

EMERGENCY ACTION PLAN
NORTH ASH POND 1N AND SOUTH ASH PONDS 1S, 2S, AND 3S
WILL COUNTY STATION
APRIL 2017
UPDATED JANUARY 2023
CEC Project 302-771

This emergency action plan (EAP) has been prepared pursuant to and Title 35 of the Illinois Administrative Code (35 IAC) Part 845, Subpart E, §845.520(b)(3) and Title 40 of the Code of Federal Regulations (CFR) Part 257, Subpart D, §257.73(a)(3) for North Ash Pond 1N and South Ash Ponds 1S, 2S, and 3S (herein collectively referred to as the Ponds) at Midwest Generation, LLC (MWG) Will County Station (Station) in Romeoville, Illinois. This January 2023 update of the EAP has been prepared following shut down of the Station to include an updated contact list provided as Table 5. This written EAP has been prepared to address potential failure the Ponds. The EAP is presented as follows:

Section 1.0: Definition of the events or circumstances involving the coal combustion residuals (CCR) unit(s) that represent a safety emergency, along with a description of the procedures that will be followed to detect a safety emergency in a timely manner.

Section 2.0: Definition of the responsible persons, their respective responsibilities, and notification procedures in the event of a safety emergency involving the CCR unit(s).

Section 3.0: Contact information of emergency responders.

Section 4.0: Provide site maps, which delineate the downstream areas that would be affected in the event of a pond failure and a physical description of the CCR units.

Section 5.0: Include provisions for an annual face-to-face meeting or exercise between representatives of the Station and the local emergency responders.

Section 6.0: The owner or operator of the CCR unit(s) must obtain a certification from a qualified professional engineer stating that the written EAP, and any subsequent amendment of the EAP, meets the requirements of paragraph (a)(3) of this section.



Civil & Environmental Consultants, Inc.

1.0 DEFINITION OF THE EVENTS THAT REPRESENT A SAFETY EMERGENCY

The following tables define the events and/or circumstances involving the Ponds that represent a safety emergency, along with a description of the procedures to be followed to detect a safety emergency in a timely manner.

The information provided in the Tables 1 through 4 provides a listing of problems that may occur at the Ponds, how to make a rapid evaluation of the problem, and what action should be taken in response to the problem. This section presents only generalized information to aid in first response to a given problem. Suspected problems should be reported as soon as possible, as discussed in Section 2.0, and assistance from a qualified engineer should be obtained if necessary.

The problems outlined in this section are related to above grade, earthen type embankment dams similar in construction to the Ponds. The problems discussed herein include:

- Table 1: Seepage;
- Table 2: Sliding;
- Table 3: Cracking; and
- Table 4: Animal Burrows and Holes.

For each problem, the indicators are discussed followed by evaluation techniques and then by action items for each problem.

Table 1: Event Definition, Evaluation, and Action: Seepage

Definition	Evaluation	Action
1A: Wet area on downstream embankment slope or other area downstream of the embankment, with very little or no surface water or very minor seeps.	1B: Condition may be caused by infiltration of rainwater, which is not serious; or may be the start of a serious seepage problem, which would be indicated by a quick change to one of the conditions below.	1C: No immediate action required. Note the location for future comparison.
2A: Same wet area as above, with moderate seeps of clear or relatively clear water and the rate of flow not increasing.	2B: Measure the flow periodically and note changes in clarity.	2C: No immediate action required. Note the location, flow rate, and clarity for future comparison. During reservoir flood stages, the seepage area should be watched for changes.
3A: Same wet area as above, with moderate seeps of clear or relatively clear water and rate of flow increasing.	3B: Measure the flow periodically and note changes in clarity. Inspect downstream area for new seeps.	3C: Contact a qualified engineer for immediate inspection (see Table 5). Observe the condition constantly for further changes in flow rate or clarity, unless notified otherwise by the engineer.
4A: Piping (seepage with the removal of materials from the foundation or embankment), moderate to active flows of cloudy to muddy water.	4B: If the water is cloudy to muddy, and the rate of flow is increasing, this condition could lead to failure of the dam. If, along the piping, there is an upstream swirl (whirlpool) caused by water entering through the abutments of embankment, failure is imminent.	4C: Immediate action is necessary. Notify the appropriate agencies (see Table 5).
5A: Boils (soil particles deposited around a water exit forming a cone, varying from a few inches in diameter spaced 2 to 3 feet apart to isolated locations several feet in diameter in the floodplain downstream of the dam) may show the types of flow as noted above.	5B: Evaluation of the problem is the same as noted above for the various flow conditions, i.e., clear and constant, clear and increasing, and cloudy or muddy and increasing.	5C: Actions to be taken are essentially the same as those noted above.

Table 2: Event Definition, Evaluation, and Action: Sliding

Indicator	Evaluation	Action
1A: Movement of a portion of the embankment, either the upstream or downstream slope, toward the toe of the dam.	1B: Various degrees of severity of a slide require different responses. The first condition is that the slide does not pass through the crest and does not extend into the embankment for more than 5 ft., measured perpendicular to the slope.	1C: For this condition, a qualified engineer should be consulted (see Table 5) before repairs are initiated to determine the cause of the slide and to recommend modifications to prevent future slides. The downstream side of the dam should be watched for the emergence of water, either through the slide or opposite the slide. If water is noted discharging, the area should be treated as a seepage location and monitored as noted above.
2A: Slide passes is the second condition.	2B: In this condition, the slide passes through the crest and that the reservoir elevation is more than 10 ft. below the lowered crest.	2C: Use the same actions as noted above, and notify the appropriate MWG personnel of the situation so they may be prepared to act if the condition worsens (see Table 5).
3A: Slide passes is also the third condition.	3B: In this condition, the slide passes through the crest and that the reservoir elevation is less than 10 ft. below the lowered crest.	3C: This condition is critical, and failure of the dam should be considered imminent. Notify the appropriate agencies (see Table 5).

Table 3: Event Definition, Evaluation, and Action: Cracking

Indicator	Evaluation	Action
1A: Cracks in the embankment can occur either in the longitudinal (along the length of the dam) or transverse (across the dam from upstream to downstream directions).	1B: Some cracking of the surface soils may occur when they become dry. This cracking is to be expected, and no further action is required.	1C: No further action is required.
2A: Longitudinal cracking can indicate the beginning of a slide or be an uneven settlement of the embankment.	2B: Monitor the crack for future changes, and contact a qualified engineer for assistance in the evaluation of the crack and recommended repairs.	2C: Contact a qualified engineer for assistance and recommendations (see Table 5).
3A: Transverse cracking can indicate uneven settlement or the loss of support below the crack. Such cracks usually occur over an outlet conduit, near the abutments, or in the taller portion of the embankment.	3B: Monitor the crack for future changes, and contact a qualified engineer for assistance in the evaluation of the crack and recommended repairs.	3C: Contact a qualified engineer for assistance and recommendations (see Table 5).

Table 4: Event Definition, Evaluation, and Action: Animal Burrows and Holes

Indicator	Evaluation	Action
1A: Holes in the embankment, varying in size from about one inch in diameter to one foot in diameter caused by animals.	1B: If the holes do not penetrate through the embankment, the situation is usually not serious. Some animal holes will have soil pushed out around the hole in a circular fashion, which may look like a boil (crayfish or crawdad). Watch for the movement of water and soil particles from these holes to determine whether they are boils.	1C: Backfill as deeply as possible with impervious material. If rodents become a nuisance, an effective rodent control program, as approved by the Illinois Department of Natural Resources District Wildlife Biologist, should be implemented.

