014	120792262900		Off-site		Water Well	38.959348	-88.305336	15-6N-8E	Location from permit	Klier, Lee	1976-06-30	60	sand
P015	120792289900		Off-site		Water Well	38.958547	-88.301502	15-6N-8E	Platbook verified	Drake, Leonard	1977-12-21	40	yellow sand
P016	120792290200		Off-site		Water Well	38.947723	-88.31512	22-6N-8E	Location from permit	Miller, Fred	1978-08-31	42	sandy clay
P017	120792341700		Off-site		Water Well	38.936687	-88.258694	19-6N-9E	Location from permit	Mugrage, Mike	1980-08-06	24	brown sand & gravel
P018	120792427500		Off-site		Private Water Well	38.95731	-88.300706	15-6N-8E	Location from permit	Dhom, Thomas		42	sand
P019	120792427600		Off-site		Private Water Well	38.957912	-88.301513	15-6N-8E	Location from permit	Dhom, Thomas	1983-10-19	55	gravel-sand
P020	120792427700		Off-site		Private Water Well	38.949775	-88.322005	21-6N-8E	Location from permit	Finn, Philip	1981-06-18	34	clay-sand
<i>P021</i>		<i>354537</i>	<i>Off-site</i>	<i>Sealed (ISWS)</i>	<i>Domestic Water Well</i>			<i>15-6N-8E</i>	<i>ISWS - Section/Plot</i>	<i>Nadler, Dale</i>		<i>21</i>	
<i>P022</i>		<i>246087</i>	<i>On-site</i>		<i>Domestic Water Well</i>			<i>27-6N-8E</i>	<i>ISWS - Section/Plot</i>	<i>Johnson, Donald</i>	<i>1991-05-09</i>	<i>25</i>	
P023		62455	Off-site	Sealed (ISWS)	Domestic Water Well			30-6N-9E	ISWS -Section	Jones, H G	1987-01-01	24	
P024		62456	Off-site	Sealed (ISWS)	Domestic Water Well			30-6N-9E	ISWS -Section	Jones, H G	1987-01-01	17	

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Notes

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Table 2.10-A
 Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
 Vermilion Power Station - Oakwood, Vermilion, Illinois

Figure ID	API	ISWS P Number	On-site/ Off-site	Abandoned Status (Source)	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P053		143005	Cannot be determined		Domestic Water Well			19-20N-12W	ISWS -Section	Stump, John	1905-01-01	80	
P054		225039	Cannot be determined	Sealed (ISWS)	Domestic Water Well			19-20N-12W	ISWS -Section	Miller, Ed	1990-11-01	80	
P055		224788	Cannot be determined		Domestic Water Well			19-20N-12W	ISWS -Section	Mauhew, Ernest		93	
P056		224797	Off-site		Domestic Water Well			19-20N-12W	ISWS - Section/Plot	Grimics, Elmer		98	
P057		143004	Cannot be determined		Domestic Water Well			19-20N-12W	ISWS -Section	Scott, Guy	1898-01-01	100	
P058		143006	Off-site		Domestic Water Well			19-20N-12W	ISWS - Section/Plot	Ligget, Mrs Ross		111	
P059		143007	Cannot be determined		Domestic Water Well			19-20N-12W	ISWS -Section	Ligget, Mrs Ross	1945-01-01	111	
P060		209234	Off-site		Domestic Water Well			19-20N-12W	ISWS - Section/Plot	Chapman, Richard	1990-03-08	160	
P061		224798	Off-site		Domestic Water Well			19-20N-12W	ISWS - Section/Plot	Perry	1955-01-01	196	
P062		351270	Off-site	Sealed (ISWS)	Domestic Water Well			19-20N-12W	ISWS - Section/Plot	Stingly, Helen		108	
P063		427284	Off-site	Sealed (ISWS)	Domestic Water Well			19-20N-12W	ISWS - Section/Plot	Snyder, Alice		104	
P064		472165	Off-site	Sealed (ISWS)	Domestic Water Well			19-20N-12W	ISWS - Section/Plot	Sandusky, John		100	
P065		468789	Off-site	Sealed (ISWS)	Domestic Water Well			21-20N-12W	ISWS - Section/Plot	Bartley, Jim		100	
P066		143194	Off-site		Domestic Water Well			24-20N-13W	ISWS - Section/Plot	Foures, Felix			
P067		224630	Off-site	Sealed (ISWS)	Domestic Water Well			24-20N-13W	ISWS -Section	Fourez, Mark	1900-08-07		
P068		224802	Off-site		Domestic Water Well			24-20N-13W	ISWS - Section/Plot	Arlwood, Chas	1995-01-01		
P069		224803	Off-site		Domestic Water Well			24-20N-13W	ISWS - Section/Plot	Arlwood, Chas	1995-01-01		
P070		224804	Off-site		Domestic Water Well			24-20N-13W	ISWS - Section/Plot	Arlwood, Chas	1995-01-01		
P071		143195	Off-site		Domestic Water Well			25-20N-13W	ISWS -Section	Van Allen, Jim	1934-02-21	55	
P072		143193	Off-site		Domestic Water Well			25-20N-13W	ISWS -Section	Cooley, E B	1917-03-01	93	
P073		143017	Likely Off-site		Domestic Water Well			30-20N-12W	ISWS -Section	Vinson, J F	1934-01-05	15	
P074		468790	Off-site	Sealed (ISWS)	Domestic Water Well			30-20N-12W	ISWS - Section/Plot	Pouillard, Mike		73	
P075		143138	Off-site		Domestic Water Well			30-20N-12W	ISWS - Section/Plot	Whittaker, Harold	1978-08-21	85	
P076		143018	Likely Off-site		Domestic Water Well			30-20N-12W	ISWS -Section	Burton, Caswell R	1925-01-01	107	
P077		224881	Off-site		Domestic Water Well			30-20N-12W	ISWS - Section/Plot	Fletcher, Glen	1953-01-01	115	
P078		225054	Likely Off-site		Domestic Water Well			30-20N-12W	ISWS -Section	Simmons, Barry	1973-08-08	176	
P079		365792	Cannot be determined	Sealed (ISWS)	Domestic Water Well			30-20N-12W	ISWS - Section/Plot	Pouillard, Tim		117	
	121832444600		On-site		Water Well Test Hole	40.175096	-87.761141	19-20N-12W		Interstate Water Co.	1988-01-19	130	
	121832389400		Off-site		Water Well Test Hole	40.192847	-87.755155	18-20N-12W	Location from the driller	Elmore, Tom		0	
	121832389700		Off-site		Water Well Test Hole	40.170937	-87.768516	30-20N-12W		Danville Country Club		0	
	121832389800	143132	Off-site		Water Well Test Hole	40.17447	-87.766838	30-20N-12W		Nelson, L.	1965-01-27	150	
	121832389900	143133	Off-site		Water Well Test Hole	40.173757	-87.768806	30-20N-12W		Nelson, L.	1965-01-27	135	
	121832444700		Off-site		Water Well Test Hole	40.170614	-87.759662	30-20N-12W		Interstate Water Co.(cemetery)	1988-01-21	170	sand & gravel
	121832574300		Off-site		Noncommunity - Public Water Well	40.183926	-87.771695	24-20N-13W		Newton Middle School		0	
	121832574400		On-site		Monitoring	40.178988	-87.739846	20-20N-12W	GPS verified	IL Power Plant	2002-01-07	100	
	121832575100		On-site		Monitoring	40.179472	-87.735447	21-20N-12W	GPS verified	IL Power Plant	2002-01-07	56	
	121832575300		On-site		Monitoring	40.180735	-87.736484	20-20N-12W	Location from the driller	IL Power Plant	2001-12-03	28	
	121832575400		On-site		Monitoring	40.180735	-87.736484	20-20N-12W	Location from the driller	IL Power Plant	2001-12-03	55	
	121832575500		On-site		Monitoring	40.173838	-87.753102	29-20N-12W	Location from the driller	IL Power Plant	2001-12-04	39	
	121832582900	348726	On-site		Monitoring	40.178973	-87.738835	20-20N-12W	Location from the driller	Dynegy Midwest Generation	2001-11-30	100	shale
	121832583000	348727	On-site		Monitoring	40.180735	-87.736484	20-20N-12W	Location from the driller	Dynegy Midwest Generation	2001-12-03	28	silt/sandy clay
	121832583100	348728	On-site		Monitoring	40.180735	-87.736484	20-20N-12W	Location from the driller	Dynegy Midwest Generation	2001-12-03	55	shale
	121832583200	348729	On-site		Monitoring	40.173838	-87.753102	29-20N-12W	Location from the driller	Dynegy Midwest Generation	2001-12-04	39	shale

Table 2.10-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Vermilion Power Station - Oakwood, Vermilion, Illinois

Figure ID	API	ISWS P Number	On-site/ Off-site	Abandoned Status (Source)	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121832575000		Off-site		Monitoring	40.186362	-87.738803	20-20N-12W	GPS verified	IL Power Plant	2002-01-07	148	
	121832575200		Off-site		Monitoring	40.177139	-87.73167	21-20N-12W	Location from the driller	IL Power Plant	2001-11-29	184	
	121832575600		Off-site		Monitoring	40.182543	-87.736517	20-20N-12W	Location from the driller	IL Power Plant	2001-11-21	16	
	121832575700		Off-site		Monitoring	40.182543	-87.736517	20-20N-12W	Location from the driller	IL Power Plant	2001-11-26	44	
	121832575800		Off-site		Monitoring	40.18435	-87.734175	21-20N-12W	Location from the driller	IL Power Plant	2001-11-26	15	
	121832575900		Off-site		Monitoring	40.18435	-87.734175	21-20N-12W	Location from the driller	IL Power Plant	2001-11-27	45	
	121832583300	348730	Off-site		Monitoring	40.182543	-87.736517	20-20N-12W	Location from the driller	Dynegy Midwest Generation	2001-11-21	16	sand
	121832583400	348731	Off-site		Monitoring	40.182543	-87.736517	20-20N-12W	Location from the driller	Dynegy Midwest Generation	2001-11-26	44	shale
	121832583500	348732	Off-site		Monitoring	40.18435	-87.734175	21-20N-12W	Location from the driller	Dynegy Midwesr Generation	2001-11-26	15	silt
	121832583600	348733	Off-site		Monitoring	40.18435	-87.734175	21-20N-12W	Location from the driller	Dynegy Midwest Generation	2001-11-27	45	shale
	121832583700	348734	Off-site		Monitoring	40.186207	-87.738961	20-20N-12W	Location from the driller	Dynegy Midwest Generation	2001-11-21	148	shale
	121832583800	348735	Off-site		Monitoring	40.177139	-87.73167	21-20N-12W	Location from permit	Dynegy Midwest Generation	2001-11-29	184	shale
	121832583900	348736	Off-site		Monitoring	40.18073	-87.734105	21-20N-12W	Location from the driller	Dynegy Midwest Generation	2001-12-04	56	shale
	121830035900		Off-site		Mineral Test	40.168983	-87.732816	28-20N-12W		Layton, J.	1910-09-01	116	
	121832585800	347571	Off-site		Dry Hole (water well), Plugged	40.193736	-87.765124	18-20N-12W	Location from permit	Schuren, Steve	2003-04-24	190	dry hole
	121832586000	347573	Off-site		Dry Hole (water well), Plugged	40.193736	-87.765124	18-20N-12W	Location from permit	Schuren, Steve	2003-04-28	125	dry hole
	121832633100	431633	Off-site		Dry Hole (water well), Plugged	40.172967	-87.763583	30-20N-12W	Location from permit	Wiese, Doug	2007-11-08	190	dry
	121832633200	431635	Off-site		Dry Hole (water well), Plugged	40.17355	-87.7628	30-20N-12W	Location from permit	Wiese, Doug	2007-11-08	131	dry
	121832545200	323570	Off-site		Dry Hole (water well)	40.181003	-87.768345	19-20N-12W	Location from permit	Knoblett, Gary	2000-03-29	189	dry hole
	121832569600	338800	Off-site		Dry Hole (water well)	40.182868	-87.760306	19-20N-12W	Location from the driller	Cooney, Jane	2001-06-11	140	dry hole
	121832571500	337409	Off-site		Dry Hole (water well)	40.168286	-87.762559	30-20N-12W	Location from permit	Gray, Kenneth	2001-11-05	116	dry hole
	121832571600	337410	Off-site		Dry Hole (water well)	40.168286	-87.762559	30-20N-12W	Location from permit	Gray, Kenneth	2001-11-06	117	dry hole
	121832571700	337411	Off-site		Dry Hole (water well)	40.168286	-87.762559	30-20N-12W	Location from permit	Gray, Kenneth	2001-11-07	160	dry hole

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)

ISWS Domestic Wells Database (maintained on behalf of the University of Illinois) - Extracted between 4/20/2020 and 5/18/2020

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
ISWS	Illinois State Water Survey
SWAPP	Source Water Assessment Protection Program

Key

<i>Italics</i>	Well added from ISWS Domestic Wells database and is depicted in the figure
<i>Bold Italics</i>	Well added from ISWS Domestic Wells database and is not depicted in figure due to the low level of accuracy associated with the location information (i.e., well could be located anywhere within the one square-mile Section)

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available

Dates were adjusted to exclude time

*Ramboll was unable to identify a municipal water system associated with well P046 (owned by Cundiff) in the IEPA's Safe Drinking Water Information System (SDWIS) database. As such, this well remained in the private and semi-private well dataset.

Table 2.10-B
Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Vermilion Power Station - Oakwood, Vermilion, Illinois

Figure ID	API	Well ID	On-site/Off-site	System Status	Facility Name	Facility Number	City	County	Status	Type	Latitude	Longitude	Township	Range	Section
NC01		18300053	Off-site	A	OAKWOOD JR HIGH SCHOOL	IL3005595	DANVILLE	Vermilion	A	SCHOOL	40.183385	-87.77023729	20N	13W	24
NC02	121832574300		Off-site	I	NEWTON MIDDLE SCHOOL	IL0005595*		Vermilion			40.183926	-87.771695	20N	13W	24

Sources

IEPA SWAPP GIS Tool - Extracted 5/1/2020

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)

USEPA SDWIS - System status extracted 7/8/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program

Key

Gray	Added from ISGS Water and Related Wells
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
System Status	Status of non-CWS system according to the USEPA SDWIS website (A = Active; I = Inactive)
Status	Status of Well (A = Active; I = Inactive)

Notes

Blank cells indicate that the data was not available

*According to the USEPA SDWIS database, "Newtown Consolidated Elementary School" (IL0005595) is listed as inactive as of October 1980.

Table 2.10-C
Receptor Survey Results (Non-CWS Surface Water Intakes < 2,500 feet)
Vermilion Power Station - Oakwood, Vermilion, Illinois

Intake Number	Name	Latitude	Longitude	Status
3108720	VERMILION FISHING CLUB	-87.75987	40.17699444	I

Sources

IEPA SWAPP GIS Tool - Extracted 5/1/2020

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program

Field Definitions

Status	Status of Surface Water Intake (A = Active; I = Inactive)
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Table 3.01-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Crawford Power Station - Chicago, Cook, IL

Figure ID	API	On-site/Off-site	Well Type	Latitude	Longitude	Location	Owner	Date Drilled	Total Depth (ft)
	120314472200	Off-Site	Engineering Test	41.825869	-87.715736	35-39N-13E	Santa Fe R.R. over SW Expressway	8/1/1961	46
	120314472700	Off-Site	Engineering Test	41.825734	-87.715643	35-39N-13E	Santa Fe R.R. over SW Expressway	8/1/1961	49
	120314472400	Off-Site	Engineering Test	41.825852	-87.7156	35-39N-13E	Santa Fe R.R. over SW Expressway	8/1/1961	52
	120314472500	Off-Site	Engineering Test	41.825712	-87.715461	35-39N-13E	Santa Fe R.R. over SW Expressway	8/1/1961	57
	120314472300	Off-Site	Engineering Test	41.825619	-87.715452	35-39N-13E	Santa Fe R.R. over SW Expressway	8/1/1961	65
	120314795000	Off-Site	Engineering Test	41.827632	-87.715341	35-39N-13E	Southwest Side Intercepting Sewer	11/1/1934	31
	120314795200	Off-Site	Engineering Test	41.82422	-87.71644	35-39N-13E	Southwest Side Intercepting Sewer	11/1/1934	58
	120314794900	Off-Site	Engineering Test	41.826176	-87.718838	35-39N-13E	Southwest Side Intercepting Sewer	11/1/1934	60
	120314795100	Off-Site	Engineering Test	41.827532	-87.715783	35-39N-13E	Southwest Side Intercepting Sewer	11/1/1934	62
	120314793700	Off-Site	Engineering Test	41.824663	-87.723678	35-39N-13E	Southwest Side Intercepting Sewer	11/1/1934	70
	120314792500	Off-Site	Engineering Test	41.824741	-87.712465	35-39N-13E	Southwest Side Intercepting Sewer	1/1/1935	54
	120313852600	Off-Site	Engineering Test	41.829202	-87.705674	35-39N-13E	Westbound Lane Reconstruction	6/30/1997	44
	120313852500	Off-Site	Engineering Test	41.829014	-87.706238	35-39N-13E	Westbound Lane Reconstruction	7/2/1997	39
	120313852200	Off-Site	Engineering Test	41.82848	-87.70788	35-39N-13E	Westbound Lane Reconstruction	7/2/1997	44
	120313852400	Off-Site	Engineering Test	41.828833	-87.706772	35-39N-13E	Westbound Lane Reconstruction	7/2/1997	44
	120313852300	Off-Site	Engineering Test	41.828638	-87.707365	35-39N-13E	Westbound Lane Reconstruction	7/3/1997	39

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 6/24/2020 (via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application)

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available

Dates were adjusted to exclude time

The **ISWS P Number**, **Location Source**, and **Formation** columns are not included in the above table because no information was available in these fields for any of the identified wells

Table 3.02-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Dallman/Lakeside Power Station - Springfield, Sangamon, IL

Figure ID	API	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	121670137500	On-Site	Private Water Well	39.755318	-89.610699	13-15N-5W	Location from permit	Santini, Richard	10/12/1968	20	clay
P002	121670148100	Off-Site	Water Well	39.775264	-89.606181	1-15N-5W	Location from the driller	Fiskas, Raymond L.	1/1/1965	24	hardpan
	121672679100	On-Site	Monitoring	39.770291	-89.598963	12-15N-5W		CWLP City Water Light & Power	6/26/2017	24	clayey sand w/ gvl
	121672678100	On-Site	Monitoring	39.770291	-89.598963	12-15N-5W		CWLP City Water Light & Power	6/27/2017	41	sandy silt-silty san
	121672679200	On-Site	Monitoring	39.770291	-89.598963	12-15N-5W		CWLP City Water Light & Power	6/27/2017	42	silty sand
	121672561500	On-Site	Engineering Test	39.776676	-89.597909	1-15N-5W		CCR RR Bor. 449+00 200'R	11/15/1979	0	
	121672561900	On-Site	Engineering Test	39.776676	-89.597909	1-15N-5W		CCR RR Bor. A 446+00 200'L	11/30/1979	0	
	121672561600	On-Site	Engineering Test	39.776676	-89.597909	1-15N-5W		CCR RR Bor. A 453+00 200'L	11/30/1979	0	
	121672561700	On-Site	Engineering Test	39.776676	-89.597909	1-15N-5W		CCR RR Bor. A 462+00 200'L	12/3/1979	0	
	121672561800	On-Site	Engineering Test	39.776676	-89.597909	1-15N-5W		CCR RR Bor. A 468+00	12/4/1979	0	
	121672561000	On-Site	Engineering Test	39.776676	-89.597909	1-15N-5W		CCR RR Bor. C 456+50 200'R	11/15/1979	0	
	121672561100	On-Site	Engineering Test	39.776676	-89.597909	1-15N-5W		CCR RR Bor. C 465+20 200'R	11/19/1979	0	
	121672560300	On-Site	Engineering Test	39.769455	-89.597842	12-15N-5W		CCR RR Bor. C 443+28 11'R	10/2/1979	0	
	121672681000	Off-Site	Geothermal Heating and Cooling	39.75625	-89.621556	14-15N-5W	GPS verified	Blood, Phillip	8/15/2018	150	
	121672560200	Off-Site	Engineering Test	39.769133	-89.60733	12-15N-5W		CCR RR Bor C 428+90 160'L	11/20/1979	0	
	121672560800	Off-Site	Engineering Test	39.769133	-89.60733	12-15N-5W		CCR RR Bor. A 420+60 15'L	10/4/1979	0	
	121672560900	Off-Site	Engineering Test	39.769133	-89.60733	12-15N-5W		CCR RR Bor. A 426+00 3'R	9/26/1979	0	
	121672560500	Off-Site	Engineering Test	39.769133	-89.60733	12-15N-5W		CCR RR Bor. A 427+30 180R	11/30/1979	0	
	121672560600	Off-Site	Engineering Test	39.769133	-89.60733	12-15N-5W		CCR RR Bor. A 431+45	10/3/1979	0	
	121672560700	Off-Site	Engineering Test	39.769133	-89.60733	12-15N-5W		CCR RR Bor. C428+90	12/18/1979	0	
	121670148600	Off-Site	Engineering Test	39.770954	-89.607351	12-15N-5W	Location from the driller	FA 169 Culvert	2/4/1966	12	
	121670148700	Off-Site	Engineering Test	39.74542	-89.604615	13-15N-5W	Location from the driller	FA 196 under GM&O RR.	11/9/1964	28	
	121670148800	Off-Site	Engineering Test	39.74542	-89.604615	13-15N-5W	Location from the driller	FA-196 under GM&O RR	11/10/1964	38	

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 6/24/2020 (via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application)

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available

Dates were adjusted to exclude time

The **ISWS P Number** column is not included in the above table because no information was available in this field for any of the identified wells

Table 3.02-B
Receptor Survey Results (CWS Surface Water Intakes < 1 mile)
Dallman/Lakeside Power Station - Springfield, Sangamon, IL

On-site/Off-site	Facility Name	Facility Number	Intake ID	Watershed ID	Source	Status	Basin Name	Latitude	Longitude
On-Site	Springfield	IL1671200	IN52140	1671200WS01	Lake Springfield	A	Lower Sangamon	39.75926	-89.60001

Sources

IEPA SWAPP GIS Tool - Extracted 6/24/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program

Field Definitions

On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
Status	Status of Well (A = Active; B = Abandoned; I = Inactive)

Table 3.03-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Hutsonville Power Station - Hutsonville, Crawford, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	120332991300		On-Site	Water Well	39.129678	-87.654686	17-8N-11W	Location from permit	C.I.P.S.-Hutsonville Unit	5/25/1976	90	sand & gravel
P002	120333386700		On-Site	Industrial Water Well	39.129677	-87.654832	17-8N-11W	Location from permit	Central II Public Serv.Co.	10/28/1983	88	alluvial
P003	120333689800	344258	Off-Site	Irrigation Well	39.127799	-87.658791	20-8N-11W	Location from permit	DeMent, Margaret	6/12/2002	61	
P004	120333741100	433124	Off-Site	Private Water Well	39.135033	-87.66725	18-8N-11W	Location from permit	Allison, Jim	12/20/2007	90	sandstone
P005	120333675600	318413	Off-Site	Irrigation Well	39.122411	-87.658754	20-8N-11W	Location from permit	DeMent, Margaret	2/8/2000	60	sand & gravel
P006	120333666700	301186	Off-Site	Irrigation Well	39.127799	-87.658791	20-8N-11W	Location from permit	Wampler, Duane	1/29/1998	66	sand & gravel
P007	120333519600		Off-Site	Irrigation Well	39.12778	-87.665637	20-8N-11W	Location from permit	Dement, Margaret R.	3/24/1989	64	sand & gravel
	120330649500		Off-Site	Oil Test, left open for a water well	39.127747	-87.67445	19-8N-11W		Kennedy, L. W.	7/1/1954	975	

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 6/24/2020 (via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application)

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available
 Dates were adjusted to exclude time

Table 3.03-B
 Receptor Survey Results (Non-CWS Wells < 2,500 feet)
 Hutsonville Power Station - Hutsonville, Crawford, IL

Figure ID	Well ID	On-site/Off-site	System Status	Facility Name	Facility Number	City	County	Well Status	Type	Latitude	Longitude	Township	Range	Section
NC01	3300027	On-Site	I	AMEREN ENERGY GENERATING	IL3103002	HUTSONVILLE	Crawford	A	INDUSTRIAL/AGRICULTURAL	39.12924063	-87.65415607	8N	11W	17
NC02	3300035	On-Site	I	AMEREN ENERGY GENERATING	IL3103002	HUTSONVILLE	Crawford	A	INDUSTRIAL/AGRICULTURAL	39.13060943	-87.65415227	8N	11W	17

Sources

IEPA SWAPP GIS Tool - Extracted 6/24/2020
 USEPA SDWIS - System status extracted 7/3/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program
SDWIS	Safe Drinking Water Information System
USEPA	United States Environmental Protection Agency

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
System Status	Status of non-CWS system according to the USEPA SDWIS website (A = Active; I = Inactive)
Status	Status of Well (A = Active; I = Inactive)

Notes

The **API** column is not included in the above table because no information was available in this field for any of the identified wells

Table 3.03-C
 Receptor Survey Results (CWS Wells < 1 mile)
 Hutsonville Power Station - Hutsonville, Crawford, IL

Figure ID	API	CWS Well ID	On-site/Off-site	CWS Name	Status	Susceptibility	Aquifer Policy	Minimum Setback	Depth	Aquifer Type	Ambient Well	Latitude	Longitude	PWS Status	PWS Number
C01	120333440500	00164	Off-Site	HUTSONVILLE	B	AX	U	0	77	0101	0	39.11606	-87.65476	A	IL0330100

Sources

IEPA SWAPP GIS Tool - Extracted 6/24/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
Status	Status of Well (A = Active; B = Abandoned; I = Inactive)
Susceptibility	IEPA's Susceptibility Designation based on soil geology
Aquifer Policy	IEPA-Determined Aquifer Policy (U = Unconfined; C = Confined)
Minimum Setback	Minimum Setback Zone (feet)
Ambient Well	Indicates whether the well is part of the IEPA's monitoring network (0 = not in network; 1 = active; 2 = historically in network and historical data available)
PWS Status	Status of Public Water System (PWS) that the well is associated with (A = Active; I = Inactive)

Table 3.04-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Joliet 9 Power Station - Joliet, Will, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121974344500		Off-Site	Engineering Test	41.504564	-88.104952	20-35N-10E		US Rt. 6 over I&M Canal	3/25/1987	28	
	121974344400		Off-Site	Engineering Test	41.504241	-88.105152	20-35N-10E		US Rt. over I&M Canal			
	121974694000		Off-Site	Engineering Test	41.477439	-88.127054	31-35N-10E		Proposed Sanitary Landfill	12/29/1971	33	
	121973337600		Off-Site	Engineering Test	41.478257	-88.124898	31-35N-10E		Proposed Sanitary Landfill	12/29/1971	38	
	121974693900		Off-Site	Engineering Test	41.478752	-88.127926	31-35N-10E		Proposed Sanitary Landfill	1/3/1972	17	
	121974267300	446318	Off-Site	Dry Hole (water well), Plugged	41.49738	-88.097009	21-35N-10E	Location from permit	Hardwire Electric	5/21/2009	680	sandstone

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 6/24/2020 (via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application)

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program

Key

Gray Fill	Well is a duplicate non-CWS or CWS well
<i>Italics with Blue Fill</i>	Well falls within the 2,500-foot radius of both the Joliet 9 and Joliet 29 Power Stations

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available

Dates were adjusted to exclude time

* Well 121974132300, owned by Don Hudson, is associated with Sahara Lounge (see Table 3.04-B [Receptor Survey Results (Non-CWS Wells < 2,500 feet)]).

