

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:)	
)	
SIERRA CLUB, ENVIRONMENTAL)	
LAW AND POLICY CENTER,)	
PRAIRIE RIVERS NETWORK, and)	
CITIZENS AGAINST RUINING THE)	
ENVIRONMENT)	
)	PCB 2013-015
Complainants,)	(Enforcement – Water)
)	
v.)	
)	
MIDWEST GENERATION, LLC,)	
)	
Respondent.)	

NOTICE OF FILING

TO: Don Brown, Assistant Clerk	Attached Service List
Illinois Pollution Control Board	
James R. Thompson Center	
100 West Randolph Street, Suite 11-500	
Chicago, IL 60601	

PLEASE TAKE NOTICE that I have filed today with the Illinois Pollution Control Board Respondent, Midwest Generation, LLC's Demonstrative Exhibits, copies of which are herewith served upon you.

MIDWEST GENERATION, LLC

By: /s/ Jennifer T. Nijman

Dated: October 23, 2017

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Kristen L. Gale
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10 South LaSalle Street, Suite 3600
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Rivers Network and Sierra Club
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CERTIFICATE OF SERVICE

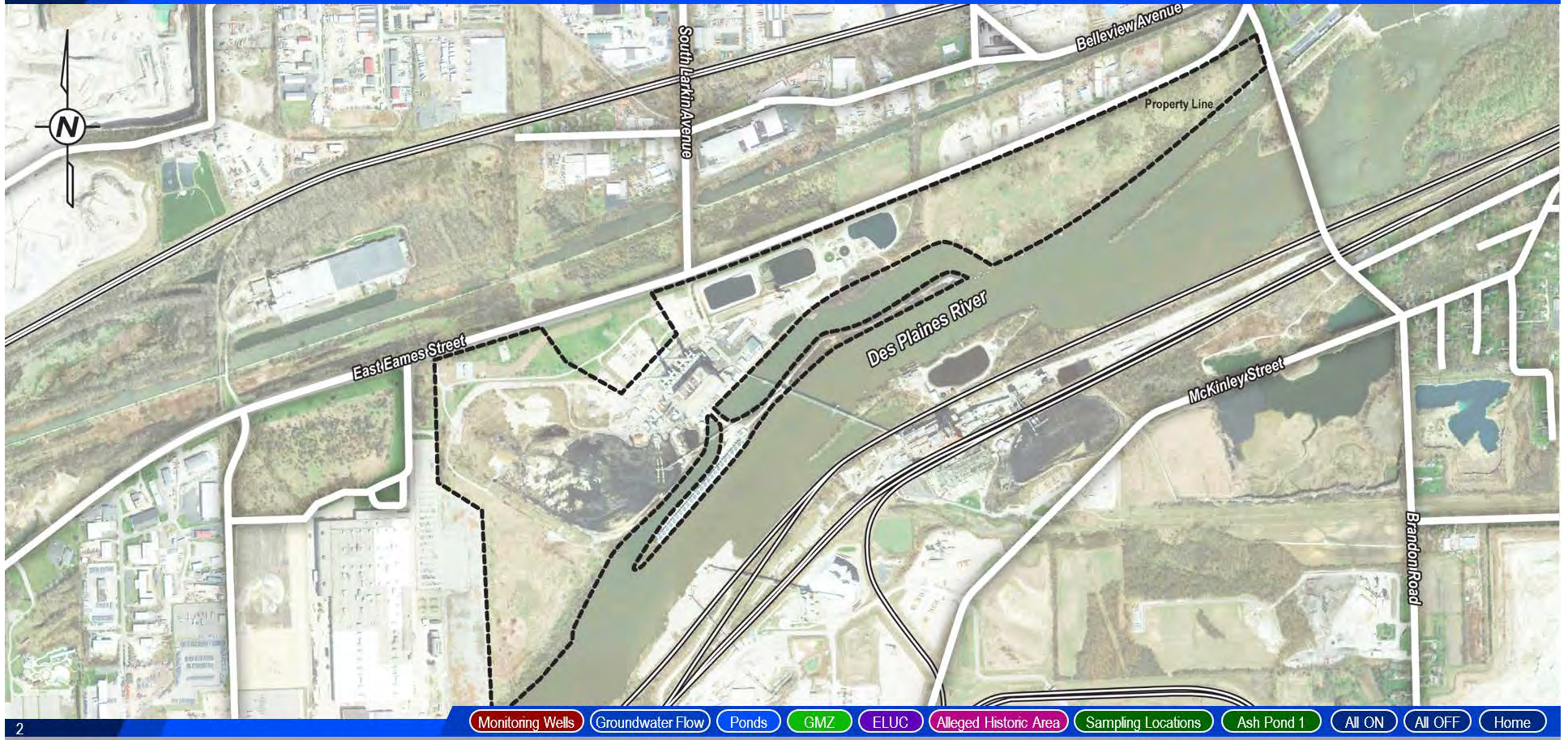
The undersigned, an attorney, certifies that a true copy of the foregoing Notice of Filing and Midwest Generation LLC's Demonstrative Exhibits was filed electronically on October 23, 2017 with the following:

Don Brown, Assistant Clerk
Illinois Pollution Control Board
James R. Thompson Center
100 West Randolph Street, Suite 11-500
Chicago, IL 60601

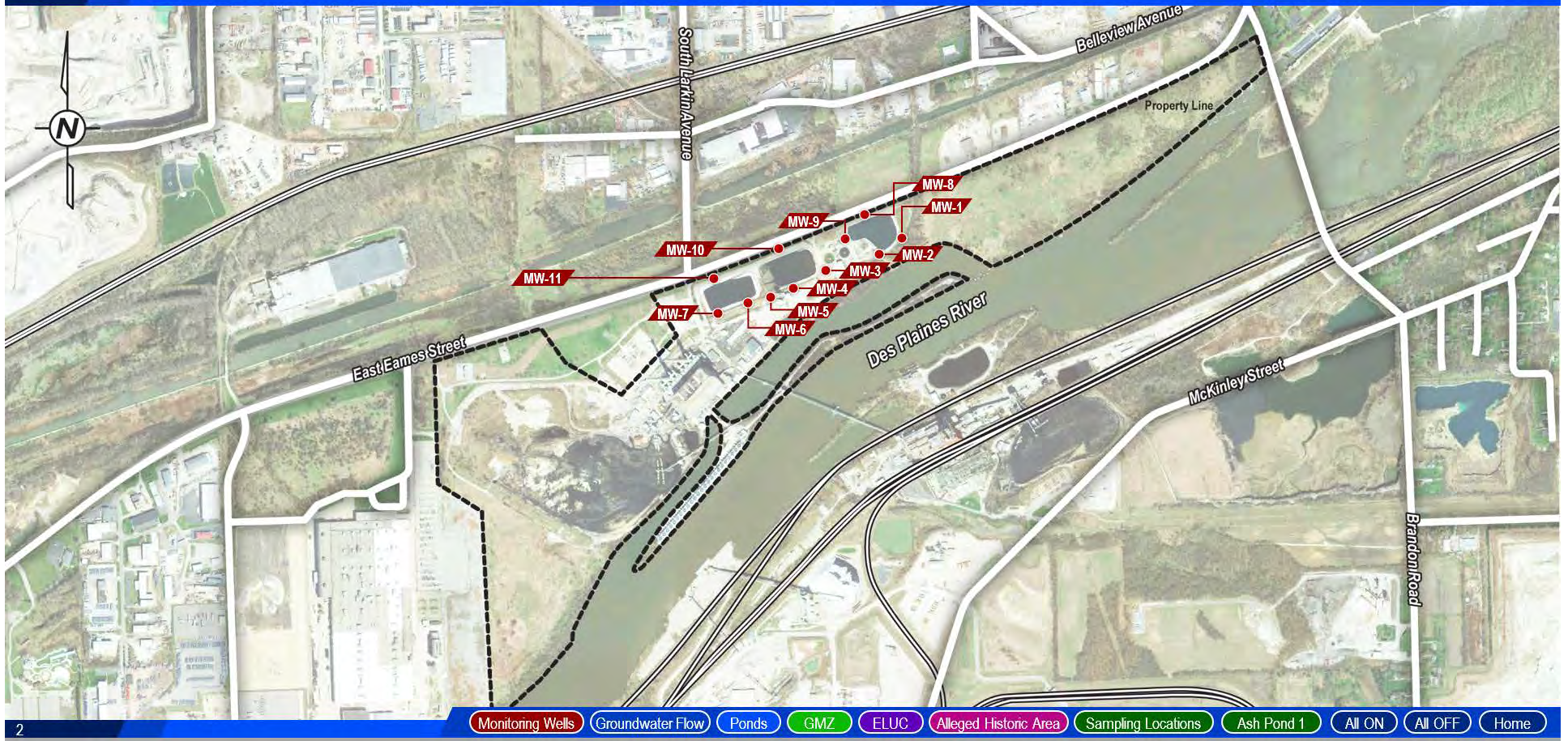
and that true copies were emailed on October 23, 2017 to the parties listed on the foregoing Service List.

/s/ Jennifer T. Nijman

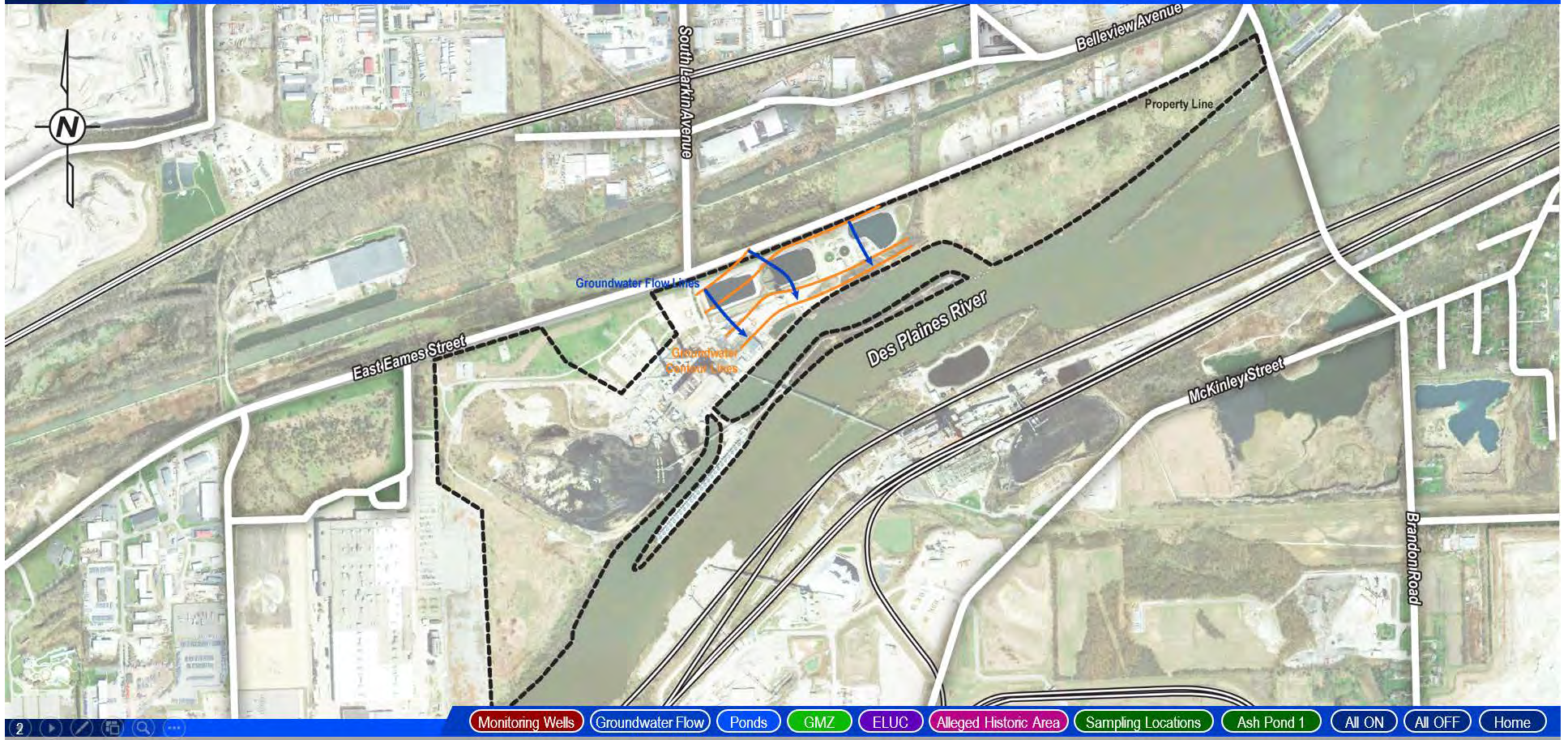
Joliet #29 Generating Station – Joliet, Illinois



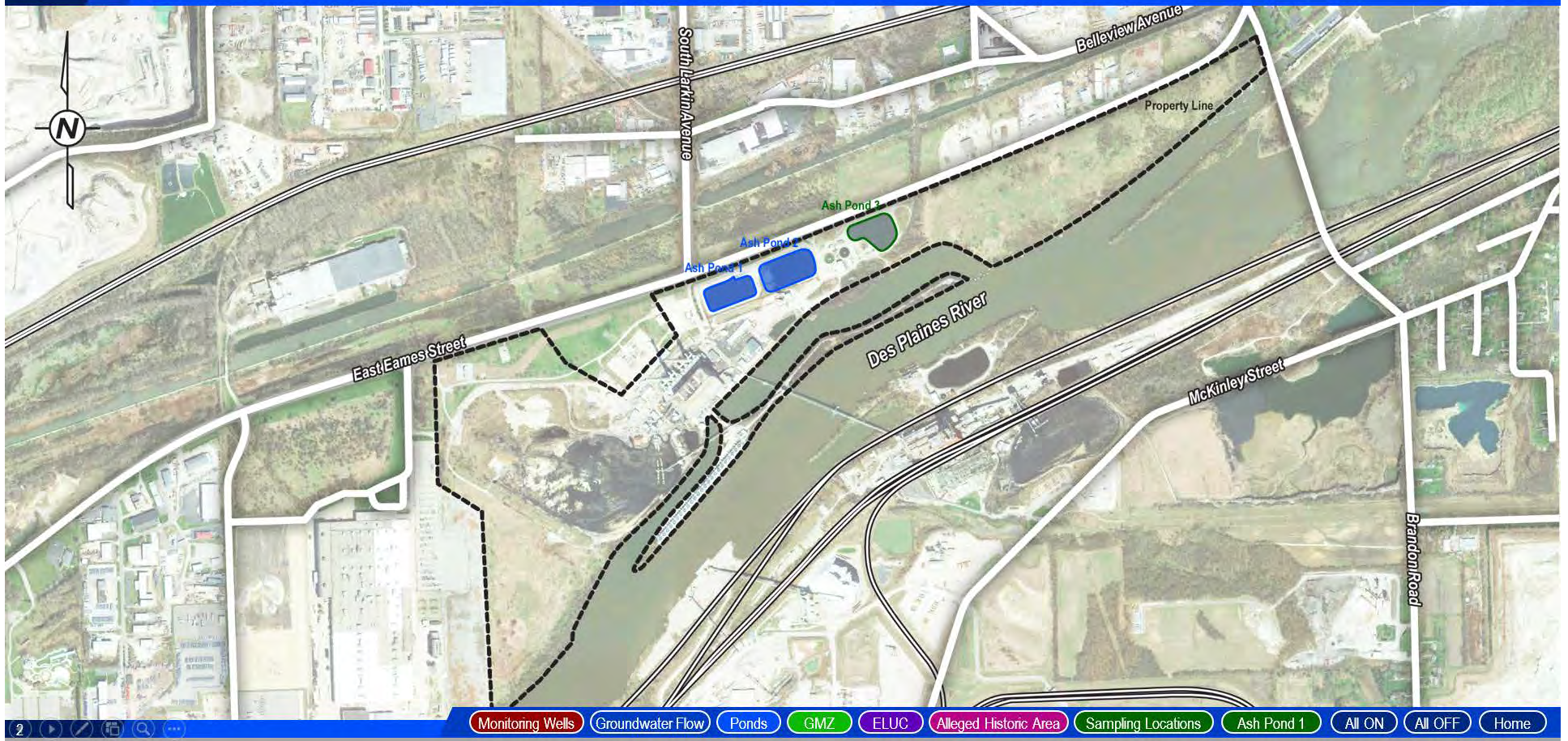
Joliet #29 Generating Station – Joliet, Illinois



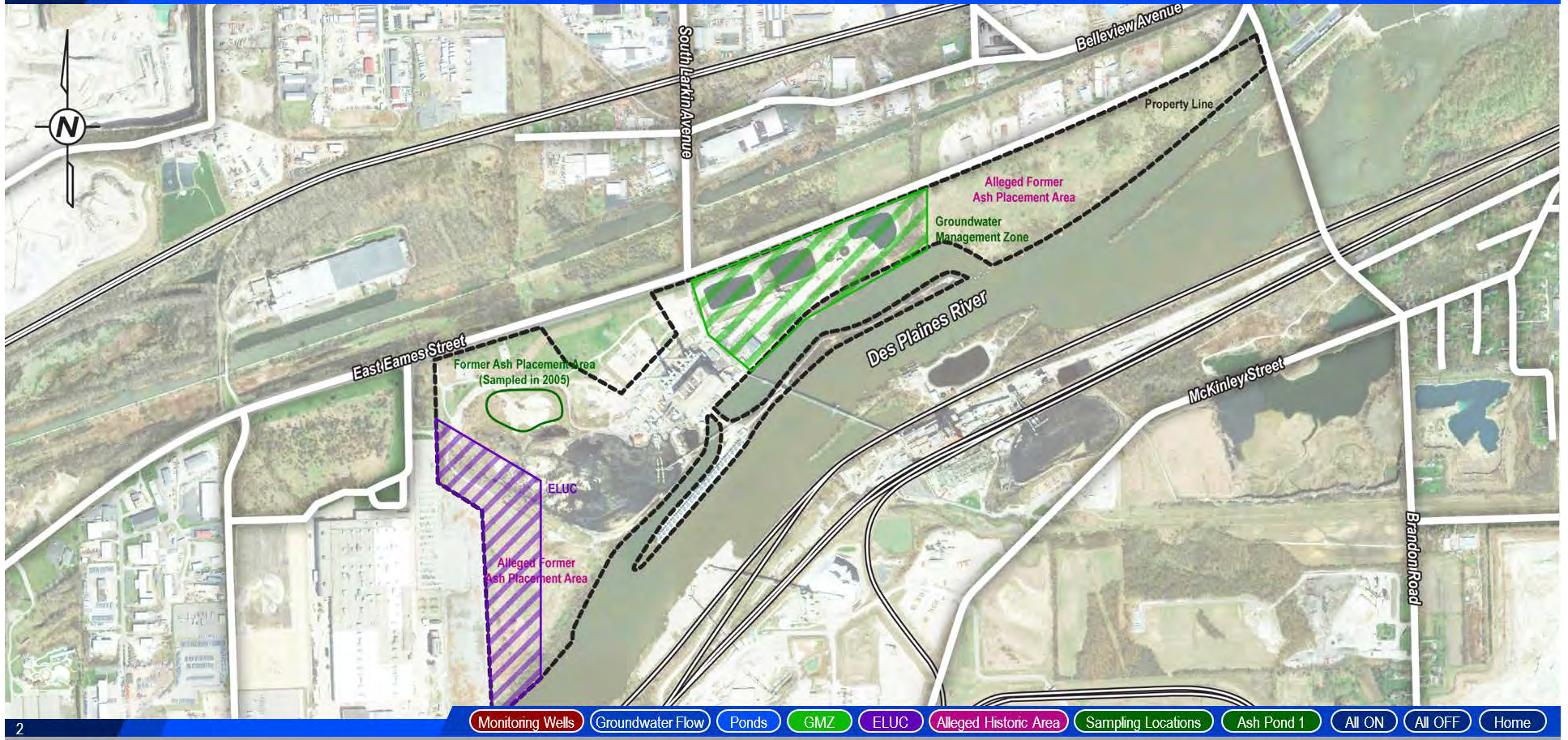
Joliet #29 Generating Station – Joliet, Illinois