2.0 RESPONSIBLE PERSONS, RESPECTIVE RESPONSIBILITIES, AND NOTIFICATION PROCEDURES

The EAP must be implemented once events or circumstances involving the CCR unit that represent a safety emergency are detected, including conditions identified during periodic structural stability assessments, annual inspections, and inspections by a qualified person. The following sections define responsible persons, their respective responsibilities, and notification procedures in the event of a safety emergency involving the Ponds. Contact information is provided in Table 5, attached.

2.1 Responsible Persons and Responsibilities

Appropriate parties will be notified based on the nature and severity of the incident as determined by the plant engineer. If failure is imminent or has occurred, notification and mitigation procedures are a top priority, particularly for a potentially hazardous situation. The plant engineer, in conjunction with the plant manager, is responsible for this determination.

2.2 Notification Sequence

The following notification procedures shall be used in the event of a safety emergency with the Ponds:

- (1) Notify the plant engineer, plant manager, or alternate.
- (2) If unsafe conditions exist, the employee should evacuate the area.
- (3) Only the plant manager or designated alternate shall have any official communication with non-employees and regulatory agencies, and only the communications director shall have any contact with the media.

The plant engineer, plant manager, or designated alternate should follow these procedures in the event of a safety emergency involving the Ponds:

- (1) Organize appropriately trained Station personnel and/or other employees or contractors as necessary to assist with the safety emergency.
- (2) After consultation with appropriately trained Station personnel, contact the proper civil authorities (e.g., fire, police, etc.) if necessary. Notify the appropriate agencies where there has been a reportable release of material(s) into the environment. See Table 5, attached for contact information. Notify MWG Corporate via the Intelex online notification system within twenty-four hours in the event of a reportable release. A reportable release is a “material release”, defined as a spill or leak that materialized in the waterway. A “non-material release” is a spill or leak that did not come into contact with the waterway.

- (3) Be prepared to evacuate the potential inundation area at any time during the safety emergency response.
- (4) If the emergency is beyond the facility's response capabilities, contact one or more emergency response contractors as necessary.
- (5) Corrective actions should only be performed by properly trained individuals.

3.0 EMERGENCY RESPONDERS CONTACT INFORMATION

Contact information for emergency responders, contractors, and consultants are provided in Table 5 (attached). The plant manager or alternate will determine who to notify, including any affected residents and/or businesses, in the case of an imminent or actual CCR surface impoundment dam failure. The station plant engineer or alternate will ensure proper notifications are made.

Appropriate contractors will be utilized to assist the Station plant engineer, plant manager, or alternate with mitigated actions being undertaken in order to minimize the impact of an event that has occurred.

4.0 SITE MAP AND A SITE MAP DELINEATING THE DOWNSTREAM AREA

The following section provides a physical description of the Ponds. A site vicinity map is provided as Figure 1 and site plan as Figure 2, attached. Drawings depicting the locations of, and the downstream areas affected by, a potential failure of the Ponds were prepared by Geosyntec in October 16, 2016 (2S and 3S) and Civil & Environmental Consultants, Inc. (CEC) (1N and 1S) in September 2021.

4.1 Basin Locations and Descriptions

The site is bound between the Des Plaines River on the west and the Chicago Sanitary and Ship Canal on the east. The Ponds are located along the eastern bank of the Des Plaines River and west of the substation area and the main power block building.

From our observations and review of construction and engineering documentation provided by MWG, the Ponds were constructed with elevated earthen berms or embankments. Run-on is limited to precipitation contained within the earthen berm. Physical characteristics of the Ponds are provided in Table 6, below.

Table 6: Pond Characteristics

	North Ash Pond 1N	South Ash Pond 1S	South Ash Pond 2S	South Ash Pond 3S
Estimated Capacity (acre-feet)	14.06	12.63	13.2	15.1
Estimated Maximum Basin Depth (feet)	8	8	8	8.5

4.2 Delineation of Downstream Areas

The potential impacts from failure of the Ponds were evaluated and reported by Geosyntec in the Hazard Potential Classification Assessment (HPCA), dated October 2016. A copy of the HPCA is contained on the CCR Rule Compliance Data and Information website (<http://www.nrg.com/legal/coal-combustion-residuals/>).

The potential impacts from the failure of Ponds 1N and 1S were evaluated and reported by CEC in a separate HPCA, dated September 2021. A copy of the HPCA is contained on the Illinois CCR Rule Compliance Data and Information web site. (<https://midwestgenerationllc.com/illinois-ccr-rule-compliance-data-and-information/>).

Results of the HPCA indicate that the Ponds are classified as significant hazard potential CCR surface impoundments. The evaluation reports no loss of life resulting from failure of the Ponds. However, potential failure during flood conditions could result in off-site economic or environmental impacts. Inundation maps are provided in Appendix A.

5.0 ANNUAL FACE-TO-FACE MEETING

A face-to-face meeting or an exercise between representatives of the Station and the local emergency responders shall be offered and, if accepted, held on an annual basis. The purpose of the annual meeting is to review the EAP to assure that contacts, addresses, telephone numbers, etc. are current. The annual meeting will be held whether or not an incident occurred in the previous year. In the event an incident occurs, the annual meeting date may be moved up in order to discuss the incident closer to the date of occurrence. If no incidents have occurred, the annual meeting will be held to inform local emergency responders on the contents of the EAP and changes from the previous year. Documentation of the annual face-to-face meeting will be recorded and placed in the operating record for the Station.

The EAP requires modification whenever there is a change in conditions that would substantially affect the EAP in effect. Changes to the plan shall be made as appropriate, and a copy of the

TABLE 5

Table 5: Midwest Generation Will County Station CCR Surface Impoundment EAP Notification List
Emergency Coordinators
Phone Number
Plant Contacts:

Name	Title	Contact Info
Karl Kulpinski	Plant Engineer	(C) (815) 315-2825
Phillip Raush	Plant Manager	(C) (815) 715-8532

Corporate Support:

Name	Title	Contact Info (Cell Phone #)
Sharene Shealey	Director, Environmental	(C) 724-255-3220
Jill Buckley	Environmental Manager	(C) 724-448-9732
Tony Shea	Director, Environmental Compliance	(O) 609-525-4923 (C) 609-651-6478
David Schrader	Stations Communications Director (point of public contact)	(O) 267-295-5768 (C) 267-294-2860

Emergency Response Agencies:

Agency	Address	Contact Info
National Response Center (NRC)	NA	800-424-8802
Illinois Department of Natural Resources, Office of Water Resources	One Natural Resources Way, 2nd Floor Springfield, IL 62702-1271	8:30AM-5:00PM 217-785-3334
Illinois Emergency Management Agency (IEMA)	110 East Adams Springfield, IL 62701	800-782-7860
Illinois Environmental Protection Agency (IEPA)	Bureau of Water 1021 North Grand Avenue East	217-782-3637
Will County Emergency Management Agency Operations Center	302 North Chicago Street Joliet, IL 60432	Phone: 815-740-8351 24-Hr: 815-740-0911
Will County ETSB: Dispatches to Fire, Police and Emergency Medical services	302 N Chicago Street Joliet, IL 60432	Non-Emergency: 815-740-8376 Emergency: 9-1-1
Lockport Police Department	1212 South Farrell Road Lockport, IL 60441	Emergency: 9-1-1 Non-Emergency: 815-838-2131 Front Desk: 815-838-2132
Lockport Township Fire Protection District	19623 West Renwick Road Lockport, IL 60441	Emergency: 9-1-1 Non-Emergency: 815-838-2121 Administration: 815-838-3287

Environmental Response Contractors/Consultants:

Contractor/Consultant	Address	Contact Info
Civil & Environmental Consultants, Inc.	1230 East Diehl Road, Suite 200 Naperville, IL 60563	630-963-6026
Heritage Environmental Services	15330 Canal Bank Road Lemont, IL 60439	630 739-1151