Table 3.04-B
Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Joliet 9 Power Station - Joliet, Will, IL

Figure ID	API	Well ID	On-site/Off-site	System Status	Facility Name	Facility Number	City	County	Well Status	Type	Latitude	Longitude	Township	Range	Section
NC01		19703255	On-Site	A	MIDWEST GENERATION/JOLIET #9	IL3110841	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.49352339	-88.11439471	35N	10E	29
NC02		19703263	On-Site	A	MIDWEST GENERATION/JOLIET #9	IL3110841	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.4915247	-88.11533093	35N	10E	29
NC03		19703271	On-Site	A	MIDWEST GENERATION/JOLIET #9	IL3110841	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.49412498	-88.11377558	35N	10E	29
NC04	121973842900	19702166	Off-Site	I	CATERPILAR INC JOLIET	IL3082271	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.48707029	-88.13222826	35N	10E	30
NC05		19703131	Off-Site	A	MIDWEST GENERATION/JOLIET #29	IL3110122	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.49566114	-88.12363427	35N	10E	19
NC06		19703123	Off-Site	A	MIDWEST GENERATION/JOLIET #29	IL3110122	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.49358427	-88.12334056	35N	10E	30
NC07	121974006400	19704501	Off-Site	I	UIC	IL3131904	JOLIET	Will	I	OTHER TRANSIENT AREA	41.5015666	-88.1103136	35N	10E	20
NC08		19704865	Off-Site	I	BOBBIE N MAMIES SOUL ETC	IL3137026	JOLIET	Will	I	RESTAURANT	41.50030356	-88.09390851	35N	10E	21
NC09	121974132300	19701721	Off-Site	I	SAHARA LOUNGE	IL3056846	JOLIET	Will	I	RESTAURANT	41.50517907	-88.08768559	35N	10E	21
NC10	121974006700	19701697	Off-Site	I	THE LEGEND	IL3056796	JOLIET	Will	I	RESTAURANT	41.49722398	-88.09643182	35N	10E	21
NC11	121973181000	19701648	Off-Site	I	WHOLE TRUTH CHURCH OF GOD	IL3047266	JOLIET	Will	I	INSTITUTION	41.49852367	-88.09230761	35N	10E	21
NC12	121970126200		Off-Site	I	CATERPILAR INC JOLIET	IL3082271	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL			35N	9E	25

Sources

IEPA SWAPP GIS Tool - Extracted 6/24/2020
 USEPA SDWIS - System status extracted 7/3/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program
SDWIS	Safe Drinking Water Information System
USEPA	United States Environmental Protection Agency

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
System Status	Status of non-CWS system according to the USEPA SDWIS website (A = Active; I = Inactive)
Status	Status of Well (A = Active; I = Inactive)

Notes

Blank cells indicate that the data was not available

Table 3.04-C
Receptor Survey Results (CWS Wells < 1 mile)
Joliet 9 Power Station - Joliet, Will, IL

Figure ID	API	CWS Well ID	On-site/Off-site	CWS Name	Status	Susceptibility	Aquifer Policy	Minimum Setback	Depth	Aquifer Type	Ambient Well	Latitude	Longitude	PWS Status	PWS Number
C01		01700	Off-Site	JOLIET	I	A1	C	200	1556	6693	0	41.48653	-88.14001	A	IL1970450
C02	121970125000	00174	Off-Site	ROCKDALE	A	A1	C	200	1575	7593	0	41.50645	-88.11484	A	IL1970850
C03	121972880300	00175	Off-Site	ROCKDALE	A	A1	C	200	258	5661	0	41.51011	-88.11639	A	IL1970850
C04	121972880100	00176	Off-Site	ROCKDALE	A	A1	C	200	285	5656	1	41.50675	-88.1247	A	IL1970850
C05		01967	Off-Site	ROCKDALE	A	A1	U	400	225	5656	0	41.50674	-88.10821	A	IL1970850
C06	121973984900	20320	Off-Site	ROCKDALE	B	A1	U	0	1575	7093	0	41.50636	-88.11486	A	IL1970850
C07	121973913900	20414	Off-Site	CLEARVIEW SUBDIVISION	B	A1	U	0	220	5656	0	41.50326	-88.07529	A	IL1970450
C08	121970072000	22114	Off-Site	JOLIET	B	AX	C	0	1565	6393	0	41.51434	-88.0908	A	IL1970450
C09	121973914100	20385	Off-Site	MODERN MHP	I	C1	C	0	350	5050	0	41.49243	-88.08283	I	IL1975265
C10	121973914200	20386	Off-Site	MODERN MHP	I	C1	C	0	300		0	41.49246	-88.08217	I	IL1975265
C11	121973691800	01068	Off-Site	SOUTHEAST JOLIET SD	B	C1	U	0	250	5656	0	41.49001	-88.08656	A	IL1977490
C12	121970055900	20396	Off-Site	SOUTHEAST JOLIET SD	A	C1	U	400	248	5656	0	41.49445	-88.07946	A	IL1977490

Sources

IEPA SWAPP GIS Tool - Extracted 6/24/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
Status	Status of Well (A = Active; B = Abandoned; I = Inactive)
Susceptibility	IEPA's Susceptibility Designation based on soil geology
Aquifer Policy	IEPA-Determined Aquifer Policy (U = Unconfined; C = Confined)
Minimum Setback	Minimum Setback Zone (feet)
Ambient Well	Indicates whether the well is part of the IEPA's monitoring network (0 = not in network; 1 = active; 2 = historically in network and historical data available)
PWS Status	Status of Public Water System (PWS) that the well is associated with (A = Active; I = Inactive)

Notes

Blank cells indicate that the data was not available

**Table 3.05-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Joliet 29 Power Station - Joliet, Will, IL**

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	121973266000		Off-Site	Water well	41.497139	-88.10177	20-35N-10E	Aerial Photograph verified	Lincoln Stone Co.	1/1/1943	280	limestone
P002	121970026500		Off-Site	Water Well	41.494546	-88.113188	20-35N-10E		Commonwealth Edison Station 9	1/1/1958	1595	
P003	121973266100		Off-Site	Water Well	41.495572	-88.101426	20-35N-10E		Richards, R. D.	1/1/1937	153	
P004	121970125700	154815	Off-Site	Water Well	41.49157	-88.11825	29-35N-10E		Public Service Co. Sta. 9	1/1/1940	1509	
P005	121973606200		Off-Site	Semi-Private Water Well	41.491498	-88.11433	29-35N-10E	Aerial Photograph verified	Commonwealth Edison	12/15/1992	740	sand
P006	121973725700	405438	Off-Site	Water Well for Business	41.504005	-88.104767	20-35N-10E		Brandon Rd. Lock & Dam	10/24/1996	770	sandstone
P007	121973952500		On-Site	Water Well	41.496391	-88.122403	19-35N-10E	Platbook verified	Commonwealth Edison Co.		1525	
P008	121973265700		On-Site	Water Well	41.496391	-88.122403	19-35N-10E		Commonwealth Edison	10/1/1964	525	
P009	121973265900		On-Site	Water Well	41.501419	-88.109876	20-35N-10E	Location from a log	Famales, Gust	2/12/1947	103	gray limestone
P010	121970027700	154388	Off-Site	Water Well	41.502167	-88.113473	20-35N-10E	Location from a log	Saylora, Tony	1/1/1956	135	white lime
P011	121970125600		Off-Site	Water Well	41.488077	-88.117994	29-35N-10E		Blockson Chemical Co.	1/1/1953	1535	
P012	121970056300		Off-Site	Water Well	41.492296	-88.12122	30-35N-10E	Location from a log	Blockson Chemical Co.	1/1/1952	1535	
P013	121970125900		Off-Site	Water Well	41.486779	-88.121002	30-35N-10E		Blockson Chemical Co.	1/1/1941	1510	
P014	121970120300	402386	Off-Site	Water Well	41.48448	-88.125918	30-35N-10E		Blockson Chemical Co.	10/1/1960	1495	
P015	121973953200		Off-Site	Water Well	41.486529	-88.129052	30-35N-10E		Blockson Chemical Co.		580	
P016	121970125800		Off-Site	Water Well	41.487193	-88.121243	30-35N-10E		Blockson Chemical Co.		1520	
P017	121970235500		On-Site	Water Well	41.493617	-88.12294	30-35N-10E		Public Service Co. Sta. 9	1/1/1962	1525	
P018	121974182900	377119	Off-Site	Private Water Well	41.505556	-88.104822	20-35N-10E	Aerial Photograph verified	Lozar, Mike & Tom	10/4/2005	260	limestone
P019	121973179600	160875	Off-Site	Private Water Well	41.503037	-88.107613	20-35N-10E	Field verified	McDonald, Bill	5/29/1980	115	limestone
P020	121973179400	154519	Off-Site	Private Water Well	41.502341	-88.108687	20-35N-10E	Location from permit	Green Valley Farm	11/30/1974	205	
P021	121973179500	154520	Off-Site	Private Water Well	41.502256	-88.111108	20-35N-10E	Location from permit	Grzetic, John J.	11/18/1978	205	limestone
P022	121972760100	154522	Off-Site	Private Water Well	41.502167	-88.113473	20-35N-10E	Location from permit	Lahey, William	11/23/1976	205	limestone
P023	121972700300	154513	Off-Site	Private Water Well	41.49724	-88.10385	20-35N-10E	Location from permit	Nicon, Mr.	8/31/1978	220	
P024	121970244500	154515	Off-Site	Private Water Well	41.504277	-88.103916	20-35N-10E	Location from permit	Olson, Esther	12/7/1971	240	limestone
P025	121972518200	154517	Off-Site	Private Water Well	41.497149	-88.106254	20-35N-10E	Location from permit	Sykes, James	6/27/1975	100	rock
P026	121970342100	154552	Off-Site	Private Water Well	41.498794	-88.097566	21-35N-10E	Aerial Photograph verified	Nicholson, James	4/26/1973	175	limestone
P027	121973833500	310006	Off-Site	Private Water Well	41.497928	-88.099789	21-35N-10E	Aerial Photograph verified	Sherrod, Sandra	3/17/1999	200	limestone
P028	121973179900	160866	Off-Site	Private Water Well	41.498872	-88.097406	21-35N-10E	Field verified	Campbell, Willard	1/6/1980	165	limestone
P029	121970207300	154558	Off-Site	Private Water Well	41.500921	-88.099077	21-35N-10E	Location from permit	Adams, Felix	7/29/1971	150	limestone
P030	120992861400		Off-Site	Private Water Well	41.500076	-88.100139	35-35N-1E	GPS verified	Dober, Darrel	7/28/2016	200	limestone& sandstone
P031	121970203400	404183	Off-Site	Industrial Water Well	41.493438	-88.118058	29-35N-10E		Commonwealth Edison	6/1/1971	1505	
P032	121974045100	343798	Off-Site	Water Well for Commercial Operation	41.50053	-88.127136	19-35N-10E	Aerial Photograph verified	M & E Components	5/17/2002	200	limestone
P033	121972919900	154503	Off-Site	Water Well for Commercial Operation	41.501906	-88.120726	19-35N-10E	Location from permit	TRS Steel Corp.	11/11/1986	100	limestone
P034	121974206700		Off-Site	Water Well for Commercial Operation	41.50578	-88.11109	20-35N-10E	Platbook verified	Rockdale, Village of	10/13/2003	225	
P035	121973686500	280659	Off-Site	Water Well for Business	41.500318	-88.12763	19-35N-10E	Aerial Photograph verified	Carlson, Carl	9/13/1995	145	limestone
P036	121973265600	154377	Off-Site	Water Well	41.504535	-88.124259	19-35N-10E	Location from a log	Schook, Minnie R.	1/1/1947	200	limestone
P037	121970124700		Off-Site	Water Well	41.50383	-88.120181	19-35N-10E		American Can Co.	1/1/1921	1372	
P038	121970124800		Off-Site	Water Well	41.503955	-88.120549	19-35N-10E		American Can Co.	6/1/1942	1594	
P039	121973265800	154802	Off-Site	Water Well	41.504268	-88.111747	20-35N-10E	Location from a log	Amer. Steel & Wire, Rockdale	1/1/1919	950	
P040	121970124900	409303	Off-Site	Water Well	41.505527	-88.115045	20-35N-10E		Rockdale City	1/1/1914	660	
P041	121973624000	255081	Off-Site	Semi-Private Water Well	41.502659	-88.13117	19-35N-10E	Aerial Photograph verified	Berryman Transfer & Storage	5/5/1994	150	limestone
P042	121973177700	160878	Off-Site	Private Water Well	41.509495	-88.10637	17-35N-10E	Location from permit	Vargas, John	3/31/1981	145	limestone
P043	121973177800	160879	Off-Site	Private Water Well	41.509495	-88.10637	17-35N-10E	Location from permit	Vargas, John	4/1/1981	145	limestone
P044	121972646300	154507	Off-Site	Private Water Well	41.499899	-88.128311	19-35N-10E	Location from permit	Bills Wrecking	2/7/1978	115	limestone
P045	121973006000	154506	Off-Site	Private Water Well	41.503508	-88.12584	19-35N-10E	Location from permit	Gray, William	10/22/1987	185	limestone
P046	121970350100	154505	Off-Site	Private Water Well	41.505354	-88.123301	19-35N-10E	Location from permit	Minor, Karl	6/2/1973	225	limestone
P047	121970356900	221195	Off-Site	Private Water Well	41.504512	-88.122008	19-35N-10E	Location from permit	Zobel, Marvin	7/17/1973	185	limestone
P048	121973179300	154510	Off-Site	Private Water Well	41.506502	-88.10564	20-35N-10E	Aerial Photograph verified	Clow, Franklin P.	9/3/1981	175	limestone
P049	121972848700	154518	Off-Site	Private Water Well	41.507473	-88.106295	20-35N-10E	Aerial Photograph verified	Wyke, Samuel & G. Baum	8/11/1985	125	limestone
P050	121973179200	154523	Off-Site	Private Water Well	41.507456	-88.11348	20-35N-10E	Location from permit	Chapman, Grant	6/16/1980	200	limestone
P051	121970357000	154516	Off-Site	Private Water Well	41.507796	-88.103947	20-35N-10E	Location from permit	Hudgens, Herb	6/19/1973	105	limestone
P052	121973179700	154521	Off-Site	Private Water Well	41.507542	-88.111097	20-35N-10E	Location from permit	T & R Body Shop	5/31/1979	205	limestone
P053	121972758800	153263	Off-Site	Private Water Well	41.492454	-88.1405	25-35N-9E	Location from permit	Crown-Trygg Corporation	2/1/1979	200	shale
P054	121970159300	154524	Off-Site	Industrial Water Well	41.504004	-88.119081	20-35N-10E	Location from permit	Joliet Wrought Washer Co.	7/1/1968	145	Silurian limestone
	121973842900	405460	Off-Site	Water Well for Commercial Operation	41.487235	-88.132199	30-35N-10E		Caterpillar, Inc.	5/14/1997	1550	
	121973737100*	292193	Off-Site	Water Well for Business	41.500999	-88.139242	19-35N-10E	Aerial Photograph verified	Kaluzny Brothers, Inc.	12/9/1996	305	limestone
	121970125000	409302	Off-Site	Water Well	41.506479	-88.11472	20-35N-10E		Rockdale, City of	1/1/1945	1586	
	121970119800	404056	Off-Site	Water Well	41.486607	-88.139142	25-35N-9E		Caterpillar Tactor Co.	8/1/1960	1556	

Table 3.05-A
 Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
 Joliet 29 Power Station - Joliet, Will, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121970126100	404054	Off-Site	Water Well	41.488963	-88.136051	30-35N-10E		Caterpillar Tractor Co.	1/1/1950	1540	
	121970126200	404055	Off-Site	Water Well	41.487464	-88.135396	30-35N-10E		Caterpillar Tractor Co.	1/1/1950	1560	
	121973722200		Off-Site	Stratigraphic Test	41.496822	-88.103246	20-35N-10E		Lincoln Quarry	2/1/1990	200	
	121973737101*	302453	Off-Site	Semi-Private Water Well	41.500999	-88.139242	19-35N-10E	Aerial Photograph verified	Kaluzny Bros.	2/14/1998	450	limestone
	121973842800	321203	Off-Site	Semi-Private Water Well	41.499578	-88.138429	19-35N-10E	Location from permit	Kaluzny Bros. Inc.	10/21/1999	970	sandstone
	121974042300		Off-Site	Noncommunity - Public Water Well	41.500741	-88.1296	19-35N-10E		Will County Forest Preserve		0	
	121974006400		Off-Site	Noncommunity - Public Water Well	41.502256	-88.11108	20-35N-10E		Vic		0	
	121973889900	410982	Off-Site	Non Potable Water Well	41.496054	-88.138231	19-35N-10E		Johns Manville Corporation	3/6/2000	1525	Galesville
	121973984900		Off-Site	Municipal Water Supply	41.505606	-88.115865	20-35N-10E		Rockdale, Village of	1/1/1945	1575	
	121973628800	238931	Off-Site	Monitoring	41.485411	-88.137725	30-35N-10E	Location from the driller	Caterpillar Inc	7/1/1992	70	
	121974675300		Off-Site	Engineering Test	41.503776	-88.125465	19-35N-10E		General Refractories Company	3/21/1966	8	
	121974675500		Off-Site	Engineering Test	41.503776	-88.125465	19-35N-10E		General Refractories Company	3/22/1966	12	
	121974675400		Off-Site	Engineering Test	41.503776	-88.125465	19-35N-10E		General Refractories Company	3/23/1966	8	
	121974360800		Off-Site	Engineering Test	41.502333	-88.124213	19-35N-10E		IL Rt. 7 over B&O (CSX) RR	9/6/1995	26	
	121974361000		Off-Site	Engineering Test	41.50212	-88.124194	19-35N-10E		IL Rt. 7 over B&O (CSX) RR	9/8/1995	15	
	121974361100		Off-Site	Engineering Test	41.502157	-88.123997	19-35N-10E		IL Rt. 7 over B&O (CSX) RR	9/11/1995	24	
	121974360600		Off-Site	Engineering Test	41.502395	-88.124183	19-35N-10E		IL Rt. 7 over B&O (CSX) RR	9/13/1995	44	
	121974360700		Off-Site	Engineering Test	41.502469	-88.123965	19-35N-10E		IL Rt. 7 over B&O (CSX) RR.	9/13/1995	35	
	121974360900		Off-Site	Engineering Test	41.502388	-88.123975	19-35N-10E		IL Rt. 7 over B&O RR	9/6/1995	14	
	121974360500		Off-Site	Engineering Test	41.498954	-88.124264	19-35N-10E		IL-7 (Larkin Avenue)	12/14/1990	3	
	121974360200		Off-Site	Engineering Test	41.499149	-88.123711	19-35N-10E		IL-7 (Larkin Avenue)	12/14/1990	4	
	121974360300		Off-Site	Engineering Test	41.4991	-88.123659	19-35N-10E		IL-7 (Larkin Avenue)	12/14/1990	4	
	121974360100		Off-Site	Engineering Test	41.499193	-88.123677	19-35N-10E		IL-7 (Larkin Avenue)	12/14/1990	4	
	121974360400		Off-Site	Engineering Test	41.498997	-88.124245	19-35N-10E		IL-7 (Larkin Avenue)	12/14/1990	5	
	121974359500		Off-Site	Engineering Test	41.498956	-88.124168	19-35N-10E		IL-7 (Larkin Avenue)	12/14/1990	16	
	121974359700		Off-Site	Engineering Test	41.499142	-88.12383	19-35N-10E		IL-7 (Larkin Avenue)	12/14/1990	27	
	121974359900		Off-Site	Engineering Test	41.498991	-88.124277	19-35N-10E		IL-7 (Larkin Avenue)	1/8/1991	21	
	121974359600		Off-Site	Engineering Test	41.498959	-88.12412	19-35N-10E		IL-7 (Larkin Avenue)	1/8/1991	41	
	121974360000		Off-Site	Engineering Test	41.499145	-88.123674	19-35N-10E		IL-7 (Larkin Avenue)	1/10/1991	19	
	121974359800		Off-Site	Engineering Test	41.499152	-88.123832	19-35N-10E		IL-7 (Larkin Avenue)	1/10/1991	43	
	121974361700		Off-Site	Engineering Test	41.501546	-88.123936	19-35N-10E		IL-7 over B. & O. Railroad	11/6/1990	34	
	121974361300		Off-Site	Engineering Test	41.502089	-88.124131	19-35N-10E		IL-7 over B. & O. Railroad	11/7/1990	44	
	121974361200		Off-Site	Engineering Test	41.502079	-88.123946	19-35N-10E		IL-7 over B. & O. Railroad	11/7/1990	45	
	121974361900		Off-Site	Engineering Test	41.502673	-88.123595	19-35N-10E		IL-7 over B. & O. Railroad	12/13/1990	2	
	121974361600		Off-Site	Engineering Test	41.502465	-88.123879	19-35N-10E		IL-7 over B. & O. Railroad	12/13/1990	17	
	121974361800		Off-Site	Engineering Test	41.502041	-88.124367	19-35N-10E		IL-7 over B. & O. Railroad	12/13/1990	18	
	121974361500		Off-Site	Engineering Test	41.502253	-88.1242	19-35N-10E		IL-7 over B. & O. Railroad	12/13/1990	19	
	121974361400		Off-Site	Engineering Test	41.502272	-88.123834	19-35N-10E		IL-7 over B. & O. Railroad	12/13/1990	20	
	121974346100		Off-Site	Engineering Test	41.502135	-88.12408	19-35N-10E		Larkin Ave. over Rock Island R.R.	2/23/1966	14	
	121974346200		Off-Site	Engineering Test	41.502441	-88.124086	19-35N-10E		Larkin Ave. over Rock Island R.R.	2/24/1966	10	
	121973952600		Off-Site	Engineering Test	41.501906	-88.116156	20-35N-10E		Brandon Rd. Lock SAC		95	
	121974376300		Off-Site	Engineering Test	41.49891	-88.102974	20-35N-10E		Brandon Rd. over Des Plaines River	4/6/1970	20	
	121974376200		Off-Site	Engineering Test	41.499137	-88.103149	20-35N-10E		Brandon Rd. over Des Plaines River	4/9/1970	7	
	121974376000		Off-Site	Engineering Test	41.49973	-88.103447	20-35N-10E		Brandon Rd. over Des Plaines River	4/10/1970	14	
	121974375800		Off-Site	Engineering Test	41.500321	-88.103675	20-35N-10E		Brandon Rd. over Des Plaines River	4/10/1970	17	
	121974375700		Off-Site	Engineering Test	41.500549	-88.103891	20-35N-10E		Brandon Rd. over Des Plaines River	4/10/1970	18	
	121974375900		Off-Site	Engineering Test	41.499976	-88.103574	20-35N-10E		Brandon Rd. over Des Plaines River	4/14/1970	13	
	121974376100		Off-Site	Engineering Test	41.499472	-88.103314	20-35N-10E		Brandon Rd. over Des Plaines River	4/15/1970	13	
	121974363000		Off-Site	Engineering Test	41.505115	-88.105116	20-35N-10E		Rt. 6 at Brandon Road	6/21/1982	10	
	121974363100		Off-Site	Engineering Test	41.505115	-88.105116	20-35N-10E		Rt. 6 at Brandon Road	6/21/1982	15	
	121974362900		Off-Site	Engineering Test	41.505115	-88.105116	20-35N-10E		Thorn Creek	7/21/1982	18	
	121974362100		Off-Site	Engineering Test	41.505115	-88.105116	20-35N-10E		Thorn Creek Sewer Project	7/12/1982	13	
	121974363200		Off-Site	Engineering Test	41.505115	-88.105116	20-35N-10E		Thorn Creek Sewer Project	7/12/1982	15	
	121974362000		Off-Site	Engineering Test	41.505115	-88.105116	20-35N-10E		Thorn Creek Sewer Project	7/12/1982	18	
	121974362500		Off-Site	Engineering Test	41.505115	-88.105116	20-35N-10E		Thorn Creek Sewer Project	7/13/1982	4	
	121974362300		Off-Site	Engineering Test	41.505115	-88.105116	20-35N-10E		Thorn Creek Sewer Project	7/13/1982	15	
	121974362600		Off-Site	Engineering Test	41.505115	-88.105116	20-35N-10E		Thorn Creek Sewer Project	7/29/1982	12	
	121974362700		Off-Site	Engineering Test	41.505115	-88.105116	20-35N-10E		Thorn Creek Sewer Project	7/30/1982	13	

Table 3.05-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Joliet 29 Power Station - Joliet, Will, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121974362800		Off-Site	Engineering Test	41.505115	-88.105116	20-35N-10E		Thorn Creek Sewer Project	7/30/1982	15	
	121974362400		Off-Site	Engineering Test	41.505115	-88.105116	20-35N-10E		Thorn Creek Sewer Project	8/2/1982	20	
	121974362200		Off-Site	Engineering Test	41.505115	-88.105116	20-35N-10E		Torn Creek Sewer Project	7/13/1982	16	
	121974344200		Off-Site	Engineering Test	41.504619	-88.105142	20-35N-10E		US Rt. 6 over I&M Canal	3/2/1987	26	
	121974344700		Off-Site	Engineering Test	41.50487	-88.104737	20-35N-10E		US Rt. 6 over I&M Canal	3/2/1987	26	
	121974344100		Off-Site	Engineering Test	41.504282	-88.105365	20-35N-10E		US Rt. 6 over I&M Canal	3/4/1987	40	
	121974344300		Off-Site	Engineering Test	41.504058	-88.105198	20-35N-10E		US Rt. 6 over I&M Canal	3/11/1987	24	
	121974344600		Off-Site	Engineering Test	41.504746	-88.10485	20-35N-10E		US Rt. 6 over I&M Canal	3/12/1987	28	
	121974344500		Off-Site	Engineering Test	41.504564	-88.104952	20-35N-10E		US Rt. 6 over I&M Canal	3/25/1987	28	
	121974344400		Off-Site	Engineering Test	41.504241	-88.105152	20-35N-10E		US Rt. over I&M Canal			

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 6/24/2020 (via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application)

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program

Key

Gray Fill	Well is a duplicate non-CWS or CWS well
<i>Italics with Blue Fill</i>	Well falls within the 2,500-foot radius of both the Joliet 9 and Joliet 29 Power Stations

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available

Dates were adjusted to exclude time

* 121973737100 and 121973737101 are the same well that was installed in 1996 and deepened in 1998

Table 3.05-B
Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Joliet 29 Power Station - Joliet, Will, IL

Figure ID	API	Well ID	On-site/Off-site	System Status	Facility Name	Facility Number	City	County	Well Status	Type	Latitude	Longitude	Township	Range	Section
NC01		19703255	Off-Site	A	MIDWEST GENERATION/JOLIET #9	IL3110841	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.49352339	-88.11439471	35N	10E	29
NC02		19703263	Off-Site	A	MIDWEST GENERATION/JOLIET #9	IL3110841	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.4915247	-88.11533093	35N	10E	29
NC03		19703271	Off-Site	A	MIDWEST GENERATION/JOLIET #9	IL3110841	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.49412498	-88.11377558	35N	10E	29
NC04	121973842900	19702166	Off-Site	I	CATERPILAR INC JOLIET	IL3082271	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.48707029	-88.13222826	35N	10E	30
NC05		19703131	On-Site	A	MIDWEST GENERATION/JOLIET #29	IL3110122	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.49566114	-88.12363427	35N	10E	19
NC06		19703123	On-Site	A	MIDWEST GENERATION/JOLIET #29	IL3110122	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.49358427	-88.12334056	35N	10E	30
NC07	121974006400	19704501	Off-Site	I	UIC	IL3131904	JOLIET	Will	I	OTHER TRANSIENT AREA	41.50156666	-88.1103136	35N	10E	20
NC08	121970126200		Off-Site	I	CATERPILAR INC JOLIET	IL3082271	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL			35N	9E	25
NC09	121973737100, 121973737101	19704725	Off-Site	A	KALUZYNY BROS INC	IL3135574	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.50077088	-88.13913051	35N	10E	19
NC10	121973842800	19705011	Off-Site	A	KALUZYNY BROS INC	IL3135574	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.50016212	-88.13924624	35N	10E	19
NC11	121970126100	19702174	Off-Site	I	CATERPILAR INC JOLIET	IL3082271	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.48880435	-88.1359815	35N	10E	30
NC12	121970119800	19702182	Off-Site	I	CATERPILAR INC JOLIET	IL3082271	JOLIET	Will	A	INDUSTRIAL/AGRICULTURAL	41.48649989	-88.13934506	35N	9E	25
NC13	121973889900	19705318	Off-Site	A	JOHN'S MANSVILLE	IL3142604	ROCKDALE	Will	A		41.49629226	-88.1387011	35N	10E	19
NC14	121974042300		Off-Site	I	Will County Forest Preserve			Will			41.500741	-88.1296	35N	10E	19

Sources

IEPA SWAPP GIS Tool - Extracted 6/24/2020
USEPA SDWIS - System status extracted 7/3/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program
SDWIS	Safe Drinking Water Information System
USEPA	United States Environmental Protection Agency

Key

Gray Fill	Added from ISGS Water and Related Wells
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
System Status	Status of non-CWS system according to the USEPA SDWIS website (A = Active; I = Inactive)
Status	Status of Well (A = Active; I = Inactive)

Notes

Blank cells indicate that the data was not available
Ramboll could not identify the specific non-CWS system associated with well NC14 (owned by Will County Forest Preserve); however, five transient non-community water systems associated with Will County Forest Preserve are listed in the USEPA's SDWIS database and all five systems are listed as inactive.