Joliet #29 Generating Station – Joliet, Illinois



Joliet #29 Generating Station – Joliet, Illinois



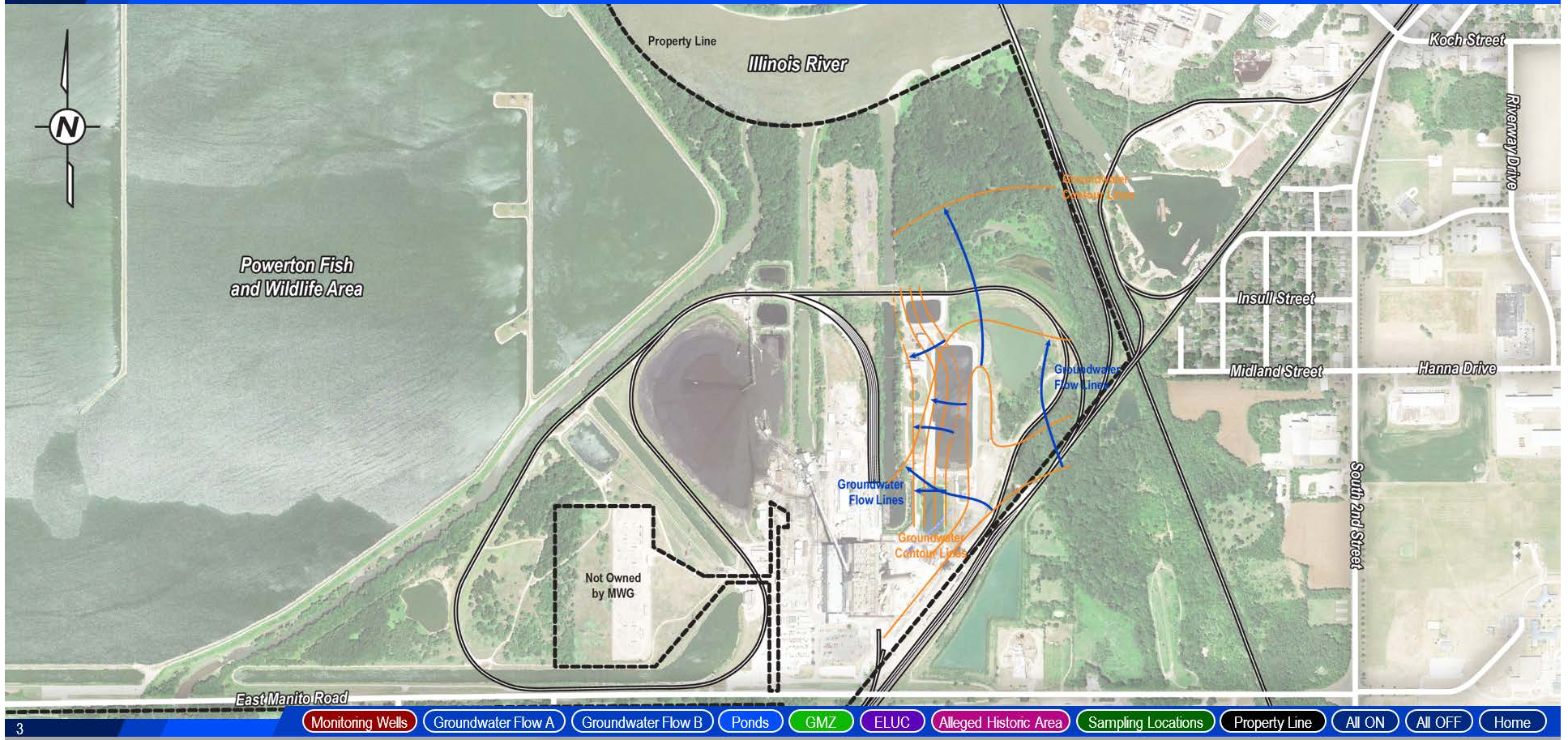
Powerton Station – Pekin, Illinois



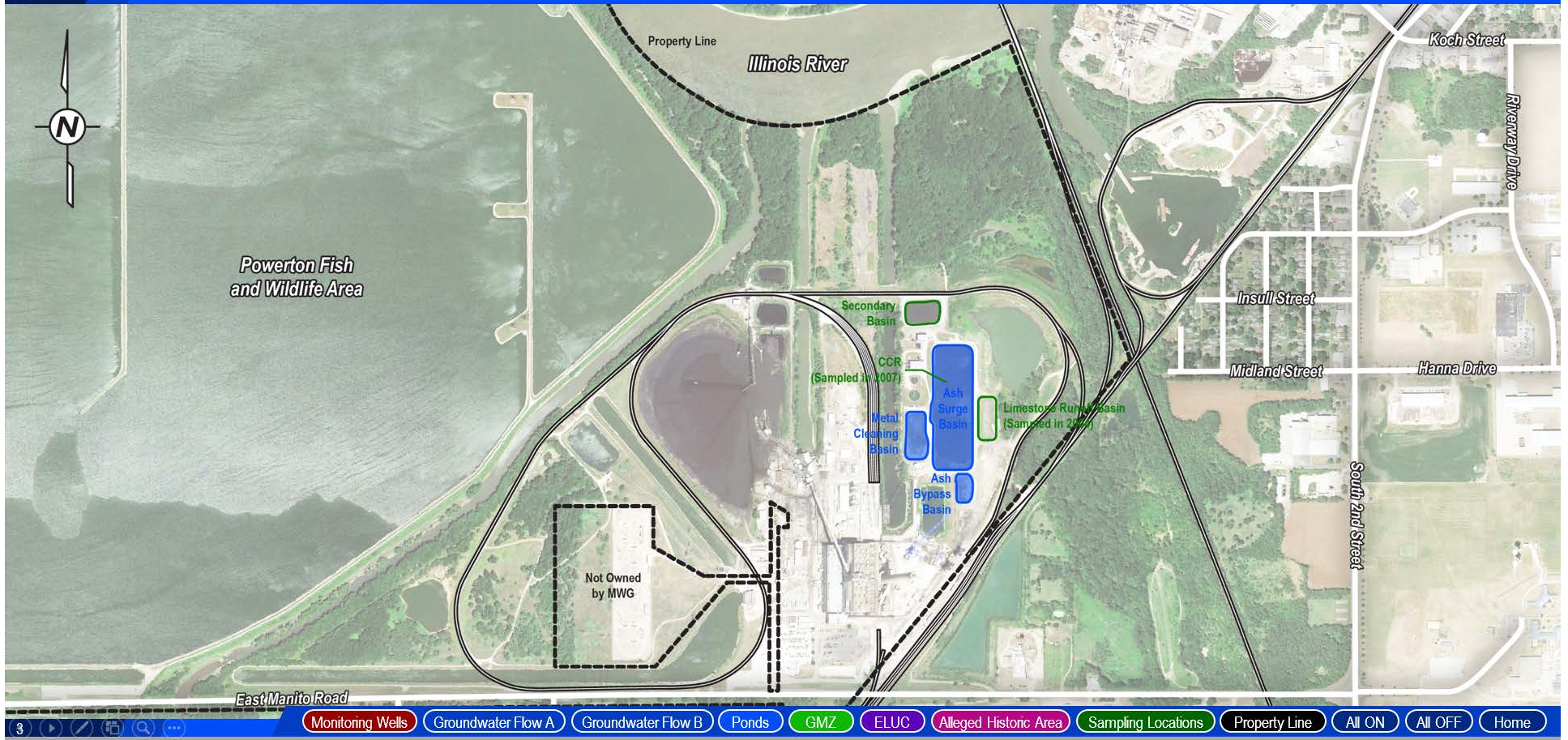
Powerton Station – Pekin, Illinois



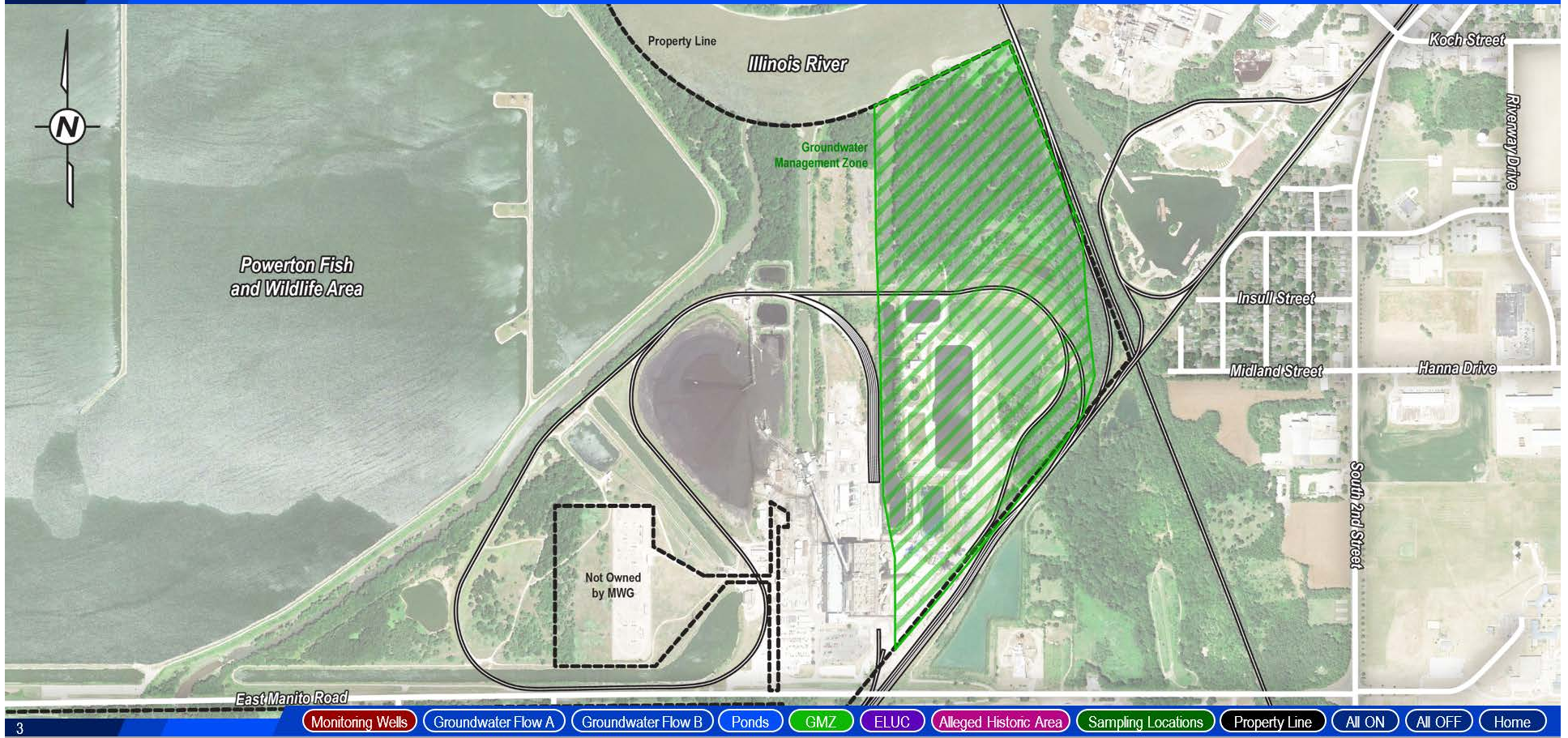
Powerton Station – Pekin, Illinois



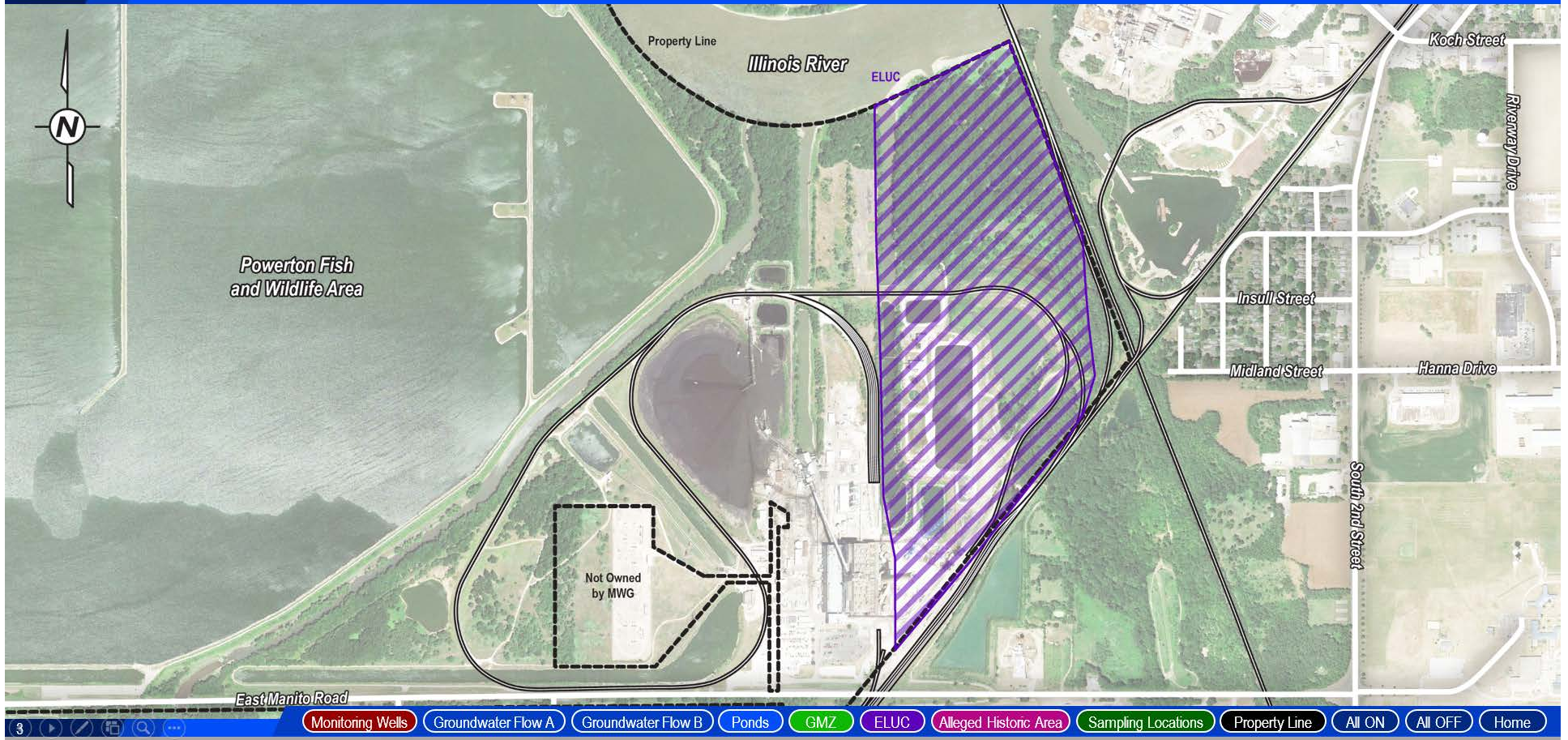
Powerton Station – Pekin, Illinois



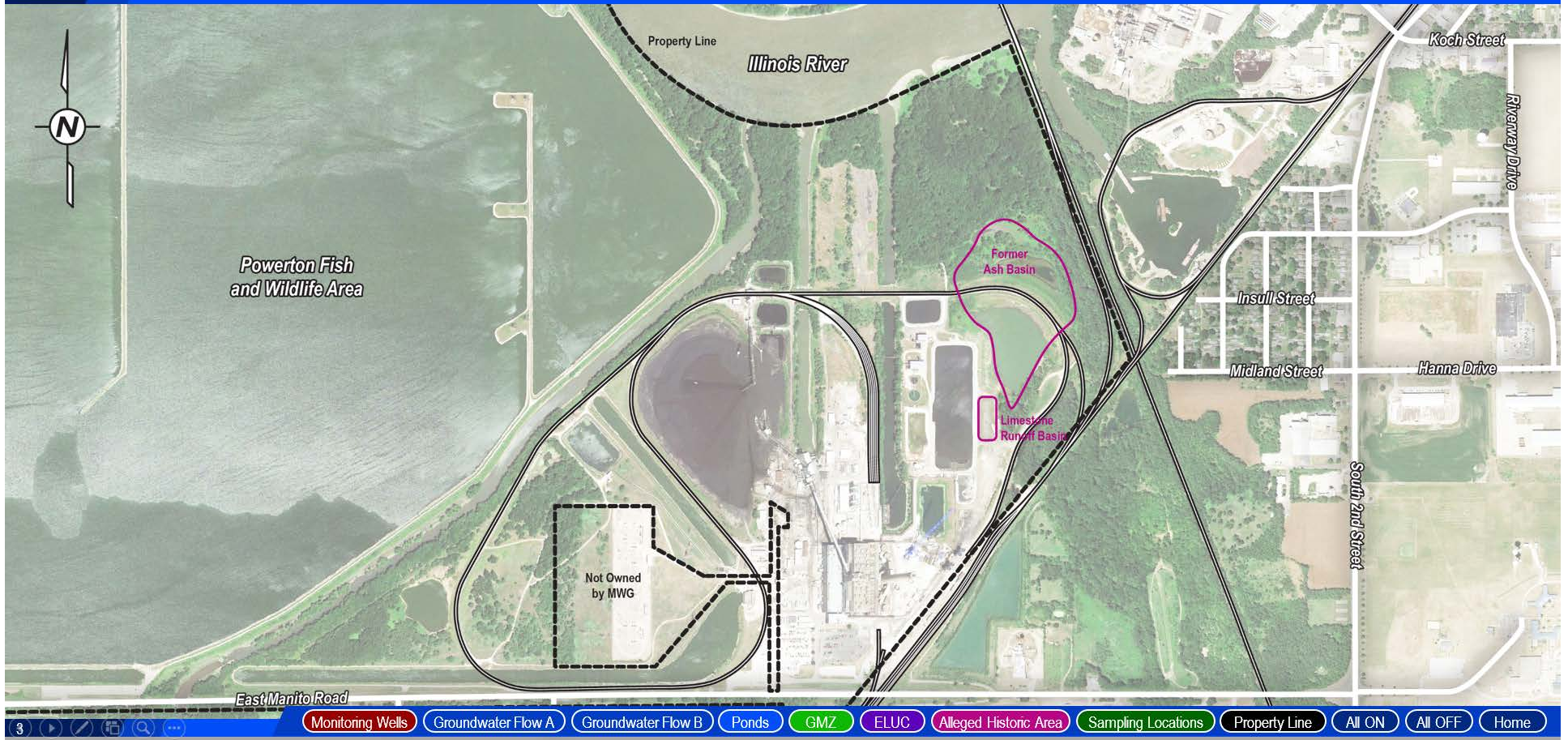
Powerton Station – Pekin, Illinois



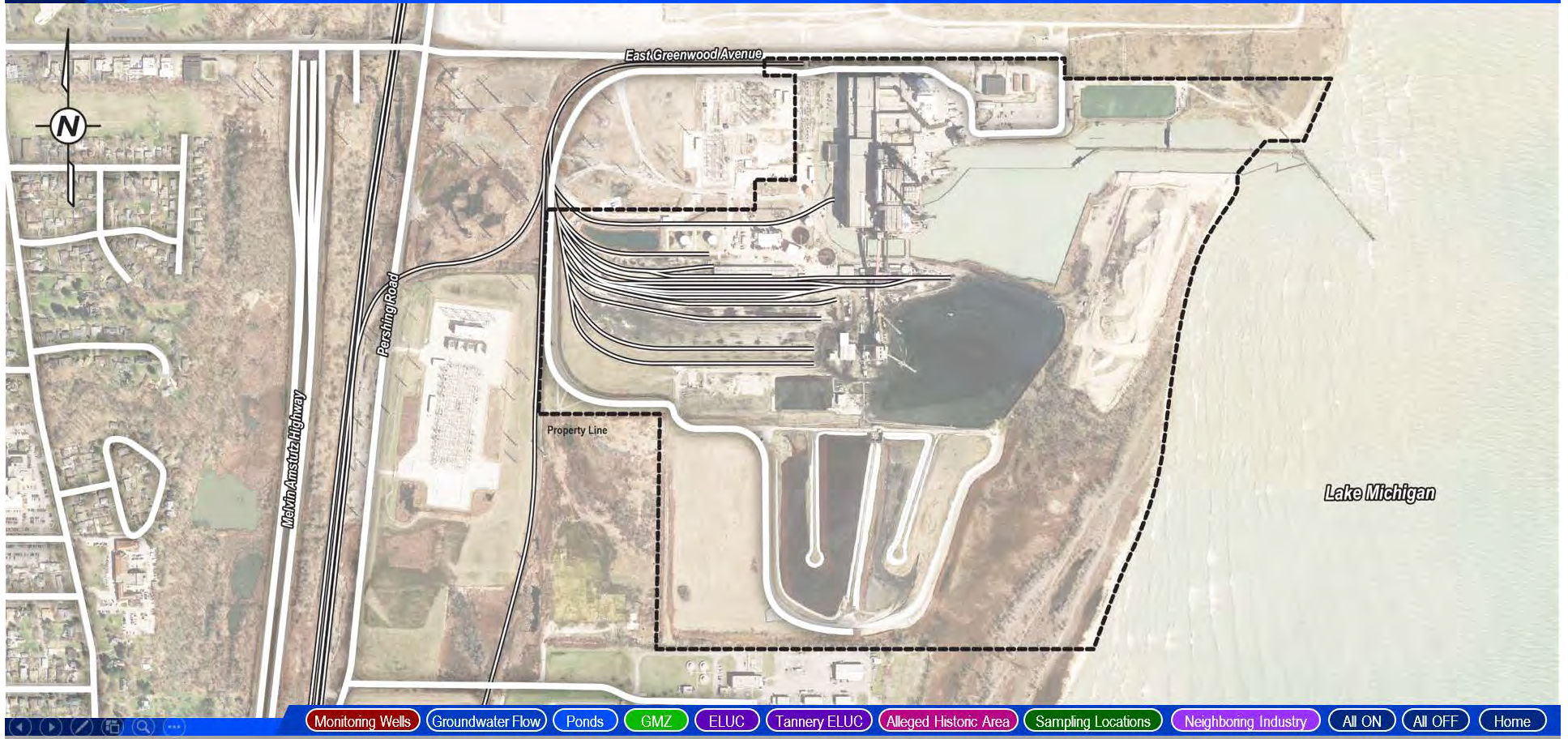
Powerton Station – Pekin, Illinois



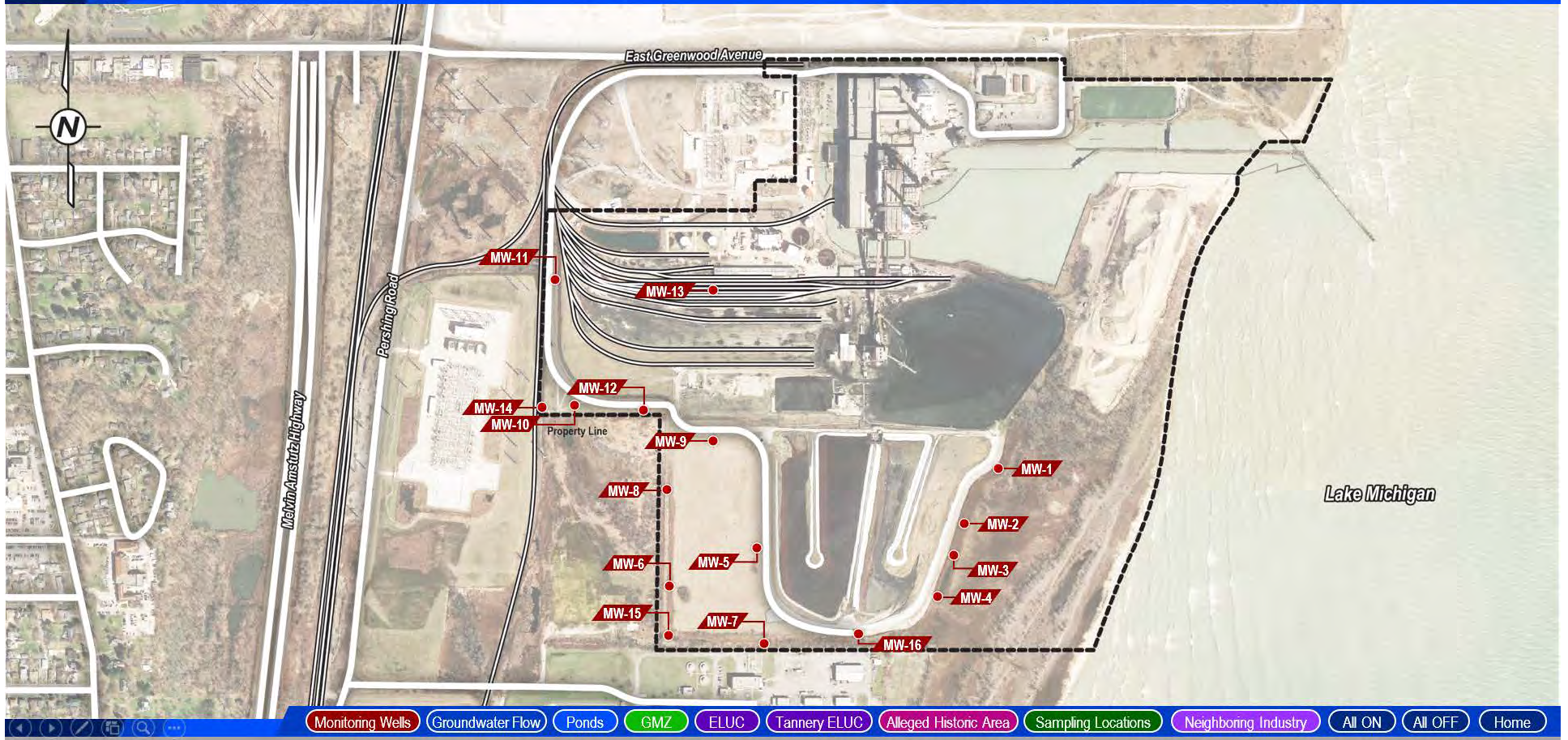