FIGURES



NORTH



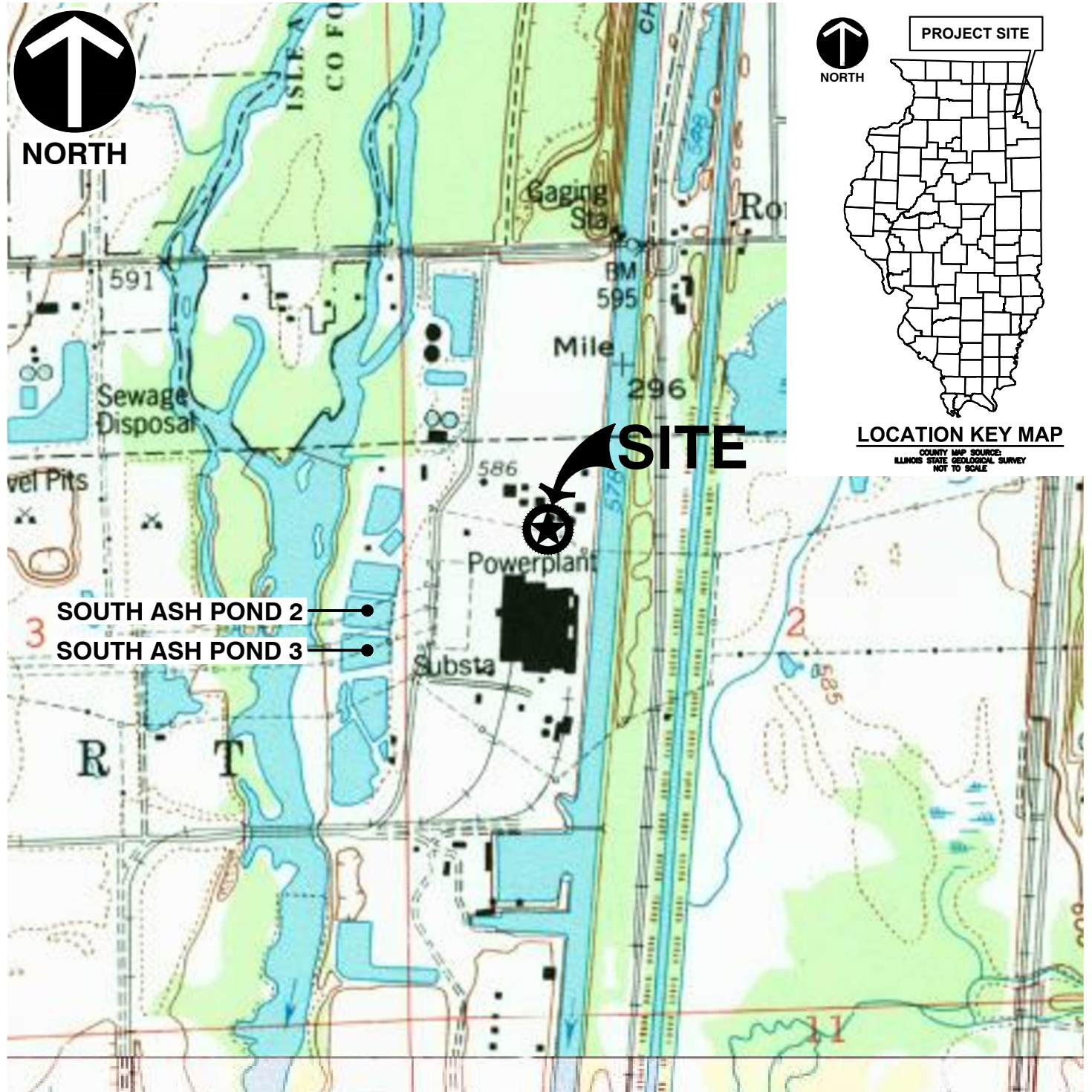
NORTH

PROJECT SITE



LOCATION KEY MAP

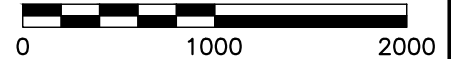
COUNTY MAP SOURCE:
ILLINOIS STATE GEOLOGICAL SURVEY
NOT TO SCALE



REFERENCE

1. U.S.G.S. 7.5' TOPOGRAPHIC MAP, ROMEOVILLE QUADRANGLE, ILLINOIS DATED: 1993.

*HAND SIGNATURE ON FILE
SCALE IN FEET



Civil & Environmental Consultants, Inc.

555 Butterfield Road, Suite 300 - Lombard, IL 60148

630-963-6026 · 877-963-6026

www.cecinc.com

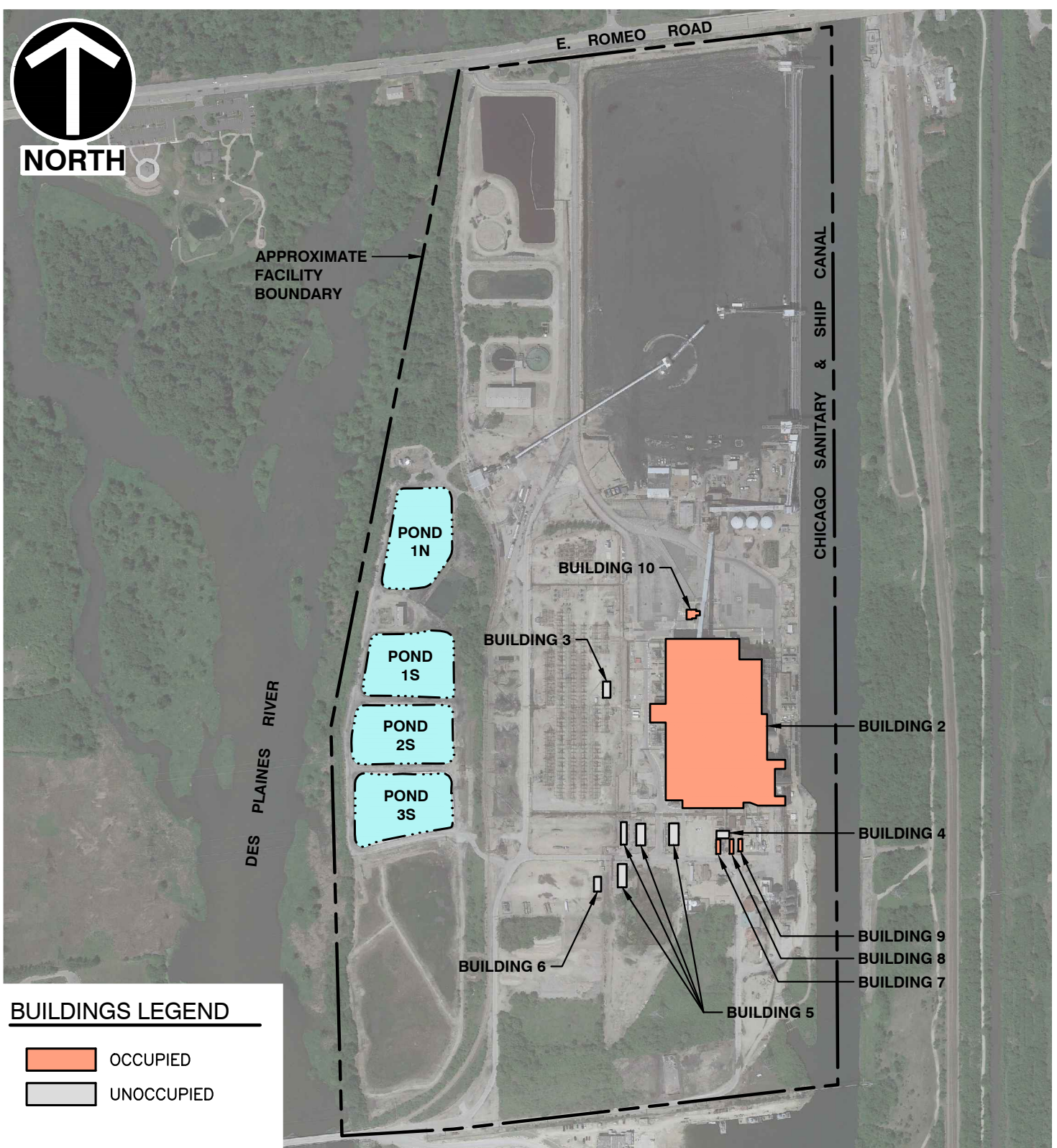
WILL COUNTY STATION
SOUTH ASH POND 2 - SOUTH ASH POND 3
ROMEOVILLE, ILLINOIS

SITE VICINITY MAP

DRAWN BY: MSK	CHECKED BY: MDJ	APPROVED BY: MDJ*	FIGURE NO.:
DATE: 04/05/2017	DWG SCALE: 1"=1000'	PROJECT NO: 163-469.0300	1