Table 3.05-C
Receptor Survey Results (CWS Wells < 1 mile)
Joliet 29 Power Station - Joliet, Will, IL

Figure ID	API	CWS Well ID	On-site/Off-site	CWS Name	Status	Susceptibility	Aquifer Policy	Minimum Setback	Depth	Aquifer Type	Ambient Well	Latitude	Longitude	PWS Status	PWS Number
C01		01700	Off-Site	JOLIET	I	A1	C	200	1556	6693	0	41.48653	-88.14001	A	IL1970450
C02	121970125000	00174	Off-Site	ROCKDALE	A	A1	C	200	1575	7593	0	41.50645	-88.11484	A	IL1970850
C03	121972880300	00175	Off-Site	ROCKDALE	A	A1	C	200	258	5661	0	41.51011	-88.11639	A	IL1970850
C04	121972880100	00176	Off-Site	ROCKDALE	A	A1	C	200	285	5656	1	41.50675	-88.1247	A	IL1970850
C05		01967	Off-Site	ROCKDALE	A	A1	U	400	225	5656	0	41.50674	-88.10821	A	IL1970850
C06	121973984900	20320	Off-Site	ROCKDALE	B	A1	U	0	1575	7093	0	41.50636	-88.11486	A	IL1970850

Sources

IEPA SWAPP GIS Tool - Extracted 6/24/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
Status	Status of Well (A = Active; B = Abandoned; I = Inactive)
Susceptibility	IEPA's Susceptibility Designation based on soil geology
Aquifer Policy	IEPA-Determined Aquifer Policy (U = Unconfined; C = Confined)
Minimum Setback	Minimum Setback Zone (feet)
Ambient Well	Indicates whether the well is part of the IEPA's monitoring network (0 = not in network; 1 = active; 2 = historically in network and historical data available)
PWS Status	Status of Public Water System (PWS) that the well is associated with (A = Active; I = Inactive)

Notes

Blank cells indicate that the data was not available

Table 3.06-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Marion Power Station - Marion, Williamson, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	121990235000		On-Site	Private Water Well	37.612148	-88.968285	27-10S-2E	Location from permit	Morganthaler, Carrol	3/1/1968	95	sandstone
P002	121990252500		Off-Site	Private Water Well	37.628378	-88.962144	23-10S-2E	Location from permit	Fisher, William A.	11/1/1971	150	sandstone
P003	121990248700		Off-Site	Private Water Well	37.624911	-88.934213	25-10S-2E	Location from permit	Ellis, Frank H.	2/1/1971	133	sandstone
P004	121990235100		Off-Site	Private Water Well	37.611752	-88.950049	26-10S-2E	Location from permit	Propes, Charlie	5/1/1968	98	sandstone
P005	121992397400	349432	Off-Site	Irrigation Well	37.628378	-88.962144	23-10S-2E	Location from permit	Gordon, Steve	7/21/2003	260	lime sandstone
	121992384900		On-Site	Engineering Test	37.627407	-88.954061	23-10S-2E		County Highway Sta 9'W of W. Abut.	5/1/1976	30	
	121992384800		On-Site	Engineering Test	37.627407	-88.954061	23-10S-2E		County Highway Sta. 6'E. of E. Abut	5/1/1976	20	
	121992385100		Off-Site	Engineering Test	37.621074	-88.966779	27-10S-2E		FAS 2904	12/1/1982	30	
	121992385000		Off-Site	Engineering Test	37.621074	-88.966779	27-10S-2E		FAS 2904	12/1/1982	30	

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 6/24/2020 (via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application)

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available
 Dates were adjusted to exclude time

Table 3.06-B
Receptor Survey Results (CWS Surface Water Intakes < 1 mile)
Marion Power Station - Marion, Williamson, IL

On-site/Off-site	Facility Name	Facility Number	Intake ID	Watershed ID	Source	Status	Basin Name	Latitude	Longitude
On-Site	Lake of Egypt PWD	IL1995200	IN71840	1995200WS01	Lake of Egypt	A	Saline River/Bay Creek	37.62373	-88.94246

Sources

IEPA SWAPP GIS Tool - Extracted 6/24/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program

Field Definitions

On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
Status	Status of Well (A = Active; B = Abandoned; I = Inactive)

Table 3.07-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Meredosia Power Station - Meredosia, Morgan, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	121370053500		On-Site	Water Well	39.823098	-90.564749	21-16N-13W		Gen. III. Pub. Service	1/1/1941	25	
P002	121370053600		On-Site	Water Well	39.822992	-90.564922	21-16N-13W	Location from the driller	Gen. III. Pub. Service	1/1/1941	25	
P003	121370053700		On-Site	Water Well	39.822869	-90.5651	21-16N-13W	Location from the driller	Gen. III. Pub. Service	1/1/1941	25	
P004	121370054200		On-Site	Water Well	39.823063	-90.565256	21-16N-13W	Location from the driller	Gen. III. Pub. Service	1/1/1941	25	
P005	121370054300		On-Site	Water Well	39.823173	-90.565083	21-16N-13W	Location from the driller	Gen. III. Pub. Service	1/1/1941	25	
P006	121370054400		On-Site	Water Well	39.823282	-90.564909	21-16N-13W	Location from the driller	Gen. III. Pub. Service	1/1/1941	25	
P007	121370053800		On-Site	Water Well	39.82276	-90.565273	21-16N-13W	Location from the driller	Gen. III. Pub. Service	1/1/1941	50	
P008	121370053900		On-Site	Water Well	39.822653	-90.565447	21-16N-13W	Location from the driller	Gen. III. Pub. Service	1/1/1941	50	
P009	121370054000		On-Site	Water Well	39.82282	-90.565614	21-16N-13W	Location from the driller	Gen. III. Pub. Service	1/1/1941	50	
P010	121370054100		On-Site	Water Well	39.822943	-90.565434	21-16N-13W	Location from the driller	Gen. III. Pub. Service	1/1/1941	50	
P011	121370054500		On-Site	Water Well	39.823732	-90.564583	21-16N-13W	Location from the driller	Gen. III. Pub. Service	1/1/1941	100	
P012	121370054600		On-Site	Water Well	39.823598	-90.564781	21-16N-13W	Location from the driller	Gen. III. Pub. Service	1/1/1941	100	
P013	121370056000		On-Site	Water Well	39.823679	-90.565885	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co	1/1/1941	50	
P014	121370056300		On-Site	Water Well	39.823148	-90.566536	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co	1/1/1941	50	
P015	121370056500		On-Site	Water Well	39.8227	-90.566074	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co	1/1/1941	50	
P016	121370055400		On-Site	Water Well	39.823913	-90.564729	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co	1/1/1941	100	
P017	121370055500		On-Site	Water Well	39.824039	-90.564817	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co	1/1/1941	100	
P018	121370055600		On-Site	Water Well	39.823809	-90.565185	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co	1/1/1941	100	
P019	121370055700		On-Site	Water Well	39.823633	-90.565487	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co	1/1/1941	100	
P020	121370055800		On-Site	Water Well	39.823442	-90.565774	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co	1/1/1941	100	
P021	121370055900		On-Site	Water Well	39.823266	-90.566072	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co	1/1/1941	100	
P022	121370056200		On-Site	Water Well	39.823398	-90.566769	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co	1/1/1941	100	
P023	121370056400		On-Site	Water Well	39.822911	-90.566281	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co	1/1/1941	100	
P024	121370054700		On-Site	Water Well	39.823421	-90.565065	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co.	1/1/1941	100	
P025	121370054800		On-Site	Water Well	39.823245	-90.565349	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co.	1/1/1941	100	
P026	121370054900		On-Site	Water Well	39.823068	-90.565647	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co.	1/1/1941	100	
P027	121370055000		On-Site	Water Well	39.823113	-90.565919	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co.	1/1/1941	100	
P028	121370055100		On-Site	Water Well	39.82333	-90.565661	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co.	1/1/1941	100	
P029	121370055200		On-Site	Water Well	39.823507	-90.565381	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co.	1/1/1941	100	
P030	121370055300		On-Site	Water Well	39.823683	-90.56508	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co.	1/1/1941	100	
P031	121372075800		On-Site	Water Well	39.822865	-90.566098	21-16N-13W	Platbook verified	Central III. Public Ser.Co.	4/25/1978	104	alluvial
P032	121372065700		On-Site	Water Well	39.823391	-90.565304	21-16N-13W	Location from the driller	Central III.Public Ser.	11/21/1957	109	
P033	121372065600		On-Site	Water Well	39.824389	-90.565516	21-16N-13W	Location from the driller	Central III.Public Service	12/1/1960	105	
P034	121370063900		On-Site	Water Well	39.822448	-90.565551	21-16N-13W	Location from permit	CIPS Meredosia Power Sta unit 4,#	8/30/1973	105	sand & gravel
P035	121372065800		On-Site	Water Well	39.823541	-90.564662	21-16N-13W	Location from permit	CIPS Meredosia Unit 4	5/1/1974	106	sand & gravel
P036	121370014700	403178	On-Site	Water Well	39.818045	-90.568641	28-16N-13W	Location from permit	National Starch Prod.	10/1/1958	92	
P037	121372164700		On-Site	Industrial Water Well	39.816167	-90.56688	28-16N-13W	Location from the driller	National Starch	2/13/1991	81	
P038	121372139800		On-Site	Industrial Water Well	39.817955	-90.565139	28-16N-13W	Location from permit	National Starch-Chemical Co.	10/11/1988	91	sand & gravel
P039	121370056100		Off-Site	Water Well	39.82506	-90.567886	21-16N-13W	Location from the driller	Gen. III. Pub. Service Co	1/1/1941	100	
P040	121372077000		Off-Site	Water Well	39.813373	-90.562736	27-16N-13W	Location from permit	Grace, W.R. & Co.	5/15/1979	91	drift
P041	121370062900	403194	Off-Site	Water Well	39.812952	-90.568313	28-16N-13W	Location from permit	National Starch	1/1/1971	60	aluvium
P042	121372076000		Off-Site	Water Well	39.815	-90.567407	28-16N-13W	Location from permit	National Starch	10/24/1978	90	drift
P043	121372080200		Off-Site	Water Well	39.814322	-90.570968	28-16N-13W	Location from the driller	National Starch & Chem. Co	7/7/1964	98	
P044	121372075900		Off-Site	Water Well	39.813672	-90.567465	28-16N-13W	Location from permit	Natl. Starch & Chem.	6/21/1977	89	sand & gravel
P045	121372152400		Off-Site	Semi-Private Water Well	39.814361	-90.567035	28-16N-13W	Location from permit	National Starch & Chemical Co.	7/26/1993	62	
P046	121372176900		Off-Site	Non Potable Water Well	39.812578	-90.570974	28-16N-13W	Location from permit	National Starch & Chem. Co	9/13/1996	86	sand & gravel
P047	121372213400		Off-Site	Industrial Water Well	39.81073	-90.563186	27-16N-13W	Location from permit	T.A. Terminal	11/23/2011	95	sand & gravel
P048	121372213300		Off-Site	Industrial Water Well	39.81073	-90.563186	27-16N-13W	Location from permit	T.A. Terminal	11/23/2011	100	sand & gravel
	121372157900		On-Site	Test Hole	39.823501	-90.564221	21-16N-13W	Location from the driller	CIPS Power Station	6/21/1994	104	
	121370060700		On-Site	Test Hole	39.817955	-90.565139	28-16N-13W	Location from permit	W.R. Grace Co.	9/11/1969	90	sand & gravel
	121372198200	403171	On-Site	Noncommunity - Public Water Well	39.825368	-90.564994	21-16N-13W		CIPS	11/21/1957	78	
	121372198100	403172	On-Site	Noncommunity - Public Water Well	39.825356	-90.563863	21-16N-13W		CIPS	12/1/1960	105	
	121372198000*		On-Site	Noncommunity - Public Water Well	39.823501	-90.564221	21-16N-13W	Location from the driller	CIPS	6/21/1994	104	sand & gravel
	121372161300*		On-Site	Noncommunity - Public Water Well	39.823501	-90.564221	21-16N-13W	Location from permit	Central IL Public Service C	6/21/1994	104	sand & gravel
	121370039600		Off-Site	Test Hole	39.81392	-90.567569	28-16N-13W	Location from permit	National Starch	2/1/1968	90	glacial drift
	121370042200		Off-Site	Test Hole	39.812976	-90.569359	28-16N-13W	Location from permit	National Starch	8/31/1968	92	drift
	121370042100		Off-Site	Test Hole	39.813492	-90.569044	28-16N-13W	Location from permit	National Starch	8/31/1968	96	drift
	121370062800		Off-Site	Test Hole	39.813907	-90.566585	28-16N-13W	Location from permit	National Starch	12/18/1970	95	glacial drift
	121372068200		Off-Site	Test Hole	39.81499	-90.565535	28-16N-13W	Location from permit	National Starch & Chem.Co	2/17/1976	90	

3. Receptor Survey (Sites Not Owned by Dynegy)

Table 3.07-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Meredosia Power Station - Meredosia, Morgan, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121370063800		Off-Site	Test Hole	39.811734	-90.569358	28-16N-13W	Location from permit	National Starch & Chemical	5/1/1973	96	drift
	121352194500**		Off-Site	Municipal Water Supply	39.820473	-90.553748	22-16N-13W		Meredosia, Village	9/2/1980	92	sand & gravel
	121372194500**	408014	Off-Site	Municipal Water Supply	39.820473	-90.553748	22-16N-13W		Meredosia, Village o	9/2/1980	92	sand & gravel

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 6/24/2020 (via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application)

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program

Key

Gray Fill	Well is a duplicate non-CWS or CWS well
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available

Dates were adjusted to exclude time

* 121372161300 and 121372198000 are duplicates

** 121352194500 and 121372194500 are duplicates. Both are incorrectly mapped in the southern part of 13W-16N-22; the actual location is in the cluster of CWS wells to the north (matches C02 - see Table 3.07-C).

Table 3.07-B
Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Meredosia Power Station - Meredosia, Morgan, IL

Figure ID	API	Well ID	On-site/Off-site	System Status	Facility Name	Facility Number	City	County	Well Status	Type	Latitude	Longitude	Township	Range	Section
NC01		13700208	On-Site	I	AMEREN CIPS/JANINE MAXWELL	IL3102988	MEREDOSIA	Morgan	A	INDUSTRIAL/AGRICULTURAL	39.82427699	-90.56594211	16N	13W	21
NC02		13700190	On-Site	I	AMEREN CIPS/JANINE MAXWELL	IL3102988	MEREDOSIA	Morgan	A	INDUSTRIAL/AGRICULTURAL	39.8241122	-90.56554584	16N	13W	21
NC03	121372198000	13700182	On-Site	I	AMEREN CIPS/JANINE MAXWELL	IL3102988	MEREDOSIA	Morgan	A	INDUSTRIAL/AGRICULTURAL	39.82326942	-90.56533972	16N	13W	21
NC04	121372198100		On-Site	I	CIPS	IL3102988		Morgan			39.825356	-90.563863	16N	13W	21
NC05	121372198200		On-Site	I	CIPS	IL3102988		Morgan			39.825368	-90.564994	16N	13W	21

Sources

IEPA SWAPP GIS Tool - Extracted 6/24/2020
 USEPA SDWIS - System status extracted 7/3/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program
SDWIS	Safe Drinking Water Information System
USEPA	United States Environmental Protection Agency

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
System Status	Status of non-CWS system according to the USEPA SDWIS website (A = Active; I = Inactive)
Status	Status of Well (A = Active; I = Inactive)

Notes

Blank cells indicate that the data was not available

Table 3.07-C
Receptor Survey Results (CWS Wells < 1 mile)
Meredosia Power Station - Meredosia, Morgan, IL

Figure ID	API	CWS Well ID	On-site/Off-site	CWS Name	Status	Susceptibility	Aquifer Policy	Minimum Setback	Depth	Aquifer Type	Ambient Well	Latitude	Longitude	PWS Status	PWS Number
C01	121372198300	01416	Off-Site	MEREDOSIA	A	A2	U	400	90	0101	1	39.83175	-90.55338	A	IL1370300
C02	121372194500	50255	Off-Site	MEREDOSIA	A	A2	U	400	92	0101	0	39.83179	-90.55367	A	IL1370300
C03	121370051500	50252	Off-Site	MEREDOSIA	B	A2	U	0	60	0101	0	39.83173	-90.553	A	IL1370300
C04	121372194400	50253	Off-Site	MEREDOSIA	B	A2	U	0	84	0101	2	39.83191	-90.55316	A	IL1370300
C05	121372097100	50254	Off-Site	MEREDOSIA	B	A2	U	0	87	0101	0	39.83157	-90.55335	A	IL1370300

Sources

IEPA SWAPP GIS Tool - Extracted 6/24/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
Status	Status of Well (A = Active; B = Abandoned; I = Inactive)
Susceptibility	IEPA's Susceptibility Designation based on soil geology
Aquifer Policy	IEPA-Determined Aquifer Policy (U = Unconfined; C = Confined)
Minimum Setback	Minimum Setback Zone (feet)
Ambient Well	Indicates whether the well is part of the IEPA's monitoring network (0 = not in network; 1 = active; 2 = historically in network and historical data available)
PWS Status	Status of Public Water System (PWS) that the well is associated with (A = Active; I = Inactive)

Table 3.08-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Pearl Power Station - Pearl, Pike, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	121492159900	327940	On-Site	Water Well for Commercial Operation	39.448616	-90.614754	15-7S-2W		Soyland Power Coop	10/12/2000	102	sand & gravel
P002	121490021400		Off-Site	Water Well	39.456804	-90.625403	10-7S-2W	Location from permit	Jordan, Joseph	7/20/1968	265	lime
P003	121492060500		Off-Site	Water Well	39.444904	-90.62156	15-7S-2W	Location from permit	Vines, Ralph	10/1/1977	28	sand
	121492164400		On-Site	Municipal Water Supply	39.456526	-90.616379	10-7S-2W		Pearl, Town of	1/1/1999	72	
	121492154300	318900	On-Site	Municipal Water Supply	39.456457	-90.614123	10-7S-2W	Location from the driller	Pearl, Village (TH9-98)	9/11/1999	62	sand & gravel
	121492154400	319901	On-Site	Municipal Water Supply	39.456457	-90.614123	10-7S-2W	Location from the driller	Pearl, Village of TH 11-99	9/23/1999	63	sand & gravel
	121492164500		On-Site	Municipal Water Supply	39.454685	-90.618742	15-7S-2W		Pearl, Town of	1/1/1998	62	
	121492172600	468044	On-Site	Monitoring	39.44958	-90.61914	15-7S-2W		Prairie Power, Inc.	8/6/2012	26	sand
	121492172900	468047	On-Site	Monitoring	39.451392	-90.61909	15-7S-2W	Location from permit	Prairie Power, Inc.	8/8/2012	28	sand
	121492172800	468046	On-Site	Monitoring	39.451392	-90.61909	15-7S-2W		Prairie Power, Inc.	8/8/2012	55	sand
	121490018200		On-Site	Engineering Test	39.451421	-90.615055	15-7S-2W		Western II. Power Coop.	1/1/1964	100	
	121490018100		On-Site	Engineering Test	39.452495	-90.614136	15-7S-2W		Western II. Power Coop.	1/1/1964	100	
	121492062000		Off-Site	Water Well	39.452712	-90.618875	15-7S-2W		Pearl, Village of	6/8/1978	56	
	121492156600	306503	Off-Site	Municipal Water Supply	39.447823	-90.620296	15-7S-2W	Location from the driller	Pearl, Village of	9/18/1998	58	sand
	121492173100	468049	Off-Site	Monitoring	39.445948	-90.614562	15-7S-2W		Prairie Power, Inc.	8/9/2012	33	sand
	121492173000	468048	Off-Site	Monitoring	39.445948	-90.614562	15-7S-2W		Prairie Power, Inc.	8/9/2012	59	sand
	121492172700	468045	Off-Site	Monitoring	39.451583	-90.614722	15-7S-2W		Prairie Power, Inc.	11/12/2012	30	silt & sand
	121492173300	468051	Off-Site	Monitoring	39.442339	-90.621679	15-7S-2W		Prairie Power, Inc.	11/13/2012	20	sand
	121492173200	468050	Off-Site	Monitoring	39.442339	-90.621679	15-7S-2W		Prairie Power, Inc.	11/13/2012	30	silt & sand
	121492172500	468043	Off-Site	Monitoring	39.442348	-90.626357	15-7S-2W		Prairie Power, Inc.	11/14/2012	17	silt & sand
	121492148400		Off-Site	Engineering Test	39.462327	-90.625239	10-7S-2W		FAP 558 (IL 100) over Hill Creek	3/5/1990	59	
	121492148500		Off-Site	Engineering Test	39.457757	-90.626508	10-7S-2W		FAP 558 (IL 100) over Hill Creek	3/21/1990	60	
	121490018300		Off-Site	Engineering Test	39.451111	-90.613996	15-7S-2W		Wstrn III Power Coop	1/1/1964	101	
	120610023200		Off-Site	Engineering Test	39.458818	-90.606113	25-12N-14W		Western III Power Coop.	1/1/1964	101	
	120610023300		Off-Site	Engineering Test	39.459243	-90.606458	25-12N-14W		Western III. Power Coop.	1/1/1964	101	

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 6/24/2020 (via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application)

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program

Key

Gray Fill	Well is a duplicate non-CWS or CWS well
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available
 Dates were adjusted to exclude time

Table 3.08-B
Receptor Survey Results (CWS Wells < 1 mile)
Pearl Power Station - Pearl, Pike, IL

Figure ID	API	CWS Well ID	On-site/Off-site	CWS Name	Status	Susceptibility	Aquifer Policy	Minimum Setback	Depth	Aquifer Type	Ambient Well	Latitude	Longitude	PWS Status	PWS Number
C01	121492154300	01173	On-Site	PEARL	A	AX	U	400	72	0101	0	39.45732	-90.61604	A	IL1490650
C02	121492164400	01169	On-Site	PEARL	A	AX	U	400	72	0101	0	39.45712	-90.61492	A	IL1490650
C03	121492164500	01214	On-Site	PEARL	B	AX	U	0	62	0101	0	39.45731	-90.61565	A	IL1490650
C04	121492062000	50199	Off-Site	PEARL	B	A1	U	0	56	0101	0	39.45393	-90.61888	A	IL1490650
C05	121492154400		On-Site	Pearl, Village of	I*				63			39.456457	-90.614123	A	
C06	121492156600		Off-Site	Pearl, Town of	I*				58			39.447823	-90.620296	A	

Sources

IEPA SWAPP GIS Tool - Extracted 6/24/2020

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 6/24/2020 (via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application)

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program

Key

Gray Fill	Added from ISGS Water and Related Wells
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
Status	Status of Well (A = Active; B = Abandoned; I = Inactive)
Susceptibility	IEPA's Susceptibility Designation based on soil geology
Aquifer Policy	IEPA-Determined Aquifer Policy (U = Unconfined; C = Confined)
Minimum Setback	Minimum Setback Zone (feet)
Ambient Well	Indicates whether the well is part of the IEPA's monitoring network (0 = not in network; 1 = active; 2 = historically in network and historical data available)
PWS Status	Status of Public Water System (PWS) that the well is associated with (A = Active; I = Inactive)

Notes

Blank cells indicate that the data was not available

*C05 and C06 are assumed to be inactive according to the 2019 Consumer Confidence Report for Pearl (IL1490650), which indicates that only Well 3 (01173 or C01) and Well 4 (01169 or C02) are active sources of drinking water.

Table 3.09-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Powerton Power Station - Pekin, Tazewell, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	121792276400		On-Site	Water Well	40.543203	-89.680322	9-24N-5W	Location from the driller	Super Power Co. of IL	12/31/1930	76	
P002	121792276500		On-Site	Water Well	40.543851	-89.680335	9-24N-5W	Location from the driller	Super Power Co. of IL	12/31/1930	0	
P003	121792276700		On-Site	Water Well	40.54319	-89.683216	9-24N-5W	Location from the driller	Super Power Co. of IL	12/31/1930	0	
P004	121792276800		On-Site	Water Well	40.54101	-89.68317	9-24N-5W	Location from the driller	Super Power Co. of IL	12/31/1930	0	
P005	121792276900		On-Site	Water Well	40.540311	-89.681996	9-24N-5W	Location from the driller	Super Power Co. of IL	12/31/1930	0	
P006	121792276600		On-Site	Water Well	40.543085	-89.681541	9-24N-5W	Location from the driller	Super Power Co. of IL	12/31/1930	0	
P007	121790013100		On-Site	Water Well	40.538734	-89.68124	9-24N-5W	Location from topographic map	Superpower of Illinois		60	
P008	121792519900	431896	On-Site	Industrial Water Well	40.540472	-89.689528	8-24N-5W	Location from permit	Midwest Generation, LLC	9/14/2007	58	sand & gravel
P009	121792564300		Off-Site	Water Well for Commercial Operation	40.552775	-89.673331	4-24N-5W	GPS verified	Illinois Corn Processing	9/6/2014	85	aquifer
P010	121792481600	411533	Off-Site	Water Well for Commercial Operation	40.5556	-89.668374	4-24N-5W	Location from the driller	MGP Ingredients	4/29/2003	103	sand & gravel
P011	121792179800		Off-Site	Water Well for Commercial Operation	40.541116	-89.669995	9-24N-5W	Location from permit	Weiss, John	5/19/1981	79	sand & gravel
P012	121790071600		Off-Site	Water Well	40.530978	-89.676432	16-24N-5W	Location from permit	Crawford, D.	5/27/1972	112	sand
P013	121792090700		Off-Site	Water Well	40.533067	-89.670084	16-24N-5W	Location from permit	Hoffman, Geo. E. & Sons Inc.	4/11/1973	70	sand
P014	121792088600		Off-Site	Water Well	40.531438	-89.694373	17-24N-5W	Location from permit	Excel Foundry & Machine	9/17/1973	54	sand
P015	121790041300		Off-Site	Water Well	40.555029	-89.670488	4-24N-5W	Location from permit	American Distilling Co	11/21/1968	93	sand & gravel
P016	121790012500		Off-Site	Water Well	40.555188	-89.670764	4-24N-5W	Location from the driller	American Distilling Co	1/1/1936	85	
P017	121790012600		Off-Site	Water Well	40.55441	-89.668819	4-24N-5W	Location from topographic map	Powerton Plant	1/1/1941	36	
P018	121790012700		Off-Site	Water Well	40.549428	-89.666619	9-24N-5W	Location from the driller	Standard Brands, Inc.	1/1/1926	76	
P019	121790012800		Off-Site	Water Well	40.54903	-89.667197	9-24N-5W	Location from the driller	Standard Brands, Inc.	1/1/1926	76	
P020	121790012900		Off-Site	Water Well	40.548576	-89.667919	9-24N-5W	Location from the driller	Standard Brands, Inc.	1/1/1928	74	
P021	121790013000		Off-Site	Water Well	40.54884	-89.668716	9-24N-5W	Location from the driller	Standard Brands, Inc.	1/1/1931	70	
P022	121790013200		Off-Site	Water Well	40.541691	-89.682025	9-24N-5W	Location from the driller	Super Power Co. of Illinois	1/1/1936	61	
P023	121790025600		Off-Site	Water Well	40.551829	-89.665681	9-24N-5W	Location from topographic map	Quaker Oats Co.	7/1/1924	51	
P024	121792501800	376865	Off-Site	Non Potable Water Well	40.53151	-89.687195	17-24N-5W	Location from permit	Reed Minerals	11/18/2005	73	
P025	121792509100	420457	Off-Site	Non Potable Water Well	40.555588	-89.668241	4-24N-5W	Location from permit	MGP Ingredients	5/31/2006	104	sand & gravel
P026	121792237900		Off-Site	Non Potable Water Well	40.5556	-89.668374	4-24N-5W	Location from permit	Midwest Grain Prod. Co.	8/3/1993	100	sand & gravel
P027	121792237800		Off-Site	Non Potable Water Well	40.5556	-89.668374	4-24N-5W	Location from permit	Midwest Grain Prod. Co.	7/20/1993	85	sand & gravel
P028	121792237700		Off-Site	Non Potable Water Well	40.5556	-89.668374	4-24N-5W	Location from permit	Midwest Grain Prod. Co.	7/7/1993	85	sand & gravel
P029	121792484700	363727	Off-Site	Irrigation Well	40.535185	-89.680121	16-24N-5W	Location from permit	Adwell Corporation	10/28/2003	88	
P030	121792180500		Off-Site	Irrigation Well	40.535185	-89.680121	16-24N-5W	Location from permit	Adwell Corporation	10/5/1982	88	
P031	121792311900		Off-Site	Irrigation Well	40.529747	-89.680002	16-24N-5W	Location from permit	Runyon, Ernie	11/12/1996	106	
P032	121792520000	431886	Off-Site	Irrigation Well	40.537049	-89.66823	16-24N-5W	Location from permit	Williams, Chuck	5/11/2007	68	sand & gravel
P033	121792180600		Off-Site	Industrial Water Well	40.535049	-89.689768	17-24N-5W	Location from permit	Hoffman, George E. & Sons Inc.	6/26/1978	31	sand
P034	121790067100		Off-Site	Industrial Water Well	40.556068	-89.668986	4-24N-5W	Location from permit	American Distilling Co.	11/26/1971	100	sand & gravel
P035	121792179700		Off-Site	Industrial Water Well	40.53886	-89.673028	9-24N-5W	Location from permit	Commonwealth Edison	11/8/1979	67	rock
P036	121792515900	430410	Off-Site	Industrial Water Well	40.551194	-89.669417	9-24N-5W	Location from permit	Agridyne LLC	9/14/2007	72	sand & gravel
	121792450200		On-Site	Noncommunity - Public Water Well	40.544236	-89.689808	8-24N-5W		Commonwealth Edison		0	
	121792538400	453476	On-Site	Monitoring	40.542306	-89.676222	9-24N-5W	Location from a log	Midwest Generation LLC	9/28/2010	32	sand
	121792538800	453478	On-Site	Monitoring	40.543111	-89.675889	9-24N-5W	Location from a log	Midwest Generation LLC	9/28/2010	40	sand & gravel
	121792538500	453479	On-Site	Monitoring	40.542833	-89.676583	9-24N-5W	Location from a log	Midwest Generation LLC	9/29/2010	29	silt and sand
	121792538900	453480	On-Site	Monitoring	40.543222	-89.677694	9-24N-5W	Location from a log	Midwest Generation LLC	9/29/2010	40	gravel
	121792539200	453474	On-Site	Monitoring	40.545556	-89.677278	9-24N-5W	Location from a log	Midwest Generation LLC	9/30/2010	30	fill
	121792539100	453482	On-Site	Monitoring	40.544611	-89.677417	9-24N-5W	Location from a log	Midwest Generation LLC	9/30/2010	30	fine sand
	121792539000	453481	On-Site	Monitoring	40.544361	-89.678111	9-24N-5W	Location from a log	Midwest Generation LLC	9/30/2010	30	organic silt & sand
	121792538600	453477	On-Site	Monitoring	40.544194	-89.67475	9-24N-5W	Location from a log	Midwest Generation LLC	10/4/2010	29	sand & gravel
	121792538100	453467	On-Site	Monitoring	40.545583	-89.673306	9-24N-5W	Location from a log	Midwest Generation LLC	10/4/2010	31	sand & gravel
	121792538200	453468	On-Site	Monitoring	40.547583	-89.672917	9-24N-5W	Location from a log	Midwest Generation LLC	10/5/2010	34	gravel
	121792538300	453469	On-Site	Monitoring	40.549083	-89.673806	9-24N-5W	Location from a log	Midwest Generation LLC	10/5/2010	34	gravel
	121792539500	453473	On-Site	Monitoring	40.546889	-89.678194	9-24N-5W	Location from a log	Midwest Generation LLC	10/5/2010	45	gravel
	121792539400	453472	On-Site	Monitoring	40.547139	-89.677667	9-24N-5W	Location from a log	Midwest Generation LLC	10/6/2010	28	organic silt & clay
	121792539300	453471	On-Site	Monitoring	40.547889	-89.676861	9-24N-5W	Location from a log	Midwest Generation LLC	10/6/2010	31	gravel
	121792538700	453470	On-Site	Monitoring	40.548889	-89.675722	9-24N-5W	Location from a log	Midwest Generation LLC	10/6/2010	34	gravel
	121792361700	319960	Off-Site	Noncommunity - Public Water Well	40.531438	-89.694373	17-24N-5W	Location from permit	Marine Corps League	10/7/1999	40	gravel
	121792450300		Off-Site	Noncommunity - Public Water Well	40.540627	-89.684999	8-24N-5W		Commonwealth Edison		0	
	121792450100		Off-Site	Noncommunity - Public Water Well	40.540612	-89.687375	8-24N-5W		Commonwealth Edison		0	
	121792437400		Off-Site	Engineering Test	40.535239	-89.668202	16-24N-5W		Com Ed Powerton Unit	3/3/1972	42	
	121792379300		Off-Site	Engineering Test	40.53786	-89.66993	16-24N-5W		Lost Creek	7/30/1980	42	
	121792379400		Off-Site	Engineering Test	40.537915	-89.67011	16-24N-5W		Lost Creek	8/20/1980	66	