Powerton Station – Pekin, Illinois



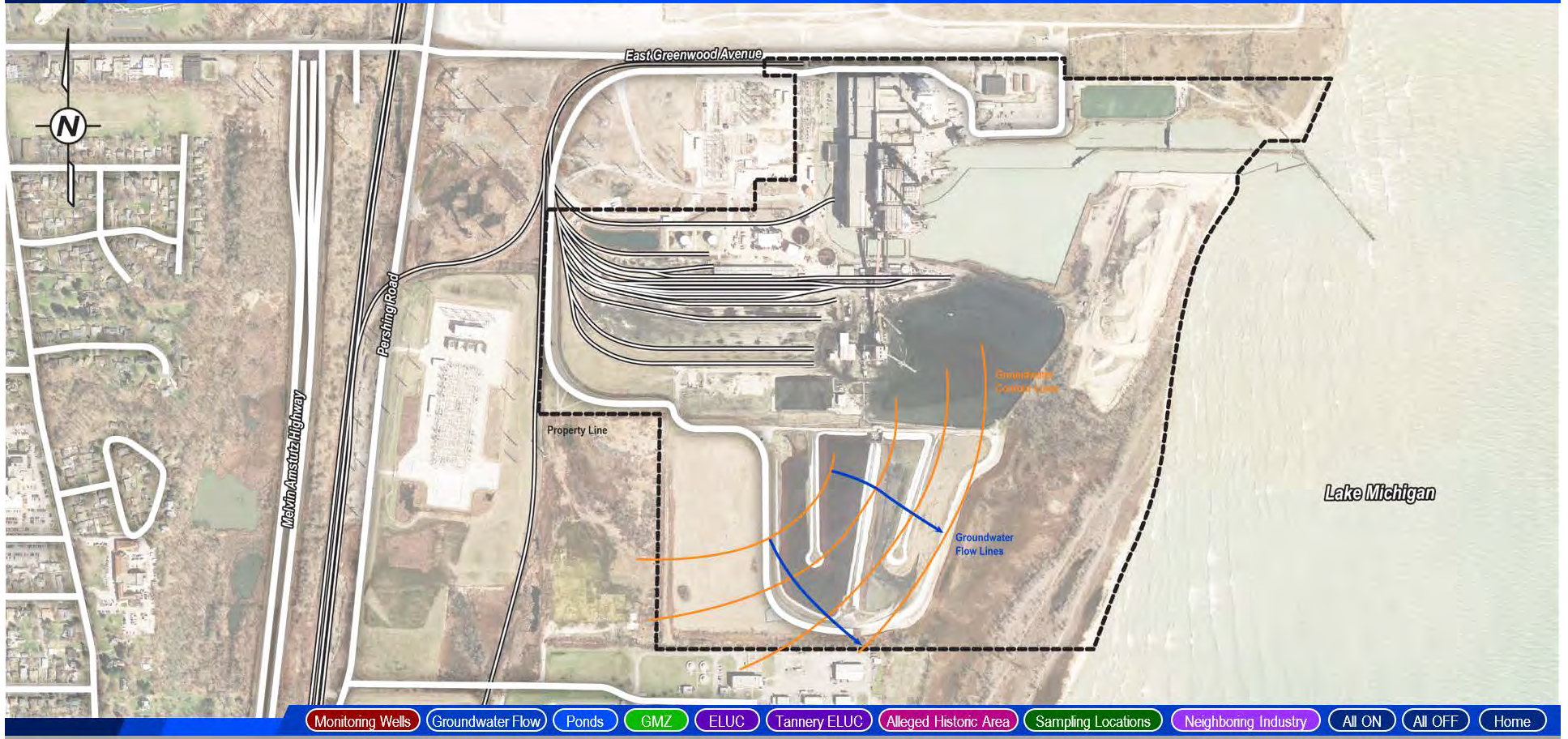
Waukegan Station – Waukegan, Illinois



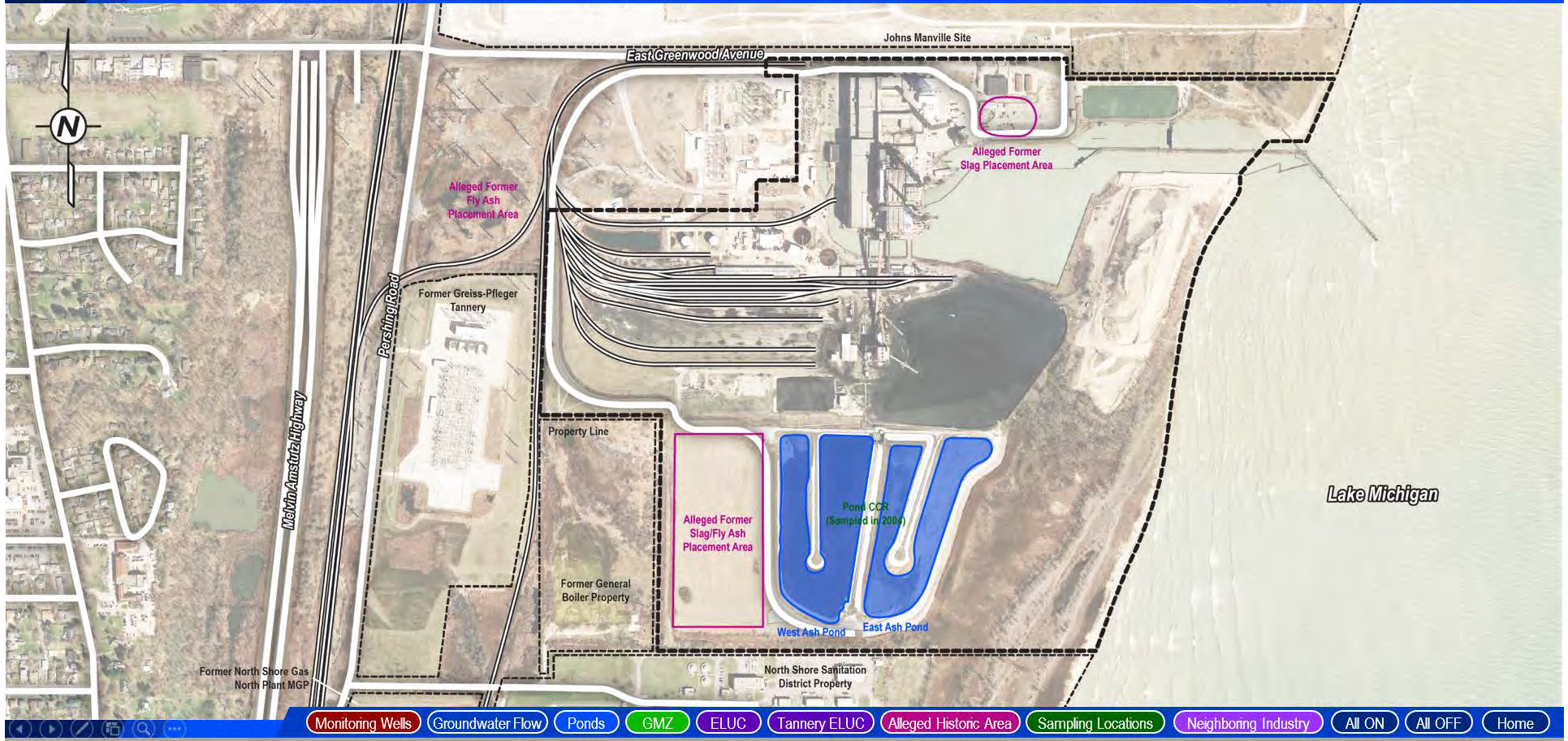
Waukegan Station – Waukegan, Illinois



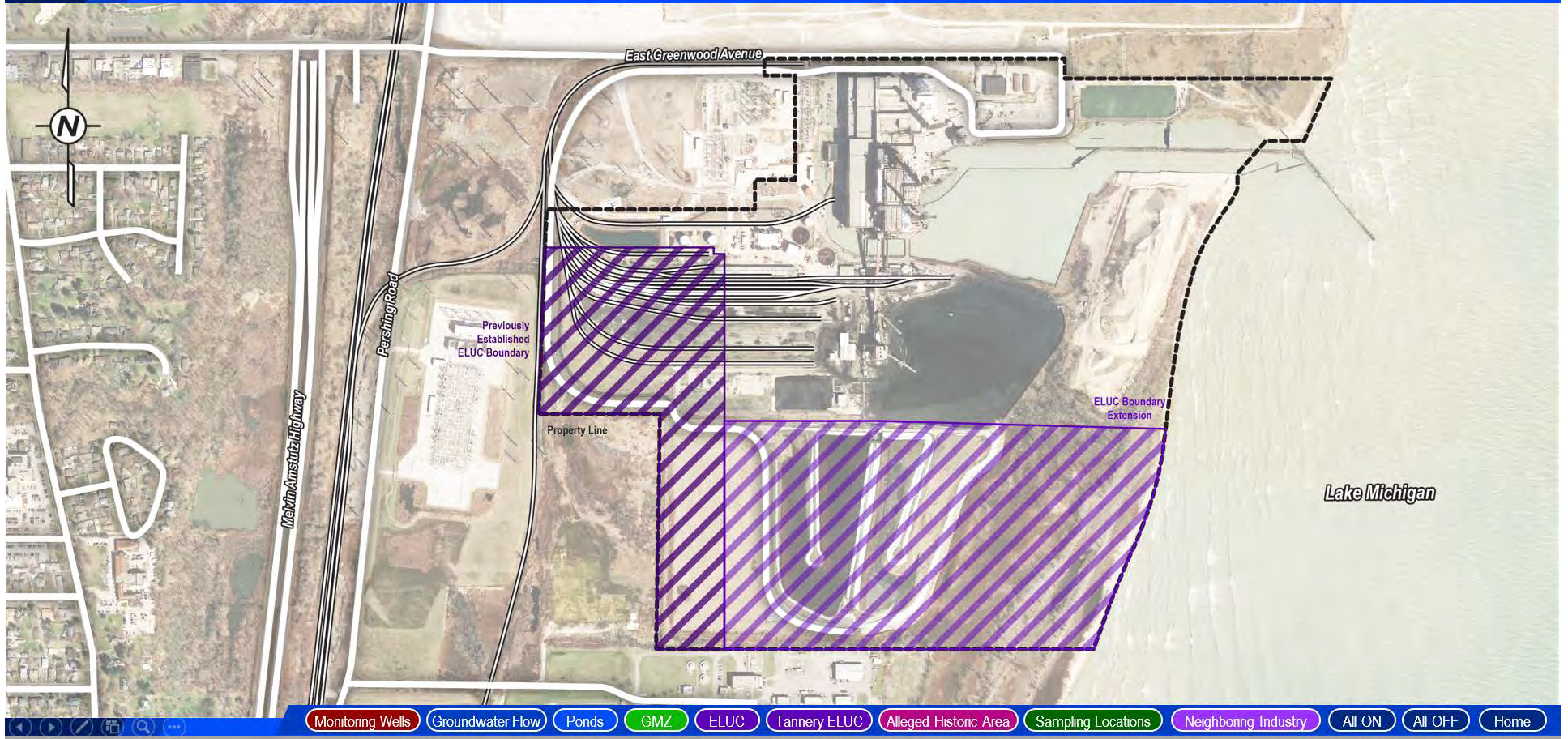
Waukegan Station – Waukegan, Illinois



Waukegan Station – Waukegan, Illinois



Waukegan Station – Waukegan, Illinois



Will County Station – Romeoville, Illinois



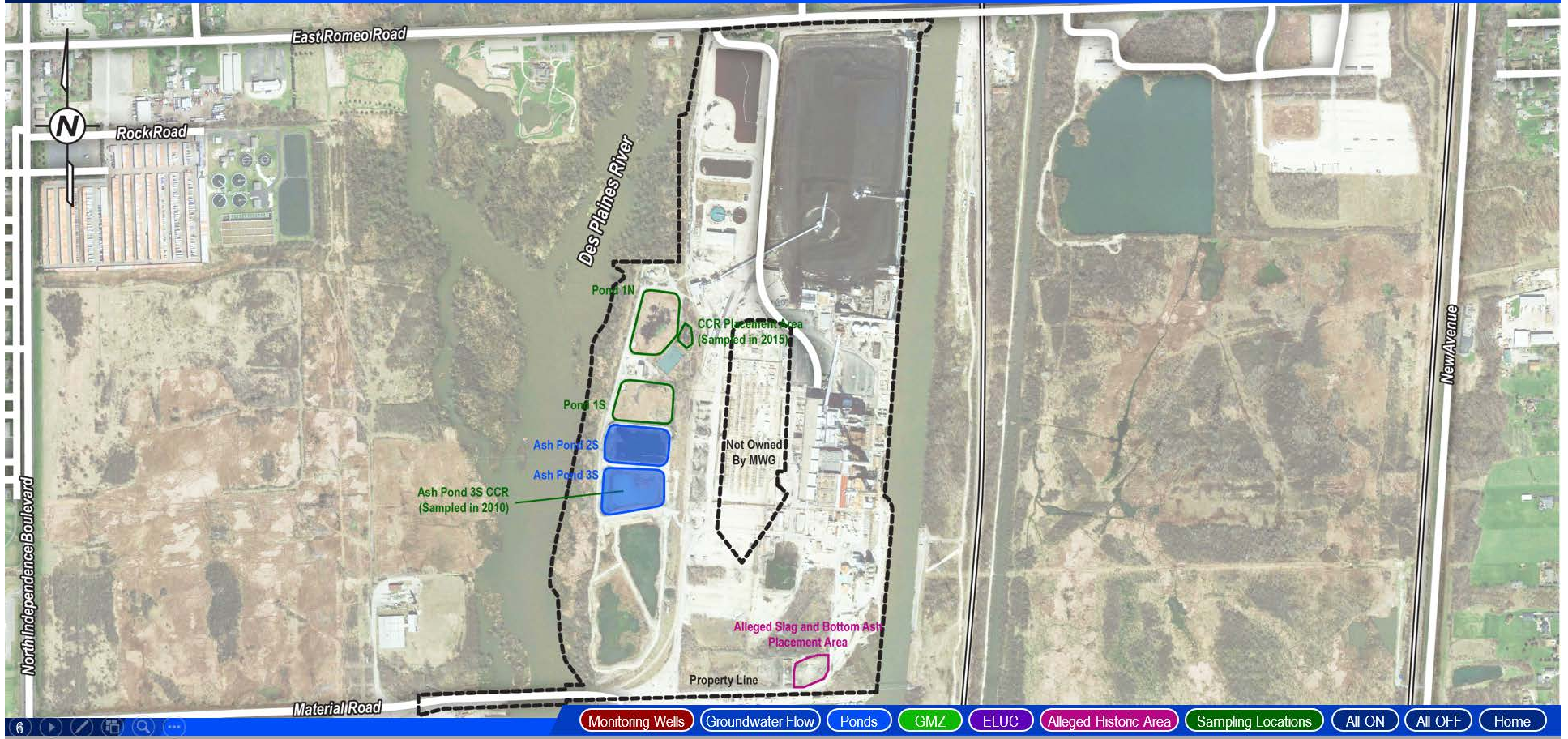
Will County Station – Romeoville, Illinois



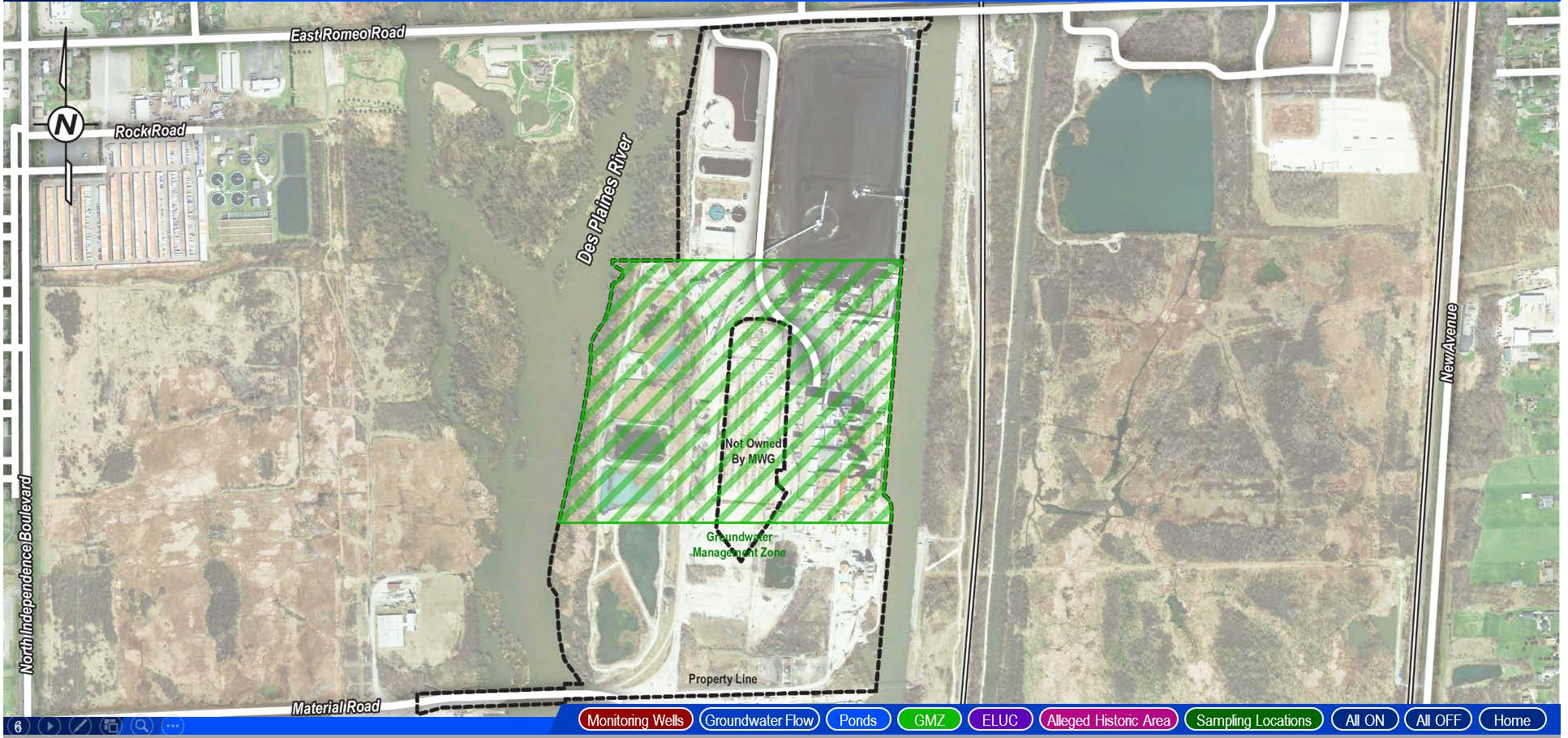
Will County Station – Romeoville, Illinois