P:\2016\163-469\CADD\DWG\CV03-Will County Station\163469-CV03-C101-Site Vicinity Map.dwg{LAYOUT} LS:(4/5/2017 - mkarpf) - LP: 4/13/2017 3:12 PM

P:\300-000\302-771\CADD\DWG\GT42-Will County Ash Basins\302771-GT42-G101-Site Map.dwg{FIG 1} LS:(1/11/2023 - mkarpf) - LP: 1/12/2023 5:22 AM



BUILDINGS LEGEND

- OCCUPIED
- UNOCCUPIED

REFERENCE

1. IMAGE PROVIDED BY GOOGLE EARTH.
DATE OF IMAGE: MAY 29, 2021



*HAND SIGNATURE ON FILE

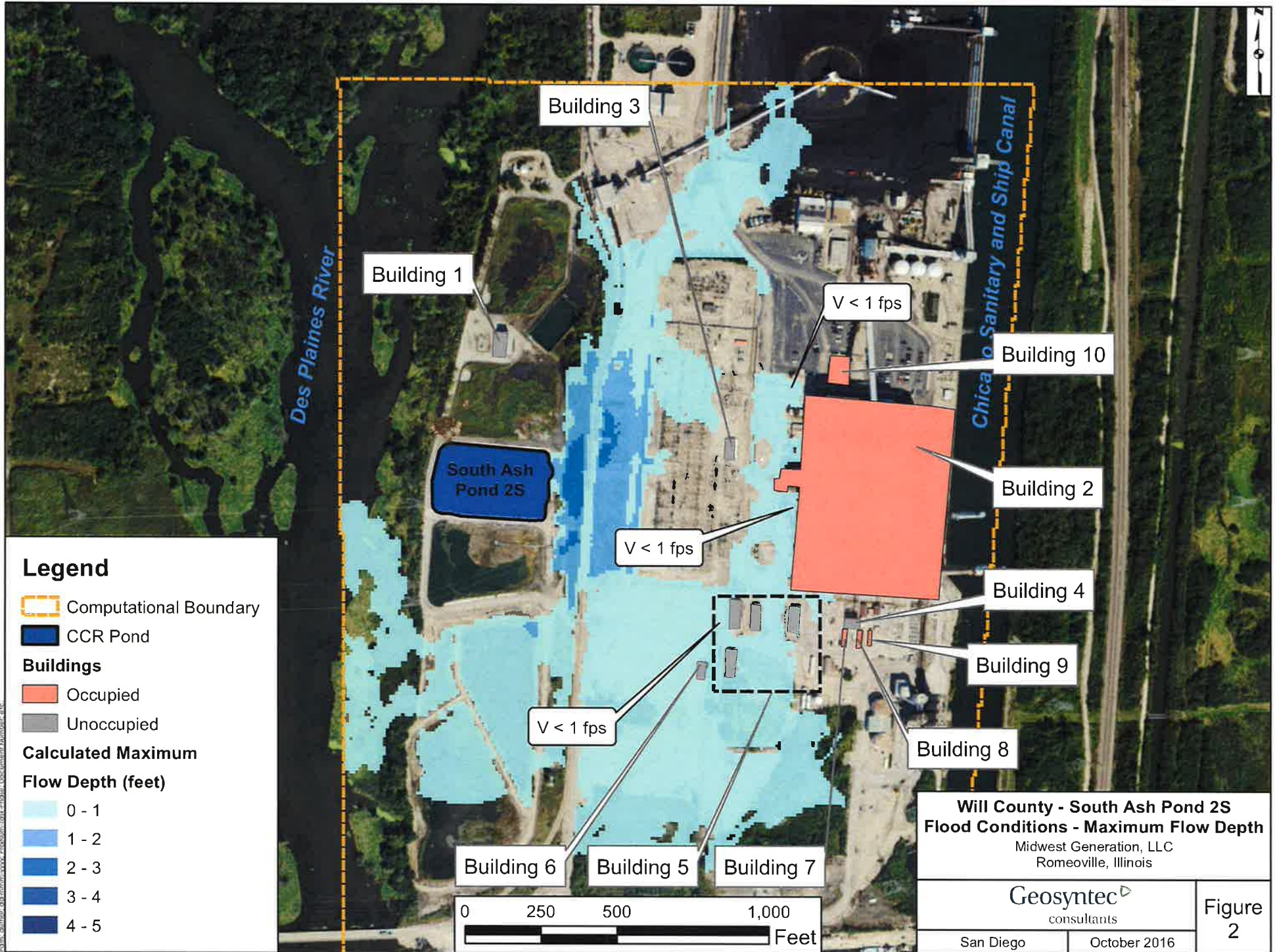
Civil & Environmental Consultants, Inc.
 1230 East Diehl Road, Suite 200 - Naperville, IL 60563
 630-963-6026 · 877-963-6026
 www.cecinc.com