3. Receptor Survey (Sites Not Owned by Dynegy)

Table 3.09-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Powerton Power Station - Pekin, Tazewell, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121792298900		Off-Site	Engineering Test	40.537048	-89.668231	16-24N-5W	Location from the driller	SA 10A Lost Crk Bor.		0	
	121792439200		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co Existing Pwr Plant	8/23/1976	27	
	121792438300		Off-Site	Engineering Test	40.532303	-89.700363	17-24N-5W		Com Ed Co. Existing Pwr Plant	8/18/1976	27	
	121792439500		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co. Existing Pwr Plant	8/23/1976	27	
	121792439300		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co. Existing Pwr Plant	8/24/1976	27	
	121792440500		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co. Existing Pwr Plant	8/26/1976	27	
	121792439900		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co. Existing Pwr Plant	8/26/1976	27	
	121792440000		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co. Existing Pwr Plant	8/27/1976	48	
	121792438400		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co. existing Pwr Plant	8/18/1976	27	
	121792438100		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co.Existing Pwr Plant	8/17/1976	45	
	121792438700		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co.Existing Pwr Plant	8/19/1976	27	
	121792438600		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co.Existing Pwr Plant	8/19/1976	27	
	121792440300		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co.Existing Pwr Plant	8/24/1976	70	
	121792440100		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co.Existing Pwr Plant	8/25/1976	27	
	121792440400		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co.Existing Pwr Plant	8/25/1976	27	
	121792440600		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co.Existing Pwr Plant	8/26/1976	27	
	121792440200		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co.Existing Pwr Plant	8/26/1976	27	
	121792438000		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Co.Powerton, IL	8/17/1976	50	
	121792438500		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Existing Pwr Plant	8/18/1976	27	
	121792438800		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Existing Pwr Plant	8/19/1976	27	
	121792438900		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Existing Pwr Plant	8/20/1976	27	
	121792439000		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Existing Pwr Plant	8/20/1976	27	
	121792439600		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Existing Pwr Plant	8/23/1976	27	
	121792439700		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Existing Pwr Plant	8/23/1976	27	
	121792439100		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Existing Pwr Plant	8/23/1976	27	
	121792439400		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Existing Pwr Plant	8/24/1976	27	
	121792439800		Off-Site	Engineering Test	40.532388	-89.690803	17-24N-5W		Com Ed Existing Pwr Plant	8/26/1976	27	
	121792378600		Off-Site	Engineering Test	40.539765	-89.676621	9-24N-5W		FAS 461		10	
	121792379200		Off-Site	Engineering Test	40.539765	-89.676621	9-24N-5W		FAS 461		15	
	121792378700		Off-Site	Engineering Test	40.539765	-89.676621	9-24N-5W		FAS 461		30	
	121792379000		Off-Site	Engineering Test	40.539765	-89.676621	9-24N-5W		FAS 461		35	
	121792378900		Off-Site	Engineering Test	40.539765	-89.676621	9-24N-5W		FAS 461		35	
	121792379100		Off-Site	Engineering Test	40.539765	-89.676621	9-24N-5W		FAS 461		40	
	121792378800		Off-Site	Engineering Test	40.539765	-89.676621	9-24N-5W		FAS 461		50	

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 6/24/2020 (via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application)

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program

Key

Gray Fill	Well is a duplicate non-CWS or CWS well
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available
 Dates were adjusted to exclude time

Table 3.09-B
Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Powerton Power Station - Pekin, Tazewell, IL

Figure ID	API	Well ID	On-site/Off-site	System Status	Facility Name	Facility Number	City	County	Well Status	Type	Latitude	Longitude	Township	Range	Section
NC01		17900762	On-Site	A	MIDWEST GENERATION - POWERTON	IL3055541	PEKIN	Tazewell	A	INDUSTRIAL/AGRICULTURAL	40.54155053	-89.68906485	24N	5W	8
NC02		17900283	Off-Site	A	MIDWEST GENERATION - POWERTON	IL3055541	PEKIN	Tazewell	A	INDUSTRIAL/AGRICULTURAL	40.54233223	-89.68806522	24N	5W	8
NC03		17900275	Off-Site	A	MIDWEST GENERATION - POWERTON	IL3055541	PEKIN	Tazewell	A	INDUSTRIAL/AGRICULTURAL	40.54227974	-89.68723239	24N	5W	8
NC04		17900267	Off-Site	A	MIDWEST GENERATION - POWERTON	IL3055541	PEKIN	Tazewell	A	INDUSTRIAL/AGRICULTURAL	40.54171142	-89.685438	24N	5W	8
NC05		17900259	Off-Site	A	MIDWEST GENERATION - POWERTON	IL3055541	PEKIN	Tazewell	A	INDUSTRIAL/AGRICULTURAL	40.54074107	-89.68400603	24N	5W	8
NC06	121792361700	17900358	Off-Site	I	TOBIN NANNING-MARINE CORPS	IL3055756	PEKIN	Tazewell	A	RESTAURANT	40.53204448	-89.69357115	24N	5W	17
NC07	121792450200		On-Site	I	Commonwealth Edison	IL0055541		Tazewell			40.544236	-89.689808	24N	5W	8
NC08	121792450300		Off-Site	I	Commonwealth Edison	IL0055541		Tazewell			40.540627	-89.684999	24N	5W	8
NC09	121792450100		Off-Site	I	Commonwealth Edison	IL0055541		Tazewell			40.540612	-89.687375	24N	5W	8

Sources

IEPA SWAPP GIS Tool - Extracted 6/24/2020

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 6/24/2020 (via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application)

USEPA SDWIS - System status extracted 7/3/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program
SDWIS	Safe Drinking Water Information System
USEPA	United States Environmental Protection Agency

Key

Gray Fill	Added from ISGS Water and Related Wells
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
System Status	Status of non-CWS system according to the USEPA SDWIS website (A = Active; I = Inactive)
Status	Status of Well (A = Active; I = Inactive)

Notes

Blank cells indicate that the data was not available

Table 3.10-A
 Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
 Venice Power Station - Venice, Madison, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	121630190500		Off-Site	Water Well	38.644735	-90.170592	11-2N-10W		Missouri-Illinois Materials Co	4/1/1943	115	
P002	121192630100		Off-Site	Water Well	38.672007	-90.17294	35-3N-10W	Location from permit	IDOT (div. of Hwys dist 8)		85	
P003	121192439700		Off-Site	Noncommunity - Public Water Well	38.672054	-90.172793	35-3N-10W	Location from permit	IL Dept Trans Div Hwys Dist 8		80	
P004	121192439600		Off-Site	Noncommunity - Public Water Well	38.671645	-90.174891	35-3N-10W	Location from permit	IL Dept Trans. Div Hwys Dist 8		90	
P005	121192439500		Off-Site	Noncommunity - Public Water Well	38.671684	-90.17286	35-3N-10W	Location from permit	IL Dept Trans. Div. Hwy Dist 8		85	
P006	121192439400		Off-Site	Noncommunity - Public Water Well	38.671728	-90.172839	35-3N-10W	Location from permit	IL Dept. Trans Div Hwys Dist 8		45	
P007	121192439300		Off-Site	Noncommunity - Public Water Well	38.672121	-90.173762	35-3N-10W	Location from permit	IL. Dept. Trans Div Hwy Dist 8		85	
P008	121192993800		Off-Site	Non Potable Water Well	38.673231	-90.17925	35-3N-10W	GPS verified	Southwestern IL Flood Prevention	5/14/2015	62	top exist ground
P009	121192993900		Off-Site	Non Potable Water Well	38.670986	-90.178731	35-3N-10W	GPS verified	Southwestern IL Flood Prevention	5/18/2015	54	top exist ground
P010	121192994000		Off-Site	Non Potable Water Well	38.669786	-90.178569	35-3N-10W	GPS verified	Southwestern IL Flood Prevention	5/15/2015	62	top existing ground
P011	121192807400	420669	Off-Site	Non Potable Water Well	38.672778	-90.176667	35-3N-10W	Location from permit	Beelman River Terminal	5/19/2006	80	sand & gravel
P012	121192832800	411399	Off-Site	Irrigation Well	38.666291	-90.180648	35-3N-10W	Location from permit	US Carries Beelman Rv. Term.	5/8/2003	77	sand & gravel
P013	121633117600	469322	Off-Site	Irrigation Well	38.649444	-90.175	6-2N-8W	GPS verified	Fieg, Mel	3/18/2013	99	sand & gravel
	121632976100		On-Site	Engineering Test	38.65137	-90.174172	2-2N-10W		E St Louis Levee Dis	1/1/1954	129	
	121632976000		On-Site	Engineering Test	38.654217	-90.174628	2-2N-10W		E St. Louis Levee Di	1/1/1954	101	
	121632922200		On-Site	Engineering Test	38.65958	-90.176232	2-2N-10W		E St. Louis Levee Di	1/1/1954	105	
	121632922300		On-Site	Engineering Test	38.652727	-90.173963	2-2N-10W		E St. Louis Levee Di	1/1/1954	106	
	121633018400		On-Site	Engineering Test	38.652856	-90.173256	2-2N-10W		East St Louis Levee Dist.	1/1/1954	80	
	121192761800		On-Site	Engineering Test	38.660671	-90.177154	35-3N-10W		E St. Louis Levee Di	1/1/1954	30	
	121192761700		On-Site	Engineering Test	38.664815	-90.177137	35-3N-10W		E St. Louis Levee Di	1/1/1954	31	
	121630190300		Off-Site	Water Well Monitoring Well	38.648324	-90.173041	2-2N-10W		DH-8-S	1/1/1952	93	
	121632990500		Off-Site	Test Hole	38.648863	-90.16811	2-2N-10W	Location from topographic map	Mississippi R Crossing	11/14/2001	125	
	121632990300		Off-Site	Test Hole	38.644847	-90.173716	2-2N-10W	GPS verified	Mississippi R. Crossin	11/27/2001	148	
	121632990400		Off-Site	Stratigraphic Test	38.644702	-90.174915	2-2N-10W	GPS verified	Mississippi R. Crossin		147	
	121632990200		Off-Site	Stratigraphic Test	38.646681	-90.175437	2-2N-10W	GPS verified	Mississippi R. Crossin	10/22/2001	0	
	121633102900		Off-Site	Engineering Test	38.650873	-90.16598	2-2N-10W		Boring	12/8/2009	123	
	121632976200		Off-Site	Engineering Test	38.64902	-90.174262	2-2N-10W		E St. Louis Levee Di	1/1/1954	130	
	121633146200		Off-Site	Engineering Test	38.649331	-90.165798	2-2N-10W		I-70 Mississippi River Bridge	1/17/2001	127	
	121633145900		Off-Site	Engineering Test	38.646589	-90.175421	2-2N-10W		I-70 Mississippi River Bridge	1/30/2001	126	
	121633146000		Off-Site	Engineering Test	38.647468	-90.172198	2-2N-10W		I-70 Mississippi River Bridge	2/1/2001	127	
	121633146100		Off-Site	Engineering Test	38.648371	-90.168892	2-2N-10W		I-70 Mississippi River Bridge	2/5/2001	141	
	121633146500		Off-Site	Engineering Test	38.649483	-90.165344	2-2N-10W		I-70 Mississippi River Bridge	10/30/2008	160	
	121633146300		Off-Site	Engineering Test	38.648171	-90.170499	2-2N-10W		I-70 Mississippi River Bridge	11/5/2008	170	
	121633146400		Off-Site	Engineering Test	38.648571	-90.16811	2-2N-10W		I-70 Mississippi River Bridge	11/7/2008	175	
	121192761600		Off-Site	Engineering Test	38.669241	-90.17801	35-3N-10W		E St. Louis Levee Di	1/1/1954	71	
	121192755100		Off-Site	Engineering Test	38.6722	-90.175309	35-3N-10W		FA Route 2 IL 3 & Broadway	3/4/1986	26	
	121190221400		Off-Site	Engineering Test	38.67179	-90.175115	35-3N-10W		Roadway "A" Bridge	4/12/1965	61	
	121192648300		Off-Site	Engineering Test	38.67179	-90.175115	35-3N-10W		Roadway "A" over FA 151	4/9/1965	66	
	121192648200		Off-Site	Engineering Test	38.67179	-90.175115	35-3N-10W		Roadway A over FA 151	4/8/1965	43	
	121192648400		Off-Site	Engineering Test	38.67179	-90.175115	35-3N-10W		Roadway A over FA 151	4/15/1965	61	
	121192648500		Off-Site	Engineering Test	38.67179	-90.175115	35-3N-10W		Roadway A over FA 151	4/19/1965	66	
	121192647700		Off-Site	Engineering Test	38.67179	-90.175115	35-3N-10W		Roadway A over FA 151	11/17/1972	61	
	121192647800		Off-Site	Engineering Test	38.67179	-90.175115	35-3N-10W		Roadway A over FA 151	11/20/1972	61	
	121192647900		Off-Site	Engineering Test	38.67179	-90.175115	35-3N-10W		Roadway A over FA 151	11/21/1972	61	
	121192648000		Off-Site	Engineering Test	38.67179	-90.175115	35-3N-10W		Roadway A over FA 151	11/22/1972	62	
	121192648100		Off-Site	Engineering Test	38.67179	-90.175115	35-3N-10W		Roadway A over FA 151	11/27/1972	62	
	121633111400	456429	Off-Site	Dewatering Well	38.644278	-90.172167	2-2N-7W	GPS verified	Bunge-SCF Grain, LLC		76	sand & gravel
	121633111100	456426	Off-Site	Dewatering Well	38.643889	-90.172056	2-2N-7W	GPS verified	Bunge-SCF Grain, LLC		76	sand & gravel
	121633111200	456427	Off-Site	Dewatering Well	38.643889	-90.172222	2-2N-7W	GPS verified	Bunge-SCF Grain, LLC		76	sand & gravel
	121633111300	456428	Off-Site	Dewatering Well	38.643944	-90.172417	2-2N-7W	GPS verified	Bunge-SCF Grain, LLC		77	sand & gravel
	121633110800	456423	Off-Site	Dewatering Well	38.645833	-90.17	2-2N-7W	GPS verified	Bunge-SCF Grain, LLC		79	sand & gravel
	121633110700	456422	Off-Site	Dewatering Well	38.647222	-90.170278	2-2N-7W	GPS verified	Bunge-SCF Grain, LLC		82	sand & gravel

Table 3.10-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Venice Power Station - Venice, Madison, IL

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 6/24/2020 (via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application)

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available

Dates were adjusted to exclude time

P003-P007 - Ramboll was unable to identify a non-CWS system associated with the noncommunity wells owned by the Illinois Department of Transportation in the SDWIS database; as such, these wells remained in the table above.

Table 3.10-B
Receptor Survey Results (CWS Surface Water Intakes < 1 mile)
Venice Power Station - Venice, Madison, IL

On-site/Off-site	Facility Name	Facility Number	Intake ID	Watershed ID	Source	Status	Basin Name	Latitude	Longitude
Off-Site	IAWC East St. Louis	IL1635040	IN60237		Mississippi River	A	Mississippi South Central	38.64011	-90.17512

Sources

IEPA SWAPP GIS Tool - Extracted 6/24/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program

Field Definitions

On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
Status	Status of Well (A = Active; B = Abandoned; I = Inactive)

Notes

Blank cells indicate that the data was not available

Table 3.11-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Waukegan Power Station - Waukegan, Lake, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	120970173400		Off-Site	Water Well	42.377748	-87.825263	15-45N-12E		Greiss-Pfleger	1/1/1928	1670	
P002	120974120400		Off-Site	Water well	42.379421	-87.823374	15-45N-12E	Location from the driller	Greiss-Pfleger Tannery	1/1/1929	1540	
P003	120970173200		Off-Site	Water Well	42.377748	-87.825267	15-45N-12E	Location from the driller	Greiss-Pfleger Tannery/North well	1/1/1919	95	
P004	120970173300		Off-Site	Water Well	42.377748	-87.825267	15-45N-12E	Location from the driller	Greiss-Pfleger Tannery/South well	1/1/1919	101	
P005	120970173100	188488	Off-Site	Water Well	42.384656	-87.820331	10-45N-12E		Johns-Manville	1/1/1920	132	
P006	120970173000	188487	Off-Site	Water Well	42.385124	-87.81971	10-45N-12E		Johns-Manville	1/1/1920	132	
P007	120970172800	188485	Off-Site	Water Well	42.385409	-87.817239	10-45N-12E		Johns-Manville	1/1/1920	108	
P008	120970172900	188486	Off-Site	Water Well	42.385124	-87.81971	10-45N-12E		Johns-Manville	1/1/1920	127	
P009	120970173500		Off-Site	Water Well	42.374576	-87.824829	15-45N-12E		North Shore Gas Co		95	
	120974753400		Off-Site	Water Well Monitoring Well	42.386469	-87.812192	10-45N-12E		Johns-Manville	9/11/1984	31	
	120974753700		Off-Site	Water Well Monitoring Well	42.385897	-87.807219	10-45N-12E		Johns-Manville	9/12/1984	16	
	120974753500		Off-Site	Water Well Monitoring Well	42.386597	-87.809465	10-45N-12E		Johns-Manville	9/12/1984	36	
	120974753900		Off-Site	Water Well Monitoring Well	42.388889	-87.815472	10-45N-12E		Johns-Manville	9/13/1984	26	
	120974754200		Off-Site	Water Well Monitoring Well	42.387425	-87.813569	10-45N-12E		Johns-Manville	9/13/1984	31	
	120974754000		Off-Site	Water Well Monitoring Well	42.390811	-87.817008	10-45N-12E		Johns-Manville	9/14/1984	31	
	120974753600		Off-Site	Water Well Monitoring Well	42.385156	-87.80946	10-45N-12E		Johns-Manville	9/17/1984	40	
	120974754300		Off-Site	Water Well Monitoring Well	42.389225	-87.822473	10-45N-12E		Johns-Manville	9/18/1984	34	
	120974759200		Off-Site	Water Well Monitoring Well	42.385243	-87.811178	10-45N-12E		Johns-Manville Disposal Area	10/29/1988	15	
	120974759100		Off-Site	Water Well Monitoring Well	42.385166	-87.810768	10-45N-12E		Johns-Manville Disposal Area	10/29/1988	39	
	120974758000		Off-Site	Water Well Monitoring Well	42.387195	-87.823092	10-45N-12E		Johns-Manville Disposal Area□	10/25/1988	15	
	120974758100		Off-Site	Water Well Monitoring Well	42.387568	-87.823005	10-45N-12E		Johns-Manville Disposal Area□	10/25/1988	36	
	120974750500		Off-Site	Water Well Monitoring Well	42.384889	-87.817256	10-45N-12E		Manville UST	10/28/1991	10	
	120974750700		Off-Site	Water Well Monitoring Well	42.386089	-87.814565	10-45N-12E		Manville UST	10/28/1991	14	
	120974750600		Off-Site	Water Well Monitoring Well	42.386383	-87.816498	10-45N-12E		Manville UST	10/29/1991	9	
	120974750300		Off-Site	Water Well Monitoring Well	42.387374	-87.822876	10-45N-12E		Manville UST	10/29/1991	10	
	120974751000		Off-Site	Water Well Monitoring Well	42.39011	-87.817668	10-45N-12E		Manville UST	10/29/1991	13	
	120974750400		Off-Site	Water Well Monitoring Well	42.384872	-87.823254	10-45N-12E		Manville UST	10/30/1991	10	
	120974750800		Off-Site	Water Well Monitoring Well	42.387866	-87.814974	10-45N-12E		Manville UST	10/31/1991	10	
	120974750900		Off-Site	Water Well Monitoring Well	42.389034	-87.817152	10-45N-12E		Manville UST	10/31/1991	13	
	120974755000		Off-Site	Water Well Monitoring Well	42.386617	-87.825381	10-45N-12E		Schuller	5/7/1996	15	
	120974754800		Off-Site	Water Well Monitoring Well	42.389289	-87.822293	10-45N-12E		Schuller	5/7/1996	30	
	120974758800		Off-Site	Water Well Monitoring Well	42.386291	-87.805437	11-45N-12E				0	
	120974753800		Off-Site	Water Well Monitoring Well	42.388636	-87.804467	11-45N-12E		Johns-Manville	9/17/1984	40	
	120974759300		Off-Site	Water Well Monitoring Well	42.387043	-87.805659	11-45N-12E		Johns-Manville Disposal Area	10/28/1988	14	
	120974758700		Off-Site	Water Well Monitoring Well	42.388473	-87.805464	11-45N-12E		Johns-Manville Disposal Area	10/28/1988	14	
	120974758600		Off-Site	Water Well Monitoring Well	42.390664	-87.804554	11-45N-12E		Johns-Manville Disposal Area	10/28/1988	40	
	120974759500		Off-Site	Water Well Monitoring Well	42.387039	-87.805165	11-45N-12E		Johns-Manville Disposal Area	10/28/1988	41	
	120974758900		Off-Site	Water Well Monitoring Well	42.385738	-87.806291	11-45N-12E		Johns-Manville Disposal Area	10/29/1988	15	
	120974759000		Off-Site	Water Well Monitoring Well	42.385731	-87.805785	11-45N-12E		Johns-Manville Disposal Area	10/29/1988	40	
	120974758400		Off-Site	Water Well Monitoring Well	42.390748	-87.805407	11-45N-12E		Johns-Manville Disposal Area□	10/28/1988	15	
	120974759600		Off-Site	Water Well Monitoring Well	42.387523	-87.805495	11-45N-12E		Manville Remedial Action	11/30/1989	13	
	120974759700		Off-Site	Water Well Monitoring Well	42.388918	-87.805382	11-45N-12E		Manville Remedial Action	11/30/1989	13	
	120974759400		Off-Site	Water Well Monitoring Well	42.3863	-87.806091	11-45N-12E		Manville Remedial Action	11/30/1989	13	
	120974753300		Off-Site	Water Well Monitoring Well	42.372106	-87.821691	15-45N-12E		Waukegan Harbor	12/8/1988	10	
	120974753200		Off-Site	Water Well Monitoring Well	42.372118	-87.822356	15-45N-12E		Waukegan Harbor	12/8/1988	10	
	120974753100		Off-Site	Water Well Monitoring Well	42.372152	-87.823236	15-45N-12E		Waukegan Harbor	12/8/1988	10	
	120974752800		Off-Site	Water Well Monitoring Well	42.371939	-87.822338	15-45N-12E		Waukegan Harbor	12/9/1988	35	
	120974752000		Off-Site	Water Well Monitoring Well	42.371927	-87.815829	15-45N-12E		Waukegan Harbor	12/9/1988	40	
	120974752200		Off-Site	Water Well Monitoring Well	42.371574	-87.815013	15-45N-12E		Waukegan Harbor	12/12/1988	40	
	120974751200		Off-Site	Water Well Monitoring Well	42.371121	-87.81595	15-45N-12E		Waukegan Harbor	12/13/1988	51	
	120974751500		Off-Site	Water Well Monitoring Well	42.371128	-87.817443	15-45N-12E		Waukegan Harbor	12/14/1988	42	
	120974752300		Off-Site	Water Well Monitoring Well	42.371112	-87.81527	15-45N-12E		Waukegan Harbor	12/14/1988	51	
	120974751800		Off-Site	Water Well Monitoring Well	42.371958	-87.817274	15-45N-12E		Waukegan Harbor	12/15/1988	40	
	120974752500		Off-Site	Water Well Monitoring Well	42.371164	-87.822688	15-45N-12E		Waukegan Harbor	12/16/1988	34	
	120974752100		Off-Site	Water Well Monitoring Well	42.371894	-87.815072	15-45N-12E		Waukegan Harbor	12/20/1988	44	
	120974752400		Off-Site	Water Well Monitoring Well	42.371204	-87.821959	15-45N-12E		Waukegan Harbor	12/21/1988	36	
	120974751300		Off-Site	Water Well Monitoring Well	42.371133	-87.816629	15-45N-12E		Waukegan Harbor	12/21/1988	40	
	120974752700		Off-Site	Water Well Monitoring Well	42.371948	-87.823226	15-45N-12E		Waukegan Harbor	12/22/1988	36	

3. Receptor Survey (Sites Not Owned by Dynegy)

Table 3.11-A
 Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
 Waukegan Power Station - Waukegan, Lake, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	120974751700		Off-Site	Water Well Monitoring Well	42.371859	-87.8179	15-45N-12E		Waukegan Harbor	12/27/1988	47	
	120974751600		Off-Site	Water Well Monitoring Well	42.371377	-87.817901	15-45N-12E		Waukegan Harbor	12/29/1988	42	
	120974752600		Off-Site	Water Well Monitoring Well	42.371159	-87.82332	15-45N-12E		Waukegan Harbor	1/6/1989	37	
	120974751400		Off-Site	Water Well Monitoring Well	42.371137	-87.816685	15-45N-12E		Waukegan Harbor	1/9/1989	39	
	120974752900		Off-Site	Water Well Monitoring Well	42.37194	-87.821614	15-45N-12E		Waukegan Harbor	1/9/1989	40	
	120974751900		Off-Site	Water Well Monitoring Well	42.371956	-87.816583	15-45N-12E		Waukegan Harbor	1/10/1989	40	
	120974753000		Off-Site	Water Well Monitoring Well	42.371647	-87.823378	15-45N-12E		Waukegan Harbor	1/11/1989	41	
	120974755700		Off-Site	Water Well Monitoring Well	42.373199	-87.823251	15-45N-12E		Waukegan Quadrangle		21	
	120974755800		Off-Site	Water Well Monitoring Well	42.373819	-87.816414	15-45N-12E		Waukegan Quadrangle		43	
	120975269700		Off-Site	Stratigraphic Test	42.37	-87.806667	1-1N-1E		Lake Michigan	6/3/1973		
	120975260600		Off-Site	Stratigraphic Test	42.373889	-87.805	1-1N-1E		Lake Michigan	7/26/1976	42	
	120975260700		Off-Site	Stratigraphic Test	42.386944	-87.801667	1-1N-1E		Lake Michigan	7/27/1976	34	
	120974843500		Off-Site	Monitoring	42.386901	-87.820138	10-45N-12E		John Manville		10	
	120974843600		Off-Site	Monitoring	42.3902	-87.819468	10-45N-12E		John Manville		12	
	120973561800	228137	Off-Site	Monitoring	42.387083	-87.806127	11-45N-12E	Location from permit	Manville Sales Corp.	11/30/1989	13	water table
	120973562000	228136	Off-Site	Monitoring	42.385254	-87.80615	11-45N-12E	Location from permit	Manville Sales Corp.	11/30/1989	14	water table
	120973561900	228138	Off-Site	Monitoring	42.387083	-87.806127	11-45N-12E	Platbook verified	Manville Sales Corp.	11/30/1989	14	water table
	120973562100	228135	Off-Site	Monitoring	42.385068	-87.806281	11-45N-12E	Platbook verified	Manville Sales Corp.	11/30/1989	40	water table
	120973561700	228139	Off-Site	Monitoring	42.387043	-87.806217	11-45N-12E	Platbook verified	Manville Sales Corp.	12/1/1989	15	water table
	120974156400		Off-Site	Engineering Test	42.386399	-87.823339	10-45N-12E		Greenwood Rd over NW RR	11/7/1963	32	
	120974156200		Off-Site	Engineering Test	42.386399	-87.823339	10-45N-12E		Greenwood Rd over NW RR	11/18/1963	32	
	120974156000		Off-Site	Engineering Test	42.386399	-87.823339	10-45N-12E		Greenwood Rd over NW RR	11/26/1963	36	
	120974156100		Off-Site	Engineering Test	42.386399	-87.823339	10-45N-12E		Greenwood Rd. over NW RR	12/2/1963	26	
	120974156300		Off-Site	Engineering Test	42.386399	-87.823339	10-45N-12E		Greenwood over Northwestern	10/26/1965	42	
	120974774200		Off-Site	Engineering Test	42.372046	-87.823302	15-45N-12E		City of Waukegan	1/6/1975	21	
	120974799100		Off-Site	Engineering Test	42.380745	-87.821666	15-45N-12E		Commonwealth Edison MW-1A	2/2/1995	25	
	120974799200		Off-Site	Engineering Test	42.377011	-87.821774	15-45N-12E		Commonwealth Edison MW-5A	1/31/1995	26	
	120974799300		Off-Site	Engineering Test	42.378385	-87.825704	15-45N-12E		Commonwealth Edison MW-7A	2/1/1995	25	
	120974799400		Off-Site	Engineering Test	42.381075	-87.822791	15-45N-12E		Commonwealth Edison MW-9	2/2/1995	13	
	120974803200		Off-Site	Engineering Test	42.373318	-87.817203	15-45N-12E		Effluent Filter Building B-1	12/28/1972	32	
	120974803300		Off-Site	Engineering Test	42.373078	-87.817201	15-45N-12E		Effluent Filter Building B-2	12/28/1972	32	
	120975335100		Off-Site	Engineering Test	42.373702	-87.823623	15-45N-12E		Lake Michigan Bluff		21	
	120975335200		Off-Site	Engineering Test	42.371747	-87.816419	15-45N-12E		Lake Michigan Bluff		43	
	120974808800		Off-Site	Engineering Test	42.372076	-87.823126	15-45N-12E		North Shore Sanitary Dist.	6/30/1971	14	
	120974808600		Off-Site	Engineering Test	42.372093	-87.819336	15-45N-12E		North Shore Sanitary Dist.	6/30/1971	19	
	120974800300		Off-Site	Engineering Test	42.374373	-87.815987	15-45N-12E		North Shore Sanitary District	11/7/1969	27	
	120974799600		Off-Site	Engineering Test	42.375271	-87.817815	15-45N-12E		North Shore Sanitary District	11/7/1969	27	
	120974799800		Off-Site	Engineering Test	42.374837	-87.818692	15-45N-12E		North Shore Sanitary District	11/7/1969	42	
	120974800100		Off-Site	Engineering Test	42.374184	-87.817493	15-45N-12E		North Shore Sanitary District	11/8/1969	27	
	120974799500		Off-Site	Engineering Test	42.37521	-87.818359	15-45N-12E		North Shore Sanitary District	11/8/1969	27	
	120974799700		Off-Site	Engineering Test	42.375713	-87.816894	15-45N-12E		North Shore Sanitary District	11/8/1969	27	
	120974800000		Off-Site	Engineering Test	42.374188	-87.818006	15-45N-12E		North Shore Sanitary District	11/8/1969	27	
	120974800200		Off-Site	Engineering Test	42.374297	-87.817085	15-45N-12E		North Shore Sanitary District	11/10/1969	27	
	120974800400		Off-Site	Engineering Test	42.375632	-87.817446	15-45N-12E		North Shore Sanitary District	11/13/1969	27	
	120974799900		Off-Site	Engineering Test	42.374193	-87.818593	15-45N-12E		North Shore Sanitary District	11/13/1969	27	
	120974808900		Off-Site	Engineering Test	42.372091	-87.823791	15-45N-12E		North Shore Sanitary District	6/29/1971	14	
	120974808700		Off-Site	Engineering Test	42.372081	-87.822056	15-45N-12E		North Shore Sanitary District	7/3/1971	7	
	120974809000		Off-Site	Engineering Test	42.372161	-87.82526	15-45N-12E		North Shore Sanitary District	7/3/1971	16	
	120974802700		Off-Site	Engineering Test	42.372912	-87.81615	15-45N-12E		Outfall Improvements Division O-3A	12/14/1970	13	
	120974802800		Off-Site	Engineering Test	42.372147	-87.8176	15-45N-12E		Outfall Improvements Division O-3A	12/14/1970	17	
	120974802900		Off-Site	Engineering Test	42.372049	-87.816926	15-45N-12E		Outfall Improvements Division O-3A	12/19/1970	14	
	120974803100		Off-Site	Engineering Test	42.372071	-87.814291	15-45N-12E		Outfall Improvements Division O-3A	12/21/1970	30	
	120974803000		Off-Site	Engineering Test	42.372055	-87.816164	15-45N-12E		Outfall Improvements Division O-3A	12/23/1970	43	
	120974848100		Off-Site	Engineering Test	42.370495	-87.817663	15-45N-12E		Prop. Metal Pulverizer Foundation	3/5/1973	52	
	120974847600		Off-Site	Engineering Test	42.370949	-87.818276	15-45N-12E		Proposed Addition to plant #2	1/3/1971	17	
	120974847800		Off-Site	Engineering Test	42.371775	-87.816303	15-45N-12E		Proposed Addition to plant #2	1/3/1972	17	
	120974847700		Off-Site	Engineering Test	42.371792	-87.818745	15-45N-12E		Proposed Addition to plant #2	1/3/1972	17	
	120974848000		Off-Site	Engineering Test	42.371233	-87.816029	15-45N-12E		Proposed Electrical Substation	10/11/1972	17	