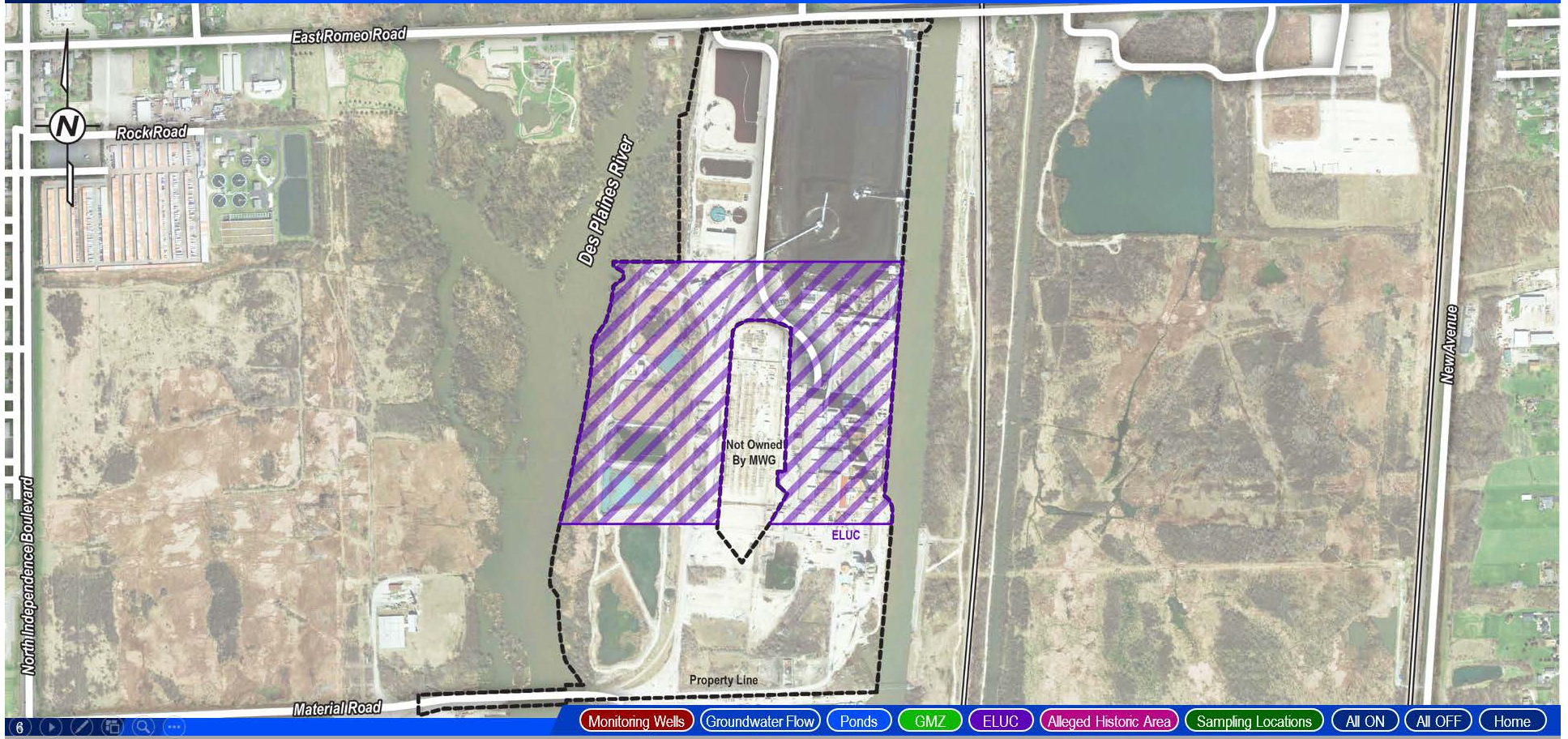
Will County Station – Romeoville, Illinois



Will County Station – Romeoville, Illinois



Will County Station – Romeoville, Illinois



Joliet #29 Timeline of Events

1964 – 1965

Joliet #29 Station constructed and begins operations

1978

Joliet #29 ponds 1, 2, and 3 constructed with Poz-O-Pac liner



1999

MWG begins operations at all Stations

2001

Maria Race begins work at MWG

2002 – 2005

MWG begins review of ash ponds at its Stations

- Locates historic drawings
- Conducts internal planning
- Retains consultants (NRT and KPRG)
- Site visits and reviews

Dec 21, 2005

NRT prepares evaluation and ranking of ash ponds with a timeframe to reline ponds

Oct 13, 2005

KPRG report of geotechnical analysis to assess soils around ponds

Summer 2005

MWG completes "pond characterizations"

Jul 25, 2005

MWG samples coal ash at Joliet #29; Finds coal ash qualifies as CCB

Joliet #29 Timeline of Events

Jan 2006

MWG begins process of relining ponds, including budgeting for capital for work

Oct 2006

MGW receives refined prioritizations and estimation of costs for relining ash ponds

Nov 2006

Second refinement to impoundment liner upgrade priority and liner system options and costs

Jun 21, 2007

MWG applies for construction permit to reline Ponds 1 and 2

Jul 20, 2007

IEPA grants MWG application for construction permit to reline Ponds 1 and 2

2008

MWG conducts RFP process for relining

May 2008

Joliet #29 Pond 2 relined with HDPE

Dec 2008

TVA coal ash spill

Oct 2008

Joliet #29 Pond 1 relined with HDPE

Apr – May 2009

IEPA asks Illinois coal fired power plants to install groundwater monitoring around ash ponds; MWG agrees (others do not)

Jul 2009

MWG responds to IEPA request for groundwater monitoring, includes a preliminary hydrogeological assessment of the stations and a potable water survey and assessment; no risk to potable wells

2006

2007

2008

2009

Joliet #29 Timeline of Events

Jan 2010

USEPA announces intent to propose regulation of CCR as a hazardous waste

Jan 27, 2010

MWG asks NRT to hold work on liner permit applications because of new USEPA regulations

May 2010

USEPA issues Questionnaire for Steam **Electric Power Generating Effluent** ("ICR") to coal fired power plants in U.S.

May 27, 2010

MWG grants Caterpillar ELUC on western side of Joliet #29

Jun 21, 2010

USEPA formally proposes regulations under RCRA related to CCR management

Aug 2010

MWG receives consultant proposals for hydrogeologic assessment

Sep 2010

MWG submits Hydrogeologic Assessment Plans to IEPA

Sep 24, 2010

IEPA approves MGW Hydrogeologic Assessment Plans

Oct 2010

MWG responds to USEPA ICR request

Dec 2010

MWG conducts first groundwater sampling at all stations

2010

Joliet #29 Timeline of Events

Feb 2011

MGW submits Hydrogeologic Assessment Reports to IEPA

Dec 7, 2012

MGW files for bankruptcy

Nov 2012

MGW begins process of completing all tasks in the four CCAs

Oct 24, 2012

IEPA accepts all four Compliance Commitment Agreements to resolve VNs

Oct 3, 2012

Sierra Club files this lawsuit

Jul 27, 2012 – Aug 2012

MGW submits VN responses to IEPA

Jun 2012

IEPA issues violation notices (VN) to MGW

MGW conducts quarterly groundwater sampling of all Stations

2011

2012

Joliet #29 Timeline of Events

Jan 11, 2013

MWG applies for construction permit to reline Pond 3

Feb 25, 2013

IEPA grants MWG permit to construct liner in Pond 3

Aug 8, 2013

[Link](#)

IEPA approves Joliet #29 GMZ

Oct 3, 2013

Joliet #29 Ash Pond 3 relined with HDPE

Oct 2013

Maria Race certifies CCAs completed

Mar 2014

NRG purchases MWG out of bankruptcy

Oct 2, 2015

Ash Pond 1 at Joliet #29 emptied of all coal ash

Jul 2015

MWG samples influent water; Pond 3 not an ash pond

Apr 17, 2015

Coal Combustion Residual Rule published in Federal Register

Dec 19, 2014

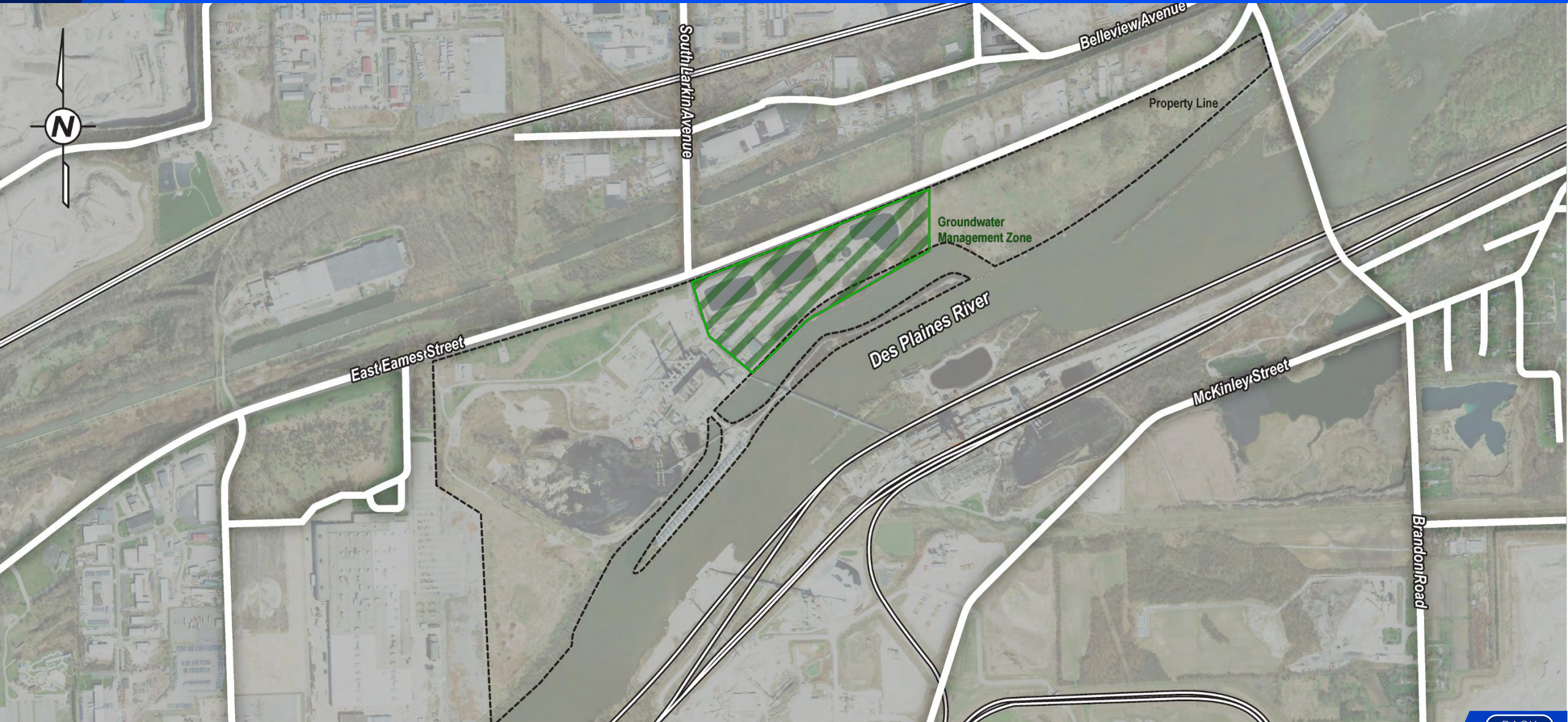
USEPA issues final Coal Combustion Residual Rule

2013

2014

2015

Joliet #29 – GMZ



Joliet #29 Timeline of Events

Jan 2016

MWG conducts first Annual Inspection of ash ponds at Stations pursuant to Federal CCR rules

Mar 2016

Joliet #29 ceases burning coal

May 2016

Joliet #29 begins generating power with natural gas

Oct 2016

MWG completes various reports pursuant to Federal CCR rules

Apr 2017

MWG completes Emergency Action Plans for the Stations pursuant to Federal CCR rules

Summer 2018

Joliet #29 will empty Ash Pond 2

2016

2017

2018

Powerton Timeline of Events

Late 1920s

Powerton Station begins operations with Units 1-4

1973

Unit 6 at Powerton brought on line

1978

Powerton Ash Surge Basin and Metal Cleaning Basin constructed with Poz-O-Pac liner



1971

Unit 5 at Powerton brought on line

Early 1970s

Powerton Units 1-4 are retired

1920s

1930s

1940s

1950s

1960s

1970s

1980s

1990s

Powerton Timeline of Events

1999

MWG begins operating all Stations

2001

Maria Race begins work at MWG

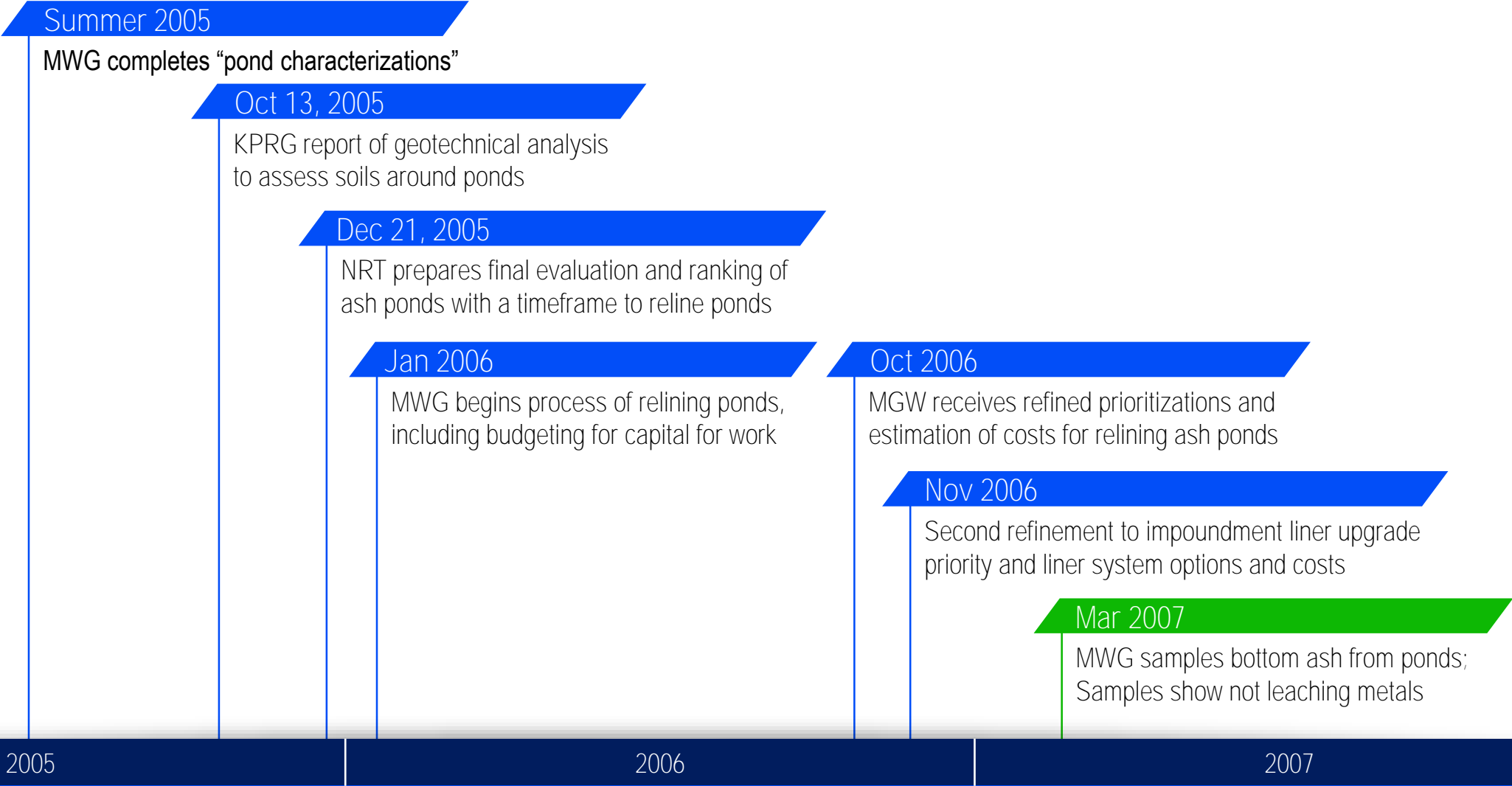
2002 – 2005

- MWG begins review of ash ponds at its Stations
- Locates historic drawings
 - Conducts internal planning
 - Retains consultants (NRT and KPRG)
 - Site visits and reviews

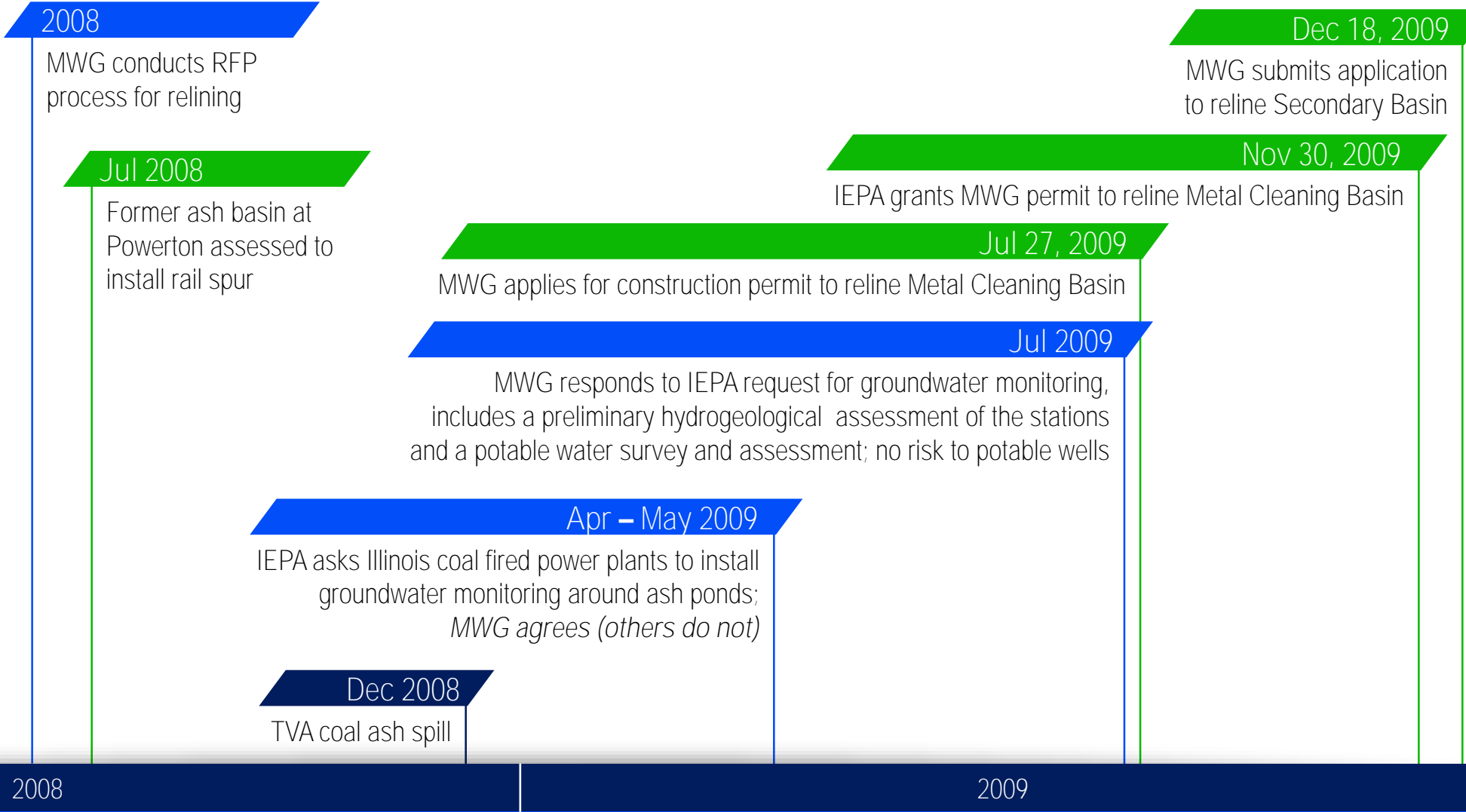
May 2004

MWG samples coal ash from basin area and bottom ash from Powerton Station; Sample results show past historic materials and bottom ash qualifies as CCB

Powerton Timeline of Events



Powerton Timeline of Events



Powerton Timeline of Events

Jan 2010

USEPA announces intent to propose regulation of CCR as a hazardous waste

May 2010

USEPA issues Questionnaire for Steam **Electric Power Generating Effluent** ("ICR") to coal fired power plants in U.S.

Sep 2010

MWG submits Hydrogeologic Assessment Plans to IEPA

Jan 27, 2010

MWG asks NRT to hold work on liner permit applications because of new USEPA regulations

Jun 21, 2010

USEPA formally proposes regulations under RCRA related to CCR management

Sep 15, 2010

IEPA grants MWG construction permit to reline Bypass Basin

Sep 24, 2010

IEPA approves MGW Hydrogeologic Assessment Plans

Apr 2, 2010

IEPA grants construction permit to reline Secondary Basin

Jun 30, 2010

MWG applies for construction permit to reline Bypass Basin

Oct 2010

MWG responds to USEPA ICR request

Dec 2010

MWG conducts first groundwater sampling at all stations

Aug 2010

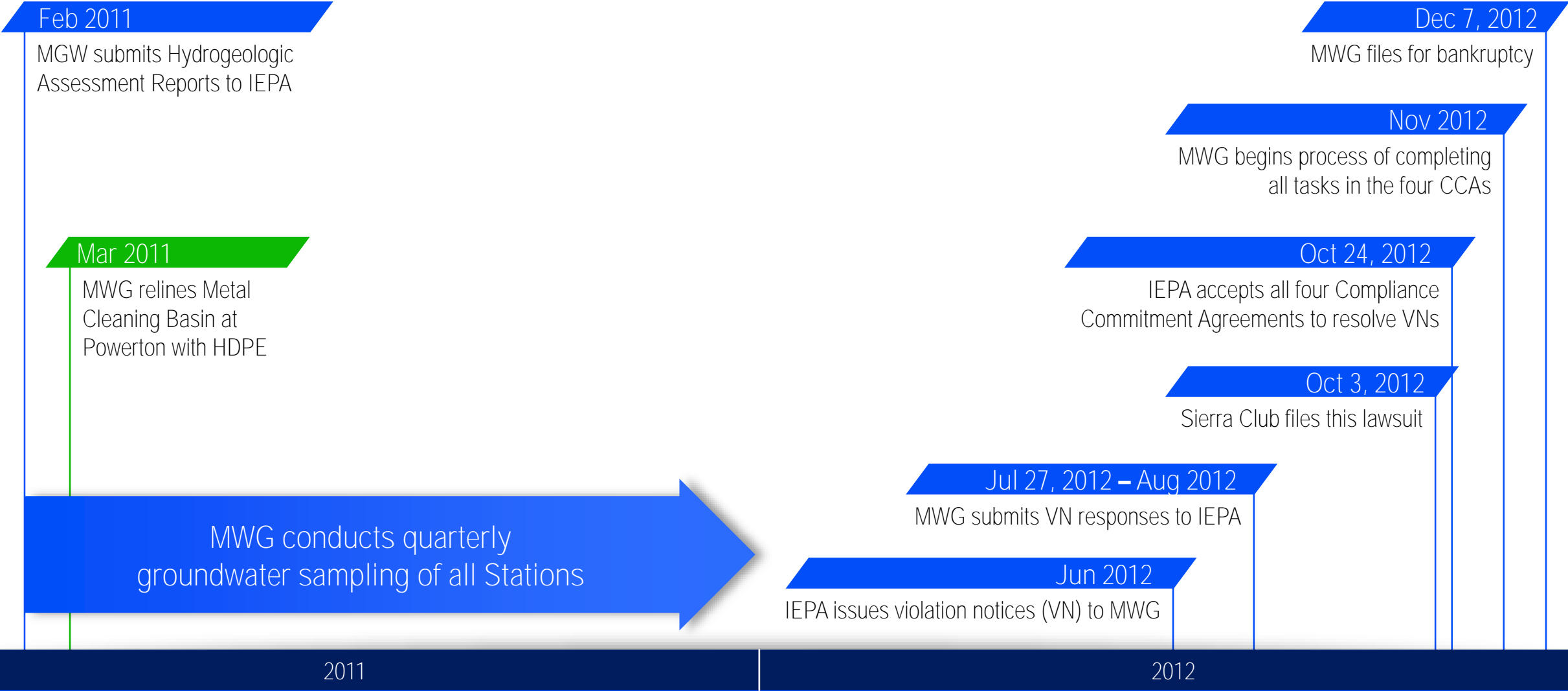
MWG receives consultant proposals for hydrogeologic assessment