MIDWEST GENERATION LLC
 WILL COUNTY STATION
 PONDS 1N, 1S, 2S AND 3S
 WILL COUNTY, ILLINOS

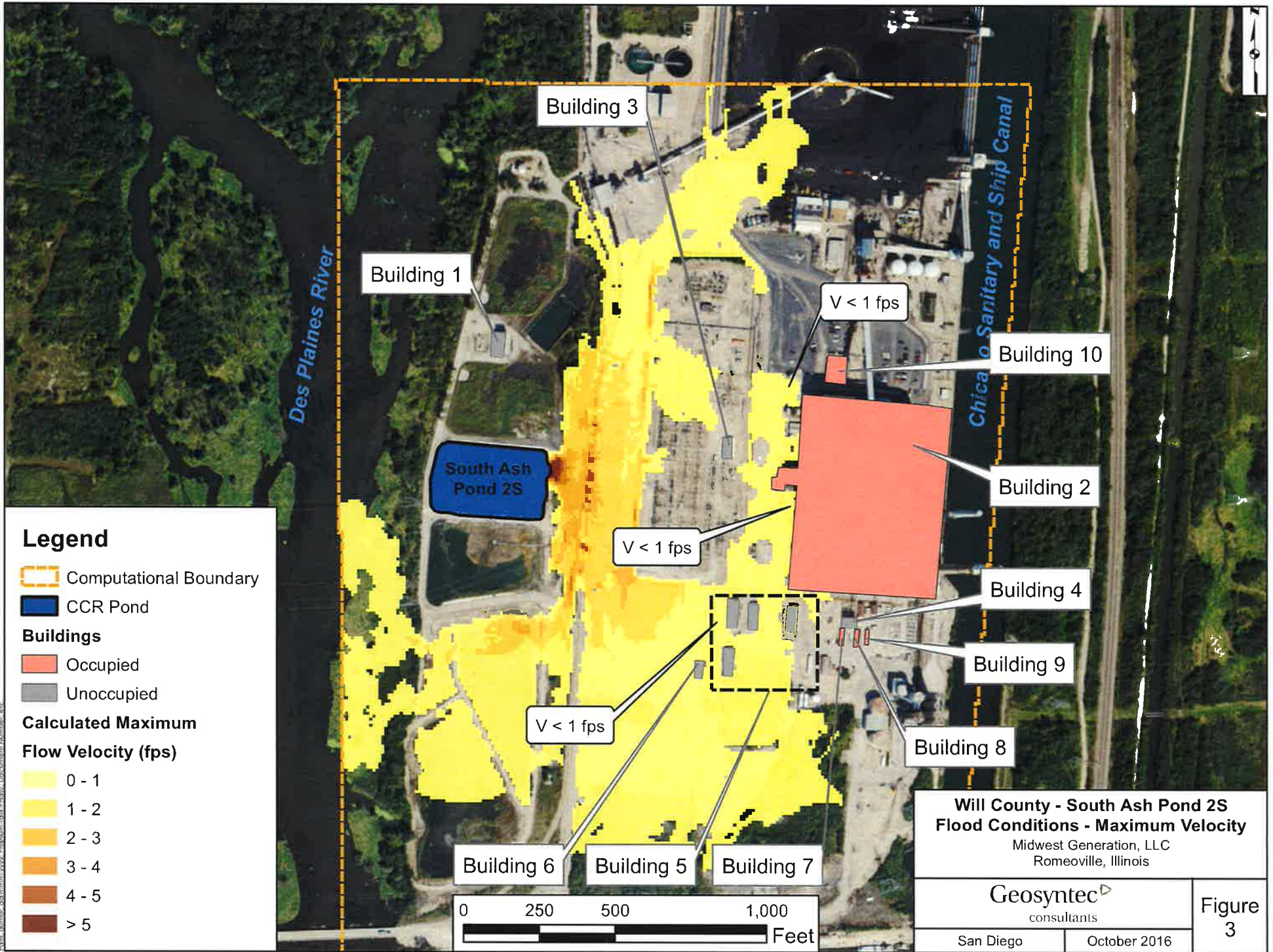
SITE MAP

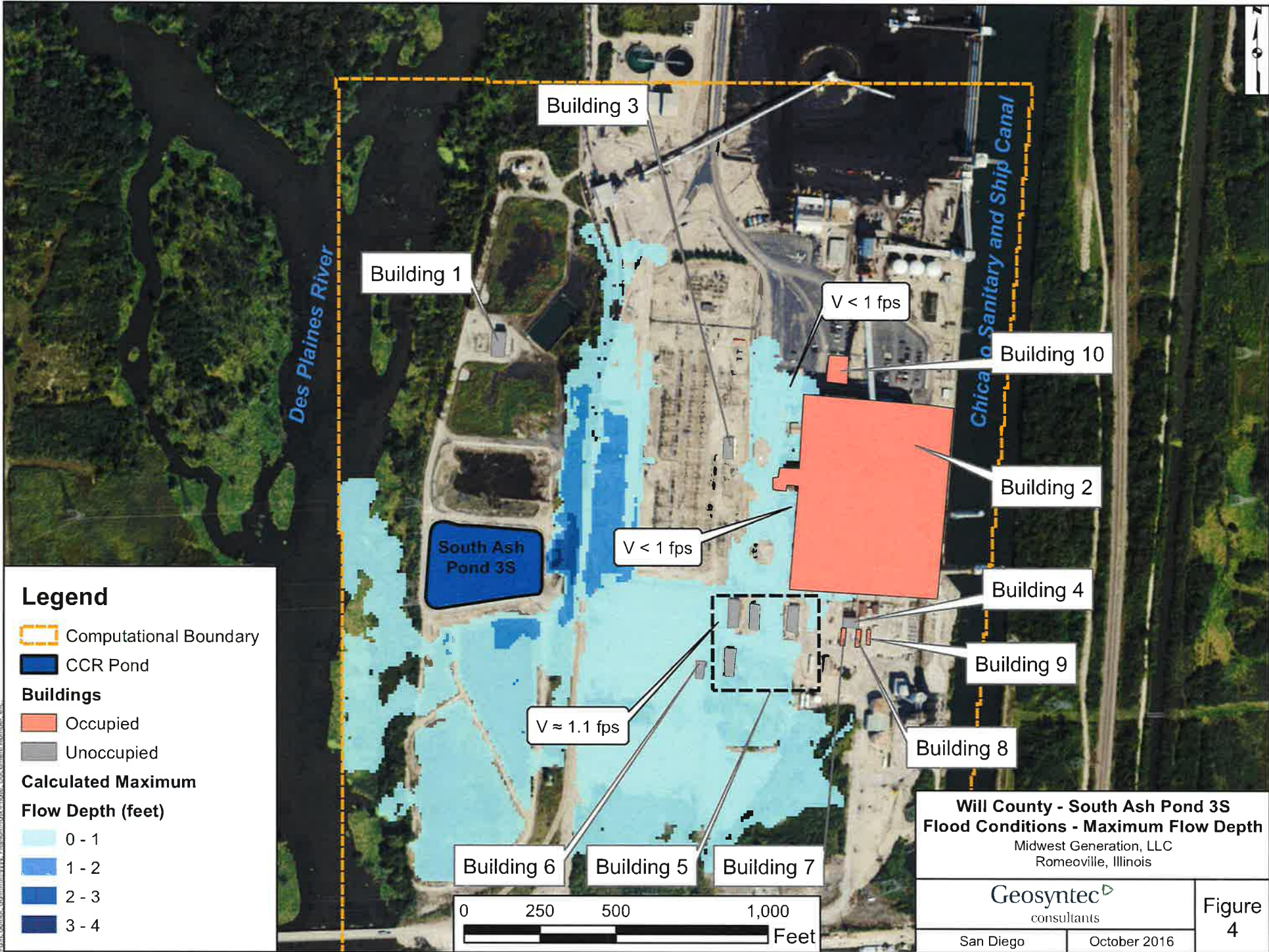
DRAWN BY: MSK	CHECKED BY: MDJ	APPROVED BY: MDJ*	FIGURE NO.:
DATE: 01/12/2023	DWG SCALE: 1"=600'	PROJECT NO: 302-771.0422	2