Table 3.11-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Waukegan Power Station - Waukegan, Lake, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	120974847900		Off-Site	Engineering Test	42.374359	-87.81699	15-45N-12E		Proposed Electrical Substation	10/11/1972	17	
	120974800600		Off-Site	Engineering Test	42.374747	-87.819597	15-45N-12E		Proposed Overflow Treatment Facili	6/25/1970	19	
	120974802400		Off-Site	Engineering Test	42.372274	-87.819458	15-45N-12E		Proposed Overflow Treatment Facili	6/30/1970	9	
	120974802500		Off-Site	Engineering Test	42.372111	-87.820213	15-45N-12E		Proposed Overflow Treatment Facili	6/30/1970	9	
	120974802600		Off-Site	Engineering Test	42.372104	-87.818916	15-45N-12E		Proposed Overflow Treatment Facili	6/30/1970	11	
	120974801800		Off-Site	Engineering Test	42.373147	-87.82022	15-45N-12E		Proposed Overflow Treatment Facilit		17	
	120974801000		Off-Site	Engineering Test	42.374211	-87.819469	15-45N-12E		Proposed Overflow Treatment Facilit	6/25/1970	14	
	120974800800		Off-Site	Engineering Test	42.374475	-87.820228	15-45N-12E		Proposed Overflow Treatment Facilit	6/25/1970	14	
	120974801300		Off-Site	Engineering Test	42.373567	-87.821321	15-45N-12E		Proposed Overflow Treatment Facilit	6/26/1970	13	
	120974800700		Off-Site	Engineering Test	42.374481	-87.821316	15-45N-12E		Proposed Overflow Treatment Facilit	6/26/1970	13	
	120974800900		Off-Site	Engineering Test	42.374199	-87.822048	15-45N-12E		Proposed Overflow Treatment Facilit	6/26/1970	14	
	120974801200		Off-Site	Engineering Test	42.373921	-87.820219	15-45N-12E		Proposed Overflow Treatment Facilit	6/26/1970	14	
	120974801100		Off-Site	Engineering Test	42.373921	-87.820219	15-45N-12E		Proposed Overflow Treatment Facilit	6/26/1970	14	
	120974802200		Off-Site	Engineering Test	42.372585	-87.820216	15-45N-12E		Proposed Overflow Treatment Facilit	6/29/1970	12	
	120974801700		Off-Site	Engineering Test	42.373145	-87.82132	15-45N-12E		Proposed Overflow Treatment Facilit	6/29/1970	12	
	120974802100		Off-Site	Engineering Test	42.372586	-87.821312	15-45N-12E		Proposed Overflow Treatment Facilit	6/29/1970	14	
	120974800500		Off-Site	Engineering Test	42.374749	-87.820544	15-45N-12E		Proposed Overflow Treatment Facilit	6/29/1970	19	
	120974801400		Off-Site	Engineering Test	42.373566	-87.820228	15-45N-12E		Proposed Overflow Treatment Facilit	6/29/1970	593	
	120974802000		Off-Site	Engineering Test	42.372831	-87.819459	15-45N-12E		Proposed Overflow Treatment Facilit	6/30/1970	9	
	120974802300		Off-Site	Engineering Test	42.372274	-87.822649	15-45N-12E		Proposed Overflow Treatment Facilit	6/30/1970	9	
	120974801900		Off-Site	Engineering Test	42.372833	-87.822468	15-45N-12E		Proposed Overflow Treatment Facilit	6/30/1970	9	
	120974801600		Off-Site	Engineering Test	42.37342	-87.819467	15-45N-12E		Proposed Overflow Treatment Facilit	6/30/1970	9	
	120974801500		Off-Site	Engineering Test	42.373423	-87.822279	15-45N-12E		Proposed Overflow Treatment Facilit	6/30/1970	9	
	120974646100		Off-Site	Engineering Test	42.371896	-87.819003	15-45N-12E		STS job 17097	6/27/1974	76	
	120974799000		Off-Site	Engineering Test	42.378431	-87.823046	15-45N-12E		WTD-Boart Longyear EB-1	1/31/1995	30	
	120974156500		Off-Site	Engineering Test	42.382809	-87.828337	16-45N-12E		Greenwood Ave over FA 130 & 42	3/31/1964	27	
	120970264200		Off-Site	Engineering Test	42.382809	-87.828337	16-45N-12E		Greenwood Ave over FA 130 & 42	4/6/1964	27	
	120974156800		Off-Site	Engineering Test	42.382809	-87.828337	16-45N-12E		Greenwood Ave over FA 130 & 42	4/7/1964	26	
	120974156600		Off-Site	Engineering Test	42.382809	-87.828337	16-45N-12E		Greenwood Ave over FA 130 & 42	4/8/1964	26	
	120974156700		Off-Site	Engineering Test	42.382809	-87.828337	16-45N-12E		Greenwood Ave. over FA 130 & 4	3/25/1964	27	
	120974156900		Off-Site	Engineering Test	42.382809	-87.828337	16-45N-12E		Greenwood Ave. over FA 130 & 4	3/30/1964	27	
	120974809200		Off-Site	Engineering Test	42.372102	-87.826443	16-45N-12E		North Shore Sanitary District	7/3/1971	9	
	120974809100		Off-Site	Engineering Test	42.372108	-87.826035	16-45N-12E		North shore Sanitary District	6/30/1971	17	
	120974157100		Off-Site	Engineering Test	42.382809	-87.828337	16-45N-12E		Retaining Wall Greenwood Ave &	1/29/1970	27	
	120974157200		Off-Site	Engineering Test	42.382809	-87.828337	16-45N-12E		Retaining Wall Greenwood Ave &	2/4/1970	24	
	120974157300		Off-Site	Engineering Test	42.382809	-87.828337	16-45N-12E		Retaining Wall Greenwood Ave &	2/5/1970	27	
	120974157000		Off-Site	Engineering Test	42.382809	-87.828337	16-45N-12E		Retaining Wall Greenwood Ave F	1/27/1970	32	
	120974814300		Off-Site	Engineering Test	42.373895	-87.827183	21-45N-12E		Effluent Force Main	6/29/1972	20	
	120974814400		Off-Site	Engineering Test	42.373865	-87.826604	21-45N-12E		Effluent Force Main	6/29/1972	20	
	120974845600		Off-Site	Engineering Test	42.370129	-87.818809	22-45N-12E		Johnson Motor Co.	6/16/1966	17	
	120974845700		Off-Site	Engineering Test	42.37016	-87.816367	22-45N-12E		Johnson Motor Co. B-2	6/16/1966	17	
	120974846400		Off-Site	Engineering Test	42.369444	-87.820624	22-45N-12E		Johnson Motor Co. B-9	6/17/1966	17	
	120974846800		Off-Site	Engineering Test	42.369579	-87.819778	22-45N-12E		Proposed Addition to Plant No. 2	12/30/1971	17	
	120974847500		Off-Site	Engineering Test	42.370129	-87.818809	22-45N-12E		Proposed Addition to plant #2	1/3/1972	17	
	120974847400		Off-Site	Engineering Test	42.370129	-87.818809	22-45N-12E		Proposed Addition to plant #2	1/3/1972	17	
	120974847000		Off-Site	Engineering Test	42.369582	-87.818191	22-45N-12E		Proposed Addition to plant #2	1/3/1972	17	
	120974847300		Off-Site	Engineering Test	42.370134	-87.818059	22-45N-12E		Proposed Addition to plant #2	1/4/1972	17	
	120972833700	337286	Off-Site	Dewatering Well	42.371535	-87.8152	15-45N-12E	Location from the driller	N. Shore Sanitary District	7/9/2001	30	sand
	120972833800	337290	Off-Site	Dewatering Well	42.371696	-87.815107	15-45N-12E	Location from the driller	N. Shore Sanitary District	7/10/2001	32	sand
	120975357200		Off-Site	Dewatering Well	42.374339	-87.816137	15-45N-12E	GPS verified	North Shore Sanitary Dist			

Table 3.11-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Waukegan Power Station - Waukegan, Lake, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	120975357100		Off-Site	Dewatering Well	42.374947	-87.816128	15-45N-12E	GPS verified	North Shore Sanitary Dist			
	120975356900		Off-Site	Dewatering Well	42.374828	-87.816631	15-45N-12E	GPS verified	North Shore Sanitary Dist		34	
	120975357300		Off-Site	Dewatering Well	42.374947	-87.815475	15-45N-12E	GPS verified	North Shore Sanitary Dist		34	
	120975357000		Off-Site	Dewatering Well	42.374564	-87.816627	15-45N-12E	GPS verified	North Shore Sanitary Dist.		34	

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 6/24/2020 (via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application)

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available
 Dates were adjusted to exclude time

Table 3.12-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Will County Power Station - Romeoville, Will, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	121970127500	158074	On-Site	Water Well	41.634751	-88.0622	2-36N-10E		Public Service	1/1/1952	1536	
P002	121974178000	412036	Off-Site	Water Well for Commercial Operation	41.628488	-88.06728	3-36N-10E	Aerial Photograph verified	Prairie Ready Concrete	10/6/2004	300	limestone
P003	121970025300	158076	Off-Site	Water Well	41.63637	-88.061042	2-36N-10E		Commonwealth Edison Co.	1/1/1957	1509	
P004	121970127600		Off-Site	Water Well	41.64043	-88.06567	2-36N-10E		Public Service Co.	1/1/1952	1535	
P005	121973959900		Off-Site	Water Well	41.636404	-88.080265	3-36N-10E		Alexander Const.Co.		125	
P006	121970119700	158103	Off-Site	Water Well	41.638481	-88.079252	3-36N-10E	Location from a log	Materials Paving Co.	9/1/1960	159	
P007	121973467500	404124	Off-Site	Semi-Private Water Well	41.62665	-88.06462	2-36N-10E	Location from permit	Material Service Corp.	4/6/1989	180	rock
P008	121972583600	158113	Off-Site	Private Water Well	41.624753	-88.066993	10-36N-10E	Location from permit	Herbs, Mike	10/26/1976	60	limestone
P009	121970184300	158096	Off-Site	Private Water Well	41.634328	-88.052552	2-36N-10E	Location from permit	Berush, Helen	5/13/1970	160	limestone
P010	121970352400	158097	Off-Site	Private Water Well	41.638018	-88.052642	2-36N-10E	Location from permit	Dorich, Julius	5/23/1973	115	limestone
P011	121973091600	402655	Off-Site	Private Water Well	41.62665	-88.06462	2-36N-10E	Location from permit	Material Service Corp.	1/19/1989	160	rock
P012	121973075000	218118	Off-Site	Private Water Well	41.626392	-88.07412	3-36N-10E	Location from permit	Plainfield Pump / Ernest Koch	9/12/1988	155	lime
P013	121972479600	160558	Off-Site	Private Water Well	41.641156	-88.058535	35-37N-10E	Aerial Photograph verified	Pounovich, John	9/4/1974	145	limestone
P014	121974281000	453698	Off-Site	Non Potable Water Well	41.642567	-88.059617	35-37N-10E	GPS verified	Army Corps of Engineers	9/8/2010	540	limestone
P015	121972436300	404190	Off-Site	Industrial Water Well	41.636146	-88.057728	2-36N-10E		Commonwealth Edison Company	3/22/1974	1500	
P016	121973959800		Off-Site	Industrial Water Well	41.636911	-88.054636	2-36N-10E	Location from permit	Commonwealth Edison Company		1340	
P017	121972438900	404191	Off-Site	Industrial Water Well	41.631601	-88.057979	2-36N-10E		Commonwealth Edison Company	4/15/1974	1503	
P018	121970153200	221322	Off-Site	Industrial Water Well	41.645452	-88.054381	35-37N-10E	Location from permit	Union Oil Co.	5/7/1968	130	Niagaran
P019	121970159400	409743	Off-Site	Industrial Water Well	41.645971	-88.055146	35-37N-10E	Location from permit	Union Oil Company	8/1/1968	1460	sandstone
	121973968500		On-Site	Test Hole	41.633725	-88.062406	2-36N-10E		Public Service Co. Station 8	5/20/1952	48	
	121973968700		On-Site	Test Hole	41.633866	-88.062369	2-36N-10E		Public Service Co. Station 8	5/21/1952	33	
	121973968600		On-Site	Test Hole	41.633713	-88.062317	2-36N-10E		Public Service Co., Station 8	5/21/1952	38	
	121974001600		On-Site	Noncommunity - Public Water Well	41.639676	-88.062288	2-36N-10E		Chicks Romeo Tavern		0	
	121974001900		On-Site	Noncommunity - Public Water Well	41.63963	-88.064689	2-36N-10E		Midwest Generation Romeoville		0	
	121974001700		On-Site	Noncommunity - Public Water Well	41.635971	-88.062256	2-36N-10E		Midwest Generation Romeoville		0	
	121974001800		On-Site	Noncommunity - Public Water Well	41.637775	-88.06468	2-36N-10E		Midwest Generation Romeoville		0	
	121974639500		On-Site	Engineering Test	41.63358	-88.062389	2-36N-10E		Public Service Co. Station 8	2/24/1952	58	
	121974654200		On-Site	Engineering Test	41.632947	-88.06322	2-36N-10E		Public Service Co. Station 8	3/3/1952	2	
	121974654100		On-Site	Engineering Test	41.632951	-88.063195	2-36N-10E		Public Service Co. Station 8	3/3/1952	2	
	121974654000		On-Site	Engineering Test	41.632936	-88.063196	2-36N-10E		Public Service Co. Station 8	3/3/1952	3	
	121974655200		On-Site	Engineering Test	41.63366	-88.062235	2-36N-10E		Public Service Co. Station 8	3/3/1952	3	
	121974654300		On-Site	Engineering Test	41.632924	-88.063186	2-36N-10E		Public Service Co. Station 8	3/3/1952	8	
	121974654500		On-Site	Engineering Test	41.632322	-88.063296	2-36N-10E		Public Service Co. Station 8	3/3/1952	11	
	121974653100		On-Site	Engineering Test	41.63233	-88.063885	2-36N-10E		Public Service Co. Station 8	3/3/1952	11	
	121974656300		On-Site	Engineering Test	41.634298	-88.062808	2-36N-10E		Public Service Co. Station 8	3/3/1952	11	
	121974652600		On-Site	Engineering Test	41.636205	-88.061818	2-36N-10E		Public Service Co. Station 8	3/3/1952	11	
	121974655900		On-Site	Engineering Test	41.632042	-88.063332	2-36N-10E		Public Service Co. Station 8	3/3/1952	11	
	121974655800		On-Site	Engineering Test	41.635665	-88.065256	2-36N-10E		Public Service Co. Station 8	3/3/1952	11	
	121974653000		On-Site	Engineering Test	41.632363	-88.064523	2-36N-10E		Public Service Co. Station 8	3/3/1952	11	
	121974652700		On-Site	Engineering Test	41.6356	-88.062436	2-36N-10E		Public Service Co. Station 8	3/3/1952	11	
	121974653700		On-Site	Engineering Test	41.633426	-88.063369	2-36N-10E		Public Service Co. Station 8	3/3/1952	11	
	121974656200		On-Site	Engineering Test	41.634378	-88.063296	2-36N-10E		Public Service Co. Station 8	3/3/1952	11	
	121974652500		On-Site	Engineering Test	41.637265	-88.063029	2-36N-10E		Public Service Co. Station 8	3/3/1952	11	
	121974655600		On-Site	Engineering Test	41.632219	-88.062361	2-36N-10E		Public Service Co. Station 8	3/3/1952	12	
	121974653800		On-Site	Engineering Test	41.633485	-88.063107	2-36N-10E		Public Service Co. Station 8	3/3/1952	12	
	121974653300		On-Site	Engineering Test	41.634437	-88.063668	2-36N-10E		Public Service Co. Station 8	3/3/1952	12	
	121974653600		On-Site	Engineering Test	41.63364	-88.063354	2-36N-10E		Public Service Co. Station 8	3/3/1952	12	
	121974652400		On-Site	Engineering Test	41.639189	-88.062915	2-36N-10E		Public Service Co. Station 8	3/3/1952	13	
	121974653400		On-Site	Engineering Test	41.634225	-88.063041	2-36N-10E		Public Service Co. Station 8	3/3/1952	15	
	121974656400		On-Site	Engineering Test	41.633218	-88.062174	2-36N-10E		Public Service Co. Station 8	3/3/1952	21	
	121974653900		On-Site	Engineering Test	41.632919	-88.063224	2-36N-10E		Public Service Co. Station 8	3/3/1952	22	
	121974655100		On-Site	Engineering Test	41.63418	-88.062109	2-36N-10E		Public Service Co. Station 8	3/3/1952	24	
	121974655000		On-Site	Engineering Test	41.634192	-88.062595	2-36N-10E		Public Service Co. Station 8	3/3/1952	25	
	121974656000		On-Site	Engineering Test	41.631984	-88.06288	2-36N-10E		Public Service Co. Station 8	3/3/1952	25	
	121974655500		On-Site	Engineering Test	41.632788	-88.062207	2-36N-10E		Public Service Co. Station 8	3/3/1952	27	
	121974656500		On-Site	Engineering Test	41.632548	-88.062813	2-36N-10E		Public Service Co. Station 8	3/3/1952	29	
	121974654600		On-Site	Engineering Test	41.632268	-88.062849	2-36N-10E		Public Service Co. Station 8	3/3/1952	29	
	121974656100		On-Site	Engineering Test	41.633795	-88.062862	2-36N-10E		Public Service Co. Station 8	3/3/1952	31	

Table 3.12-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Will County Power Station - Romeoville, Will, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121974655300		On-Site	Engineering Test	41.633696	-88.062116	2-36N-10E		Public Service Co. Station 8	3/3/1952	31	
	121974654800		On-Site	Engineering Test	41.633431	-88.06269	2-36N-10E		Public Service Co. Station 8	3/3/1952	36	
	121974653200		On-Site	Engineering Test	41.633226	-88.063791	2-36N-10E		Public Service Co. Station 8	3/3/1952	39	
	121974655400		On-Site	Engineering Test	41.633406	-88.062272	2-36N-10E		Public Service Co. Station 8	3/3/1952	43	
	121974653500		On-Site	Engineering Test	41.633779	-88.063079	2-36N-10E		Public Service Co. Station 8	3/3/1952	49	
	121974654700		On-Site	Engineering Test	41.632851	-88.062772	2-36N-10E		Public Service Co. Station 8	3/3/1952	53	
	121974654900		On-Site	Engineering Test	41.633765	-88.062621	2-36N-10E		Public Service Co. Station 8	3/3/1952	54	
	121974654400		On-Site	Engineering Test	41.632901	-88.063225	2-36N-10E		Public Service Co. Station 8	3/3/1952	54	
	121974637200		On-Site	Engineering Test	41.633987	-88.062626	2-36N-10E		Public Service Co. Station 8	4/24/1952	50	
	121974639000		On-Site	Engineering Test	41.634043	-88.062831	2-36N-10E		Public Service Co. Station 8	4/27/1952	34	
	121974637700		On-Site	Engineering Test	41.633874	-88.062523	2-36N-10E		Public Service Co. Station 8	5/6/1952	50	
	121974637300		On-Site	Engineering Test	41.63397	-88.062517	2-36N-10E		Public Service Co. Station 8	5/7/1952	50	
	121974639200		On-Site	Engineering Test	41.63364	-88.062901	2-36N-10E		Public Service Co. Station 8	5/7/1952	50	
	121974638000		On-Site	Engineering Test	41.633772	-88.062403	2-36N-10E		Public Service Co. Station 8	5/9/1952	52	
	121974638300		On-Site	Engineering Test	41.633677	-88.062408	2-36N-10E		Public Service Co. Station 8	5/12/1952	52	
	121974639100		On-Site	Engineering Test	41.633936	-88.062866	2-36N-10E		Public Service Co. Station 8	5/14/1952	42	
	121974638500		On-Site	Engineering Test	41.633569	-88.062332	2-36N-10E		Public Service Co. Station 8	5/16/1952	45	
	121974639400		On-Site	Engineering Test	41.633889	-88.062633	2-36N-10E		Public Service Co. Station 8	5/19/1952	44	
	121974637800		On-Site	Engineering Test	41.633858	-88.062299	2-36N-10E		Public Service Co. Station 8	5/19/1952	51	
	121974637400		On-Site	Engineering Test	41.633958	-88.062391	2-36N-10E		Public Service Co. Station 8	5/20/1952	50	
	121974637500		On-Site	Engineering Test	41.633955	-88.062292	2-36N-10E		Public Service Co. Station 8	5/21/1952	50	
	121974637600		On-Site	Engineering Test	41.633951	-88.062182	2-36N-10E		Public Service Co. Station 8	5/23/1952	50	
	121974637900		On-Site	Engineering Test	41.633858	-88.062194	2-36N-10E		Public Service Co. Station 8	5/23/1952	52	
	121974638200		On-Site	Engineering Test	41.633763	-88.062208	2-36N-10E		Public Service Co. Station 8	5/24/1952	51	
	121974638600		On-Site	Engineering Test	41.633577	-88.06223	2-36N-10E		Public Service Co. Station 8	5/26/1952	45	
	121974638400		On-Site	Engineering Test	41.633671	-88.062219	2-36N-10E		Public Service Co. Station 8	5/26/1952	49	
	121974639600		On-Site	Engineering Test	41.633939	-88.062629	2-36N-10E		Public Service Co. Station 8	5/26/1952	50	
	121974638100		On-Site	Engineering Test	41.633763	-88.062311	2-36N-10E		Public Service Co. Station 8	5/27/1952	50	
	121974639800		On-Site	Engineering Test	41.633716	-88.062212	2-36N-10E		Public Service Co. Station 8	5/28/1952	29	
	121974638900		On-Site	Engineering Test	41.633481	-88.062245	2-36N-10E		Public Service Co. Station 8	5/28/1952	50	
	121974638800		On-Site	Engineering Test	41.633474	-88.062341	2-36N-10E		Public Service Co. Station 8	5/29/1952	52	
	121974639900		On-Site	Engineering Test	41.633492	-88.062548	2-36N-10E		Public Service Co. Station 8	5/29/1952	100	
	121974638700		On-Site	Engineering Test	41.633481	-88.062424	2-36N-10E		Public Service Co. Station 8	5/30/1952	55	
	121974642500		On-Site	Engineering Test	41.633662	-88.062083	2-36N-10E		Public Service Co. Station 8	5/30/1952	63	
	121974643200		On-Site	Engineering Test	41.633573	-88.062098	2-36N-10E		Public Service Co. Station 8	5/31/1952	55	
	121974640000		On-Site	Engineering Test	41.634069	-88.06262	2-36N-10E		Public Service Co. Station 8	6/2/1952	33	
	121974641800		On-Site	Engineering Test	41.63379	-88.062637	2-36N-10E		Public Service Co. Station 8	6/3/1952	48	
	121974643700		On-Site	Engineering Test	41.633472	-88.062111	2-36N-10E		Public Service Co. Station 8	6/3/1952	49	
	121974641900		On-Site	Engineering Test	41.633781	-88.062528	2-36N-10E		Public Service Co. Station 8	6/4/1952	48	
	121974643600		On-Site	Engineering Test	41.633526	-88.062106	2-36N-10E		Public Service Co. Station 8	6/4/1952	49	
	121974643000		On-Site	Engineering Test	41.633597	-88.062652	2-36N-10E		Public Service Co. Station 8	6/4/1952	53	
	121974644400		On-Site	Engineering Test	41.633399	-88.062353	2-36N-10E		Public Service Co. Station 8	6/5/1952	41	
	121974642300		On-Site	Engineering Test	41.633693	-88.062644	2-36N-10E		Public Service Co. Station 8	6/5/1952	46	
	121974643300		On-Site	Engineering Test	41.633546	-88.062659	2-36N-10E		Public Service Co. Station 8	6/5/1952	49	
	121974642000		On-Site	Engineering Test	41.633742	-88.062637	2-36N-10E		Public Service Co. Station 8	6/5/1952	51	
	121974642400		On-Site	Engineering Test	41.633687	-88.062534	2-36N-10E		Public Service Co. Station 8	6/6/1952	63	
	121974644200		On-Site	Engineering Test	41.63339	-88.06268	2-36N-10E		Public Service Co. Station 8	6/7/1952	41	
	121974642700		On-Site	Engineering Test	41.633638	-88.062538	2-36N-10E		Public Service Co. Station 8	6/9/1952	41	
	121974643100		On-Site	Engineering Test	41.633588	-88.062542	2-36N-10E		Public Service Co. Station 8	6/10/1952	50	
	121974644300		On-Site	Engineering Test	41.633402	-88.06243	2-36N-10E		Public Service Co. Station 8	6/11/1952	42	
	121974644000		On-Site	Engineering Test	41.633434	-88.062252	2-36N-10E		Public Service Co. Station 8	6/11/1952	90	
	121974642600		On-Site	Engineering Test	41.633644	-88.062648	2-36N-10E		Public Service Co. Station 8	6/12/1952	42	
	121974643800		On-Site	Engineering Test	41.63345	-88.062673	2-36N-10E		Public Service Co. Station 8	6/12/1952	44	
	121974643500		On-Site	Engineering Test	41.63353	-88.062237	2-36N-10E		Public Service Co. Station 8	6/12/1952	50	
	121974640700		On-Site	Engineering Test	41.634008	-88.062387	2-36N-10E		Public Service Co. Station 8	6/14/1952	46	
	121974643400		On-Site	Engineering Test	41.63354	-88.062545	2-36N-10E		Public Service Co. Station 8	6/16/1952	75	
	121974640200		On-Site	Engineering Test	41.634051	-88.062284	2-36N-10E		Public Service Co. Station 8	6/17/1952	39	
	121974641500		On-Site	Engineering Test	41.633839	-88.062635	2-36N-10E		Public Service Co. Station 8	6/17/1952	40	