Dec 2010

MWG relines Bypass Basin at Powerton with HDPE

2010

Powerton Timeline of Events



Powerton Timeline of Events

Jan 7, 2013

MWG applies for construction permit to reline Ash Surge Basin

Feb 25, 2013

IEPA grants MWG permit to reline Ash Surge Basin

Jun 15, 2013

Powerton Secondary Basin relined with HDPE

Aug 26, 2013

[Link](#)

IEPA approves Powerton ELUC

Oct 3, 2013

[Link](#)

IEPA approves Powerton GMZ

Oct 10, 2013

[Link](#)

Powerton Ash Surge Basin relined with HDPE

Oct 2013

Maria Race certifies CCAs completed

Mar 2014

NRG purchases MWG out of bankruptcy

Dec 2015

MWG posts, pursuant to Federal CCR rules, notification of closure of Former Ash Basin at Powerton

Apr 17, 2015

Coal Combustion Residual Rule published in Federal Register

Dec 19, 2014

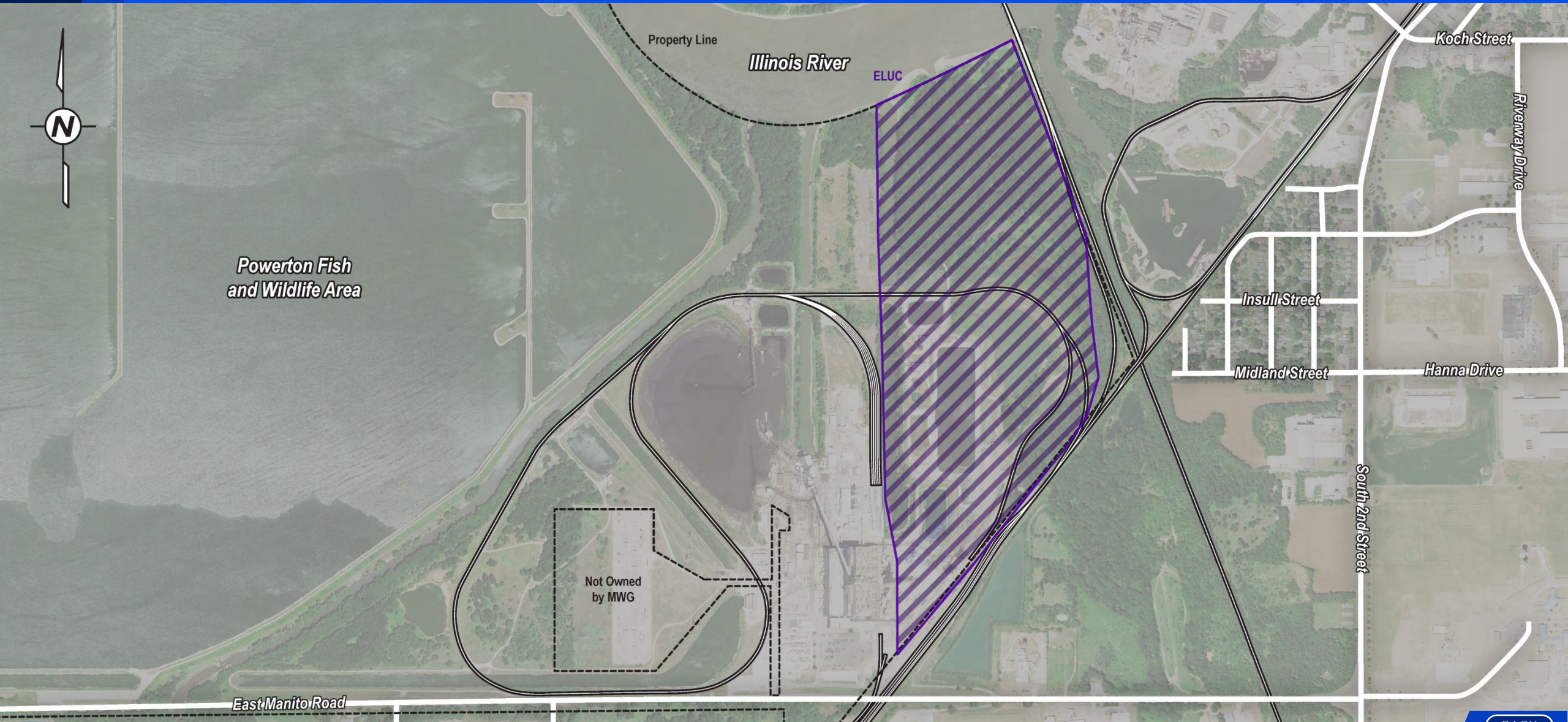
USEPA issues final Coal Combustion Residual Rule

2013

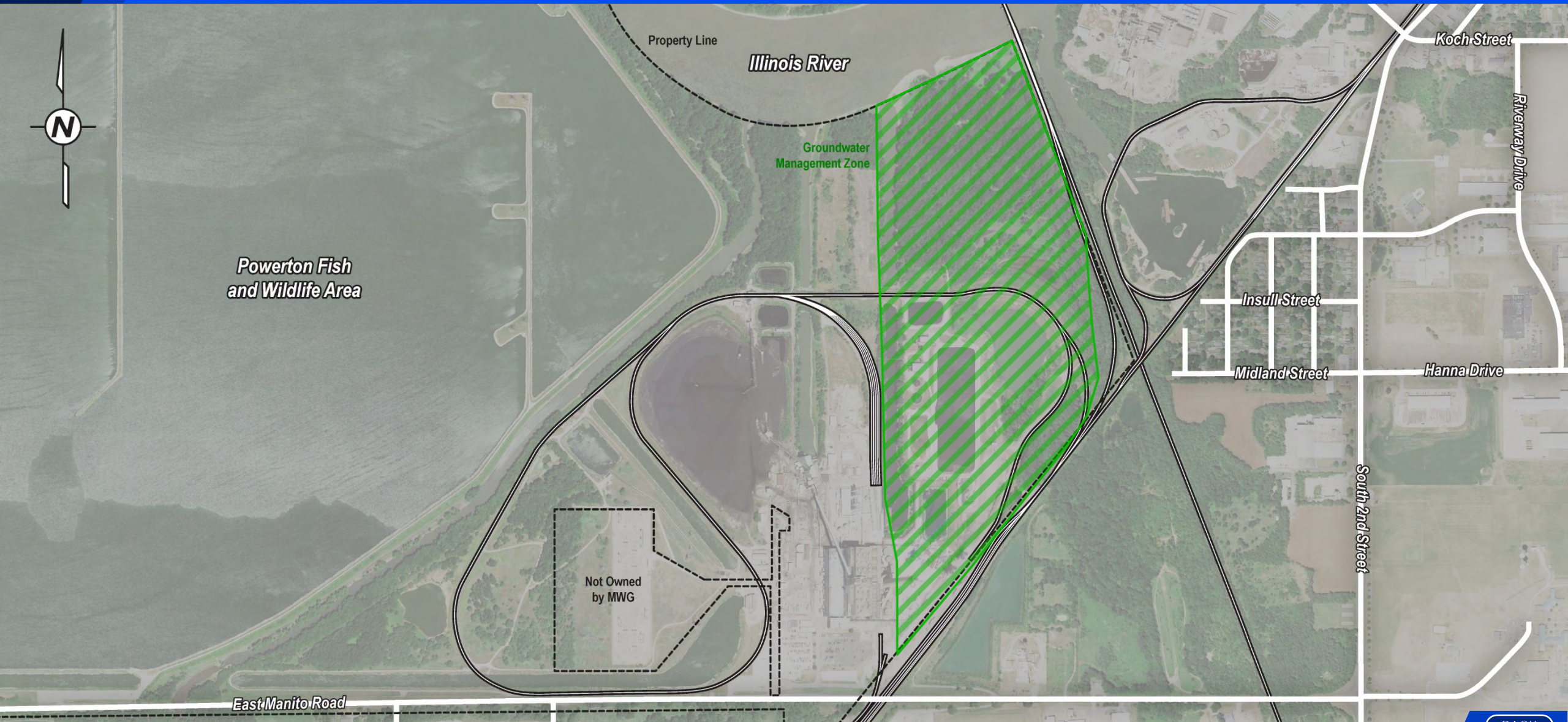
2014

2015

Powerton Station – ELUC



Powerton Station – GMZ



Panoramic View of Entire Basin From Northeast Corner, Facing Southwest



Powerton Timeline of Events

Jan 2016

MWG conducts first Annual Inspection of ash ponds at stations pursuant to Federal CCR rules

Oct 2016

MWG completes various reports pursuant to Federal CCR rules

Apr 2017

MWG completes Emergency Action Plans for the stations pursuant to Federal CCR rules

2016

2017

Waukegan Timeline of Events

1923

Waukegan Station first constructed and begins operations – Units 1 through 5 in service

1952

Unit 6 at Waukegan brought on line

1958

Unit 7 at Waukegan brought on line

1962

Unit 8 at Waukegan brought on line

1920s

1950s

1960s

1970s

1980s

Waukegan Timeline of Events

Late 1970s

Units 1 through 5 at Waukegan are retired

1977

Waukegan East and West ponds constructed with Hypalon liner

1992 – 2002

- Extensive investigation of former Greiss-Pfleger Tannery site, including U.S. Radiator Co. (a.k.a., General Boiler)
- Finds elevated levels of arsenic, chromium, magnesium, and lead

1970s

1980s

1990

1991

1992

1993

1994

1995

1996

1997

Waukegan Timeline of Events

1999

MWG begins operating all Stations

2001

Maria Race begins work at MWG

2002 – 2005

- MWG begins review of ash ponds at its Stations
- Locates historic drawings
 - Conducts internal planning
 - Retains consultants (NRT and KPRG)
 - Site visits and reviews

1998

1999

2000

2001

2002

Waukegan Timeline of Events

Jun 23, 2003

[Link](#)

ELUC established on the **western side of MWG's** property due to environmental impacts from neighboring sites

Nov 2004

MGW relines Waukegan West Ash Pond with HDPE liner

Sep 2003

MWG relines Waukegan East Ash pond with HDPE liner

Jul 22, 2004

Sampling of Waukegan bottom ash. Sample results show ash qualifies for CCB

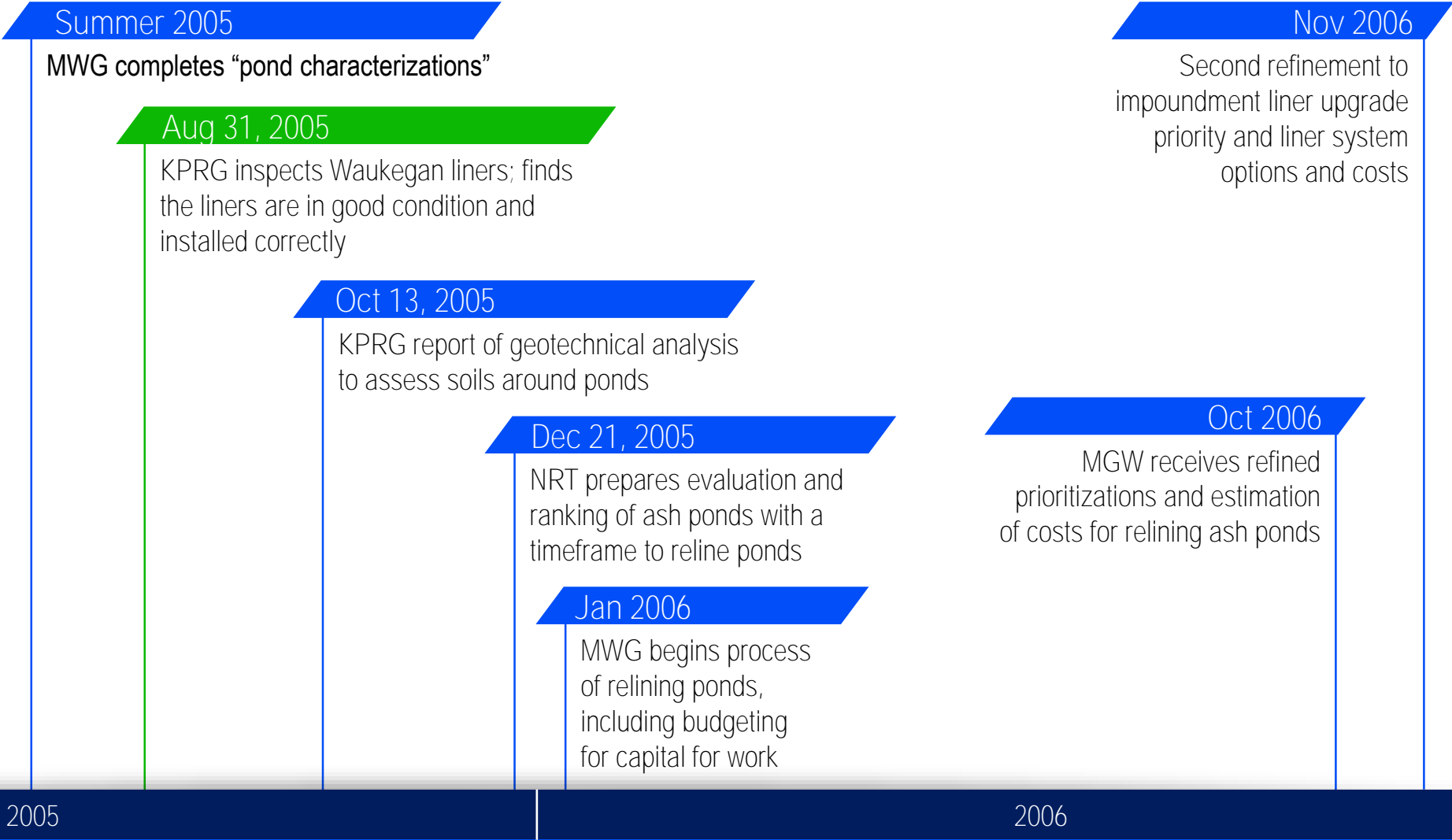
2003

2004

Waukegan Station – Tannery/U.S. Radiator ELUC



Waukegan Timeline of Events



Waukegan Timeline of Events

Dec 2007

Waukegan Unit 6 retired

Jul 2009

MWG responds to IEPA request for groundwater monitoring, includes a preliminary hydrogeological assessment of the stations and a potable water survey and assessment; no risk to potable wells

Apr – May 2009

IEPA asks Illinois coal fired power plants to install groundwater monitoring around ash ponds; *MWG agrees (others do not)*

2008

MWG conducts RFP process for relining

Dec 2008

TVA coal ash spill

2007

2008

2009

Waukegan Timeline of Events

Jan 2010

USEPA announces intent to propose regulation of CCR as a hazardous waste

Jan 27, 2010

MWG asks NRT to hold work on liner permit applications because of new USEPA regulations

May 2010

USEPA issues Questionnaire for Steam **Electric Power Generating Effluent ("ICR")** to coal fired power plants in U.S.

Jun 21, 2010

USEPA formally proposes regulations under RCRA related to CCR management

Aug 2010

MWG receives consultant proposals for hydrogeologic assessment

Sep 2010

MWG submits Hydrogeologic Assessment Plans to IEPA

Sep 24, 2010

IEPA approves MGW Hydrogeologic Assessment Plans

Oct 2010

MWG responds to USEPA ICR request

Dec 2010

MWG conducts groundwater sampling at all stations

2010

Waukegan Timeline of Events

Feb 2011

MGW submits Hydrogeologic Assessment Reports to IEPA

Dec 7, 2012

MGW files for bankruptcy

Nov 2012

MGW begins process of completing all tasks in the four CCAs

Oct 24, 2012

IEPA accepts all four Compliance Commitment Agreements to resolve VNs

Oct 3, 2012

Sierra Club files this lawsuit

Jul 27, 2012 – Aug 2012

MGW submits VN responses to IEPA

Jun 2012

IEPA issues violation notices (VN) to MGW

MGW conducts quarterly groundwater sampling of all Stations

2011

2012

Waukegan Timeline of Events

Jul 21, 2013

IEPA testifies at Waukegan NPDES Permit hearing: "Currently, we don't believe the active ash ponds are the source of contamination"

Aug 26, 2013

IEPA approves Waukegan ELUC

Oct 2013

Maria Race certifies CCAs completed

Mar 2014

NRG purchases MWG out of bankruptcy

Dec 19, 2014

USEPA issues final Coal Combustion Residual Rule

Jan 6, 2015

Lynn Dunaway e-mails Jamie Rabins and Bill Buscher, IEPA re Waukegan, stating "...the active ponds...are not the likely source of contaminants in groundwater."

Apr 17, 2015

Coal Combustion Residual Rule published in Federal Register

2013

2014

2015

Waukegan Timeline of Events

Jan 2016

MWG conducts first Annual Inspection of ash ponds at stations pursuant to Federal CCR rules

Oct 2016

MWG completes various reports pursuant to Federal CCR rules

Apr 2017

MWG completes Emergency Action Plans for the stations pursuant to Federal CCR rules

2016

2017

Will County Timeline of Events

1955

Will County begins operations with Units 1 and 2

1957

Unit 3 at Will County starts up

1963

Unit 4 at Will County brought on line

1977

Will County ponds 1N, 1S, 2S, and 3S constructed with Poz-O-Pac liner



1999

MWG begins operating all Stations

1950s

1960s

1970s

1980s

1990s

Will County Timeline of Events

2001

Maria Race begins work at MWG

2002 – 2005

MWG begins review of ash ponds at its Stations

- Locates historic drawings
- Conducts internal planning
- Retains consultants (NRT and KPRG)
- Site visits and reviews

Summer 2005

MWG completes "pond characterizations"

Oct 13, 2005

KPRG report of geotechnical analysis to assess soils around ponds

Dec 21, 2005

NRT prepares evaluation and ranking of ash ponds to MWG with a timeframe to reline ponds

Jan 2006

MWG begins process of relining ponds, including budgeting for capital for work

Nov 2006

Second refinement to impoundment liner upgrade priority and liner system options and costs

Oct 2006

MWG receives refined prioritizations and estimation of costs for relining ash ponds

Will County Timeline of Events

Jul 22, 2008

MWG applies for construction permit to reline Ponds 2S and 3S

Sep 2009

Will County Pond 3S relined with HDPE

Jul 2009

MWG responds to IEPA request for groundwater monitoring, includes a preliminary hydrogeological assessment of the stations and a potable water survey and assessment; no risk to potable wells

Sep 25, 2008

IEPA grants MWG permit to reline Ponds 2S and 3S

Apr – May 2009

IEPA asks Illinois coal fired power plants to install groundwater monitoring around ash ponds; MWG agrees (others do not)

2008

MWG conducts RFP process for relining

Dec 2008

TVA coal ash spill

2007

2008

2009

Will County Timeline of Events

Jan 2010

USEPA intent to propose regulation of CCR as a hazardous waste

Jan 27, 2010

MWG asks NRT to hold work on liner permit applications because of new USEPA regulations

May 2010

USEPA issues Questionnaire for Steam **Electric Power Generating Effluent ("ICR")** to coal fired power plants in U.S.