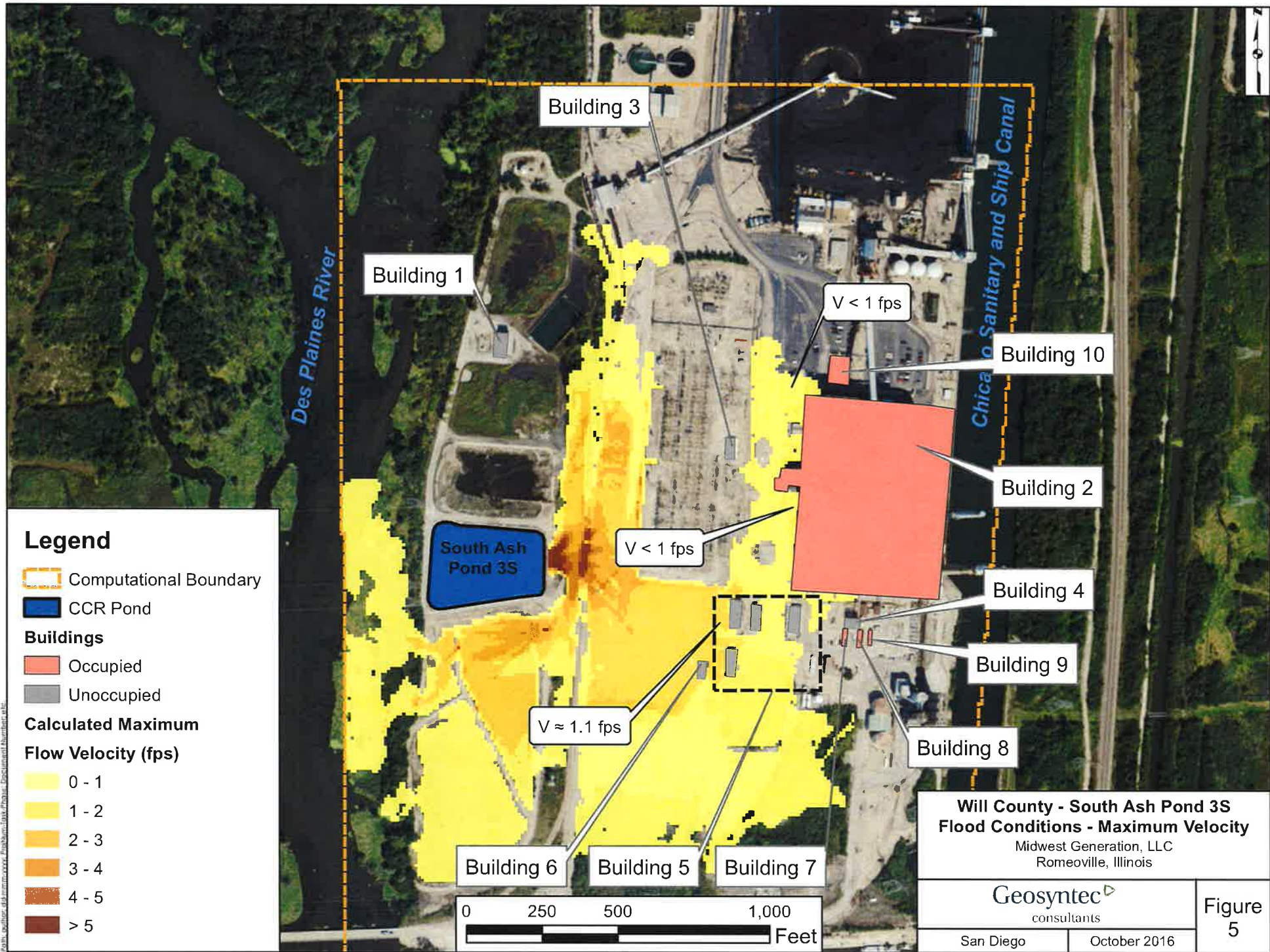
APPENDIX A



2016-10-10 10:00:00 AM 2016-10-10 10:00:00 AM 2016-10-10 10:00:00 AM 2016-10-10 10:00:00 AM 2016-10-10 10:00:00 AM



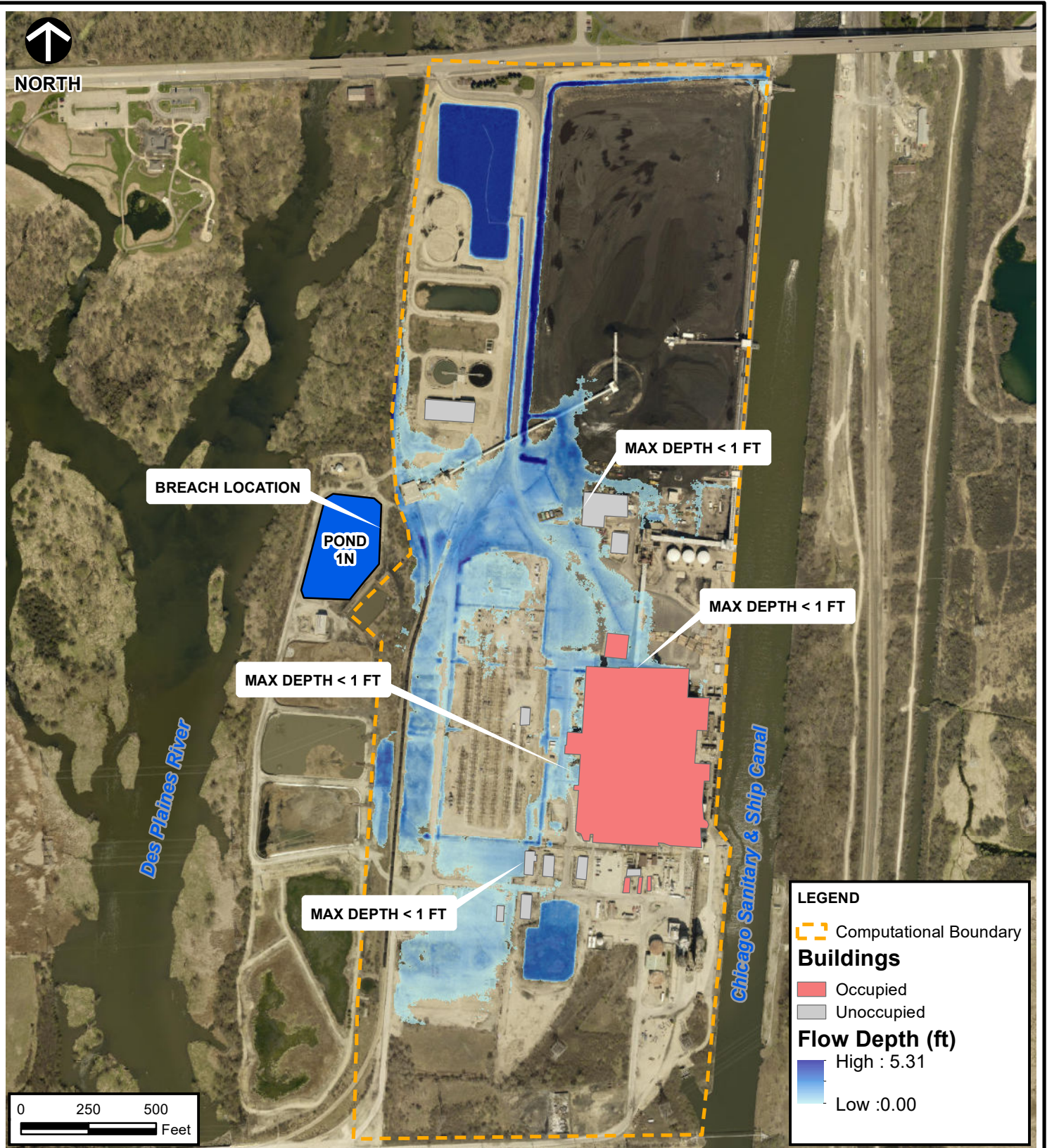




Path: \\g010101\dfs\summers\..._Eng\Bioscience\Phys..._Dissemination\...



NORTH



LEGEND

- Computational Boundary
- Buildings**
- Occupied
- Unoccupied
- Flow Depth (ft)**
- High : 5.31
- Low : 0.00

SOURCE: ESRI WORLD IMAGERY / ARCGIS MAP SERVICE: [HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY](http://gto.arcgis.com/maps/world_imagery). LAST ACCESSED: 9/23/2021
 IMAGE DATE: 04/20/2019



Civil & Environmental Consultants, Inc.