Table 3.12-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Will County Power Station - Romeoville, Will, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121974640800		On-Site	Engineering Test	41.634003	-88.062286	2-36N-10E		Public Service Co. Station 8	6/17/1952	45	
	121974641100		On-Site	Engineering Test	41.63394	-88.062049	2-36N-10E		Public Service Co. Station 8	6/18/1952	35	
	121974640300		On-Site	Engineering Test	41.634041	-88.062173	2-36N-10E		Public Service Co. Station 8	6/19/1952	37	
	121974642100		On-Site	Engineering Test	41.633733	-88.062531	2-36N-10E		Public Service Co. Station 8	6/19/1952	44	
	121974642800		On-Site	Engineering Test	41.633624	-88.062224	2-36N-10E		Public Service Co. Station 8	6/19/1952	54	
	121974641600		On-Site	Engineering Test	41.633828	-88.062525	2-36N-10E		Public Service Co. Station 8	6/19/1952	63	
	121974640400		On-Site	Engineering Test	41.63403	-88.062036	2-36N-10E		Public Service Co. Station 8	6/21/1952	30	
	121974640900		On-Site	Engineering Test	41.633997	-88.062177	2-36N-10E		Public Service Co. Station 8	6/21/1952	43	
	121974640500		On-Site	Engineering Test	41.634024	-88.062623	2-36N-10E		Public Service Co. Station 8	6/21/1952	43	
	121974642900		On-Site	Engineering Test	41.633617	-88.06209	2-36N-10E		Public Service Co. Station 8	6/21/1952	61	
	121974641200		On-Site	Engineering Test	41.63392	-88.06252	2-36N-10E		Public Service Co. Station 8	6/21/1952	63	
	121974641300		On-Site	Engineering Test	41.633905	-88.062187	2-36N-10E		Public Service Co. Station 8	6/22/1952	42	
	121974641700		On-Site	Engineering Test	41.633811	-88.062197	2-36N-10E		Public Service Co. Station 8	6/23/1952	31	
	121974639300		On-Site	Engineering Test	41.634193	-88.062611	2-36N-10E		Public Service Co. Station 8	6/23/1952	49	
	121974642200		On-Site	Engineering Test	41.633706	-88.062077	2-36N-10E		Public Service Co. Station 8	6/24/1952	31	
	121974644100		On-Site	Engineering Test	41.633417	-88.062117	2-36N-10E		Public Service Co. Station 8	6/24/1952	49	
	121974640600		On-Site	Engineering Test	41.634015	-88.062514	2-36N-10E		Public Service Co. Station 8	6/25/1952	44	
	121974641000		On-Site	Engineering Test	41.633984	-88.062043	2-36N-10E		Public Service Co. Station 8	6/25/1952	74	
	121974640100		On-Site	Engineering Test	41.634064	-88.06251	2-36N-10E		Public Service Co. Station 8	6/26/1952	30	
	121974639700		On-Site	Engineering Test	41.634135	-88.062617	2-36N-10E		Public Service Co. Station 8	6/26/1952	32	
	121974641400		On-Site	Engineering Test	41.633898	-88.062057	2-36N-10E		Public Service Co. Station 8	6/26/1952	51	
	121974649900		On-Site	Engineering Test	41.633509	-88.06313	2-36N-10E		Public Service Co. Station 8	7/6/1952	39	
	121974649500		On-Site	Engineering Test	41.63356	-88.063126	2-36N-10E		Public Service Co. Station 8	7/7/1952	32	
	121974649400		On-Site	Engineering Test	41.63361	-88.06312	2-36N-10E		Public Service Co. Station 8	7/7/1952	36	
	121974649000		On-Site	Engineering Test	41.633661	-88.063114	2-36N-10E		Public Service Co. Station 8	7/8/1952	26	
	121974648500		On-Site	Engineering Test	41.633765	-88.063104	2-36N-10E		Public Service Co. Station 8	7/9/1952	31	
	121974648600		On-Site	Engineering Test	41.633714	-88.06311	2-36N-10E		Public Service Co. Station 8	7/9/1952	32	
	121974648100		On-Site	Engineering Test	41.633817	-88.063097	2-36N-10E		Public Service Co. Station 8	7/11/1952	34	
	121974646900		On-Site	Engineering Test	41.633965	-88.063081	2-36N-10E		Public Service Co. Station 8	7/12/1952	26	
	121974647400		On-Site	Engineering Test	41.633913	-88.063087	2-36N-10E		Public Service Co. Station 8	7/12/1952	26	
	121974646200		On-Site	Engineering Test	41.634065	-88.063072	2-36N-10E		Public Service Co. Station 8	7/14/1952	20	
	121974646700		On-Site	Engineering Test	41.634016	-88.063076	2-36N-10E		Public Service Co. Station 8	7/14/1952	27	
	121974649100		On-Site	Engineering Test	41.633629	-88.063041	2-36N-10E		Public Service Co. Station 8	7/15/1952	22	
	121974648700		On-Site	Engineering Test	41.633688	-88.063034	2-36N-10E		Public Service Co. Station 8	7/15/1952	31	
	121974644500		On-Site	Engineering Test	41.634228	-88.06306	2-36N-10E		Public Service Co. Station 8	7/15/1952	35	
	121974649200		On-Site	Engineering Test	41.633609	-88.062924	2-36N-10E		Public Service Co. Station 8	7/15/1952	51	
	121974648900		On-Site	Engineering Test	41.633617	-88.062752	2-36N-10E		Public Service Co. Station 8	7/16/1952	20	
	121974648800		On-Site	Engineering Test	41.633678	-88.062914	2-36N-10E		Public Service Co. Station 8	7/16/1952	25	
	121974649800		On-Site	Engineering Test	41.633522	-88.062768	2-36N-10E		Public Service Co. Station 8	7/17/1952	21	
	121974649300		On-Site	Engineering Test	41.633569	-88.062758	2-36N-10E		Public Service Co. Station 8	7/17/1952	22	
	121974650200		On-Site	Engineering Test	41.633477	-88.062774	2-36N-10E		Public Service Co. Station 8	7/17/1952	24	
	121974645600		On-Site	Engineering Test	41.634118	-88.063069	2-36N-10E		Public Service Co. Station 8	7/17/1952	25	
	121974650500		On-Site	Engineering Test	41.63342	-88.062767	2-36N-10E		Public Service Co. Station 8	7/18/1952	21	
	121974647500		On-Site	Engineering Test	41.633905	-88.062965	2-36N-10E		Public Service Co. Station 8	7/18/1952	25	
	121974650700		On-Site	Engineering Test	41.633391	-88.062774	2-36N-10E		Public Service Co. Station 8	7/18/1952	27	
	121974647800		On-Site	Engineering Test	41.633872	-88.062966	2-36N-10E		Public Service Co. Station 8	7/19/1952	21	
	121974650600		On-Site	Engineering Test	41.633401	-88.063036	2-36N-10E		Public Service Co. Station 8	7/19/1952	22	
	121974650300		On-Site	Engineering Test	41.633433	-88.063032	2-36N-10E		Public Service Co. Station 8	7/21/1952	20	
	121974650000		On-Site	Engineering Test	41.633484	-88.063001	2-36N-10E		Public Service Co. Station 8	7/21/1952	25	
	121974648200		On-Site	Engineering Test	41.633839	-88.062969	2-36N-10E		Public Service Co. Station 8	7/21/1952	29	
	121974647900		On-Site	Engineering Test	41.633864	-88.06287	2-36N-10E		Public Service Co. Station 8	7/22/1952	21	
	121974649700		On-Site	Engineering Test	41.633522	-88.062889	2-36N-10E		Public Service Co. Station 8	7/22/1952	23	
	121974649600		On-Site	Engineering Test	41.633528	-88.062999	2-36N-10E		Public Service Co. Station 8	7/22/1952	23	
	121974648300		On-Site	Engineering Test	41.633837	-88.062872	2-36N-10E		Public Service Co. Station 8	7/22/1952	25	
	121974647600		On-Site	Engineering Test	41.633897	-88.062867	2-36N-10E		Public Service Co. Station 8	7/23/1952	23	
	121974650100		On-Site	Engineering Test	41.633481	-88.062892	2-36N-10E		Public Service Co. Station 8	7/23/1952	30	
	121974650400		On-Site	Engineering Test	41.633447	-88.062907	2-36N-10E		Public Service Co. Station 8	7/23/1952	30	
	121974650900		On-Site	Engineering Test	41.633528	-88.063313	2-36N-10E		Public Service Co. Station 8	7/24/1952	16	

Table 3.12-A
 Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
 Will County Power Station - Romeoville, Will, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121974648400		On-Site	Engineering Test	41.633814	-88.06272	2-36N-10E		Public Service Co. Station 8	7/24/1952	29	
	121974648000		On-Site	Engineering Test	41.633845	-88.062717	2-36N-10E		Public Service Co. Station 8	7/24/1952	31	
	121974650800		On-Site	Engineering Test	41.633535	-88.06339	2-36N-10E		Public Service Co. Station 8	7/24/1952	40	
	121974651100		On-Site	Engineering Test	41.633474	-88.063398	2-36N-10E		Public Service Co. Station 8	7/25/1952	10	
	121974651000		On-Site	Engineering Test	41.633523	-88.06322	2-36N-10E		Public Service Co. Station 8	7/25/1952	10	
	121974651200		On-Site	Engineering Test	41.633467	-88.063228	2-36N-10E		Public Service Co. Station 8	7/25/1952	15	
	121974651300		On-Site	Engineering Test	41.63341	-88.063326	2-36N-10E		Public Service Co. Station 8	7/25/1952	40	
	121974647700		On-Site	Engineering Test	41.633876	-88.062715	2-36N-10E		Public Service Co. Station 8	7/26/1952	26	
	121974646300		On-Site	Engineering Test	41.634047	-88.062978	2-36N-10E		Public Service Co. Station 8	7/26/1952	28	
	121974647300		On-Site	Engineering Test	41.633928	-88.062704	2-36N-10E		Public Service Co. Station 8	7/26/1952	35	
	121974647000		On-Site	Engineering Test	41.633994	-88.062984	2-36N-10E		Public Service Co. Station 8	7/26/1952	40	
	121974646100		On-Site	Engineering Test	41.634084	-88.062698	2-36N-10E		Public Service Co. Station 8	7/27/1952	14	
	121974645100		On-Site	Engineering Test	41.63417	-88.062989	2-36N-10E		Public Service Co. Station 8	7/27/1952	17	
	121974645700		On-Site	Engineering Test	41.63411	-88.062993	2-36N-10E		Public Service Co. Station 8	7/27/1952	20	
	121974646600		On-Site	Engineering Test	41.634015	-88.062707	2-36N-10E		Public Service Co. Station 8	7/27/1952	29	
	121974645200		On-Site	Engineering Test	41.634166	-88.062914	2-36N-10E		Public Service Co. Station 8	7/28/1952	14	
	121974645000		On-Site	Engineering Test	41.634201	-88.062687	2-36N-10E		Public Service Co. Station 8	7/28/1952	24	
	121974644700		On-Site	Engineering Test	41.63422	-88.062909	2-36N-10E		Public Service Co. Station 8	7/28/1952	26	
	121974644600		On-Site	Engineering Test	41.634222	-88.062983	2-36N-10E		Public Service Co. Station 8	7/28/1952	26	
	121974644900		On-Site	Engineering Test	41.634206	-88.062762	2-36N-10E		Public Service Co. Station 8	7/29/1952	17	
	121974645800		On-Site	Engineering Test	41.63411	-88.062918	2-36N-10E		Public Service Co. Station 8	7/29/1952	28	
	121974646400		On-Site	Engineering Test	41.634036	-88.062864	2-36N-10E		Public Service Co. Station 8	7/29/1952	31	
	121974646500		On-Site	Engineering Test	41.634023	-88.062793	2-36N-10E		Public Service Co. Station 8	7/30/1952	20	
	121974645300		On-Site	Engineering Test	41.634157	-88.062839	2-36N-10E		Public Service Co. Station 8	7/30/1952	21	
	121974647200		On-Site	Engineering Test	41.633946	-88.062799	2-36N-10E		Public Service Co. Station 8	7/30/1952	23	
	121974644800		On-Site	Engineering Test	41.634212	-88.062835	2-36N-10E		Public Service Co. Station 8	7/30/1952	27	
	121974645900		On-Site	Engineering Test	41.634102	-88.062845	2-36N-10E		Public Service Co. Station 8	7/31/1952	15	
	121974646000		On-Site	Engineering Test	41.634092	-88.062771	2-36N-10E		Public Service Co. Station 8	7/31/1952	16	
	121974646800		On-Site	Engineering Test	41.633986	-88.062796	2-36N-10E		Public Service Co. Station 8	7/31/1952	24	
	121974645400		On-Site	Engineering Test	41.634153	-88.062767	2-36N-10E		Public Service Co. Station 8	8/1/1952	18	
	121974647100		On-Site	Engineering Test	41.633954	-88.062872	2-36N-10E		Public Service Co. Station 8	8/1/1952	25	
	121974645500		On-Site	Engineering Test	41.634147	-88.062694	2-36N-10E		Public Service Co. Station 8	8/2/1952	19	
	121974651800		On-Site	Engineering Test	41.63552	-88.062787	2-36N-10E		Public Service Co. Station 8	8/2/1952	31	
	121974651400		On-Site	Engineering Test	41.635677	-88.062768	2-36N-10E		Public Service Co. Station 8	8/2/1952	33	
	121974651900		On-Site	Engineering Test	41.63553	-88.062877	2-36N-10E		Public Service Co. Station 8	8/3/1952	31	
	121974652000		On-Site	Engineering Test	41.63553	-88.062927	2-36N-10E		Public Service Co. Station 8	8/4/1952	53	
	121974651600		On-Site	Engineering Test	41.635615	-88.062875	2-36N-10E		Public Service Co. Station 8	8/5/1952	26	
	121974651500		On-Site	Engineering Test	41.635604	-88.06278	2-36N-10E		Public Service Co. Station 8	8/5/1952	34	
	121974652100		On-Site	Engineering Test	41.635444	-88.062796	2-36N-10E		Public Service Co. Station 8	8/5/1952	37	
	121974652200		On-Site	Engineering Test	41.635468	-88.063032	2-36N-10E		Public Service Co. Station 8	8/5/1952	48	
	121974651700		On-Site	Engineering Test	41.63563	-88.062977	2-36N-10E		Public Service Co. Station 8	8/6/1952	21	
	121974652300		On-Site	Engineering Test	41.635542	-88.06303	2-36N-10E		Public Service Co. Station 8	8/6/1952	22	
	121974643900		On-Site	Engineering Test	41.633425	-88.062348	2-36N-10E		Public Service Co. Station 8	6/25/1953	31	
	121974655700		On-Site	Engineering Test	41.630591	-88.068041	3-36N-10E		Public Service Co. Station 8	3/3/1952	11	
	121973959600		Off-Site	Stratigraphic Test	41.634328	-88.052552	2-36N-10E		Commonwealth Edison Co.		150	
	121973959700		Off-Site	Stratigraphic Test	41.636173	-88.052597	2-36N-10E		Commonwealth Edison Co.		115	
	121974002100		Off-Site	Noncommunity - Public Water Well	41.639571	-88.067094	3-36N-10E		Isle Ala Coche Park (Flowing W		0	
	121974002000		Off-Site	Noncommunity - Public Water Well	41.639571	-88.067094	3-36N-10E		Isle Ala Coche Park Museum		0	
	121974481800		Off-Site	Engineering Test	41.640654	-88.060823	2-36N-10E		135th Street	11/24/1992	15	
	121974481700		Off-Site	Engineering Test	41.640629	-88.061468	2-36N-10E		135th Street	11/24/1992	18	
	121974481400		Off-Site	Engineering Test	41.640604	-88.062348	2-36N-10E		135th Street	11/24/1992	20	
	121974481600		Off-Site	Engineering Test	41.64062	-88.061767	2-36N-10E		135th Street	11/24/1992	24	
	121974481500		Off-Site	Engineering Test	41.640612	-88.062058	2-36N-10E		135th Street	11/24/1992	24	
	121974482100		Off-Site	Engineering Test	41.640706	-88.058694	2-36N-10E		135th Street	11/25/1992	15	
	121974482200		Off-Site	Engineering Test	41.640723	-88.058212	2-36N-10E		135th Street	11/25/1992	15	
	121974482400		Off-Site	Engineering Test	41.640723	-88.057268	2-36N-10E		135th Street	11/25/1992	16	
	121974482300		Off-Site	Engineering Test	41.64072	-88.05775	2-36N-10E		135th Street	11/25/1992	16	
	121974482000		Off-Site	Engineering Test	41.640701	-88.059198	2-36N-10E		135th Street	11/26/1992	15	

Table 3.12-A
 Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
 Will County Power Station - Romeoville, Will, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121974481900		Off-Site	Engineering Test	41.640684	-88.059779	2-36N-10E		135th Street	12/14/1992	14	
	121974652800		Off-Site	Engineering Test	41.635031	-88.064253	2-36N-10E		Public Service Co. Station 8	3/3/1952	11	
	121974652900		Off-Site	Engineering Test	41.633836	-88.064392	2-36N-10E		Public Service Co. Station 8	3/3/1952	11	
	121974618000		Off-Site	Engineering Test	41.635985	-88.053728	2-36N-10E		Romeoville Test Borings-G. Otto	12/4/1973	121	
	121974618100		Off-Site	Engineering Test	41.635985	-88.052472	2-36N-10E		Romeoville Test Borings-G. Otto	12/13/1973	150	
	121974618200		Off-Site	Engineering Test	41.636514	-88.052449	2-36N-10E		Romeoville Test Borings-G. Otto	12/13/1973	156	
	121974618300		Off-Site	Engineering Test	41.636389	-88.054165	2-36N-10E		Romeoville Test Borings-G. Otto	12/14/1973	76	
	121974618700		Off-Site	Engineering Test	41.63598	-88.052747	2-36N-10E		Romeoville Test Borings-G. Otto	12/20/1973	85	
	121974618500		Off-Site	Engineering Test	41.636639	-88.054121	2-36N-10E		Romeoville Test Borings-G. Otto	12/21/1973	80	
	121974618400		Off-Site	Engineering Test	41.636532	-88.054835	2-36N-10E		Romeoville Test Borings-G. Otto	12/21/1973	151	
	121974618800		Off-Site	Engineering Test	41.636526	-88.052741	2-36N-10E		Romeoville Test Borings-G. Otto	12/27/1973	85	
	121974619100		Off-Site	Engineering Test	41.636716	-88.053472	2-36N-10E		Romeoville Test Borings-G. Otto	12/31/1973	61	
	121974618600		Off-Site	Engineering Test	41.636098	-88.054109	2-36N-10E		Romeoville Test Borings-G. Otto	12/31/1973	110	
	121974619000		Off-Site	Engineering Test	41.636514	-88.053467	2-36N-10E		Romeoville Test Borings-G. Otto	1/3/1974	73	
	121974618900		Off-Site	Engineering Test	41.636532	-88.05374	2-36N-10E		Romeoville Test Borings-G. Otto	1/8/1974	111	
	121974619500		Off-Site	Engineering Test	41.63677	-88.052747	2-36N-10E		Romeoville Test Borings-G. Otto	1/9/1974	59	
	121974619400		Off-Site	Engineering Test	41.636651	-88.052937	2-36N-10E		Romeoville Test Borings-G. Otto	1/9/1974	59	
	121974619300		Off-Site	Engineering Test	41.636746	-88.053122	2-36N-10E		Romeoville Test Borings-G. Otto	1/9/1974	60	
	121974619800		Off-Site	Engineering Test	41.636252	-88.05311	2-36N-10E		Romeoville Test Borings-G. Otto	1/11/1974	55	
	121974619700		Off-Site	Engineering Test	41.636246	-88.053472	2-36N-10E		Romeoville Test Borings-G. Otto	1/11/1974	55	
	121974619900		Off-Site	Engineering Test	41.636246	-88.052747	2-36N-10E		Romeoville Test Borings-G. Otto	1/14/1974	90	
	121974620000		Off-Site	Engineering Test	41.636249	-88.052474	2-36N-10E		Romeoville Test Borings-G. Otto	1/16/1974	55	
	121974619200		Off-Site	Engineering Test	41.63652	-88.053104	2-36N-10E		Romeoville Test Borings-G. Otto	1/16/1974	86	
	121974620100		Off-Site	Engineering Test	41.63618	-88.052913	2-36N-10E		Romeoville Test Borings-G. Otto	1/17/1974	75	
	121974619600		Off-Site	Engineering Test	41.636383	-88.052925	2-36N-10E		Romeoville Test Borings-G. Otto	1/18/1974	110	
	121974620900		Off-Site	Engineering Test	41.635978	-88.053918	2-36N-10E		Romeoville Test Borings-G. Otto	1/19/1974	56	
	121974620400		Off-Site	Engineering Test	41.635978	-88.053473	2-36N-10E		Romeoville Test Borings-G. Otto	1/21/1974	56	
	121974621100		Off-Site	Engineering Test	41.636249	-88.053918	2-36N-10E		Romeoville Test Borings-G. Otto	1/21/1974	85	
	121974621200		Off-Site	Engineering Test	41.636385	-88.053911	2-36N-10E		Romeoville Test Borings-G. Otto	1/23/1974	81	
	121974620800		Off-Site	Engineering Test	41.635842	-88.053922	2-36N-10E		Romeoville Test Borings-G. Otto	1/23/1974	85	
	121974621000		Off-Site	Engineering Test	41.636107	-88.053918	2-36N-10E		Romeoville Test Borings-G. Otto	1/24/1974	80	
	121974620500		Off-Site	Engineering Test	41.635707	-88.054099	2-36N-10E		Romeoville Test Borings-G. Otto	1/25/1974	55	
	121974621300		Off-Site	Engineering Test	41.63571	-88.053476	2-36N-10E		Romeoville Test Borings-G. Otto	1/30/1974	55	
	121974621700		Off-Site	Engineering Test	41.636256	-88.053734	2-36N-10E		Romeoville Test Borings-G. Otto	1/30/1974	55	
	121974621900		Off-Site	Engineering Test	41.635703	-88.053115	2-36N-10E		Romeoville Test Borings-G. Otto	1/31/1974	110	
	121974621600		Off-Site	Engineering Test	41.635839	-88.054106	2-36N-10E		Romeoville Test Borings-G. Otto	2/1/1974	55	
	121974623100		Off-Site	Engineering Test	41.636114	-88.053306	2-36N-10E		Romeoville Test Borings-G. Otto	2/7/1974	55	
	121974621800		Off-Site	Engineering Test	41.63571	-88.053299	2-36N-10E		Romeoville Test Borings-G. Otto	2/8/1974	55	
	121974623000		Off-Site	Engineering Test	41.636249	-88.053295	2-36N-10E		Romeoville Test Borings-G. Otto	2/8/1974	55	
	121974622600		Off-Site	Engineering Test	41.635696	-88.052471	2-36N-10E		Romeoville Test Borings-G. Otto	2/8/1974	56	
	121974623200		Off-Site	Engineering Test	41.636114	-88.053108	2-36N-10E		Romeoville Test Borings-G. Otto	2/9/1974	55	
	121974622200		Off-Site	Engineering Test	41.635842	-88.052749	2-36N-10E		Romeoville Test Borings-G. Otto	2/9/1974	57	
	121974622700		Off-Site	Engineering Test	41.635703	-88.053918	2-36N-10E		Romeoville Test Borings-G. Otto	2/11/1974	55	
	121974620600		Off-Site	Engineering Test	41.635867	-88.053734	2-36N-10E		Romeoville Test Borings-G. Otto	2/11/1974	55	
	121974620700		Off-Site	Engineering Test	41.635839	-88.053473	2-36N-10E		Romeoville Test Borings-G. Otto	2/11/1974	55	
	121974621400		Off-Site	Engineering Test	41.635842	-88.053288	2-36N-10E		Romeoville Test Borings-G. Otto	2/11/1974	55	
	121974620300		Off-Site	Engineering Test	41.635978	-88.053108	2-36N-10E		Romeoville Test Borings-G. Otto	2/13/1974	55	
	121974622400		Off-Site	Engineering Test	41.635707	-88.052749	2-36N-10E		Romeoville Test Borings-G. Otto	2/13/1974	56	
	121974623500		Off-Site	Engineering Test	41.636124	-88.052742	2-36N-10E		Romeoville Test Borings-G. Otto	2/14/1974	55	
	121974623400		Off-Site	Engineering Test	41.636385	-88.053549	2-36N-10E		Romeoville Test Borings-G. Otto	2/14/1974	55	
	121974622000		Off-Site	Engineering Test	41.635839	-88.053108	2-36N-10E		Romeoville Test Borings-G. Otto	2/14/1974	58	
	121974623800		Off-Site	Engineering Test	41.636389	-88.053379	2-36N-10E		Romeoville Test Borings-G. Otto	2/14/1974	110	
	121974622100		Off-Site	Engineering Test	41.635842	-88.052927	2-36N-10E		Romeoville Test Borings-G. Otto	2/21/1974	58	
	121974624000		Off-Site	Engineering Test	41.636322	-88.05293	2-36N-10E		Romeoville Test Borings-G. Otto	2/21/1974	79	
	121974622800		Off-Site	Engineering Test	41.636663	-88.053111	2-36N-10E		Romeoville Test Borings-G. Otto	2/23/1974	55	
	121974624700		Off-Site	Engineering Test	41.636114	-88.053737	2-36N-10E		Romeoville Test Borings-G. Otto	2/23/1974	55	
	121974623300		Off-Site	Engineering Test	41.636187	-88.052742	2-36N-10E		Romeoville Test Borings-G. Otto	2/26/1974	55	
	121974624300		Off-Site	Engineering Test	41.636663	-88.053295	2-36N-10E		Romeoville Test Borings-G. Otto	2/27/1974	55	