Jun 21, 2010

USEPA formally proposes regulations under RCRA related to CCR management

Aug 2010

MWG receives consultant proposals for hydrogeologic assessment

Sep 2010

MWG voluntarily submits Hydrogeologic Assessment Plans to IEPA

Sep 24, 2010

IEPA approves MGW Hydrogeologic Assessment Plans

Oct 2010

MWG responds to USEPA ICR request

Dec 2010

MWG conducts first groundwater sampling at all stations

Dec 2010

- Will County Units 1-2 deactivated
- MWG samples Will County Pond 3S bottom ash; samples show not leaching

2010

Will County Timeline of Events

Feb 2011

MGW submits Hydrogeologic Assessment Reports to IEPA

Dec 7, 2012

MGW files for bankruptcy

Nov 2012

MGW begins process of completing all tasks in the four CCAs

Oct 24, 2012

IEPA accepts all four Compliance Commitment Agreements to resolve VNs

Oct 3, 2012

Sierra Club files this lawsuit

Jul 27, 2012 – Aug 2012

MGW submits VN responses to IEPA

Jun 2012

IEPA issues violation notices (VN) to MGW

MGW conducts quarterly groundwater sampling of all Stations

2011

2012

Will County Timeline of Events

Feb 25, 2013

IEPA grants MWG permit to reline Pond 2S

Jul 2, 2013

[Link](#)

IEPA approves Will County GMZ

Sep 10, 2013

[Link](#)

Will County Ash Pond 2 relined with HDPE

Sep 26, 2013

[Link](#)

IEPA approves Will County ELUC

Oct 2013

Maria Race certifies CCAs completed

Mar 2014

NRG purchases MWG out of bankruptcy

Apr 17, 2015

Coal Combustion Residual Rule published in Federal Register

Apr 15, 2015

Will County Unit 3 deactivated

Dec 19, 2014

USEPA issues final Coal Combustion Residual Rule

Jun-Aug, 2015

Will County sampling of ash area: Sample results show ash qualifies for CCB

2013

2014

2015

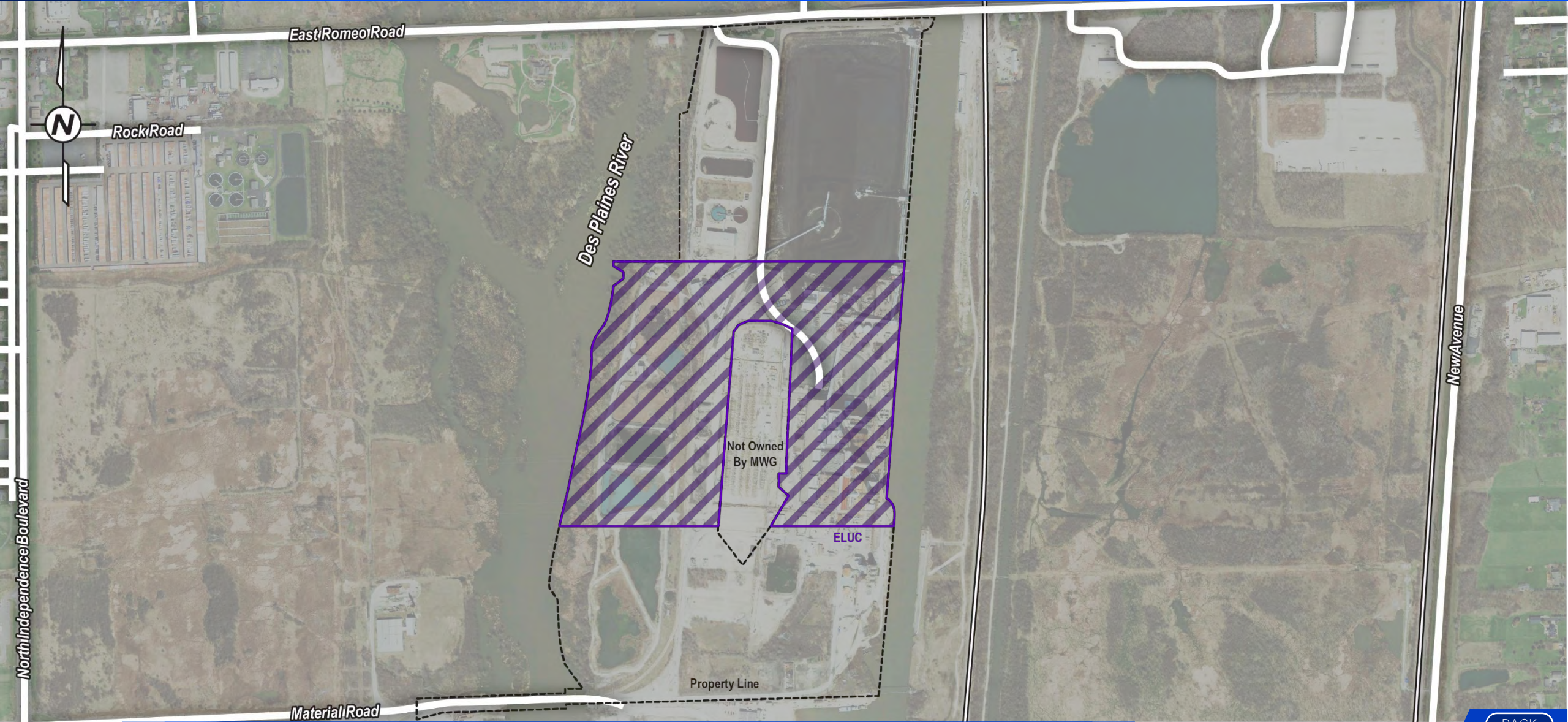
Will County Station – GMZ



View of Basin From North Slope Facing Southeast



Will County Station – ELUC



Will County Timeline of Events

Jan 2016

MWG conducts first Annual Inspection of ash ponds at stations pursuant to Federal CCR rules

Oct 2016

MWG completes various reports pursuant to Federal CCR rules

Apr 2017

MWG completes Emergency Action Plans for the stations pursuant to Federal CCR rules

2016

2017

Electronic Filing: Received, Clerk's Office 10/23/2017

Table 1. Groundwater Analytical Results - Midwest Generation LLC, Joliet Station #29, Joliet, IL

Table with 28 columns (Date, DL, Result) and 56 rows (Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Chloride, Chromium, Cobalt, Copper, Cyanide, Fluoride, Iron, Lead, Manganese, Mercury, Nickel, Nitrogen/Nitrate, Nitrogen/Nitrite, Nitrogen/Nitrite, Perchlorate, Selenium, Silver, Sulfate, Thallium, Total Dissolved Solids, Vanadium, Zinc, Benzene, BETX, pH, Temperature, Conductivity, Dissolved Oxygen, ORP). Each cell contains a numerical value or a status like ND (Not Detected) or NA (Not Applicable).

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class E Potable Resource Groundwater. All values are in mg/L (ppm) unless otherwise noted.

DL - Detection limit
NA - Not Applicable
NR - Not Required
NS - Not Sampled
^- Denotes instrument related QC exceeds the control limits
Temperature - degrees Celsius
Conductivity - micromhos/cm
Dissolved Oxygen - mg/L
Oxygen Reduction Potential (ORP) - millivolts

Main data table with columns: Sample: MW-04, Date, and 26 pairs of (DL, Result) columns for various parameters like Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Chloride, Chromium, Cobalt, Copper, Cyanide, Fluoride, Iron, Lead, Manganese, Mercury, Nickel, Nitrogen/Nitrate, Nitrite, Nitrate, Perchlorate, Selenium, Silver, Sulfate, Thallium, Total Dissolved Solids, Vanadium, Zinc, Benzene, BETX, pH, Temperature, Conductivity, Dissolved Oxygen, and ORP.

Notes: Standards obtained from IAC, Title 35, Chapter 1, Part 630.
DL - Detection limit
NS - Not Sampled
ND - Not Detected
NM - Not Measured
NP - Not Provided
All values are in mg/L (ppm) unless otherwise noted.
Samples for inorganics were filtered.

Temperature
Conductivity
Dissolved Oxygen
Oxygen Reduction Potential (ORP)
°C
mS/cm
mg/L
mV

degrees Celsius
millimhos/cm
milligrams/liter
millivolts

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Table with columns: Parameter, Standards, Date (12/15/2010 to 5/2/2017), DL, Result. Includes rows for various chemical parameters like Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Chloride, Chromium, Cobalt, Copper, Cyanide, Fluoride, Iron, Lead, Manganese, Mercury, Nickel, Nitrogen/Nitrate, Nitrite, Nitrate, Perchlorate, Selenium, Silver, Sulfate, Thallium, Total Dissolved Solids, Vanadium, Zinc, Benzene, BETX, pH, Temperature, Conductivity, Dissolved Oxygen, and ORP.

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 630... DL - Detection limit... ND - Not Detected... NP - Not Provided... * - Median Value... F1 - ME and/or MED Recovery outside of limits.

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Table with 26 columns for dates (12/15/2010 to 5/3/2017) and 26 columns for analytical parameters (Antimony to ORP). Each cell contains DL, Result, and DL/Result values for various parameters across the timeline.

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 630. Subpart D, Section 630.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater. All values are in mg/L (ppm) unless otherwise noted. Samples for inorganics were filtered.

DL - Detection limit
NS - Not Sampled
ND - Not Detected
NM - Not Measured
NP - Not Provided
NR - Not Reported
NA - Not Analyzed
- - Denotes instrument related QC exceeds the control limits
+ - Median Value
F1 - ME and/or MED Recovery outside of limits.

Sample: MW-13	Date	12/15/2010		2/15/2011		4/25/2011		6/16/2011		8/9/2011		10/13/2011		12/12/2011		4/10/2012		12/14/2012		2/28/2013		5/30/2013		7/30/2013		10/22/2013		3/4/2014		5/28/2014		8/27/2014		10/29/2014		2/26/2015		5/13/2015		8/19/2015		11/19/2015		2/24/2016		5/19/2016		8/18/2016		11/17/2016		2/17/2017		5/4/2017	
		Standards	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result									
Antimony	0.006	NP	ND	NP	ND	0.003	ND	0.003	ND	0.003	ND	0.003	ND	0.003	ND	0.003	ND	0.0050	ND	0.003	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND						
Thallium	0.002	NP	ND	NP	ND	0.001	ND	0.001	ND	0.001	ND	0.001	ND	0.001	ND	0.001	ND	0.0010	ND	0.001	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND								
ORP	NA	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA							

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 630.
 Solvent D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater
 All values are in mg/L (ppm) unless otherwise noted.
 Samples for inorganics were filtered.

DL - Detection limit
 NA - Not Applicable
 ND - Not Detected
 NM - Not Measured
 NP - Not Provided
 NR - Not Required
 NS - Not Sampled
 * - Denotes instrument related QC exceeds the control limits
 + - Median Value
 F1 - ME and/or MED Recovery outside of limits.

Temperature
 Conductivity
 Dissolved Oxygen
 Oxygen Reduction Potential (ORP)
 °C
 msc/cm
 mg/L
 mV

degrees Celsius
 millimhos/cm-centimeters
 milligrams/liter
 millivolts

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Powerton Station, Pekin, IL

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MW-18	Date	11/19/2015		2/22/2016		5/18/2016		8/17/2006		11/18/2016		2/15/2017		5/5/2017		6/21/2017	
		Standards	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL
Boron	2.0	0.050	0.80	0.050	0.76	0.050	0.72	0.050	0.67	0.10	0.94	0.050	0.56	0.050	0.46	0.050	0.53
Calcium	NA	0.20	140	0.20	150	0.20	120	0.20	130	0.20	130	0.20	140	0.20	130	0.20	120
Chloride	200	10	220 H	10	220	10	230	10	210	10	200	10	190	10	180	10	190
Fluoride	4.0	0.10	0.66 H	0.10	0.68	0.10	0.71	0.10	0.64	0.10	0.58	0.10	0.50	0.10	0.52	0.10	0.51
pH (in standard units)	6.5 - 9.0	NA	7.62	NA	7.06	NA	7.68	NA	7.52	NA	7.69	NA	7.81	NA	8.12	NA	8.10
Sulfate	400	50	310 H	50	310	50	230	100	330	100	250	100	340	100	360	100	320
Total Dissolved Solids	1,200	10	1200 H	10	1200	10	1200	10	1300	10	1300	10	1200	10	1100	10	1200
Antimony	0.006	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND
Arsenic	0.01	0.0010	0.0014	0.0010	0.0012	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	0.0032	0.0010	ND
Barium	2.0	0.0025	0.14	0.0025	0.15	0.0025	0.13	0.0025	0.14	0.0025	0.14	0.0025	0.14	0.0025	0.12	0.0025	0.12
Beryllium	0.004	0.0010	ND*	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND
Cadmium	0.005	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND
Chromium	0.1	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Cobalt	1.0	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND
Fluoride	4.0	0.10	0.66 H	0.10	0.68	0.10	0.71	0.10	0.64	0.10	0.58	0.10	0.50	0.10	0.52	0.10	0.51
Lead	0.0075	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	0.00057	0.00050	ND
Lithium	NA	0.010	0.017	0.010	0.022	0.010	0.014	0.010	0.012	0.010	0.013	0.010	0.014	0.010	0.010	0.010	0.014
Mercury	0.002	0.00020	ND H	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND
Molybdenum	NA	0.0050	0.0051	0.0050	0.0055	0.0050	0.0052	0.0050	0.0059	0.0050	0.0053	0.0050	0.0058	0.0050	ND	0.0050	0.0051
Selenium	0.05	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND
Thallium	0.002	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND
Radium 226 + 228 comb	40 pCi/L	0.845	ND	0.934	1.88	0.493	ND	0.721	0.836	0.451	0.488	0.347	ND	0.596	0.612	0.329	0.629

Notes: State Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater.

All samples were unfiltered.
 All values are in mg/L (ppm) unless otherwise noted.
 DL - Detection Limit * - Denotes instrument related QC exceeds the control limits
 NA - Not Applicable H - Sample was prepped or analyzed beyond the specified hold time.
 ND - Not Detected
 NS - No Standard

MW-19	Date	11/18/2016		2/15/2017		5/5/2017		6/21/2017	
		Standards	DL	Result	DL	Result	DL	Result	DL
Boron	2.0	0.10	3.8	0.050	4.7	0.050	3.3	0.050	2.3
Calcium	NA	0.20	89	0.20	88	0.20	88	0.20	110
Chloride	200	2.0	38	2.0	37	2.0	38	2.0	35
Fluoride	4.0	0.10	0.13	0.10	0.13	0.10	0.14	0.10	0.12
pH (in standard units)	6.5 - 9.0	NA	7.34	NA	7.50	NA	7.51	NA	7.30
Sulfate	400	50	120	10	180	50	160	50	170
Total Dissolved Solids	1,200	10	670	10	630	10	640	10	690
Antimony	0.006	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND
Arsenic	0.01	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND
Barium	2.0	0.0025	0.084	0.0025	0.088	0.0025	0.076	0.0025	0.089
Beryllium	0.004	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND
Cadmium	0.005	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND
Chromium	0.1	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Cobalt	1.0	0.0010	0.0010	0.0010	ND	0.0010	0.0013	0.0010	ND
Fluoride	4.0	0.10	0.13	0.10	0.13	0.10	0.14	0.10	0.12
Lead	0.0075	0.00050	0.00068	0.00050	0.00061	0.00050	0.0012	0.00050	ND
Lithium	NA	0.010	ND	0.010	ND	0.010	ND	0.010	ND
Mercury	0.002	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND
Molybdenum	NA	0.0050	0.035	0.0050	0.046	0.0050	0.035	0.0050	0.024
Selenium	0.05	0.0025	0.0043	0.0025	0.0063	0.0025	0.0068	0.0025	0.0028
Thallium	0.002	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND
Radium 226 + 228 comb	40 pCi/L	0.476	ND	0.482	ND	0.58	0.923	0.334	ND

Notes: State Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater.

All samples were unfiltered.
 All values are in mg/L (ppm) unless otherwise noted.
 DL - Detection Limit * - Denotes instrument related QC exceeds the control limits
 NA - Not Applicable H - Sample was prepped or analyzed beyond the specified hold time.
 ND - Not Detected
 NS - No Standard

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Table 2. Groundwater Analytical Results - Midwest Generation LLC, Waukegan Station, Waukegan, IL 2010-2017

Table with columns for Date (10/25/2010 to 5/15/2017), Parameter (Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Chloride, Chromium, Cobalt, Copper, Cyanide, Fluoride, Iron, Lead, Manganese, Mercury, Nickel, Nitrogen/Nitrate, Nitrogen/Nitrite, Nitrogen/Nitrate, Perchlorate, Selenium, Silver, Sulfate, Thallium, Total Dissolved Solids, Vanadium, Zinc, Benzene, BETX, pH, Temperature, Conductivity, Dissolved Oxygen, ORP) and multiple columns for DL (Detection Limit) and Result.

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater. All samples through 2016 are filtered. All values are in mg/L (ppm) unless otherwise noted.

DL - Detection limit
NA - Not Applicable
ND - Not Detected
NM - Not Measured
NR - Not Required
NS - Not Sampled
* - Denotes instrument related QC exceeds the control limits
Temperature °C
Conductivity mc/cm
Dissolved Oxygen mg/L
Oxygen Reduction Potential (ORP) uV

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Table 2. Groundwater Analytical Results - Midwest Generation LLC, Waukegan Station, Waukegan, IL 2010-2017

Sample: MW-08	Date	5/15/2014		8/22/2014		11/5/2014		2/18/2015		4/21/2015		8/12/2015		11/4/2015		2/29/2016		5/3/2016		8/25/2016		12/6/2016		2/23/2017		5/17/2017			
		Standards	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	
Antimony		0.006	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	
Arsenic		0.010	0.0010	0.0049	0.0010	0.0057	0.0010	0.0054	0.0010	0.0045	0.0010	0.0067	0.0010	0.0050	0.0010	0.0058	0.0010	0.0044	0.0020	0.0044	0.0010	0.0050	0.0010	0.0042	0.0010	0.0024	0.0010	0.0057	
Barium		2.0	0.0025	0.083	0.0025	0.14	0.0025	0.15	0.0025	0.14	0.0025	0.090	0.0025	0.12	0.0025	0.13	0.0025	0.14	0.0025	0.11	0.0025	0.15	0.0025	0.15	0.0025	0.10	0.0025	0.091	
Beryllium		0.004	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND *	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	
Boron		2.0	5.0	19	5.0	24	5.0	28	5.0	24	2.5	23	5.0	22	2.5	22	5.0	27	5.0	26	2.5	24	5.0	30	5.0	32	5.0	21	
Cadmium		0.005	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	0.0055	0.00050	ND	
Chloride		200.0	2.0	50	2.0	56	2.0	30	2.0	30	2.0	48	2.0	30	2.0	36	2.0	40	2.0	57	2.0	23	2.0	58	2.0	17	2.0	57	
Chromium		0.1	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	
Cobalt		1.0	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	
Copper		0.65	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND *	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	
Cyanide		0.2	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	
Fluoride		4.0	0.10	0.30	0.10	0.29	0.10	0.21	0.10	0.21	0.10	0.24	0.10	0.26	0.10	0.27	0.10	0.24	0.10	0.26	0.10	0.24	0.10	0.23	0.10	ND	0.10	0.17	
Iron		5.0	0.10	5.0	0.10	7.0	0.10	6.2	0.10	6.7	0.10	7.5	0.10	7.2	0.10	6.5	0.10	9.9	0.10	10	0.10	9.1	0.10	5.5	0.10	4.7	0.10	6.6	
Lead		0.0075	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	0.00050	0.00050	0.00050	ND
Manganese		0.15	0.0025	0.31	0.0025	0.33	0.0025	0.33	0.0025	0.36	0.0025	0.27	0.0025	0.34	0.0025	0.28	0.0025	0.37	0.0025	0.37	0.0025	0.48	0.0025	0.32	0.0025	0.26	0.0025	0.24	
Mercury		0.002	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	
Nickel		0.1	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	0.0020	ND
Nitrogen/Nitrate		10.0	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	
Nitrogen/Nitrate, Nitrite		NA	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	
Nitrogen/Nitrite		NA	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	
Perchlorate		0.0049	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	NR	NR	NR
Selenium		0.05	0.0025	0.016	0.0025	0.0083	0.0025	0.012	0.0025	0.0050	0.0025	ND	0.0025	0.0054	0.0025	0.0059	0.0025	ND	0.0050	ND	0.0025	ND	0.0025	0.0042	0.0025	0.031	0.0025	0.0043	
Silver		0.05	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	
Sulfate		400.0	100	250	100	370	100	500	100	420	100	360	100	350	100	470	100	480	100	530	100	450	100	340	100	540	100	390	
Thallium		0.002	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	
Total Dissolved Solids		1,200	10	1000	10	1200	10	1200	10	1200	10	1100	10	1300	10	1100	10	1300	10	1300	10	1300	10	1300	10	1300	10	1200	10
Vanadium		0.049	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	
Zinc		5.0	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	0.037	0.020	ND	
Benzene		0.005	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	NR	NR	NR	NR	
BETX		11.705	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	0.00057	0.0025	ND	0.0025	ND	0.0025	0.0025	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	NR	NR	NR	NR	
pH		6.5 - 9.0	NA	6.92	NA	6.97	NA	7.16	NA	7.36	NA	7.15	NA	7.11	NA	6.3	NA	6.93	NA	7	NA	6.84	NA	6.79	NA	6.9	NA	8.36	
Temperature		NA	NA	9.19	NA	14.98	NA	12.55	NA	4.91	NA	8.13	NA	14.03	NA	13.78	NA	7.34	NA	9.71	NA	15.05	NA	12.22	NA	7.63	NA	12.48	
Conductivity		NA	NA	0.99	NA	1.172	NA	1.224	NA	1.000	NA	1.048	NA	1.148	NA	1.268	NA	1.021	NA	1.25	NA	1.198	NA	1.14	NA	0.985	NA	1.082	
Dissolved Oxygen		NA	NA	0.27	NA	0.29	NA	0.41	NA	1.91	NA	2.44	NA	0.78	NA	0.58	NA	0.94	NA	0.73	NA	0.47	NA	0.97	NA	1.13	NA	0.4	
ORP		NA	NA	-16.1	NA	-97.4	NA	-94.9	NA	-96.9	NA	-128.3	NA	-119.4	NA	26	NA	-61.3	NA	-120.3	NA	-116.8	NA	-59.8	NA	20.4	NA	-141.3	

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater. All samples through 2016 are filtered. All values are in mg/L (ppm) unless otherwise noted.