1230 East Diehl Road, Suite 200 - Naperville, IL 60563
 630-963-6026 - 800-759-5614
www.cecinc.com

MIDWEST GENERATION, LLC
 HAZARD POTENTIAL
 CLASSIFICATION ASSESSMENT
 POND 1N AND POND 1S
 WILL COUNTY, IL

POND 1N MAXIMUM FLOW DEPTH

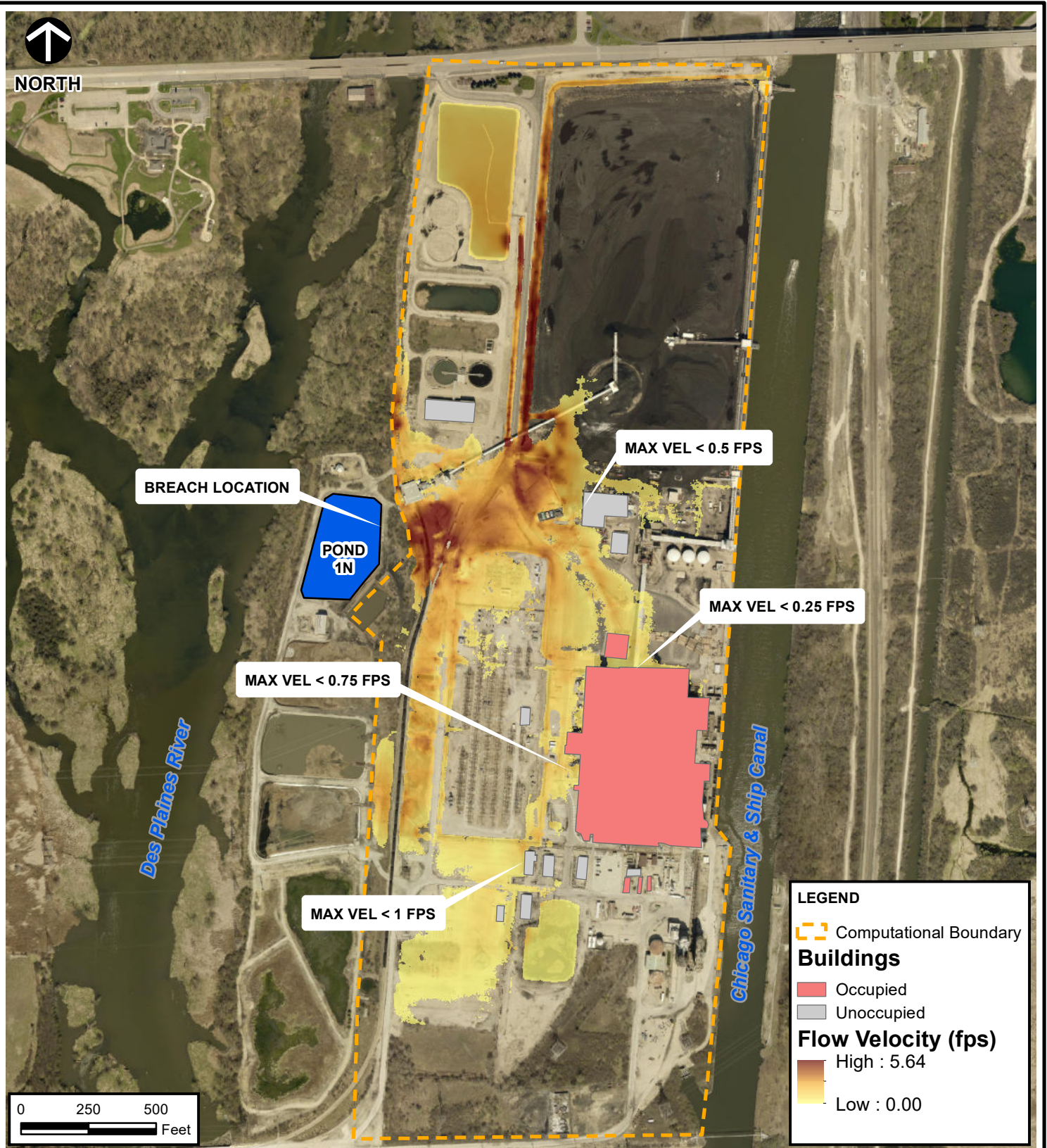
DRAWN BY: CJG	CHECKED BY: CJG	APPROVED BY: MDG*	FIGURE NO: 2
DATE: SEPTEMBER 23, 2021	DWG SCALE: 1" = 500'	PROJECT NO: 312-192	

\\SHONIGFORD\Share\301-739 - C\YCS\GIS\312-192 - WR01_1N_Depth_Map.mxd - 9/23/2021 - 8:50:19 AM (shonigford)

Signature on File *



NORTH



LEGEND

- Computational Boundary
- Buildings**
- Occupied
- Unoccupied
- Flow Velocity (fps)**
- High : 5.64
- Low : 0.00

SOURCE: ESRI WORLD IMAGERY / ARCGIS MAP SERVICE: [HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY](http://gto.arcgis.com/maps/world_imagery). LAST ACCESSED: 9/23/2021
 IMAGE DATE: 04/20/2019



Civil & Environmental Consultants, Inc.

1230 East Diehl Road, Suite 200 - Naperville, IL 60563
 630-963-6026 - 800-759-5614
www.cecinc.com

MIDWEST GENERATION, LLC
 HAZARD POTENTIAL
 CLASSIFICATION ASSESSMENT
 POND 1N AND POND 1S
 WILL COUNTY, IL

POND 1N MAXIMUM VELOCITY

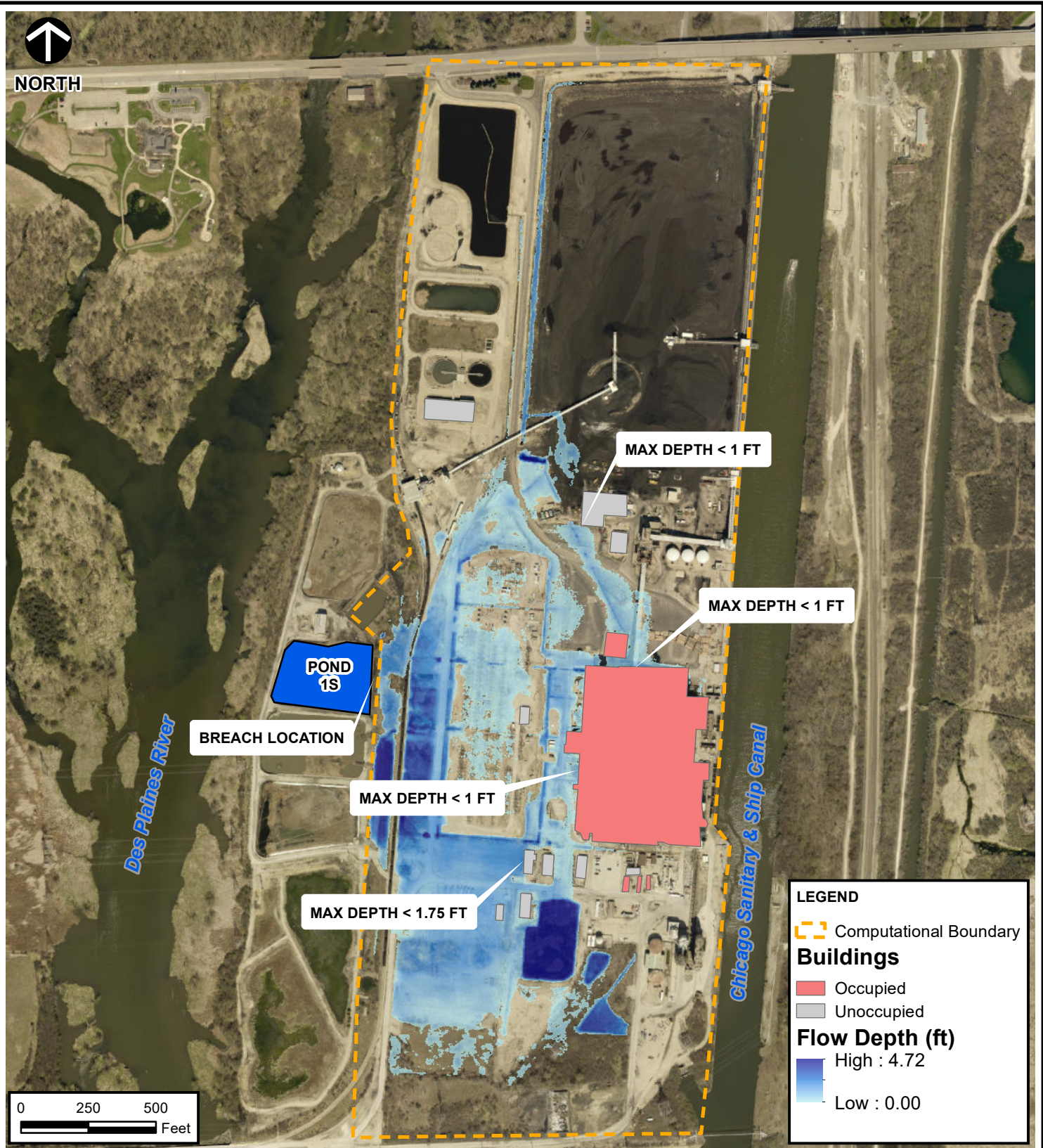
DRAWN BY: CJG	CHECKED BY: CJG	APPROVED BY: MDG*	FIGURE NO: 3
DATE: SEPTEMBER 23, 2021	DWG SCALE: 1" = 500'	PROJECT NO: 312-192	