Table 3.12-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Will County Power Station - Romeoville, Will, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121974624500		Off-Site	Engineering Test	41.636656	-88.052753	2-36N-10E		Romeoville Test Borings-G. Otto	2/27/1974	55	
	121974622900		Off-Site	Engineering Test	41.636601	-88.053108	2-36N-10E		Romeoville Test Borings-G. Otto	2/27/1974	58	
	121974624400		Off-Site	Engineering Test	41.636736	-88.053299	2-36N-10E		Romeoville Test Borings-G. Otto	2/28/1974	56	
	121974625200		Off-Site	Engineering Test	41.636716	-88.052875	2-36N-10E		Romeoville Test Borings-G. Otto	3/1/1974	55	
	121974624600		Off-Site	Engineering Test	41.635978	-88.053288	2-36N-10E		Romeoville Test Borings-G. Otto	3/1/1974	55	
	121974625300		Off-Site	Engineering Test	41.636719	-88.052847	2-36N-10E		Romeoville Test Borings-G. Otto	3/2/1974	55	
	121974625100		Off-Site	Engineering Test	41.636723	-88.052979	2-36N-10E		Romeoville Test Borings-G. Otto	3/6/1974	55	
	121974625000		Off-Site	Engineering Test	41.636489	-88.052875	2-36N-10E		Romeoville Test Borings-G. Otto	3/6/1974	55	
	121974624800		Off-Site	Engineering Test	41.636277	-88.052923	2-36N-10E		Romeoville Test Borings-G. Otto	3/7/1974	55	
	121974625600		Off-Site	Engineering Test	41.636789	-88.052854	2-36N-10E		Romeoville Test Borings-G. Otto	3/7/1974	55	
	121974624200		Off-Site	Engineering Test	41.63659	-88.053292	2-36N-10E		Romeoville Test Borings-G. Otto	3/8/1974	55	
	121974622500		Off-Site	Engineering Test	41.635842	-88.052474	2-36N-10E		Romeoville Test Borings-G. Otto	3/8/1974	56	
	121974625400		Off-Site	Engineering Test	41.63675	-88.052923	2-36N-10E		Romeoville Test Borings-G. Otto	3/9/1974	55	
	121974625900		Off-Site	Engineering Test	41.636872	-88.053108	2-36N-10E		Romeoville Test Borings-G. Otto	3/9/1974	55	
	121974625500		Off-Site	Engineering Test	41.636872	-88.052742	2-36N-10E		Romeoville Test Borings-G. Otto	3/12/1974	115	
	121974626400		Off-Site	Engineering Test	41.636636	-88.052958	2-36N-10E		Romeoville Test Borings-G. Otto	3/13/1974	55	
	121974620200		Off-Site	Engineering Test	41.635978	-88.052934	2-36N-10E		Romeoville Test Borings-G. Otto	3/13/1974	55	
	121974624900		Off-Site	Engineering Test	41.636208	-88.05293	2-36N-10E		Romeoville Test Borings-G. Otto	3/14/1974	51	
	121974626200		Off-Site	Engineering Test	41.636524	-88.052868	2-36N-10E		Romeoville Test Borings-G. Otto	3/14/1974	55	
	121974626300		Off-Site	Engineering Test	41.636643	-88.052861	2-36N-10E		Romeoville Test Borings-G. Otto	3/14/1974	55	
	121974621500		Off-Site	Engineering Test	41.635971	-88.054096	2-36N-10E		Romeoville Test Borings-G. Otto	3/14/1974	80	
	121974626600		Off-Site	Engineering Test	41.636785	-88.053104	2-36N-10E		Romeoville Test Borings-G. Otto	3/15/1974	55	
	121974626700		Off-Site	Engineering Test	41.636218	-88.052847	2-36N-10E		Romeoville Test Borings-G. Otto	3/16/1974	55	
	121974624100		Off-Site	Engineering Test	41.636486	-88.052982	2-36N-10E		Romeoville Test Borings-G. Otto	3/16/1974	56	
	121974626500		Off-Site	Engineering Test	41.636451	-88.053108	2-36N-10E		Romeoville Test Borings-G. Otto	3/16/1974	95	
	121974625800		Off-Site	Engineering Test	41.636848	-88.052965	2-36N-10E		Romeoville Test Borings-G. Otto	3/19/1974	55	
	121974625700		Off-Site	Engineering Test	41.636848	-88.052857	2-36N-10E		Romeoville Test Borings-G. Otto	3/20/1974	55	
	121974626000		Off-Site	Engineering Test	41.636792	-88.052958	2-36N-10E		Romeoville Test Borings-G. Otto	3/21/1974	55	
	121974622300		Off-Site	Engineering Test	41.635703	-88.052927	2-36N-10E		Romeoville Test Borings-G. Otto	3/21/1974	55	
	121974627600		Off-Site	Engineering Test	41.635964	-88.052864	2-36N-10E		Romeoville Test Borings-G. Otto	3/22/1974	55	
	121974627500		Off-Site	Engineering Test	41.636065	-88.052958	2-36N-10E		Romeoville Test Borings-G. Otto	3/28/1974	55	
	121974627400		Off-Site	Engineering Test	41.636058	-88.052871	2-36N-10E		Romeoville Test Borings-G. Otto	3/29/1974	55	
	121974627200		Off-Site	Engineering Test	41.636149	-88.052948	2-36N-10E		Romeoville Test Borings-G. Otto	3/29/1974	55	
	121974628500		Off-Site	Engineering Test	41.636639	-88.053362	2-36N-10E		Romeoville Test Borings-G. Otto	3/30/1974	55	
	121974628600		Off-Site	Engineering Test	41.636069	-88.053369	2-36N-10E		Romeoville Test Borings-G. Otto	3/30/1974	55	
	121974628100		Off-Site	Engineering Test	41.636093	-88.053581	2-36N-10E		Romeoville Test Borings-G. Otto	4/3/1974	54	
	121974628400		Off-Site	Engineering Test	41.636719	-88.053362	2-36N-10E		Romeoville Test Borings-G. Otto	4/3/1974	55	
	121974627300		Off-Site	Engineering Test	41.636142	-88.052868	2-36N-10E		Romeoville Test Borings-G. Otto	4/3/1974	55	
	121974629500		Off-Site	Engineering Test	41.636625	-88.05317	2-36N-10E		Romeoville Test Borings-G. Otto	4/4/1974	55	
	121974628700		Off-Site	Engineering Test	41.636142	-88.053369	2-36N-10E		Romeoville Test Borings-G. Otto	4/4/1974	55	
	121974629400		Off-Site	Engineering Test	41.636569	-88.053177	2-36N-10E		Romeoville Test Borings-G. Otto	4/5/1974	55	
	121974629800		Off-Site	Engineering Test	41.636712	-88.053184	2-36N-10E		Romeoville Test Borings-G. Otto	4/5/1974	55	
	121974628800		Off-Site	Engineering Test	41.636215	-88.053362	2-36N-10E		Romeoville Test Borings-G. Otto	4/6/1974	55	
	121974629000		Off-Site	Engineering Test	41.636907	-88.052968	2-36N-10E		Romeoville Test Borings-G. Otto	4/6/1974	55	
	121974628200		Off-Site	Engineering Test	41.636082	-88.053462	2-36N-10E		Romeoville Test Borings-G. Otto	4/6/1974	55	
	121974623700		Off-Site	Engineering Test	41.636389	-88.053108	2-36N-10E		Romeoville Test Borings-G. Otto	4/6/1974	55	
	121974629300		Off-Site	Engineering Test	41.636858	-88.05357	2-36N-10E		Romeoville Test Borings-G. Otto	4/6/1974	55	
	121974627100		Off-Site	Engineering Test	41.636329	-88.052864	2-36N-10E		Romeoville Test Borings-G. Otto	4/6/1974	115	
	121974629100		Off-Site	Engineering Test	41.636869	-88.053372	2-36N-10E		Romeoville Test Borings-G. Otto	4/8/1974	55	
	121974629200		Off-Site	Engineering Test	41.636865	-88.053473	2-36N-10E		Romeoville Test Borings-G. Otto	4/8/1974	55	
	121974628000		Off-Site	Engineering Test	41.636079	-88.053671	2-36N-10E		Romeoville Test Borings-G. Otto	4/9/1974	55	
	121974629900		Off-Site	Engineering Test	41.636222	-88.053181	2-36N-10E		Romeoville Test Borings-G. Otto	4/9/1974	55	
	121974629700		Off-Site	Engineering Test	41.636869	-88.053181	2-36N-10E		Romeoville Test Borings-G. Otto	4/10/1974	55	
	121974627900		Off-Site	Engineering Test	41.636333	-88.052982	2-36N-10E		Romeoville Test Borings-G. Otto	4/10/1974	56	
	121974630200		Off-Site	Engineering Test	41.636507	-88.05261	2-36N-10E		Romeoville Test Borings-G. Otto	4/11/1974	55	
	121974630400		Off-Site	Engineering Test	41.636364	-88.052614	2-36N-10E		Romeoville Test Borings-G. Otto	4/11/1974	55	
	121974628300		Off-Site	Engineering Test	41.636507	-88.053365	2-36N-10E		Romeoville Test Borings-G. Otto	4/11/1974	55	
	121974630700		Off-Site	Engineering Test	41.636434	-88.052749	2-36N-10E		Romeoville Test Borings-G. Otto	4/12/1974	55	

Table 3.12-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Will County Power Station - Romeoville, Will, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121974630300		Off-Site	Engineering Test	41.636434	-88.052614	2-36N-10E		Romeoville Test Borings-G. Otto	4/13/1974	55	
	121974629600		Off-Site	Engineering Test	41.636792	-88.053181	2-36N-10E		Romeoville Test Borings-G. Otto	4/13/1974	55	
	121974631100		Off-Site	Engineering Test	41.637001	-88.053372	2-36N-10E		Romeoville Test Borings-G. Otto	4/17/1974	56	
	121974631200		Off-Site	Engineering Test	41.636643	-88.053236	2-36N-10E		Romeoville Test Borings-G. Otto	4/18/1974	55	
	121974630100		Off-Site	Engineering Test	41.636778	-88.053208	2-36N-10E		Romeoville Test Borings-G. Otto	4/18/1974	55	
	121974631300		Off-Site	Engineering Test	41.637008	-88.053111	2-36N-10E		Romeoville Test Borings-G. Otto	4/18/1974	55	
	121974631700		Off-Site	Engineering Test	41.637077	-88.053793	2-36N-10E		Romeoville Test Borings-G. Otto	4/19/1974	54	
	121974631400		Off-Site	Engineering Test	41.636291	-88.053181	2-36N-10E		Romeoville Test Borings-G. Otto	4/19/1974	55	
	121974631600		Off-Site	Engineering Test	41.637011	-88.053685	2-36N-10E		Romeoville Test Borings-G. Otto	4/20/1974	54	
	121974631500		Off-Site	Engineering Test	41.637008	-88.052746	2-36N-10E		Romeoville Test Borings-G. Otto	4/20/1974	55	
	121974632000		Off-Site	Engineering Test	41.636361	-88.053181	2-36N-10E		Romeoville Test Borings-G. Otto	4/23/1974	55	
	121974634400		Off-Site	Engineering Test	41.636716	-88.053901	2-36N-10E		Romeoville Test Borings-G. Otto	4/30/1974	55	
	121974633900		Off-Site	Engineering Test	41.636858	-88.053682	2-36N-10E		Romeoville Test Borings-G. Otto	4/30/1974	55	
	121974632400		Off-Site	Engineering Test	41.636291	-88.053473	2-36N-10E		Romeoville Test Borings-G. Otto	5/1/1974	55	
	121974634000		Off-Site	Engineering Test	41.636062	-88.054012	2-36N-10E		Romeoville Test Borings-G. Otto	5/1/1974	75	
	121974634100		Off-Site	Engineering Test	41.636483	-88.05348	2-36N-10E		Romeoville Test Borings-G. Otto	5/1/1974	95	
	121974623900		Off-Site	Engineering Test	41.636249	-88.052927	2-36N-10E		Romeoville Test Borings-G. Otto	5/2/1974	55	
	121974632600		Off-Site	Engineering Test	41.636295	-88.053372	2-36N-10E		Romeoville Test Borings-G. Otto	5/2/1974	55	
	121974628900		Off-Site	Engineering Test	41.63691	-88.052864	2-36N-10E		Romeoville Test Borings-G. Otto	5/3/1974	55	
	121974634700		Off-Site	Engineering Test	41.637091	-88.053629	2-36N-10E		Romeoville Test Borings-G. Otto	5/3/1974	55	
	121974634900		Off-Site	Engineering Test	41.637008	-88.054096	2-36N-10E		Romeoville Test Borings-G. Otto	5/6/1974	53	
	121974633600		Off-Site	Engineering Test	41.636789	-88.053682	2-36N-10E		Romeoville Test Borings-G. Otto	5/6/1974	55	
	121974635000		Off-Site	Engineering Test	41.637084	-88.052746	2-36N-10E		Romeoville Test Borings-G. Otto	5/6/1974	57	
	121974633500		Off-Site	Engineering Test	41.636872	-88.052554	2-36N-10E		Romeoville Test Borings-G. Otto	5/7/1974	55	
	121974633700		Off-Site	Engineering Test	41.636931	-88.052645	2-36N-10E		Romeoville Test Borings-G. Otto	5/7/1974	55	
	121974632900		Off-Site	Engineering Test	41.636065	-88.053483	2-36N-10E		Romeoville Test Borings-G. Otto	5/8/1974	50	
	121974633400		Off-Site	Engineering Test	41.636796	-88.053786	2-36N-10E		Romeoville Test Borings-G. Otto	5/8/1974	55	
	121974633800		Off-Site	Engineering Test	41.636924	-88.052742	2-36N-10E		Romeoville Test Borings-G. Otto	5/8/1974	55	
	121974632800		Off-Site	Engineering Test	41.636142	-88.053184	2-36N-10E		Romeoville Test Borings-G. Otto	5/9/1974	55	
	121974635700		Off-Site	Engineering Test	41.636521	-88.054096	2-36N-10E		Romeoville Test Borings-G. Otto	5/9/1974	105	
	121974633100		Off-Site	Engineering Test	41.636462	-88.053365	2-36N-10E		Romeoville Test Borings-G. Otto	5/10/1974	100	
	121974636000		Off-Site	Engineering Test	41.637008	-88.052568	2-36N-10E		Romeoville Test Borings-G. Otto	5/11/1974	58	
	121974632100		Off-Site	Engineering Test	41.636368	-88.053288	2-36N-10E		Romeoville Test Borings-G. Otto	5/11/1974	60	
	121974634200		Off-Site	Engineering Test	41.636451	-88.053577	2-36N-10E		Romeoville Test Borings-G. Otto	5/13/1974	49	
	121974634300		Off-Site	Engineering Test	41.636639	-88.053789	2-36N-10E		Romeoville Test Borings-G. Otto	5/13/1974	55	
	121974634800		Off-Site	Engineering Test	41.637001	-88.053873	2-36N-10E		Romeoville Test Borings-G. Otto	5/13/1974	55	
	121974634600		Off-Site	Engineering Test	41.636138	-88.053682	2-36N-10E		Romeoville Test Borings-G. Otto	5/14/1974	55	
	121974635600		Off-Site	Engineering Test	41.636535	-88.053915	2-36N-10E		Romeoville Test Borings-G. Otto	5/14/1974	106	
	121974632700		Off-Site	Engineering Test	41.636211	-88.053678	2-36N-10E		Romeoville Test Borings-G. Otto	5/15/1974	55	
	121974633200		Off-Site	Engineering Test	41.636427	-88.053675	2-36N-10E		Romeoville Test Borings-G. Otto	5/15/1974	55	
	121974631800		Off-Site	Engineering Test	41.636302	-88.053577	2-36N-10E		Romeoville Test Borings-G. Otto	5/15/1974	55	
	121974633300		Off-Site	Engineering Test	41.636712	-88.053685	2-36N-10E		Romeoville Test Borings-G. Otto	5/16/1974	54	
	121974633000		Off-Site	Engineering Test	41.636298	-88.053675	2-36N-10E		Romeoville Test Borings-G. Otto	5/16/1974	55	
	121974632200		Off-Site	Engineering Test	41.636062	-88.053682	2-36N-10E		Romeoville Test Borings-G. Otto	5/17/1974	55	
	121974631900		Off-Site	Engineering Test	41.636062	-88.05357	2-36N-10E		Romeoville Test Borings-G. Otto	5/17/1974	55	
	121974636300		Off-Site	Engineering Test	41.637084	-88.053369	2-36N-10E		Romeoville Test Borings-G. Otto	5/18/1974	57	
	121974635400		Off-Site	Engineering Test	41.636872	-88.054096	2-36N-10E		Romeoville Test Borings-G. Otto	5/22/1974	56	
	121974635100		Off-Site	Engineering Test	41.636879	-88.053779	2-36N-10E		Romeoville Test Borings-G. Otto	5/22/1974	57	
	121974636400		Off-Site	Engineering Test	41.637008	-88.05356	2-36N-10E		Romeoville Test Borings-G. Otto	5/23/1974	54	
	121974636100		Off-Site	Engineering Test	41.637088	-88.053118	2-36N-10E		Romeoville Test Borings-G. Otto	5/23/1974	57	
	121974635200		Off-Site	Engineering Test	41.636876	-88.05388	2-36N-10E		Romeoville Test Borings-G. Otto	5/24/1974	50	
	121974636200		Off-Site	Engineering Test	41.637008	-88.053181	2-36N-10E		Romeoville Test Borings-G. Otto	5/24/1974	57	
	121974636900		Off-Site	Engineering Test	41.636945	-88.053473	2-36N-10E		Romeoville Test Borings-G. Otto	5/25/1974	57	
	121974637100		Off-Site	Engineering Test	41.636949	-88.053198	2-36N-10E		Romeoville Test Borings-G. Otto	5/25/1974	57	
	121974632500		Off-Site	Engineering Test	41.636298	-88.053789	2-36N-10E		Romeoville Test Borings-G. Otto	5/28/1974	56	
	121974637000		Off-Site	Engineering Test	41.636949	-88.053111	2-36N-10E		Romeoville Test Borings-G. Otto	5/28/1974	57	
	121974623600		Off-Site	Engineering Test	41.636521	-88.053295	2-36N-10E		Romeoville Test Borings-G. Otto	5/29/1974	52	
	121974635800		Off-Site	Engineering Test	41.636382	-88.053786	2-36N-10E		Romeoville Test Borings-G. Otto	5/29/1974	55	

3. Receptor Survey (Sites Not Owned by Dynegy)

Table 3.12-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Will County Power Station - Romeoville, Will, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121974626900		Off-Site	Engineering Test	41.636281	-88.052857	2-36N-10E		Romeoville Test Borings-G. Otto	5/30/1974	105	
	121974630900		Off-Site	Engineering Test	41.636434	-88.05301	2-36N-10E		Romeoville Test Borings-G. Otto	5/30/1974	110	
	121974636800		Off-Site	Engineering Test	41.635696	-88.05373	2-36N-10E		Romeoville Test Borings-G. Otto	5/31/1974	105	
	121974636700		Off-Site	Engineering Test	41.636632	-88.053956	2-36N-10E		Romeoville Test Borings-G. Otto	6/8/1974	105	
	121974636600		Off-Site	Engineering Test	41.636458	-88.054009	2-36N-10E		Romeoville Test Borings-G. Otto	6/18/1974	105	
	121974636500		Off-Site	Engineering Test	41.636291	-88.054016	2-36N-10E		Romeoville Test Borings-G. Otto	6/19/1974	105	
	121974635300		Off-Site	Engineering Test	41.636879	-88.054002	2-36N-10E		Romeoville Test Borings-G. Otto	7/1/1974	58	
	121974634500		Off-Site	Engineering Test	41.636782	-88.054002	2-36N-10E		Romeoville Test Borings-G. Otto	7/2/1974	55	
	121974630800		Off-Site	Engineering Test	41.636437	-88.052864	2-36N-10E		Romeoville Test Borings-G. Otto	10/16/1974	90	
	121974635500		Off-Site	Engineering Test	41.636712	-88.053977	2-36N-10E		Romeoville Test Borings-G. Otto	10/17/1974	110	
	121974626100		Off-Site	Engineering Test	41.636528	-88.052955	2-36N-10E		Romeoville Test Borings-G. Otto	10/19/1974	55	
	121974630000		Off-Site	Engineering Test	41.636503	-88.053577	2-36N-10E		Romeoville Test Borings-G. Otto	10/19/1974	55	
	121974630600		Off-Site	Engineering Test	41.636229	-88.052621	2-36N-10E		Romeoville Test Borings-G. Otto	10/19/1974	95	
	121974626800		Off-Site	Engineering Test	41.63627	-88.052958	2-36N-10E		Romeoville Test Borings-G. Otto	10/23/1974	55	
	121974627700		Off-Site	Engineering Test	41.636218	-88.052975	2-36N-10E		Romeoville Test Borings-G. Otto	10/24/1974	55	
	121974627000		Off-Site	Engineering Test	41.636399	-88.052749	2-36N-10E		Romeoville Test Borings-G. Otto	10/24/1974	65	
	121974635900		Off-Site	Engineering Test	41.637091	-88.052916	2-36N-10E		Romeoville Test Borings-G. Otto	10/25/1974	57	
	121974630500		Off-Site	Engineering Test	41.636298	-88.05261	2-36N-10E		Romeoville Test Borings-G. Otto	10/25/1974	60	
	121974631000		Off-Site	Engineering Test	41.63642	-88.053469	2-36N-10E		Romeoville Test Borings-G. Otto	10/26/1974	55	
	121974627800		Off-Site	Engineering Test	41.636326	-88.052749	2-36N-10E		Romeoville Test Borings-G. Otto	10/26/1974	110	
	121974632300		Off-Site	Engineering Test	41.636069	-88.053782	2-36N-10E		Romeoville Test Borings-G. Otto	5/18/1976	55	

Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 6/24/2020 (via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application)

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program

Key

Gray Fill	Well is a duplicate non-CWS or CWS well
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available
 Dates were adjusted to exclude time

Table 3.12-B
Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Will County Power Station - Romeoville, Will, IL

Figure ID	API	Well ID	On-site/Off-site	System Status	Facility Name	Facility Number	City	County	Well Status	Type	Latitude	Longitude	Township	Range	Section
NC01	121974001900	19700491	On-Site	A	MIDWEST GENERATION	IL3021345	ROMEDEVILLE	Will	A	INDUSTRIAL/AGRICULTURAL	41.64002574	-88.06393364	36N	10E	2
NC02	121974001800	19700509	On-Site	A	MIDWEST GENERATION	IL3021345	ROMEDEVILLE	Will	A	INDUSTRIAL/AGRICULTURAL	41.63669512	-88.0643272	36N	10E	2
NC03	121974001700	19700483	On-Site	A	MIDWEST GENERATION	IL3021345	ROMEDEVILLE	Will	A	INDUSTRIAL/AGRICULTURAL	41.63475837	-88.06212358	36N	10E	2
NC04	121974002100	19704097	Off-Site	A	ISLE A LA CACHE FLOWING WELL	IL3125872	ROMEDEVILLE	Will	A	INSTITUTION	41.64032539	-88.06723679	36N	10E	3
NC05	121974002000	19700731	Off-Site	A	ISLEA LA CACHE MUSEUM	IL3024323	LOCKPORT	Will	A	RECREATION AREA	41.63974531	-88.06900844	36N	10E	3
NC06		19700475	Off-Site	I	LEOS BAR & GRILL	IL3019794	ROMEDEVILLE	Will	A	RESTAURANT	41.63928905	-88.07550086	36N	10E	3
NC07		19701036	Off-Site	I	NORMS TAP	IL3025270	ROMEDEVILLE	Will	I	RESTAURANT	41.64030761	-88.05731888	36N	10E	2
NC08	121974001600		On-Site	I	Chick's Romeo Tavern	IL0025270		Will	I		41.639676	-88.062288	36N	10E	2

Sources

IEPA SWAPP GIS Tool - Extracted 6/24/2020

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 6/24/2020 (via IEPA SWAPP database) and 6/25/2020 (extracted only Well Type and Location Source from ILWATER application)

USEPA SDWIS - System status extracted 7/3/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
SWAPP	Source Water Assessment Protection Program
SDWIS	Safe Drinking Water Information System
USEPA	United States Environmental Protection Agency

Key

Gray Fill	Added from ISGS Water and Related Wells
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
System Status	Status of non-CWS system according to the USEPA SDWIS website (A = Active; I = Inactive)
Status	Status of Well (A = Active; I = Inactive)

Notes

Blank cells indicate that the data was not available

Electronic Filing: Received, Clerk's Office 09/24/2020

**Table 3.13-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Wood River Power Station - Alton, Madison, IL**

Figure ID	API	ISWS P Number	On-site/Off-site	Abandoned Status (Source)	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
P001	121192549700		On-site		Water Well for Commercial Operation	38.871229	-90.141252	19-5N-9W	Location from permit	Kienstra Cement Inc.	1990-05-31	79	gravel
P002	121190064000		Off-site		Water Well for Commercial Operation	38.877459	-90.156188	19-5N-9W		Owens-Illinois Glass Co.	1956-11-01	82	coarse sand
P003	121190083100		Off-site		Water Well for Commercial Operation	38.857577	-90.126952	29-5N-9W	Location from the driller	Mathieson, Olin Chemical Corp.	1958-06-01	87	
P004	121192549600		Off-site		Water Well for Commercial Operation	38.869367	-90.143859	19-5N-9W	Location from permit	Alberici-Eby	1990-05-18	112	sand
P005	121192565100		Off-site		Water Well for Commercial Operation	38.869367	-90.143859	19-5N-9W	Location from permit	Alberici-Eby	1990-05-17	90	sand & gravel
P006	121190159900		Off-site		Water Well	38.879566	-90.142864	18-5N-9W		Alton Boxboard Co.	1937-11-01	96	
P007	121190160000		Off-site		Water Well	38.880524	-90.142883	18-5N-9W		Alton Boxboard Co.	1937-11-01	109	
P008	121190160100		Off-site		Water Well	38.880542	-90.141548	18-5N-9W		Alton Boxboard Co.	1938-09-01	86	
P009	121190160200		Off-site		Water Well	38.879581	-90.141529	18-5N-9W		Alton Boxboard Co.	1938-10-01	96	
P010	121190160300		Off-site		Water Well	38.88246	-90.141586	18-5N-9W		Alton Boxboard Co.	1940-03-01	72	
P011	121190160400		Off-site		Water Well	38.882445	-90.142921	18-5N-9W		Alton Boxboard Co.	1940-11-01	99	
P012	121190160500		Off-site		Water Well	38.88145	-90.145572	18-5N-9W		Alton Boxboard Co.	1946-08-01	107	
P013	121190161200		Off-site		Water Well	38.880827	-90.142377	18-5N-9W		Alton Boxboard & Paper Co.	1928-01-01	94	
P014	121190161300		Off-site		Water Well	38.881091	-90.143178	18-5N-9W		Alton Boxboard & Paper Co.	1930-01-01	94	
P015	121190161400		Off-site		Water Well	38.881513	-90.142655	18-5N-9W		Alton Boxboard & Paper Co.	1931-01-01	90	
P016	121190161500		Off-site		Water Well	38.881108	-90.141942	18-5N-9W		Alton Boxboard & Paper Co.	1931-01-01	90	
P017	121190161600		Off-site		Water Well	38.881237	-90.142653	18-5N-9W		Alton Boxboard & Paper Co.	1931-01-01	90	
P018	121190161800		Off-site		Water Well	38.88195	-90.143973	18-5N-9W		Laclede Steel Co.		93	
P019	121190162000		Off-site		Water Well	38.881901	-90.147469	18-5N-9W		Laclede Steel Co	1927-05-01	94	
P020	121190162100		Off-site		Water Well	38.881913	-90.146664	18-5N-9W		Laclede Steel Co.	1929-05-01	93	
P021	121190162200		Off-site		Water Well	38.876052	-90.143291	19-5N-9W		Amer. Smelting & Ref.	1913-01-01	85	
P022	121190162300		Off-site		Water Well	38.876212	-90.14367	19-5N-9W		Amer. Smelting & Ref.	1915-01-01	85	
P023	121190233200		Off-site		Water Well	38.867889	-90.124278	20-5N-9W	Location from permit	Mathieson, Olin	1969-04-30	117	drift
P024	121192777500	331232	Off-site		Non Potable Water Well	38.878439	-90.154873	18-5N-9W	Location from permit	Jefferson Smurfit Corp.	1997-12-13	76	sand & gravel
P025	121192748500	314847	Off-site		Irrigation Well	38.878716	-90.133648	17-5N-9W		International Mill Service	1999-07-23	97	gray brn gvl & sand
P026	121192444400	91549	Off-site		Industrial Water Well	38.869074	-90.152171	19-5N-9W	Location from permit	Army Corp Of Engineers		50	sandy clay
	121190262900		On-site	Plugged (ISGS)	Dewatering Well	38.868926	-90.141835	19-5N-9W	Location from permit	Wood River Dr.&Levee Dist.	1972-11-12	98	sand and gravel
	121192977700	469389	On-site		Dewatering Well	38.869206	-90.14259	19-5N-9W	Location from permit	US Army Corp of Engineers	2012-04-09	59	
	121192977800	469390	On-site		Dewatering Well	38.869206	-90.14259	19-5N-9W	Location from permit	US Army Corp of Engineers	2012-04-09	54	
	121192978000	469392	On-site		Dewatering Well	38.869206	-90.14259	19-5N-9W	Location from permit	US Army Corp of Engineers	2012-06-26	40	
	121192978100	469393	On-site		Dewatering Well	38.869206	-90.14259	19-5N-9W	Location from permit	US Army Corp of Engineers	2012-06-25	42	
	121192978200	469394	On-site		Dewatering Well	38.869206	-90.14259	19-5N-9W	Location from permit	US Army Corp of Engineers	2012-06-23	57	
	121192978300	469395	On-site		Dewatering Well	38.869206	-90.14259	19-5N-9W		US Army Corp of Engineers	2012-06-22	58	
	121192978400	469396	On-site		Dewatering Well	38.869206	-90.14259	19-5N-9W	Location from permit	US Army Corp of Engineers	2012-06-21	60	
	121192978500	469397	On-site		Dewatering Well	38.869206	-90.14259	19-5N-9W	Location from permit	US Army Corp of Engineers	2012-06-20	55	
	121192978600	469398	On-site		Dewatering Well	38.869206	-90.14259	19-5N-9W	Location from permit	US Army Corp of Engineers	2012-06-19	45	
	121192979900	469380	On-site		Dewatering Well	38.869206	-90.14259	19-5N-9W	Location from permit	US Army Corp of Engineers	2012-06-24	70	
	121192847900	366771	On-site		Monitoring	38.865782	-90.133151	20-5N-9W	Location from the driller	Dynergy Midwest Generatio	2005-02-15	58	sand
	121192848000	366772	On-site		Monitoring	38.863998	-90.130695	20-5N-9W	Location from the driller	Dynergy Midwest Generatio	2004-06-23	54	sand
	121192848200	366774	On-site		Monitoring	38.869539	-90.128555	20-5N-9W	Location from the driller	Dynergy Midwest Generatio	2004-06-24	74	sand
	121192848300	366775	On-site		Monitoring	38.867712	-90.128472	20-5N-9W	Location from the driller	Dynergy Midwst Generatio	2004-06-17	124	sand
	121192848400	366776	On-site		Monitoring	38.867712	-90.128472	20-5N-9W	Location from the driller	Dynergy Midwst Generatio	2004-06-17	43	sand
	121192848500	366777	On-site		Monitoring	38.863998	-90.130695	20-5N-9W	Location from the driller	Dynergy Midwest Generatio	2004-06-14	60	sand
	121192848600	366778	On-site		Monitoring	38.863998	-90.130695	20-5N-9W	Location from the driller	Dynergy Midwst Generatio	2004-06-21	44	sand
	121192936500	444032	On-site		Monitoring	38.869312	-90.135638	19-5N-9W	Location from a log	Dynergy Midwest Generation, Inc	2008-11-13	28	sand
	121190162500		On-site		Engineering Test	38.869467	-90.133301	20-5N-9W		Illinois Power Company	1947-06-01	115	
	121190162600		On-site		Engineering Test	38.869504	-90.130928	20-5N-9W	Location from the driller	Illinois Power Company	1947-06-01	105	
	121190162700		On-site		Engineering Test	38.867626	-90.133224	20-5N-9W	Location from the driller	Illinois Power Company	1947-12-01	100	
	121190162800		On-site		Engineering Test	38.867669	-90.130848	20-5N-9W	Location from the driller	Illinois Power Company	1947-08-01	123	
	121190162900		On-site		Engineering Test	38.865782	-90.133151	20-5N-9W	Location from the driller	Illinois Power Company	1947-08-01	101	
	121190163000		On-site		Engineering Test	38.865833	-90.130772	20-5N-9W	Location from the driller	Illinois Power Company	1947-08-01	103	
	121190163100		On-site		Engineering Test	38.868585	-90.130888	20-5N-9W	Location from the driller	Illinois Power Company	1947-09-01	103	
	121190163200		On-site		Engineering Test	38.865833	-90.130772	20-5N-9W	Location from the driller	Illinois Power Company	1947-09-01	93	