DL - Detection limit
 NA - Not Applicable
 ND - Not Detected
 NM - Not Measured

NR - Not Required
 NS - Not Sampled
 * - Denotes instrument related QC exceeds the control limits

Temperature °C degrees Celsius
 Conductivity mscm⁻¹ millisiemens/cmeters
 Dissolved Oxygen mg/L milligrams/liter
 Oxygen Reduction Potential (ORP) mV millivolts

Electronic Filing: Received, Clerk's Office 10/23/2017

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Waukegan Station, Waukegan, IL 2010-2017

Parameter	Standards	Date		5/15/2014		8/22/2014		11/5/2014		2/18/2015		4/21/2015		8/13/2015		11/4/2015		3/2/2016		5/3/2016		8/25/2016		12/8/2016		2/23/2017		5/16/2017			
		DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result		
Antimony	0.006	ND	0.0030	ND	0.0030	ND	0.0030	ND [^]	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	
Arsenic	0.010	0.0010	0.0012	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND [^]	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	0.0099	0.0010	ND	ND	
Barium	2.0	0.0025	0.027	0.0025	0.014	0.0025	0.015	0.0025	0.010	0.0025	0.010	0.0025	0.015	0.0025	0.018	0.0025	0.016	0.0025	0.030	0.0025	0.023	0.0025	0.0078	0.0025	0.012	0.0025	0.018	0.0025	0.0099		
Beryllium	0.004	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND [^]	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	ND	
Boron	2.0	5.0	16	5.0	6.3	5.0	13	1.0	7.5	2.5	20	5.0	15	2.5	12	5.0	29	5.0	31	1.0	3.9	5.0	13	5.0	14	5.0	25	5.0	25		
Cadmium	0.005	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	ND	
Chloride	200.0	50	370	50	380	50	430	10	330	10	290	50	550	50	450	50	860	50	680	10	270	10	310	10	270	10	270	2.0	68		
Chromium	0.1	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0061	0.0050	ND	0.0050	0.045	0.0050	ND	ND		
Cobalt	1.0	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	0.0056	0.0010	ND	ND	
Copper	0.65	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND [^]	0.0020	ND	0.0020	ND	0.0020	0.0050	0.0020	ND	ND	
Cyanide	0.2	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	ND	
Fluoride	4.0	0.10	0.15	0.10	0.13	0.10	0.12	0.10	0.18	0.10	0.12	0.10	0.15	0.10	0.14	0.10	0.12	0.10	0.12	0.10	0.12	0.10	0.21	0.10	0.16	0.10	0.20	0.10	0.11		
Iron	5.0	0.10	0.81	0.10	0.12	0.10	0.14	0.10	ND	0.10	0.16	0.10	ND	0.10	ND	0.10	0.29	0.10	0.21	0.10	0.16	0.10	0.16	0.10	ND	0.10	8.8	0.10	ND	ND	
Lead	0.0075	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	ND	ND
Manganese	0.15	0.0025	0.14	0.0025	0.050	0.0025	0.048	0.0025	0.047	0.0025	0.064	0.0025	0.075	0.0025	0.056	0.0025	0.13	0.0025	0.088	0.0025	0.061	0.0025	0.067	0.0025	0.067	0.0025	0.75	0.0025	0.024		
Mercury	0.002	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	ND	
Nickel	0.1	0.0020	ND	0.0020	0.0024	0.0020	0.0031	0.0020	ND	0.0020	0.0029	0.0020	ND	0.0020	0.0026	0.0020	0.0038	0.0020	0.0029	0.0020	0.0020	0.016	0.0020	0.0023	0.0020	0.026	0.0020	ND	ND		
Nitrogen/Nitrate	10.0	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	0.12	0.10	ND	ND	
Nitrogen/Nitrate, Nitrite	NA	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	0.12	0.10	ND	ND	
Nitrogen/Nitrite	NA	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	ND	
Perchlorate	0.0049	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	NR	NR	NR	NR	NR	
Selenium	0.05	0.0025	0.014	0.0025	0.011	0.0025	0.0048	0.0025	0.0053	0.0025	0.018	0.0025	0.011	0.0025	0.0029	0.0025	0.010	0.0050	0.024	0.0025	0.017	0.0025	0.032	0.0025	0.018	0.0025	0.0083	0.0025	0.0083		
Silver	0.05	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	ND	
Sulfate	400.0	100	360	50	230	100	430	50	320	100	380	100	450	100	400	250	920	250	780	50	160	100	240	100	410	100	390	100	390		
Thallium	0.002	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	ND	
Total Dissolved Solids	1,200	10	1600	10	1300	10	1400	10	1300	10	1400	10	2200	10	1600	13	3000	10	2600	10	1000	10	1400	10	1200	10	970	10	970		
Vanadium	0.049	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0058	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	0.021	0.0050	ND	ND	ND	
Zinc	5.0	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	ND	
Benzene	0.005	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00071	0.00050	ND	0.00050	ND	0.0005	ND	0.00050	ND	NR	NR	NR	NR	NR	NR	
BETX	11.705	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	0.00089	0.0025	ND	0.0025	ND	0.00441	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	NR	NR	NR	NR	NR	NR	
pH	6.5 - 9.0	NA	6.94	NA	6.90	NA	7.20	NA	7.45	NA	7.08	NA	6.98	NA	6.60	NA	7.02	NA	7.02	NA	7.13	NA	7.01	NA	7.68	NA	7.68	NA	8.15	8.15	
Temperature	NA	NA	9.70	NA	15.54	NA	12.98	NA	3.85	NA	8.81	NA	15.24	NA	15.84	NA	4.45	NA	9.32	NA	20.43	NA	10.36	NA	9.91	NA	14.82	14.82	14.82		
Conductivity	NA	NA	1.70	NA	1.669	NA	1.773	NA	1.270	NA	1.457	NA	2.584	NA	2.227	NA	2.555	NA	2.536	NA	1.894	NA	1.336	NA	1.391	NA	0.876	0.876	0.876		
Dissolved Oxygen	NA	NA	0.31	NA	0.32	NA	0.40	NA	2.15	NA	5.20	NA	0.96	NA	1.21	NA	1.56	NA	0.81	NA	2.56	NA	1.44	NA	3.11	NA	0.10	0.10	0.10		
ORP	NA	NA	27.3	NA	6.7	NA	4.0	NA	11.0	NA	-5.6	NA	-25.2	NA	106.8	NA	53.4	NA	-19	NA	-1.9	NA	10.6	NA	53.5	NA	-68.9	-68.9	-68.9		

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater.
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Temperature °C degrees Celsius
Conductivity mscm⁻¹ millisiemens/centimeter
Dissolved Oxygen mg/L milligrams/liter
ORP av millivolts

Electronic Filing: Received, Clerk's Office 10/23/2017

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Waukegan Station, Waukegan, IL 2010-2017

Sample: ELUC MW-10	Date		8/22/2014		11/6/2014		2/18/2015		4/20/2015		8/11/2015		11/4/2015		3/2/2016		5/3/2016		8/26/2016		12/6/2016		2/23/2017		5/17/2017			
	Standards	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	
Antimony	0.006	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	
Arsenic	0.010	0.0010	0.75	0.0010	0.40	0.0010	0.12	0.0010	0.74	0.0010	ND	0.0010	0.63	0.0010	0.58	0.0010	0.46	0.0010	0.35	0.0010	0.42	0.0010	0.67	0.0010	0.49	0.0010	0.49	
Barium	2.0	0.0025	0.072	0.0025	0.068	0.0025	0.064	0.0025	0.075	0.0025	0.047	0.0025	0.066	0.0025	0.069	0.0025	0.057	0.0025	0.067	0.0025	0.066	0.0025	0.091	0.0025	0.099	0.0025	0.099	
Beryllium	0.004	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	
Boron	2.0	0.050	0.77	0.050	0.81	0.050	0.59	0.050	0.94	0.25	1.7	2.5	ND	1.9	0.10	1.9	0.25	0.96	0.25	1.0	0.25	1.3	0.25	1.1	0.25	1.1	0.25	1.1
Cadmium	0.005	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	
Chloride	200.0	2.0	61	2.0	65	2.0	49	10	98	2.0	36	10	32	10	120	10	110	10	110	10	140	10	180	10	160	10	160	
Chromium	0.1	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	0.0057	0.0050	0.0053	0.0050	0.0053	
Cobalt	1.0	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	0.0011	0.0010	ND	0.0010	ND	0.0010	0.0010	0.0010	ND	0.0010	ND	
Copper	0.65	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	
Cyanide	0.2	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	
Fluoride	4.0	0.10	0.19	0.10	0.19	0.10	0.19	0.10	0.11	0.10	0.15	0.10	0.15	0.10	0.13	0.10	0.13	0.10	0.17	0.10	0.15	0.10	0.14	0.10	0.13	0.10	0.13	
Iron	5.0	0.10	7.3	0.10	3.5	0.10	ND	0.10	6.4	0.10	0.49	0.10	8.6	0.10	14	0.10	11	0.10	7.3	0.10	4.7	0.10	11	0.10	7.9	0.10	7.9	
Lead	0.0075	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	
Manganese	0.15	0.0025	0.19	0.0025	0.13	0.0025	0.022	0.0025	0.19	0.0025	0.025	0.0025	0.20	0.0025	0.28	0.0025	0.22	0.0025	0.19	0.0025	0.14	0.0025	0.25	0.0025	0.21	0.0025	0.21	
Mercury	0.002	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	
Nickel	0.1	0.0020	0.0021	0.0020	0.0028	0.0020	ND	0.0020	0.0023	0.0020	0.0047	0.0020	ND	0.0020	0.0021	0.0020	0.0021	0.0020	ND	0.0020	ND	0.0020	0.0020	0.0020	0.0020	0.0020	0.0031	
Nitrogen/Nitrate	10.0	0.10	1.1	0.10	1.1	0.10	3.2	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	0.31	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	
Nitrogen/Nitrate, Nitrite	NA	0.10	ND	0.10	1.1	0.20	3.2	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	0.31	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	
Nitrogen/Nitrite	NA	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	
Perchlorate	0.0049	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	NR	NR	NR	NR	NR	NR	
Selenium	0.05	0.0025	ND	0.0025	ND	0.0025	0.0041	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	
Silver	0.05	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	
Sulfate	400.0	50	170	50	270	50	170	50	240	20	77	50	190	50	140	20	110	50	130	25	120	50	140	50	130	50	130	
Thallium	0.002	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	
Total Dissolved Solids	1,200	10	770	10	720	10	740	10	920	10	370	10	950	10	940	10	810	10	930	10	890	10	1100	10	960	10	960	
Vanadium	0.049	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	
Zinc	5.0	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	0.036	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	
Benzene	0.005	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.0005	ND	0.00050	ND	NR	NR	NR	NR	NR	NR	
BETX	11.705	0.0025	ND	0.0025	0.0039	0.0025	0.0039	0.0025	ND	0.0025	ND	0.0025	0.00067	0.0025	0.00055	0.0025	ND	0.0025	ND	0.0025	ND	NR	NR	NR	NR	NR	NR	
pH	6.5 - 9.0	NA	6.82	NA	7.44	NA	7.62	NA	7.26	NA	6.25	NA	6.15	NA	7.07	NA	6.85	NA	6.47	NA	7.14	NA	7.31	NA	8.24	NA	8.24	
Temperature	NA	NA	15.79	NA	10.38	NA	6.99	NA	8.87	NA	17.96	NA	13.05	NA	8.22	NA	10.47	NA	14.8	NA	11.61	NA	9.41	NA	12.02	NA	12.02	
Conductivity	NA	NA	0.922	NA	0.815	NA	0.680	NA	1.077	NA	0.510	NA	1.170	NA	1.049	NA	1.055	NA	1.128	NA	1.102	NA	1.266	NA	1.060	NA	1.060	
Dissolved Oxygen	NA	NA	0.20	NA	0.47	NA	2.66	NA	3.87	NA	1.46	NA	0.78	NA	1.2	NA	0.94	NA	0.42	NA	0.83	NA	0.85	NA	0.46	NA	0.46	
ORP	NA	NA	-91.9	NA	-75.1	NA	9.1	NA	-111.9	NA	10.7	NA	9.3	NA	-59.6	NA	-110.8	NA	-58.1	NA	-88.7	NA	-36.7	NA	-111.3	NA	-111.3	

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater.
 All samples through 2016 are filtered.
 All values are in mg/L (ppm) unless otherwise noted.

DL - Detection Limit
 NA - Not Applicable
 ND - Not Detected
 NM - Not Measured

NR - Not Required
 NS - Not Sampled
 * - Denotes instrument related QC exceeds the control limits

Temperature °C degrees Celsius
 Conductivity mc/cm³ millisiemens/centimeters
 Dissolved Oxygen mg/L milligrams/liter
 Oxygen Reduction Potential (ORP) mV millivolts

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Waukegan Station, Waukegan, IL 2010-2017

Sample: ELUC MW-11		Date		8/22/2014		11/6/2014		2/18/2015		4/20/2015		8/11/2015		11/5/2015		3/2/2016		5/5/2016		8/26/2016		12/7/2016		2/24/2017		5/18/2017			
Parameter	Standards	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result
Antimony	0.006	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND
Arsenic	0.010	0.0010	1.3	0.0010	1.0	0.0010	0.96	0.0010	0.79	0.0010	0.81	0.0010	0.82	0.0010	0.55	0.0020	0.48	0.0010	0.89	0.0010	0.87	0.0010	0.87	0.0010	0.57	0.0010	0.59		
Barium	2.0	0.0025	0.039	0.0025	0.042	0.0025	0.041	0.0025	0.045	0.0025	0.038	0.0025	0.038	0.0025	0.040	0.0025	0.037	0.0025	0.042	0.0025	0.049	0.0025	0.049	0.0025	0.049	0.0025	0.041		
Beryllium	0.004	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND
Boron	2.0	0.50	5.1	0.50	3.5	0.25	2.8	0.25	2.5	0.50	5.0	2.5	4.4	0.50	3.8	1.0	5.2	0.50	3.0	0.50	3.0	0.50	3.0	0.25	2.3	0.25	1.7		
Cadmium	0.005	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND
Chloride	200.0	10	290	10	300	10	120	10	290	10	270	10	270	10	230	10	280	10	210	10	250	10	220	10	220	10	180		
Chromium	0.1	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.010	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Cobalt	1.0	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	0.0013	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND
Copper	0.65	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0040	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	0.0040
Cyanide	0.2	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND
Fluoride	4.0	0.10	0.14	0.10	0.15	0.10	0.15	0.10	0.11	0.10	0.13	0.10	0.14	0.10	0.13	0.10	0.11	0.10	0.14	0.10	0.13	0.10	0.12	0.10	0.12	0.10	0.13		
Iron	5.0	0.10	2.0	0.10	2.4	0.10	2.3	0.10	2.6	0.10	2.6	0.10	2.2	0.10	3.6	0.10	2.9	0.10	3.6	0.10	3.4	0.10	4.3	0.10	4.3	0.10	3.3		
Lead	0.0075	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND
Manganese	0.15	0.0025	0.23	0.0025	0.21	0.0025	0.22	0.0025	0.24	0.0025	0.25	0.0025	0.21	0.0025	0.29	0.0025	0.21	0.0025	0.28	0.0025	0.26	0.0025	0.29	0.0025	0.29	0.0025	0.24		
Mercury	0.002	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND
Nickel	0.1	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND
Nitrogen/Nitrate	10.0	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	0.28
Nitrogen/Nitrate, Nitrite	NA	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	0.28
Nitrogen/Nitrite	NA	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND
Perchlorate	0.0049	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	NR	NR	NR	NR	NR	NR
Selenium	0.05	0.0025	0.0089	0.0025	0.010	0.0025	0.0098	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0046	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	ND
Silver	0.05	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND
Sulfate	400.0	50	210	50	230	50	150	50	140	50	170	50	180	50	180	25	150	20	100	25	130	50	180	25	130	50	180	25	110
Thallium	0.002	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND
Total Dissolved Solids	1,200	10	1100	10	1100	10	1200	10	1100	10	1200	10	1100	10	1100	10	1100	10	1000	10	1100	10	1100	10	1200	10	1200	10	970
Vanadium	0.049	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Zinc	5.0	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND
Benzene	0.005	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	NR	NR	NR	NR	NR	NR	NR	NR
BETX	11.705	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	NR	NR	NR	NR	NR	NR
pH	6.5 - 9.0	NA	6.98	NA	7.46	NA	7.59	NA	7.23	NA	7.31	NA	6.51	NA	7.16	NA	7.17	NA	6.97	NA	7.06	NA	6.61	NA	6.61	NA	7.42		
Temperature	NA	NA	16.56	NA	11.28	NA	7.22	NA	9.13	NA	14.96	NA	17.97	NA	6.71	NA	8.86	NA	18.35	NA	10.91	NA	7.43	NA	7.43	NA	14.66		
Conductivity	NA	NA	1.596	NA	1.415	NA	1.300	NA	1.377	NA	1.550	NA	1.805	NA	1.191	NA	1.253	NA	1.527	NA	1.269	NA	1.236	NA	1.236	NA	1.201		
Dissolved Oxygen	NA	NA	0.34	NA	0.42	NA	1.21	NA	2.69	NA	0.92	NA	0.51	NA	0.92	NA	0.88	NA	0.57	NA	0.92	NA	0.96	NA	0.96	NA	1.04		
ORP	NA	NA	-89.8	NA	-122.4	NA	-105.3	NA	-115.1	NA	-108.5	NA	29.6	NA	-90.4	NA	-124.2	NA	-107.4	NA	-100.8	NA	-43.6	NA	-43.6	NA	-51.6		

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D.
Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater.
All samples through 2016 are filtered.
All values are in mg/L (ppm) unless otherwise noted.

DL - Detection Limit
NA - Not Applicable
ND - Not Detected
NM - Not Measured

NR - Not Required
NS - Not Sampled
* - Denotes instrument related QC exceeds the control limits

Temperature - °C
Conductivity - mcu/cm
Dissolved Oxygen - mg/L
Oxygen Reduction Potential (ORP) - mV

Electronic Filing: Received, Clerk's Office 10/23/2017

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Waukegan Station, Waukegan, IL 2010-2017

Sample: ELUC MW-12	Date	8/22/2014		11/6/2014		2/18/2015		4/20/2015		8/11/2015		11/4/2015		2/29/2016		5/4/2016		8/25/2016		12/6/2016		2/22/2017		5/17/2017		
		Standards	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result
Antimony	0.006	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	
Arsenic	0.010	0.0010	0.0011	0.0010	0.0014	0.0010	0.0012	0.0010	0.012	0.0010	0.46	0.0010	0.011	0.0010	0.0046	0.0020	0.0042	0.0010	0.0017	0.0010	0.0010	0.020	0.0010	0.020	0.0010	0.055
Barium	2.0	0.0025	0.10	0.0025	0.083	0.0025	0.081	0.0025	0.048	0.0025	0.065	0.0025	0.045	0.0025	0.11	0.0025	0.14	0.0025	0.098	0.0025	0.085	0.0025	0.11	0.0025	0.12	
Beryllium	0.004	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	
Boron	2.0	0.25	1.9	0.50	1.4	0.25	1.6	0.25	1.0	0.25	1.4	2.5	ND	5.0	8.4	5.0	18	1.0	4.9	5.0	2.0	2.5	1.5	0.25	16	
Cadmium	0.005	0.00050	0.0026	0.00050	0.0014	0.00050	0.0025	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	0.0011	0.00050	0.00070	0.00050	0.0020	0.00050	ND	
Chloride	200.0	50	410	10	370	10	160	10	130	10	85	2.0	29	2.0	60	10	120	10	180	10	220	10	210	10	180	
Chromium	0.1	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	0.028	0.0050	ND	
Cobalt	1.0	0.0010	0.0033	0.0010	0.0023	0.0010	0.018	0.0010	0.0018	0.0010	ND	0.0010	0.0014	0.0010	0.0050	0.0010	0.0049	0.0010	0.0044	0.0010	0.0034	0.0010	0.0038	0.0010	0.0025	
Copper	0.65	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	0.0051	0.0020	ND	
Cyanide	0.2	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	
Fluoride	4.0	0.10	0.10	0.10	ND	0.10	ND	0.10	0.22	0.10	0.15	0.10	0.13	0.10	0.14	0.10	0.19	0.10	0.12	0.10	0.11	0.10	0.12	0.10	0.21	
Iron	5.0	0.10	2.2	0.10	0.88	0.10	1.2	0.10	2.1	0.10	4.7	0.10	0.48	0.10	2.2	0.10	2.3	0.10	3.5	0.10	1.6	0.10	39	0.10	6.4	
Lead	0.0075	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	
Manganese	0.15	0.0025	0.11	0.0025	0.051	0.0025	0.70	0.0025	0.16	0.0025	0.17	0.0025	0.069	0.0025	0.29	0.0025	0.33	0.0025	0.32	0.0025	0.22	0.0025	0.21	0.0025	0.33	
Mercury	0.002	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	
Nickel	0.1	0.0020	0.016	0.0020	0.013	0.0020	0.075	0.0020	0.0071	0.0020	ND	0.0020	0.0047	0.0020	0.0075	0.0020	0.0079	0.0020	0.011	0.0020	0.0096	0.0020	0.022	0.0020	0.0048	
Nitrogen/Nitrate	10.0	0.10	ND	0.10	0.56	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	1.4	0.10	0.48	0.10	ND	
Nitrogen/Nitrate, Nitrite	NA	0.10	ND	0.10	0.56	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	1.4	0.10	0.48	0.10	ND	
Nitrogen/Nitrite	NA	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	
Perchlorate	0.0049	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	NR	NR	NR	NR	
Selenium	0.05	0.0025	0.0059	0.0025	0.0074	0.0025	0.0027	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	0.0035	0.0025	0.0051	0.0025	ND	
Silver	0.05	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	
Sulfate	400.0	50	200	50	230	100	400	50	200	50	180	10	47	50	180	100	350	50	170	25	100	25	65	100	240	
Thallium	0.002	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	
Total Dissolved Solids	1,200	10	1100	10	950	10	1400	10	890	10	900	10	900	10	720	10	980	10	820	10	830	10	740	10	1100	
Vanadium	0.049	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	
Zinc	5.0	0.020	0.14	0.020	0.086	0.020	0.74	0.020	0.030	0.020	ND	0.020	0.036	0.020	0.051	0.020	0.040	0.020	0.10	0.020	0.081	0.020	0.17	0.020	0.048	
Benzene	0.005	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	0.11	0.00050	ND	NR	NR	NR	NR	
BETX	11.705	.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	0.00095	0.0025	ND	0.0025	ND	0.0025	0.12	0.0025	ND	NR	NR	NR	NR	
pH	6.5 - 9.0	NA	6.44	NA	6.66	NA	6.48	NA	6.96	NA	6.88	NA	5.49	NA	6.79	NA	6.85	NA	6.02	NA	6.62	NA	6.89	NA	8.14	
Temperature	NA	NA	21.11	NA	12.65	NA	2.30	NA	9.17	NA	14.26	NA	15.79	NA	6.05	NA	9.13	NA	20.11	NA	12.22	NA	9.83	NA	13.76	
Conductivity	NA	NA	1,700	NA	1,258	NA	1.14	NA	1,145	NA	1,130	NA	0.435	NA	0.641	NA	0.989	NA	1,108	NA	0.859	NA	0.865	NA	1,107	
Dissolved Oxygen	NA	NA	1.17	NA	1.76	NA	2.57	NA	4.06	NA	0.89	NA	1.79	NA	1.14	NA	1.06	NA	0.65	NA	2.04	NA	2.73	NA	0.46	
ORP	NA	NA	5.9	NA	28.5	NA	71.5	NA	-53.1	NA	-82.1	NA	110.4	NA	-3.3	NA	-66.2	NA	-6.5	NA	-14	NA	41.6	NA	-92.2	

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater.
 All samples through 2016 are filtered.
 All values are in mg/L (ppm) unless otherwise noted.