\\SHONIGFORD\Share\312-192\GIS\312-192 WR01 1N Velocity Map.mxd - 9/23/2021 - 8:53:47 AM (shonigford)

Signature on File *



NORTH



LEGEND

- Computational Boundary
- Buildings**
- Occupied
- Unoccupied
- Flow Depth (ft)**
- High : 4.72
- Low : 0.00

SOURCE: ESRI WORLD IMAGERY / ARCGIS MAP SERVICE: [HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY](http://gto.arcgis.com/maps/world_imagery). LAST ACCESSED: 9/23/2021
 IMAGE DATE: MM/DD/YYYY



Civil & Environmental Consultants, Inc.

1230 East Diehl Road, Suite 200 - Naperville, IL 60563
 630-963-6026 - 800-759-5614
www.cecinc.com

MIDWEST GENERATION, LLC
 HAZARD POTENTIAL
 CLASSIFICATION ASSESSMENT
 POND 1N AND POND 1S
 WILL COUNTY, IL

POND 1S MAXIMUM FLOW DEPTH

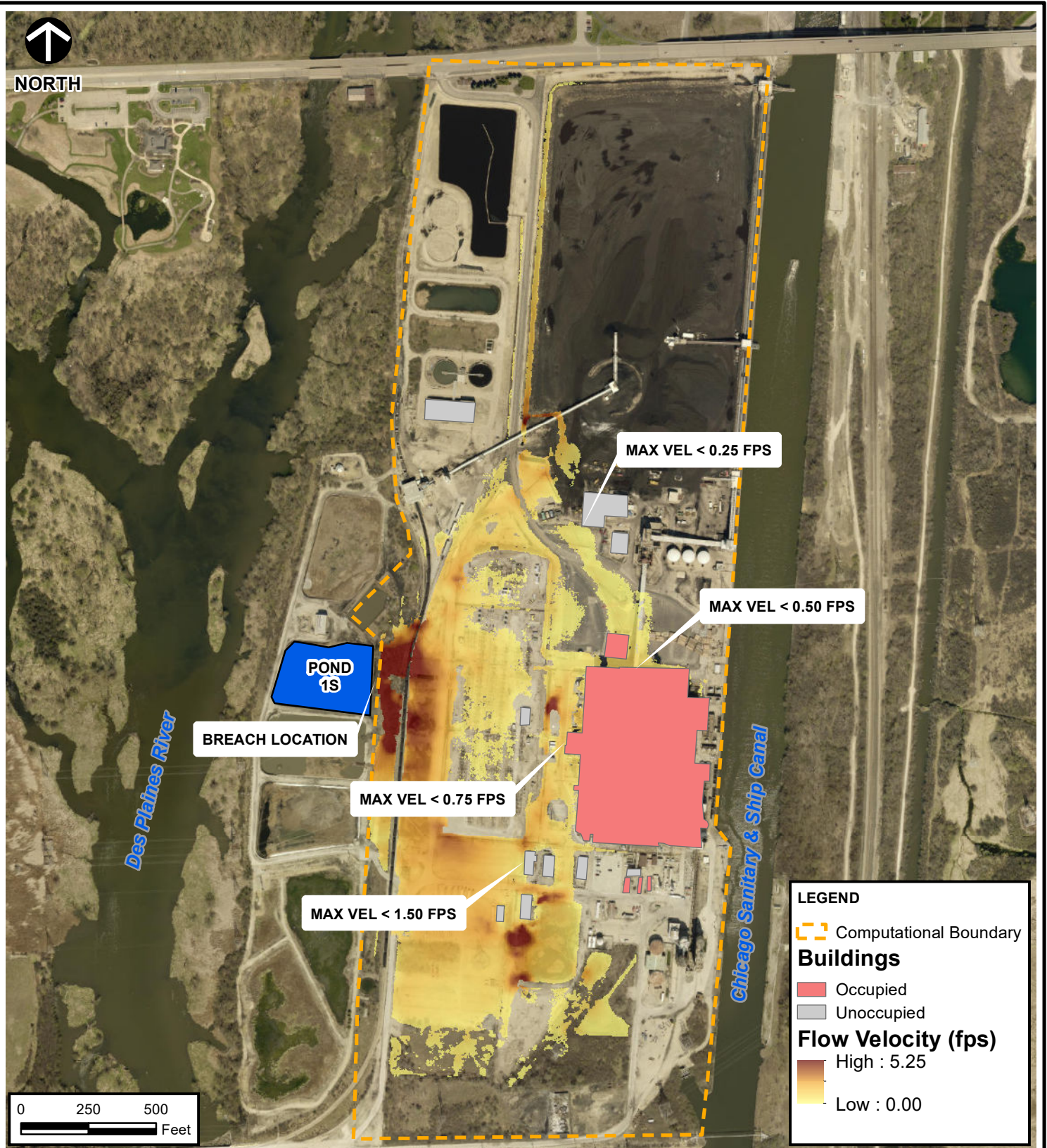
DRAWN BY: CJG	CHECKED BY: CJG	APPROVED BY: MDG*	FIGURE NO: 4
DATE: SEPTEMBER 23, 2021	DWG SCALE: 1" = 500'	PROJECT NO: 312-192	

Signature on File *

\\SHONIGFORD\Share\312-192\GIS\312-192 WR01 1S Depth Map.mxd - 9/23/2021 - 8:55:29 AM (shonigford)



NORTH



LEGEND

- Computational Boundary
- Buildings**
- Occupied
- Unoccupied
- Flow Velocity (fps)**
- High : 5.25
- Low : 0.00

SOURCE: ESRI WORLD IMAGERY / ARCGIS MAP SERVICE: [HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY](http://gto.arcgis.com/maps/world_imagery). LAST ACCESSED: 9/23/2021
 IMAGE DATE: MM/DD/YYYY



Civil & Environmental Consultants, Inc.

1230 East Diehl Road, Suite 200 - Naperville, IL 60563
 630-963-6026 - 800-759-5614
www.cecinc.com

MIDWEST GENERATION, LLC
 HAZARD POTENTIAL
 CLASSIFICATION ASSESSMENT
 POND 1N AND POND 1S
 WILL COUNTY, IL

POND 1S MAXIMUM VELOCITY

DRAWN BY: CJG	CHECKED BY: CJG	APPROVED BY: MDG*	FIGURE NO: 5
DATE: SEPTEMBER 23, 2021	DWG SCALE: 1" = 500'	PROJECT NO: 312-192	

Signature on File *

\\SHONIGFORD\Share\312-192\GIS\312-192 WR01 1S Velocity Map.mxd - 9/23/2021 - 8:56:29 AM (shonigford)