Table 3.13-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Wood River Power Station - Alton, Madison, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Abandoned Status (Source)	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121192671800		On-site		Engineering Test	38.872032	-90.145292	19-5N-9W		FA 155 Pumping Station	1971-07-26	26	
	121192671900		On-site		Engineering Test	38.872032	-90.145292	19-5N-9W		FA 155 Pumping Station	1971-07-26	27	
	121192758700		On-site		Engineering Test	38.877086	-90.137434	19-5N-9W		Wood R Upper Levee Di	1954-01-01	106	
	121192759000		On-site		Engineering Test	38.865032	-90.129899	20-5N-9W		Wood R Upper Levee Di	1954-01-01	31	
	121192759100		On-site		Engineering Test	38.868096	-90.128959	20-5N-9W		Wood R Upper Levee Di	1954-01-01	31	
	121190064900	91505	Off-site		Water Well Test Hole	38.8796	-90.140194	18-5N-9W		Alton Boxboard	1957-01-01	108	
	121190065000		Off-site		Water Well Test Hole	38.8796	-90.140194	18-5N-9W		Alton Boxboard	1957-01-01	97	
	121190065100	91508	Off-site		Water Well Test Hole	38.8796	-90.140194	18-5N-9W		Alton Boxboard	1957-01-01	104	
	121190065200	91509	Off-site		Water Well Test Hole	38.8796	-90.140194	18-5N-9W		Alton Boxboard	1957-01-01	107	
	121190065300	91510	Off-site		Water Well Test Hole	38.8796	-90.140194	18-5N-9W		Alton Boxboard	1957-01-01	109	
	121190065400		Off-site		Water Well Test Hole	38.8796	-90.140194	18-5N-9W		Alton Boxboard	1957-01-01	101	
	121190108800		Off-site		Water Well Test Hole	38.858509	-90.123691	29-5N-9W	Location from the driller	Wood River, City of	1962-10-01	120	
	121190160600		Off-site		Water Well Test Hole	38.880508	-90.144218	18-5N-9W		Alton Boxboard Co.	1944-07-01	125	
	121190160700		Off-site		Water Well Test Hole	38.880471	-90.146891	18-5N-9W		Alton Boxboard Co.	1944-07-01	130	
	121190160800		Off-site		Water Well Test Hole	38.881416	-90.148246	18-5N-9W		Alton Boxboard Co.	1944-07-01	131	
	121190160900		Off-site		Water Well Test Hole	38.878697	-90.136166	18-5N-9W		Alton Boxboard Co.	1944-07-01	92	
	121190161000		Off-site		Water Well Test Hole	38.879655	-90.136185	18-5N-9W		Alton Boxboard Co.	1944-07-01	104	
	121190161100		Off-site		Water Well Test Hole	38.880926	-90.148905	18-5N-9W		Alton Boxboard Co.	1944-08-01	123	
	121190161700		Off-site		Water Well Test Hole	38.882396	-90.143698	18-5N-9W		LaCledde Steel Co. Test		85	
	121190262400		Off-site	Plugged (ISGS)	Dewatering Well	38.869822	-90.144545	19-5N-9W	Location from permit	Wood River Drainage & Leve	1971-11-19	75	sand-gravel
	121190262500		Off-site	Plugged (ISGS)	Dewatering Well	38.869367	-90.143859	19-5N-9W	Location from permit	Wood River Dr.& Levee Dist	1971-11-18	96	sand-gravel
	121190262600		Off-site	Plugged (ISGS)	Dewatering Well	38.868916	-90.143173	19-5N-9W	Location from permit	Wood River Dr.& Levee Dist	1971-11-17	102	sand-gravel
	121190262700		Off-site	Plugged (ISGS)	Dewatering Well	38.868916	-90.143173	19-5N-9W	Location from permit	Wood River Dr.& Levee Dist	1971-11-16	92	sand-gravel
	121190262800		Off-site	Plugged (ISGS)	Dewatering Well	38.868916	-90.143173	19-5N-9W	Location from permit	Wood River Dr.& Levee Dist	1971-11-15	93	sand and gravel
	121190263000		Off-site	Plugged (ISGS)	Dewatering Well	38.868471	-90.141146	19-5N-9W	Location from permit	Wood River Dr.& Levee Dist.	1971-11-09	90	sand and gravel
	121190263100		Off-site	Plugged (ISGS)	Dewatering Well	38.868017	-90.14046	19-5N-9W	Location from permit	Wood River Dr.& Levee Dist	1971-11-11	92	sand and gravel
	121190233300		Off-site		Water Well	38.863227	-90.124209	20-5N-9W	Location from permit	Mathieson, Olin	1969-06-04	95	drift
	121190233400		Off-site		Water Well	38.863435	-90.123021	20-5N-9W	Location from permit	Mathieson, Olin	1969-05-23	93	drift
	121190233500		Off-site		Water Well	38.863449	-90.12182	20-5N-9W	Location from permit	Mathieson, Olin	1969-05-16	89	drift
	121190233600		Off-site		Water Well	38.863467	-90.12062	20-5N-9W	Location from permit	Mathieson, Olin	1969-05-09	87	drift
	121192789600		Off-site		Noncommunity - Public Water Well	38.862353	-90.12347	29-5N-9W		Olin Corporation		0	
	121192789700		Off-site		Noncommunity - Public Water Well	38.862415	-90.121077	29-5N-9W		Olin Corporation		0	
	121192789800		Off-site		Noncommunity - Public Water Well	38.862415	-90.121077	29-5N-9W		Olin Corporation		0	
	121192614300		Off-site		Municipal Water Supply	38.876865	-90.124159	20-5N-9W	Location from the driller	East Alton, City of	1989-07-14	91	sand & gravel
	121192736500		Off-site		Municipal Water Supply	38.876865	-90.124159	20-5N-9W	Location from the driller	East Alton, City of		98	
	121192736600		Off-site		Municipal Water Supply	38.876865	-90.124159	20-5N-9W	Location from the driller	East Alton, City of		91	
	121192736700		Off-site		Municipal Water Supply	38.876865	-90.124159	20-5N-9W	Location from the driller	East Alton, City of	1991-06-25	100	
	121192766300	293949	Off-site		Municipal Water Supply	38.876865	-90.124159	20-5N-9W	Location from EPA	East Alton, Village o	1992-01-01	98	
	121192976400	469368	Off-site		Dewatering Well	38.875889	-90.128222	17-5N-9W	GPS verified	US Army Corp of Engineers	2012-06-08	45	
	121192976500	469369	Off-site		Dewatering Well	38.875111	-90.128611	17-5N-9W	GPS verified	US Army Corp of Engineers	2012-06-09	47	
	121192976600	469370	Off-site		Dewatering Well	38.874833	-90.128833	17-5N-9W	GPS verified	US Army Corp of Engineers	2012-06-09	42	
	121192976700	469371	Off-site		Dewatering Well	38.872472	-90.129528	17-5N-9W	GPS verified	US Army Corp of Engineers	2012-06-10	42	
	121192976800	469372	Off-site		Dewatering Well	38.872361	-90.129806	17-5N-9W	GPS verified	US Army Corp of Engineers	2012-06-11	47	
	121192976900	469373	Off-site		Dewatering Well	38.872083	-90.129778	17-5N-9W	GPS verified	US Army Corp of Engineers	2012-06-12	42	
	121192977000	469374	Off-site		Dewatering Well	38.872	-90.129722	17-5N-9W	GPS verified	US Army Corp of Engineers	2012-06-13	70	
	121192977100	469375	Off-site		Dewatering Well	38.871639	-90.129667	17-5N-9W	GPS verified	US Army Corp of Engineers	2012-06-14	47	
	121192977200	469376	Off-site		Dewatering Well	38.871194	-90.129472	17-5N-9W	GPS verified	US Army Corp of Engineers	2012-06-15	47	
	121192977300	469385	Off-site		Dewatering Well	38.87	-90.145417	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-03-30	40	
	121192977400	469386	Off-site		Dewatering Well	38.870167	-90.145528	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-03-29	45	
	121192977500	469387	Off-site		Dewatering Well	38.87025	-90.14575	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-03-28	43	
	121192977600	469388	Off-site		Dewatering Well	38.870333	-90.145944	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-03-26	55	
	121192977900	469391	Off-site		Dewatering Well	38.870833	-90.147278	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-04-19	45	
	121192978700	469399	Off-site		Dewatering Well	38.87025	-90.145028	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-07-12	56	
	121192978800	469400	Off-site		Dewatering Well	38.87025	-90.145167	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-07-12	52	
	121192978900	469401	Off-site		Dewatering Well	38.870278	-90.145306	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-07-11	47	

Table 3.13-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Wood River Power Station - Alton, Madison, IL

Figure ID	API	ISWS P Number	On-site/ Off-site	Abandoned Status (Source)	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121192979000	469402	Off-site		Dewatering Well	38.870361	-90.1455	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-07-11	45	
	121192979100	469403	Off-site		Dewatering Well	38.870444	-90.145639	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-07-11	37	
	121192979200	469404	Off-site		Dewatering Well	38.870528	-90.14575	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-07-10	27	
	121192979300	469405	Off-site		Dewatering Well	38.870583	-90.145889	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-07-10	52	
	121192979400	469406	Off-site		Dewatering Well	38.870722	-90.146083	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-07-09	47	
	121192979500	469407	Off-site		Dewatering Well	38.870806	-90.146167	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-07-09	31	
	121192979600	469377	Off-site		Dewatering Well	38.868028	-90.139972	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-04-30	45	
	121192979700	469378	Off-site		Dewatering Well	38.870389	-90.146194	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-03-27	95	
	121192979800	469379	Off-site		Dewatering Well	38.870722	-90.146972	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-04-18	45	
	121192980000	469381	Off-site		Dewatering Well	38.869722	-90.144528	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-04-12	77	
	121192980100	469382	Off-site		Dewatering Well	38.869778	-90.146361	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-04-11	47	
	121192980200	469383	Off-site		Dewatering Well	38.869917	-90.145028	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-04-13	26	
	121192980300	469384	Off-site		Dewatering Well	38.87	-90.145222	19-5N-9W	GPS verified	US Army Corp of Engineers	2012-04-02	40	
	121192989300	474944	Off-site		Dewatering Well	38.856504	-90.122975	29-5N-9W	Location from permit	Wood River Levee & Drainage Dist.	2013-07-08	67	
	121192990000	474945	Off-site		Dewatering Well	38.856504	-90.122975	29-5N-9W	Location from permit	Wood River Levee & Drainage Dist.	2013-07-08	57	
	121192990100	474946	Off-site		Dewatering Well	38.856504	-90.122975	29-5N-9W	Location from permit	Wood River Levee & Drainage Dist.	2013-07-08	70	
	121192990200	474947	Off-site		Dewatering Well	38.856504	-90.122975	29-5N-9W	Location from permit	Wood River Levee & Drainage Dist.	2013-07-08	61	
	121192990400	474950	Off-site		Dewatering Well	38.856504	-90.122975	29-5N-9W		Wood River Levee & Drainage Dist.	2013-07-08	72	
	121192990500	474949	Off-site		Dewatering Well	38.856504	-90.122975	29-5N-9W	Location from permit	Wood River Levee & Drainage Dist.	2013-07-08	67	
	121192994900		Off-site		Dewatering Well	38.87245	-90.12953	17-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	67	sand
	121192995000		Off-site		Dewatering Well	38.865512	-90.125972	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	81	sand
	121192995100		Off-site		Dewatering Well	38.867739	-90.125829	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	84	sand
	121192995200		Off-site		Dewatering Well	38.865357	-90.125913	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	80	sand
	121192995300		Off-site		Dewatering Well	38.865335	-90.126182	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	62	sand
	121192995400		Off-site		Dewatering Well	38.864491	-90.126431	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	90	sand
	121192995500		Off-site		Dewatering Well	38.864249	-90.126582	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	86	sand
	121192995600		Off-site		Dewatering Well	38.863979	-90.126694	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	86	sand
	121192995700		Off-site		Dewatering Well	38.863704	-90.126871	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	92	sand
	121192995800		Off-site		Dewatering Well	38.860328	-90.124578	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-06	82	sand
	121192995900		Off-site		Dewatering Well	38.860161	-90.124213	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	83	sand
	121192996000		Off-site		Dewatering Well	38.868043	-90.125442	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	85	sand
	121192996100		Off-site		Dewatering Well	38.867709	-90.125442	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	80	sand
	121192996200		Off-site		Dewatering Well	38.8673	-90.12541	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	84	sand
	121192996300		Off-site		Dewatering Well	38.866051	-90.125893	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	91	sand
	121192996400		Off-site		Dewatering Well	38.865801	-90.125973	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	80	sand
	121192996500		Off-site		Dewatering Well	38.866302	-90.125952	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	48	sand
	121192996600		Off-site		Dewatering Well	38.866515	-90.125657	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	90	sand
	121192996700		Off-site		Dewatering Well	38.866653	-90.125593	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	88	sand
	121192996800		Off-site		Dewatering Well	38.866895	-90.12555	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	84	sand
	121192996900		Off-site		Dewatering Well	38.865625	-90.126006	20-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	85	sand
	121192997000		Off-site		Dewatering Well	38.860096	-90.124104	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	83	sand
	121192997100		Off-site		Dewatering Well	38.860067	-90.12403	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	75	sand
	121192997200		Off-site		Dewatering Well	38.860139	-90.12361	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	77	sand
	121192997300		Off-site		Dewatering Well	38.859955	-90.123858	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	93	sand
	121192997400		Off-site		Dewatering Well	38.859831	-90.123446	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	85	sand
	121192997600		Off-site		Dewatering Well	38.859641	-90.122979	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	68	sand
	121192997700		Off-site		Dewatering Well	38.859514	-90.122662	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	77	sand
	121192997800		Off-site		Dewatering Well	38.859404	-90.122395	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	84	sand
	121192997900		Off-site		Dewatering Well	38.859226	-90.122043	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	74	sand
	121192998000		Off-site		Dewatering Well	38.859188	-90.121807	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	80	sand
	121192998100		Off-site		Dewatering Well	38.85913	-90.121603	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	73	sand
	121192998200		Off-site		Dewatering Well	38.859075	-90.121394	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	76	sand
	121192998300		Off-site		Dewatering Well	38.859021	-90.121212	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	71	sand
	121192998400		Off-site		Dewatering Well	38.858871	-90.12082	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	78	sand
	121192998500		Off-site		Dewatering Well	38.858853	-90.120715	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	73	sand
	121192998600		Off-site		Dewatering Well	38.858846	-90.120632	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	71	sand
	121192998700		Off-site		Dewatering Well	38.858787	-90.120461	29-5N-9W	GPS verified	SW IL Flood Prevention Dist Council	2015-11-09	78	sand
	121193003400		Off-site		Dewatering Well	38.860833	-90.125917	29-5N-9W		AMEC Foster Wheeler	2016-05-24		

Table 3.13-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Wood River Power Station - Alton, Madison, IL

Figure ID	API	ISWS P Number	On-site/ Off-site	Abandoned Status (Source)	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
	121193003500		Off-site		Dewatering Well	38.862778	-90.127056	29-5N-9W		AMEC Foster Wheeler	2016-05-16		
	121193005300		Off-site		Dewatering Well	38.874475	-90.153491	19-5N-9W	Location from permit	US Army Corp of Engineers	2016-03-21	45	
	121193005400		Off-site		Dewatering Well	38.874475	-90.153491	19-5N-9W	Location from permit	US Army Corp of Engineers	2016-03-22	40	
	121193005500		Off-site		Dewatering Well	38.874475	-90.153491	19-5N-9W	Location from permit	US Army Corp of Engineers	2016-03-18	45	
	121193005700		Off-site		Dewatering Well	38.874475	-90.153491	19-5N-9W	Location from permit	US Army Corp of Engineers	2016-03-21	45	
	121193005800		Off-site		Dewatering Well	38.874475	-90.153491	19-5N-9W	Location from permit	US Army Corp of Engineers	2016-03-17	35	
	121193005900		Off-site		Dewatering Well	38.874475	-90.153491	19-5N-9W	Location from permit	US Army Corp of Engineers	2016-03-21	45	
	121193006000		Off-site		Dewatering Well	38.874475	-90.153491	19-5N-9W	Location from permit	US Army Corp of Engineers	2016-03-14	40	
	121193006400		Off-site		Dewatering Well	38.874475	-90.153491	19-5N-9W	Location from permit	US Army Corp of Engineers	2016-03-21	55	
	121193006500		Off-site		Dewatering Well	38.874475	-90.153491	19-5N-9W	Location from permit	US Army Corp of Engineers	2016-03-21	40	
	121193006600		Off-site		Dewatering Well	38.874475	-90.153491	19-5N-9W	Location from permit	US Army Corp of Engineers	2016-03-21	45	
	121193006800		Off-site		Dewatering Well	38.874475	-90.153491	19-5N-9W	Location from permit	US Army Corp of Engineers	2016-03-21	40	
	121193006900		Off-site		Dewatering Well	38.874475	-90.153491	19-5N-9W	Location from permit	US Army Corp of Engineers	2016-03-28	60	
	121193007000		Off-site		Dewatering Well	38.874475	-90.153491	19-5N-9W	Location from permit	US Army Corp of Engineers	2016-03-30	45	
	121193011300		Off-site		Stratigraphic Test	38.866568	-90.139009	19-5N-9W		Levee District 26		298	
	121192586900		Off-site		Monitoring	38.867755	-90.126096	20-5N-9W	Location from the driller	E. Alton, Village of	1992-12-07	21	
	121192587000		Off-site		Monitoring	38.867755	-90.126096	20-5N-9W	Location from the driller	Alton, Village of	1992-12-07	21	
	121192587100		Off-site		Monitoring	38.864997	-90.127159	20-5N-9W	Location from the driller	Alton, Village of	1992-12-18	21	
	121192587200		Off-site		Monitoring	38.864997	-90.127159	20-5N-9W	Location from the driller	Alton, Village of	1992-12-08	21	
	121192587500		Off-site		Monitoring	38.875672	-90.153456	19-5N-9W	Location from the driller	Federated Metal Corp.	1992-10-22	49	ground surface
	121192587600		Off-site		Monitoring	38.875672	-90.153456	19-5N-9W	Location from the driller	Federated Metal Corp.	1992-10-26	50	ground surface
	121192848100	366773	Off-site		Monitoring	38.873173	-90.131081	20-5N-9W	Location from the driller	Dynegy Midwest Generatio	2004-06-10	31	sand
	121192859500	369686	Off-site		Monitoring	38.869548	-90.125931	20-5N-9W	Location from the driller	East Alton, Village	2004-06-29	16	ground
	121192859600	369687	Off-site		Monitoring	38.869548	-90.125931	20-5N-9W	Location from the driller	East Alton, Village of	2004-06-28	24	ground
	121192859700	369688	Off-site		Monitoring	38.867737	-90.125831	20-5N-9W	Location from the driller	East Alton, Village of	2004-06-29	21	ground
	121192859800	369689	Off-site		Monitoring	38.865927	-90.125726	20-5N-9W	Location from the driller	East Alton, Village of	2004-06-28	21	ground
	121192859900	369690	Off-site		Monitoring	38.865927	-90.125726	20-5N-9W	Location from the driller	East Alton, Village of	2004-06-30	24	ground
	121192860000	369691	Off-site		Monitoring	38.867737	-90.125831	20-5N-9W	Location from the driller	East Alton, Village of	2004-06-29	21	ground
	121190227900		Off-site		Engineering Test	38.861184	-90.131836	29-5N-9W	Location from the driller	FA 155 bridge	1966-01-14	76	
	121192631600		Off-site		Engineering Test	38.870877	-90.15291	19-5N-9W		Lock & Dam 26, Replacement		124	
	121192631700		Off-site		Engineering Test	38.869077	-90.151424	19-5N-9W		Lock & Dam 28, Relocation Bor	1970-08-25	120	
	121192631800		Off-site		Engineering Test	38.865742	-90.144935	19-5N-9W		Lock & Dam 26, Relocation Bor	1970-09-11	130	
	121192631900		Off-site		Engineering Test	38.867113	-90.145696	19-5N-9W		Lock & Dam 26, Relocation Bor	1970-09-09	135	
	121192632000		Off-site		Engineering Test	38.867931	-90.146435	19-5N-9W		Lock & Dam 26, Relocation Bor	1970-09-04	147	
	121192632100		Off-site		Engineering Test	38.867108	-90.146049	19-5N-9W		Lock & Dam 26, Relocation Bor	1971-01-22	135	
	121192632200		Off-site		Engineering Test	38.86794	-90.14587	19-5N-9W		Lock & Dam 26, Relocation Bor		0	
	121192632300		Off-site		Engineering Test	38.870908	-90.150791	19-5N-9W		Lock & Dam 26, Relocation Bor	1972-09-13	130	
	121192632400		Off-site		Engineering Test	38.866672	-90.140441	19-5N-9W		Lock & Dam 26, Hole		0	
	121192672800		Off-site		Engineering Test	38.861949	-90.131761	29-5N-9W		FA 155 over III Power Access R	1966-11-14	76	
	121192672900		Off-site		Engineering Test	38.861949	-90.131761	29-5N-9W		FA 155 over III Power Access R	1966-11-16	76	
	121192673000		Off-site		Engineering Test	38.861949	-90.131761	29-5N-9W		FA 155 over III Power Access R	1966-11-17	76	
	121192673100		Off-site		Engineering Test	38.861949	-90.131761	29-5N-9W		FA 155 over III Power Access R	1966-11-18	76	
	121192673200		Off-site		Engineering Test	38.861949	-90.131761	29-5N-9W		FA 155 over III Power Access R	1966-11-21	76	
	121192758300		Off-site		Engineering Test	38.870245	-90.148882	19-5N-9W		Wood R. Upper Levee Dis	1954-01-01	74	
	121192758400		Off-site		Engineering Test	38.869044	-90.145841	19-5N-9W		Wood R. Upper Levee Di	1954-01-01	90	
	121192758500		Off-site		Engineering Test	38.867687	-90.14413	19-5N-9W		Wood R Upper Levee Di	1954-01-01	84	
	121192758600		Off-site		Engineering Test	38.865832	-90.138583	19-5N-9W		Wood R Upper Levee Di	1954-01-01	90	
	121192758800		Off-site		Engineering Test	38.863255	-90.135304	19-5N-9W		Wood R Upper Levee Di	1954-01-01	85	
	121192758900		Off-site		Engineering Test	38.877206	-90.134083	20-5N-9W		Wood R Upper Levee Di	1954-01-01	81	
	121192759200		Off-site		Engineering Test	38.871675	-90.129273	20-5N-9W		Wood R Upper Levee Di	1954-01-01	79	
	121192759300		Off-site		Engineering Test	38.87573	-90.127314	20-5N-9W		Wood R Upper Levee Di	1954-01-01	80	
	121192759400		Off-site		Engineering Test	38.863162	-90.127524	29-5N-9W		Wood R Lower Levee Di	1954-01-01	80	
	121192759500		Off-site		Engineering Test	38.858602	-90.122283	29-5N-9W		Wood R Lower Levee Di	1954-01-01	80	

Table 3.13-A
Receptor Survey Results (ISGS Water and Related Wells < 2,500 feet)
Wood River Power Station - Alton, Madison, IL

Figure ID	API	ISWS P Number	On-site/Off-site	Abandoned Status (Source)	Well Type	Latitude	Longitude	Location	Location Source	Owner	Date Drilled	Total Depth (ft)	Formation
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Sources

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)

ISWS Domestic Wells Database (maintained on behalf of the University of Illinois) - Extracted between 4/20/2020 and 5/18/2020

Acronyms

IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
ISWS	Illinois State Water Survey
SWAPP	Source Water Assessment Protection Program

Key

Gray Fill	Well is a duplicate non-CWS or CWS well
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)

Notes

Blank cells indicate that the data was not available
 Dates were adjusted to exclude time

Table 3.13-B
Receptor Survey Results (Non-CWS Wells < 2,500 feet)
Wood River Power Station - Alton, Madison, IL

Figure ID	API	Well ID	On-site/Off-site	System Status	Facility Name	Facility Number	City	County	Status	Type	Latitude	Longitude	Township	Range	Section
NC01	121190233300	11900164	Off-site	A	OLIN CORPORATION	IL3095893	EAST ALTON	Madison	A	INDUSTRIAL/AGRICULTURAL	38.86322659	-90.12404505	5N	9W	20
NC02	121190233400	11900222	Off-site	A	OLIN CORPORATION	IL3095893	EAST ALTON	Madison	A	INDUSTRIAL/AGRICULTURAL	38.86339114	-90.12296334	5N	9W	20
NC03	121190233500	11900230	Off-site	A	OLIN CORPORATION	IL3095893	EAST ALTON	Madison	A	INDUSTRIAL/AGRICULTURAL	38.8634338	-90.12182848	5N	9W	20
NC04	121190233600	11900248	Off-site	A	OLIN CORPORATION	IL3095893	EAST ALTON	Madison	A	INDUSTRIAL/AGRICULTURAL	38.86339187	-90.12050484	5N	9W	20
NC05	121192789600		Off-site	A	OLIN CORPORATION	IL3095893		Madison			38.862353	-90.12347	5N	9W	29
NC06	121192789700		Off-site	A	OLIN CORPORATION	IL3095893		Madison			38.862415	-90.121077	5N	9W	29
NC07	121192789800		Off-site	A	OLIN CORPORATION	IL3095893		Madison			38.862415	-90.121077	5N	9W	29

Sources

IEPA SWAPP GIS Tool - Extracted 5/1/2020

ISGS Water and Related Wells (via the ILWATER and IEPA SWAPP GIS tool) - Extracted 5/1/2020 (via IEPA SWAPP database) and 5/19/2020 (extracted only Well Type and Location Source from ILWATER application)

USEPA SDWIS - System status extracted 7/3/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program
SDWIS	Safe Drinking Water Information System
USEPA	United States Environmental Protection Agency

Key

Gray	Added from ISGS Water and Related Wells
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Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
System Status	Status of non-CWS system according to the USEPA SDWIS website (A = Active; I = Inactive)
Status	Status of Well (A = Active; I = Inactive)

Notes

Blank cells indicate that the data was not available

Table 3.13-C
Receptor Survey Results (Non-CWS Surface Water Intakes < 2,500 feet)
Wood River Power Station - Alton, Madison, IL

Intake Number	Name	Latitude	Longitude	Status
3095893	OLIN CORPORATION	-90.132306	38.86309868	I

Sources

IEPA SWAPP GIS Tool - Extracted 5/1/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program

Field Definitions

Status	Status of Surface Water Intake (A = Active; I = Inactive)
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Table 3.13-D
 Receptor Survey Results (CWS Wells < 1 mile)
 Wood River Power Station - Alton, Madison, IL

Figure ID	API	CWS Well ID	On-site/Off-site	CWS Name	Status	Susceptibility	Aquifer Policy	Minimum Setback	Depth	Aquifer Type	Ambient Well	Latitude	Longitude	PWS Status	PWS Number
C01	121192766300	00696	Off-site	EAST ALTON	A	AX	U	400	98	0101	0	38.87762	-90.12302	A	IL1190200
C02	121192736600	00697	Off-site	EAST ALTON	A	AX	U	400	91	0101	0	38.87625	-90.1226	A	IL1190200
C03	121192736700	00698	Off-site	EAST ALTON	A	AX	U	400	100	0101	0	38.87708	-90.12261	A	IL1190200
C04	121192766400	00699	Off-site	EAST ALTON	A	AX	U	400	97	0101	0	38.87763	-90.12217	A	IL1190200
C05	121192614300	00715	Off-site	EAST ALTON	A	AX	U	400	91	0101	0	38.87635	-90.12451	A	IL1190200
C06	121190214100	60058	Off-site	EAST ALTON	A	AX	U	400	92	0101	1	38.87646	-90.12345	A	IL1190200
C07	121190145800	60059	Off-site	EAST ALTON	A	AX	U	400	103	0101	0	38.87714	-90.12345	A	IL1190200
C08	121192446200	60060	Off-site	EAST ALTON	A	AX	U	400	108	0101	0	38.877	-90.12407	A	IL1190200
C09	121190214000	60057	Off-site	EAST ALTON	B	AX	U	0	90	0101	0	38.87635	-90.124	A	IL1190200
C10	121192766500	60229	Off-site	WOOD RIVER	A	AX	U	400	79	0101	0	38.85687	-90.11358	A	IL1191150
C11	121192786600	60230	Off-site	WOOD RIVER	A	AX	U	400	80	0101	0	38.85663	-90.11312	A	IL1191150
C12		01848	Off-site	WOOD RIVER	A	AX	U	400	114	0101	0	38.85805	-90.11086	A	IL1191150
C13	121192766600	60271	Off-site	WOOD RIVER	B		C	0	86		0	38.85619	-90.1112	A	IL1191150
C14	121190284800	60231	Off-site	WOOD RIVER	B	AX	U	0	83	0101	0	38.85688	-90.11464	A	IL1191150
C15	121192786700	60270	Off-site	WOOD RIVER	B	AX	U	0	86	0101	0	38.85651	-90.11208	A	IL1191150

Sources

IEPA SWAPP GIS Tool - Extracted 5/1/2020

Acronyms

GIS	Geographic Information System
IEPA	Illinois Environmental Protection Agency
SWAPP	Source Water Assessment Protection Program

Field Definitions

Figure ID	Well ID assigned by Ramboll for cross-referencing with figures and text (only assigned to potential potable water wells)
API	American Petroleum Institute (API) Number
On-site/Off-site	Location of the Well in Relation to the Site (On-site = Within Owned Property Boundary; Off-site = Outside of Owned Property Boundary)
Status	Status of Well (A = Active; B = Abandoned; I = Inactive)
Susceptibility	IEPA's Susceptibility Designation based on soil geology
Aquifer Policy	IEPA-Determined Aquifer Policy (U = Unconfined; C = Confined)
Minimum Setback	Minimum Setback Zone (feet)
Ambient Well	Indicates whether the well is part of the IEPA's monitoring network (0 = not in network; 1 = active; 2 = historically in network and historical data available)
PWS Status	Status of Public Water System (PWS) that the well is associated with (A = Active; I = Inactive)

Notes

Blank cells indicate that the data was not available

CERTIFICATE OF SERVICE

I, the undersigned, certify that on this 24th day of September, 2020, I have electronically served the attached **Prefiled Responses of Dr. Melinda Hahn**, upon all parties on the attached service list. I further certify that my email address is rgranholm@schiffhardin.com; the number of pages in the email transmission is 228; and the email transmission took place today before 5:00 p.m.

/s/ Ryan Granholm

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