DL - Detection limit
 NA - Not Applicable
 ND - Not Detected
 NM - Not Measured

NR - Not Required
 NS - Not Sampled
 * - Denotes instrument related QC exceeds the control limits

Temperature - °C degrees Celsius
 Conductivity - mcu/cm³ millimhos/cmeters
 Dissolved Oxygen - mg/L milligrams/liter
 Oxygen Reduction Potential (ORP) - mV millivolts

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Waukegan Station, Waukegan, IL 2010-2017

Sample: ELUC MW-14	Date	8/22/2014		11/6/2014		2/18/2015		4/20/2015		8/11/2015		11/5/2015		3/2/2016		5/5/2016		8/25/2016		12/7/2016		2/23/2017		5/18/2017	
		Standards	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL
Antimony	0.006	0.0030	ND	0.0030	ND	NS	NS	0.0030	0.0047	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	0.021	0.0030	ND
Arsenic	0.010	0.0010	0.13	0.0010	0.049	NS	NS	0.0010	0.050	0.0010	0.32	0.0010	0.23	0.0010	0.061	0.0010	0.20	0.0010	0.71	0.0010	0.13	0.10	25	0.0010	0.66
Barium	2.0	0.0025	0.049	0.0025	0.052	NS	NS	0.0025	0.024	0.0025	0.045	0.0025	0.053	0.0025	0.041	0.0025	0.049	0.0025	0.051	0.0025	0.050	0.0025	0.42	0.0025	0.045
Beryllium	0.004	0.0010	ND	0.0010	ND	NS	NS	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND
Boron	2.0	0.25	1.0	0.50	1.0	NS	NS	0.050	0.54	0.25	1.1	2.5	ND	0.50	0.93	0.050	1.0 F1	0.50	1.3	0.25	0.94	0.50	0.65	0.10	0.76
Cadmium	0.005	0.00050	ND	0.00050	ND	NS	NS	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	0.0016	0.00050	ND
Chloride	200.0	10	120	10	110	NS	NS	2.0	66	10	180	10	140	10	140	10	120	10	180	10	300	10	82	10	110
Chromium	0.1	0.0050	0.0060	0.0050	0.015	NS	NS	0.0050	0.032	0.0050	ND	0.0050	0.0093	0.0050	0.011	0.0050	ND	0.0050	0.0060	0.0050	0.0060	0.50	10	0.0050	0.20
Cobalt	1.0	0.0010	ND	0.0010	ND	NS	NS	0.0010	ND	0.0010	ND	0.0010	0.0011	0.0010	0.0014	0.0010	0.0016	0.0010	ND	0.0010	ND	0.0010	0.013	0.0010	ND
Copper	0.65	0.0020	ND	0.0020	0.0024	NS	NS	0.0020	0.0022	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	0.058	0.0020	0.0020
Cyanide	0.2	0.010	ND	0.010	ND	NS	NS	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND
Fluoride	4.0	0.10	0.14	0.10	0.24	NS	NS	0.10	0.28	0.10	0.19	0.10	0.20	0.10	0.18	0.10	0.19	0.10	0.15	0.10	0.23	0.10	0.24	0.10	0.23
Iron	5.0	0.10	2.0	0.10	0.40	NS	NS	0.10	ND	0.10	1.8	0.10	1.4	0.10	0.28	0.10	1.1	0.10	4.7	0.10	0.92	10	450	0.10	7.8
Lead	0.0075	0.00050	ND	0.00050	ND	NS	NS	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	0.0014	0.00050	ND
Manganese	0.15	0.0025	0.18	0.0025	0.054	NS	NS	0.0025	0.015	0.0025	0.13	0.0025	0.13	0.0025	0.17	0.0025	0.094	0.0025	0.13	0.0025	0.11	0.0025	0.74	0.0025	0.052
Mercury	0.002	0.00020	ND	0.00020	ND	NS	NS	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND
Nickel	0.1	0.0020	ND	0.0020	0.0025	NS	NS	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	0.0022	0.0020	0.0026	0.0020	0.0084	0.0020	ND	0.0020	0.0092	0.0020	ND
Nitrogen/Nitrate	10.0	0.10	ND	0.10	0.17	NS	NS	0.10	0.73	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND
Nitrogen/Nitrate, Nitrite	NA	0.10	ND	0.10	0.17	NS	NS	0.10	0.73	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	0.19	0.10	ND
Nitrogen/Nitrite	NA	0.020	ND	0.020	ND	NS	NS	0.020	ND	0.020	ND	0.020	0.022	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	0.10	0.020	0.058
Perchlorate	0.0049	0.0040	ND	0.0040	ND	NS	NS	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	NR	NR	NR	NR
Selenium	0.05	0.0025	ND	0.0025	ND	NS	NS	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	0.017	0.0025	ND
Silver	0.05	0.00050	ND	0.00050	ND	NS	NS	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND
Sulfate	400.0	100	370	50	310	NS	NS	20	84	25	130	50	140	50	150	50	150	50	180	50	100	25	100	20	73
Thallium	0.002	0.0020	ND	0.0020	ND	NS	NS	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND
Total Dissolved Solids	1,200	10	1300	10	930	NS	NS	10	480	10	1000	10	890	10	890	10	960	10	1100	10	1100	10	660	10	600
Vanadium	0.049	0.0050	ND	0.0050	ND	NS	NS	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	0.040	0.0050	ND
Zinc	5.0	0.020	ND	0.020	ND	NS	NS	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	0.18	0.020	ND
Benzene	0.005	0.00050	ND	0.00050	ND	NS	NS	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	NR	NR	NR	NR
BETX	11.705	0.0025	ND	0.0025	0.0032	NS	NS	0.0025	ND	0.0025	ND	0.0025	0.00085	0.0025	ND	0.0025	0.0014	0.0025	ND	0.0025	ND	NR	NR	NR	NR
pH	6.5 - 9.0	NA	6.98	NA	7.32	NS	NS	NA	7.33	NA	7.02	NA	6.78	NA	7.24	NA	7.17	NA	7	NA	6.81	NA	6.88	NA	7.62
Temperature	NA	NA	16.36	NA	10.25	NS	NS	NA	7.80	NA	15.73	NA	15.17	NA	5.92	NA	9.16	NA	16.9	NA	8.37	NA	6.24	NA	16.57
Conductivity	NA	NA	1.435	NA	0.949	NS	NS	NA	0.414	NA	1.307	NA	1.448	NA	0.894	NA	1.065	NA	1.606	NA	1.073	NA	0.645	NA	0.773
Dissolved Oxygen	NA	NA	0.26	NA	0.59	NS	NS	NA	9.86	NA	0.78	NA	1.8	NA	0.54	NA	0.99	NA	0.48	NA	0.73	NA	1.36	NA	2.52
ORP	NA	NA	-60.8	NA	17.5	NS	NS	NA	11.4	NA	-58.4	NA	65.3	NA	10.7	NA	-88.3	NA	-98.5	NA	-4.9	NA	94.9	NA	7.3

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater.
 DL - Detection limit
 NA - Not Applicable
 NS - Not Sampled
 ND - Not Detected
 NM - Not Measured
 NR - Not Required
 * - Denotes instrument related QC exceeds the control limits
 Temperature °C
 Conductivity µm/cm
 Dissolved Oxygen mg/L
 Oxygen Reduction Potential (ORP) mV
 degrees Celsius
 milligrams per liter
 millivolts
 All samples through 2016 are filtered.
 All values are in mg/L, (ppm) unless otherwise noted.

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Waukegan Station, Waukegan, IL 2010-2017

Sample: ELUC MW-15	Date	8/22/2014		11/5/2014		2/18/2015		4/20/2015		8/11/2015		11/3/2015		2/29/2016		5/3/2016		8/23/2016		12/6/2016		2/22/2017		5/17/2017			
		Standards	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	DL	Result	
Antimony	0.006	0.0030	ND	0.0030	ND	NS	NS	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND
Arsenic	0.010	0.0010	0.0048	0.0010	0.012	NS	NS	0.0010	0.0061	0.0010	0.32	0.0010	0.010	0.0010	0.0074	0.0020	0.0060	0.0010	0.0088	0.0010	0.0098	0.0010	0.040	0.0010	0.031	0.0010	0.031
Barium	2.0	0.0025	0.087	0.0025	0.083	NS	NS	0.0025	0.082	0.0025	0.045	0.0025	0.083	0.0025	0.11	0.0025	0.092	0.0025	0.10	0.0025	0.086	0.0025	0.087	0.0025	0.092	0.0025	0.092
Beryllium	0.004	0.0010	ND	0.0010	ND	NS	NS	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND
Boron	2.0	0.25	3.7	5.0	5.1	NS	NS	5.0	4.8	2.5	1.1	2.5	6.8	5.0	12	5.0	10	1.0	8.0	5.0	2.6	0.50	4.2	0.50	5.8	0.50	5.8
Cadmium	0.005	0.00050	ND	0.00050	ND	NS	NS	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND
Chloride	200.0	2.0	57	2.0	65	NS	NS	2.0	47	10	160	2.0	58	2.0	55	10	76	10	93	10	88	2.0	66	2.0	50	2.0	50
Chromium	0.1	0.0050	ND	0.0050	ND	NS	NS	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Cobalt	1.0	0.0010	0.0011	0.0010	0.0011	NS	NS	0.0010	0.0014	0.0010	ND	0.0010	0.0014	0.0010	0.0019	0.0010	0.0016	0.0010	0.0013	0.0010	0.0012	0.0010	0.0011	0.0010	0.0011	0.0010	0.0012
Copper	0.65	0.0020	ND	0.0020	ND	NS	NS	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND
Cyanide	0.2	0.010	0.17	0.010	ND	NS	NS	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND	0.010	ND
Fluoride	4.0	0.10	0.28	0.10	0.27	NS	NS	0.10	0.25	0.10	0.19	0.10	0.28	0.10	0.23	0.10	0.25	0.10	0.27	0.10	0.25	0.10	0.33	0.10	0.25	0.10	0.25
Iron	5.0	0.10	11	0.10	10	NS	NS	0.10	4.4	0.10	1.8	0.10	11	0.10	17	0.10	13	0.10	12	0.10	11	0.10	17	0.10	15	0.10	15
Lead	0.0075	0.00050	ND	0.00050	ND	NS	NS	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND
Manganese	0.15	0.0025	0.39	0.0025	0.37	NS	NS	0.0025	0.35	0.0025	0.13	0.0025	0.48	0.0025	0.56	0.0025	0.50	0.0025	0.47	0.0025	0.43	0.0025	0.36	0.0025	0.37	0.0025	0.37
Mercury	0.002	0.00020	ND	0.00020	ND	NS	NS	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND	0.00020	ND
Nickel	0.1	0.0020	ND	0.0020	0.0023	NS	NS	0.0020	0.0025	0.0020	ND	0.0020	ND	0.0020	0.0031	0.0020	0.0026	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND
Nitrogen/Nitrate	10.0	0.10	ND	0.10	ND	NS	NS	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND
Nitrogen/Nitrate, Nitrite	NA	0.10	ND	0.10	ND	NS	NS	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND	0.10	ND
Nitrogen/Nitrite	NA	0.020	ND	0.020	ND	NS	NS	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND
Perchlorate	0.0049	0.0040	ND	0.0040	ND	NS	NS	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	NR	NR	NR	NR
Selenium	0.05	0.0025	ND	0.0025	ND	NS	NS	0.0025	0.0025	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND
Silver	0.05	0.00050	ND	0.00050	ND	NS	NS	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND
Sulfate	400.0	100	250	100	350	NS	NS	50	240	25	130	50	250	100	400	100	370	50	330	50	200	100	210	100	230	100	230
Thallium	0.002	0.0020	ND	0.0020	ND	NS	NS	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND
Total Dissolved Solids	1,200	10	950	10	830	NS	NS	10	810	10	1000	10	320	10	1100	10	1000	10	1100	10	890	10	860	10	1100	10	1100
Vanadium	0.049	0.0050	ND	0.0050	ND	NS	NS	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Zinc	5.0	0.020	ND	0.020	ND	NS	NS	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND	0.020	ND
Benzene	0.005	0.00050	ND	0.00050	ND	NS	NS	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	0.00050	ND	NR	NR	NR	NR
BETX	11.705	0.0025	ND	0.0025	ND	NS	NS	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	0.0017	0.0025	ND	0.0025	ND	0.0025	ND	NR	NR	NR	NR	NR	NR
pH	6.5 - 9.0	NA	6.57	NA	7.25	NS	NS	NA	6.78	NA	6.69	NA	6.26	NA	6.96	NA	7.05	NA	6.64	NA	6.91	NA	6.78	NA	6.78	NA	8.19
Temperature	NA	NA	14.15	NA	12.68	NS	NS	NA	7.79	NA	14.22	NA	13.46	NA	8.4	NA	9.93	NA	15.67	NA	11.86	NA	10.67	NA	11.39	NA	11.39
Conductivity	NA	NA	1.114	NA	0.982	NS	NS	NA	0.840	NA	1.024	NA	1.12	NA	1.003	NA	1.034	NA	1.171	NA	0.843	NA	0.858	NA	0.753	NA	0.753
Dissolved Oxygen	NA	NA	0.25	NA	0.44	NS	NS	NA	3.50	NA	0.79	NA	0.58	NA	0.85	NA	1.0	NA	0.82	NA	0.83	NA	0.64	NA	0.75	NA	0.75
ORP	NA	NA	-75.2	NA	-105	NS	NS	NA	-44.8	NA	-72.7	NA	-18.4	NA	-84.8	NA	-127.3	NA	-64.9	NA	-88.3	NA	-38.3	NA	-108.9	NA	-108.9

Notes: Standards obtained from IAC, Title 35, Chapter 1, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class 1: Potable Resource Groundwater.

All samples through 2016 are filtered.

All values are in mg/L (ppm) unless otherwise noted.

DL - Detection Limit
 NA - Not Applicable
 ND - Not Detected
 NS - Not Measured
 NR - Not Required
 NS - Not Sampled
 ^ - Denotes instrument related QC exceeds the control limits

Temperature °C
 Conductivity µmhos/cm
 Dissolved Oxygen mg/L
 Oxygen Reduction Potential (ORP) mV

Well	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Radium 226 + 228 Combined	Selenium	Thallium
	State Standards	0.006	0.01	2.0	0.004	0.005	0.01	1.0	4.0	0.0075	NS	0.002	NS	40 pCi/L	0.05	0.002
MW-16	11/3/2015	< 0.003	0.001	0.047	< 0.001	< 0.0005	< 0.005	< 0.001	0.43	< 0.0005	0.071	< 0.0002	0.021	0.865	0.0074	< 0.002
	3/2/2016	< 0.003	0.0015	0.035	< 0.001	0.001	< 0.005	< 0.001	0.35	< 0.0005	0.13	< 0.0002	0.013	< 0.396	0.0052	0.002
	5/2/2016	< 0.003	0.0011	0.052	< 0.001	0.00053	< 0.005	< 0.001	0.49	< 0.0005	0.024	< 0.0002	0.014	0.70	< 0.0025	< 0.002
	8/24/2016	< 0.003	< 0.001	0.028	< 0.001	< 0.0005	< 0.005	< 0.001	0.71	< 0.0005	0.014	< 0.0002	0.022	< 0.462	< 0.0025	< 0.002
	12/5/2016	< 0.003	0.036	0.062	< 0.001	< 0.0005	< 0.005	0.0012	0.51	0.00054	0.011	< 0.0002	0.021	0.791	< 0.0025	< 0.002
	2/24/2017	< 0.003	0.027	0.067	< 0.001	< 0.0005	0.005	0.0011	0.2	< 0.0005	0.012	< 0.0002	0.023	0.54	0.0037	< 0.002
	5/16/2017	< 0.003	0.043	0.045	< 0.001	0.0043	0.0076	< 0.001	0.15	0.00057	0.13	< 0.0002	0.016	0.441	0.016	0.0021
	7/6/2017	< 0.003	0.0029	0.029	< 0.001	0.00069	< 0.005	< 0.001	0.57	< 0.0005	0.017	< 0.0002	0.017	< 0.382	< 0.0025	< 0.002

Notes: State Standards obtained from IAC, Title 35, Chapter 1, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class 1: Potable Resource Groundwater.

All samples were unfiltered.

All values are in mg/L (ppm) unless otherwise noted.

DL - Detection Limit
 NA - Not Applicable
 ND - Not Detected
 NS - Not Measured
 NR - Not Required
 NS - Not Sampled
 ^ - Denotes instrument related QC exceeds the control limits

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Will County Station, Romeville, IL

Table with 52 columns (Date, Standards, DL, Result) and rows for various parameters including Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Chloride, Chromium, Cobalt, Copper, Cyanide, Fluoride, Iron, Lead, Manganese, Mercury, Nickel, Nitrogen/Nitrate, Nitrogen/Nitrite, Nitrogen/Nitrite, Perchlorate, Selenium, Silver, Sulfate, Thallium, Total Dissolved Solids, Vanadium, Zinc, Benzene, BETX, pH, Temperature, Conductivity, and Dissolved Oxygen.

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.010 - Groundwater Quality Standards for Class I, Potable Resource Groundwater. DL - Detection Limit; NA - Not Applicable; ND - Not Detected; NM - Not Measured; NR - Not Required; * - Dioxin instrument related QC exceeds the control limits; Temperature in degrees Celsius; Conductivity in micro mhos/cm; Dissolved Oxygen in mg/L; Oxygen Reduction Potential (ORP) in millivolts.

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Will County Station, Romeville, IL

Table with 33 columns for dates from 12/13/2010 to 5/9/2017 and 39 rows for parameters including Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Chloride, Chromium, Cobalt, Copper, Cyanide, Fluoride, Iron, Lead, Manganese, Mercury, Nickel, Nitrogen/Nitrate, Nitrogen/Nitrite, Nitrogen/Nitrate, Perchlorate, Selenium, Silver, Sulfate, Thallium, Total Dissolved Solids, Vanadium, Zinc, Benzene, BETX, pH, Temperature, Conductivity, Dissolved Oxygen, and ORP. Each cell contains a numerical result or a standard abbreviation like ND, NA, or NR.

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D. DL - Detection limit; NA - Not Applicable; NR - Not Required; Section 620.110 - Groundwater Quality Standards for Class I Potable Resource Groundwater; All values are in mg/L (ppm) unless otherwise noted.

Electronic Filing: Received, Clerk's Office 10/23/2017

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Will County Station, Romeoville, IL

Well	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Radium 226 + 228 Combined	Selenium	Thallium
	State Standards	0.006	0.01	2.0	0.004	0.005	0.01	1.0	4.0	0.0075	NS	0.002	NS	40 pCi/L	0.05	0.002
MW-11	11/10/2015	< 0.003	0.007	0.098	< 0.001	< 0.0005	< 0.005	< 0.001	0.61	0.00064	< 0.01	< 0.0002	0.0090	0.736	< 0.0025	< 0.002
	2/16/2016	< 0.003	0.0059	0.11	* < 0.001	< 0.0005	< 0.005	< 0.001	0.68	< 0.0005	0.012	< 0.0002	0.078	1.14	< 0.0025	< 0.002
	5/25/2016	< 0.003	0.0073	0.093	* < 0.001	< 0.0005	< 0.005	< 0.001	0.75	< 0.0005	< 0.01	< 0.0002	0.083	0.775	< 0.0025	< 0.002
	8/10/2016	< 0.003	0.0072	0.12	< 0.001	< 0.0005	< 0.005	< 0.001	0.72	< 0.0005	< 0.010	< 0.0002	0.087	0.807	< 0.0025	< 0.002
	10/26/2016	< 0.003	0.0082	0.096	< 0.001	< 0.0005	< 0.005	< 0.001	0.53	0.00052	< 0.01	< 0.0002	0.043	0.51	< 0.0025	< 0.002
	2/1/2017	< 0.003	0.011	0.15	* < 0.001	< 0.0005	< 0.005	< 0.001	0.65	< 0.0005	< 0.01	< 0.0002	0.076	0.909	< 0.0025	< 0.002
	5/10/2017	< 0.003	0.014	0.14	< 0.001	< 0.0005	< 0.005	< 0.001	0.46	< 0.0005	< 0.01	< 0.0002	0.074	1.03	< 0.0025	< 0.002
	6/27/2017	< 0.003	0.0058	0.11	< 0.001	< 0.0005	< 0.005	< 0.001	0.59	< 0.0005	< 0.01	< 0.0002	0.069	0.692	< 0.0025	< 0.002

Notes:
 All units are in mg/l except Radium is in pCi/L as noted.
 State Standards obtained from IAC, Title 35, Chapter 1, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I: Potable Resource Groundwater.
 All samples were unfiltered.

NS - No Standard
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 * - LCS or LCSD is outside acceptance limits.

Well	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Radium 226 + 228 Combined	Selenium	Thallium
	State Standards	0.006	0.01	2.0	0.004	0.005	0.01	1.0	4.0	0.0075	NS	0.002	NS	40 pCi/L	0.05	0.002
MW-12	11/10/2015	< 0.003	0.0016	0.11	< 0.001	< 0.0005	< 0.005	< 0.001	0.59	< 0.0005	0.012	< 0.0002	0.034	0.8139	< 0.0025	< 0.002
	2/16/2016	< 0.003	0.0013	0.084	* < 0.001	< 0.0005	< 0.005	< 0.001	0.52	< 0.0005	0.015	< 0.0002	0.031	< 0.407	< 0.0025	< 0.002
	5/25/2016	< 0.003	0.0013	0.12	* < 0.001	< 0.0005	< 0.005	< 0.001	0.54	0.00063	0.014	< 0.0002	0.03	0.41	0.0026	< 0.002
	8/10/2016	< 0.003	0.0017	0.12	< 0.001	< 0.0005	< 0.005	< 0.001	0.49	0.0006	0.017	< 0.0002	0.04	< 0.426	0.0077	< 0.002
	10/26/2016	< 0.003	0.0016	0.11	< 0.001	< 0.0005	0.025	< 0.001	0.49	< 0.0005	0.013	< 0.0002	0.036	< 0.664	< 0.0025	< 0.002
	2/1/2017	< 0.003	0.0017	0.11	* < 0.001	< 0.0005	< 0.005	< 0.001	0.48	0.00065	0.013	< 0.0002	0.023	0.949	< 0.0025	< 0.002
	5/10/2017	< 0.003	0.0013	0.13	< 0.001	< 0.0005	< 0.005	< 0.001	0.3	< 0.0005	0.012	< 0.0002	0.029	< 0.464	0.017	< 0.002
	6/27/2017	< 0.003	0.0014	0.14	< 0.001	< 0.0005	< 0.005	< 0.001	0.44	< 0.0005	0.017	< 0.0002	0.03	0.455	0.0032	< 0.002

Notes:
 All units are in mg/l except Radium is in pCi/L as noted.
 State Standards obtained from IAC, Title 35, Chapter 1, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I: Potable Resource Groundwater.
 All samples were unfiltered.

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