



Stantec Consulting Services Inc.
10200 Alliance Road, Suite 300
Cincinnati OH 45242-4754

January 28, 2025

File: 175534018

Ohio Valley Electric Corporation
Indiana-Kentucky Electric Corporation
Attention: Mr. Zachary Hammond
3932 U.S. Route 23
P.O. Box 468
Piketon, Ohio 4566

**Reference: Groundwater Sampling and Analysis Compliance
Landfill Runoff Collection Pond
EPA Final Coal Combustion Residuals (CCR) Rule
Clifty Creek Station
Madison, Jefferson County, Indiana**

Dear Mr. Hammond,

This letter is to meet the intent of 40 CFR 257.105(h)(11), "Documentation prepared by the owner or operator recording the public meeting for the corrective measures assessment as required under §257.96(e)."

The Landfill Runoff Collection Pond at the Clifty Creek Station is in groundwater assessment monitoring under 40 CFR 257.95 of the *Disposal of Coal Combustion Residuals from Electric Utilities* rule (CCR Rule) signed by the U.S. Environmental Protection Agency (EPA) Administrator on December 19, 2014 and published in the Federal Register on April 17, 2015. Applied Geology and Environmental Science, Inc. (AGES) of Clinton, Pennsylvania prepared an assessment of corrective measures (ACM) report for the Landfill Runoff Collection Pond in September 2019. Indiana-Kentucky Electric Corporation (IKEC) posted the ACM report to the publicly accessible internet and operating record on September 19, 2019. IKEC also sent a letter indicating the availability of the report to the director of the Indiana Department of Environmental Management.

Under the requirements of 40 CFR 257.96(e), "the owner or operator must discuss the results of the corrective measures assessment at least 30 days prior to the selection of remedy, in a public meeting with interested and affected parties."

The Clifty Creek Station held an informational open house to discuss the results of the ACM activities at the Landfill Runoff Collection Pond on November 7, 2019. It was held at the Venture Out Business Center, 975 Industrial Drive, Madison, Indiana 47250. Representatives from IKEC, the Clifty Creek Station, AGES, and Stantec were present. Attachment A contains the posters presented and discussed by the representatives at the meeting.

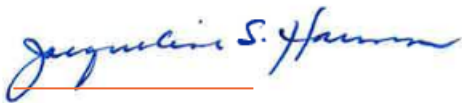
**Reference: Groundwater Sampling and Analysis Compliance
Landfill Runoff Collection Pond
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Clifty Creek Station
Madison, Jefferson County, Indiana**

A daily advertisement for the open house was posted in the Madison Courier beginning two weeks prior to the meeting. Two archived pages from the Madison Courier showing the public meeting notice are included in Attachment B. State regulators were notified of the upcoming public meeting as shown in the letter to the Indiana Department of Environmental Management commissioner provided in Attachment C.

Stantec appreciates the opportunity to support IKEC and the Clifty Creek Station as they strive to meet the CCR Rule. Please feel free to contact me with questions or concerns at (513) 842-8200.

Regards,

Stantec Consulting Services Inc.



Jacqueline Harmon P.E.
Project Manager
Phone: (513) 842-8220
jacqueline.harmon@stantec.com

stantec.com

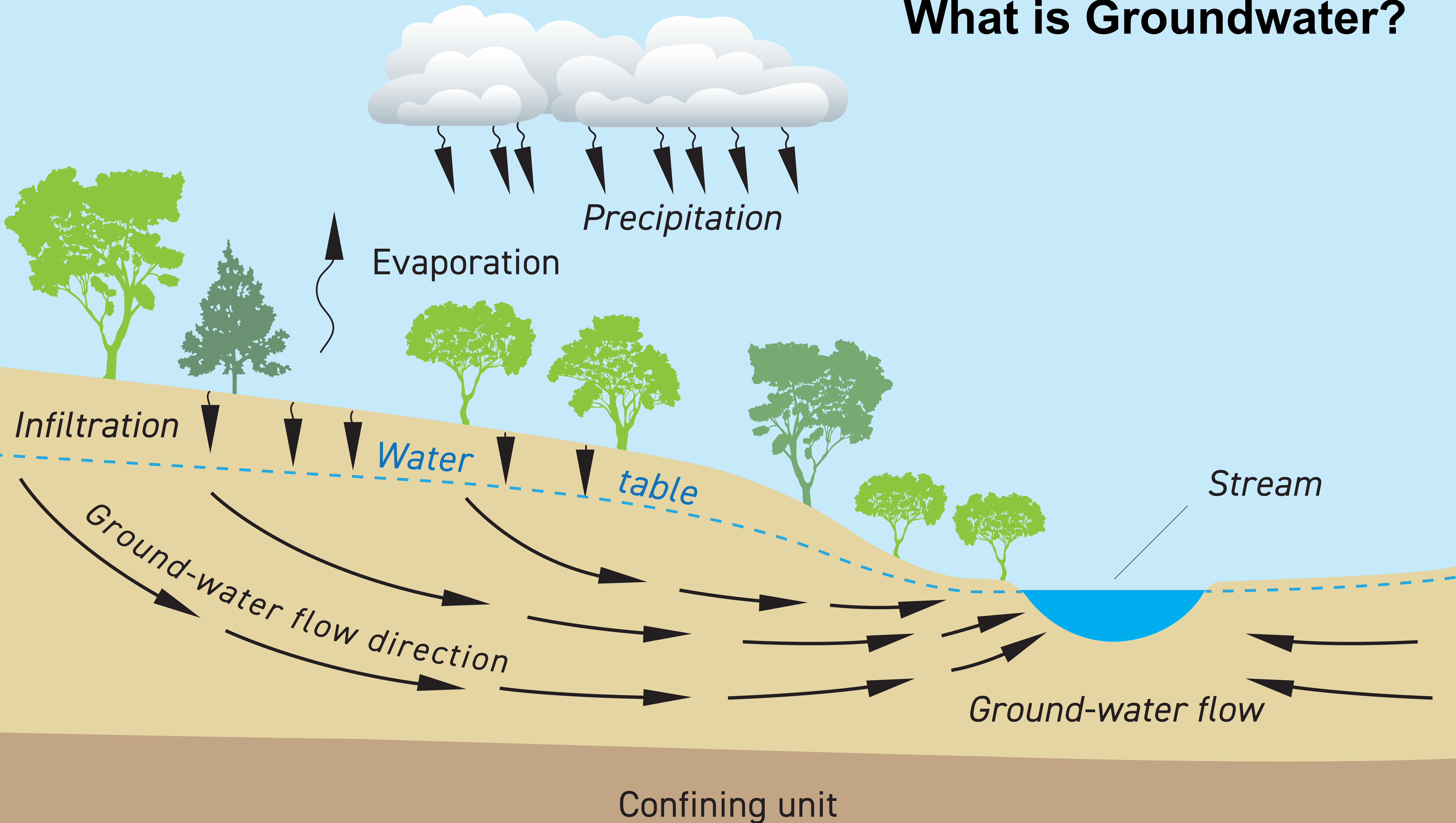
Attachment: Attachment A – Presentation Posters (November 7, 2019)
Attachment B – Archived Pages, Madison Courier (October 29 and 31, 2019)
Attachment C – Notification of Initiation of Assessment of Corrective Measures, Letter to Bruno Pigott, Commissioner (May 15, 2019)

- c. G. Coriell, OVEC
- B. Hornsby, Clifty Creek Station
- R. King, AGES

ATTACHMENT A

**Presentation Posters
(November 7, 2019)**

What is Groundwater?

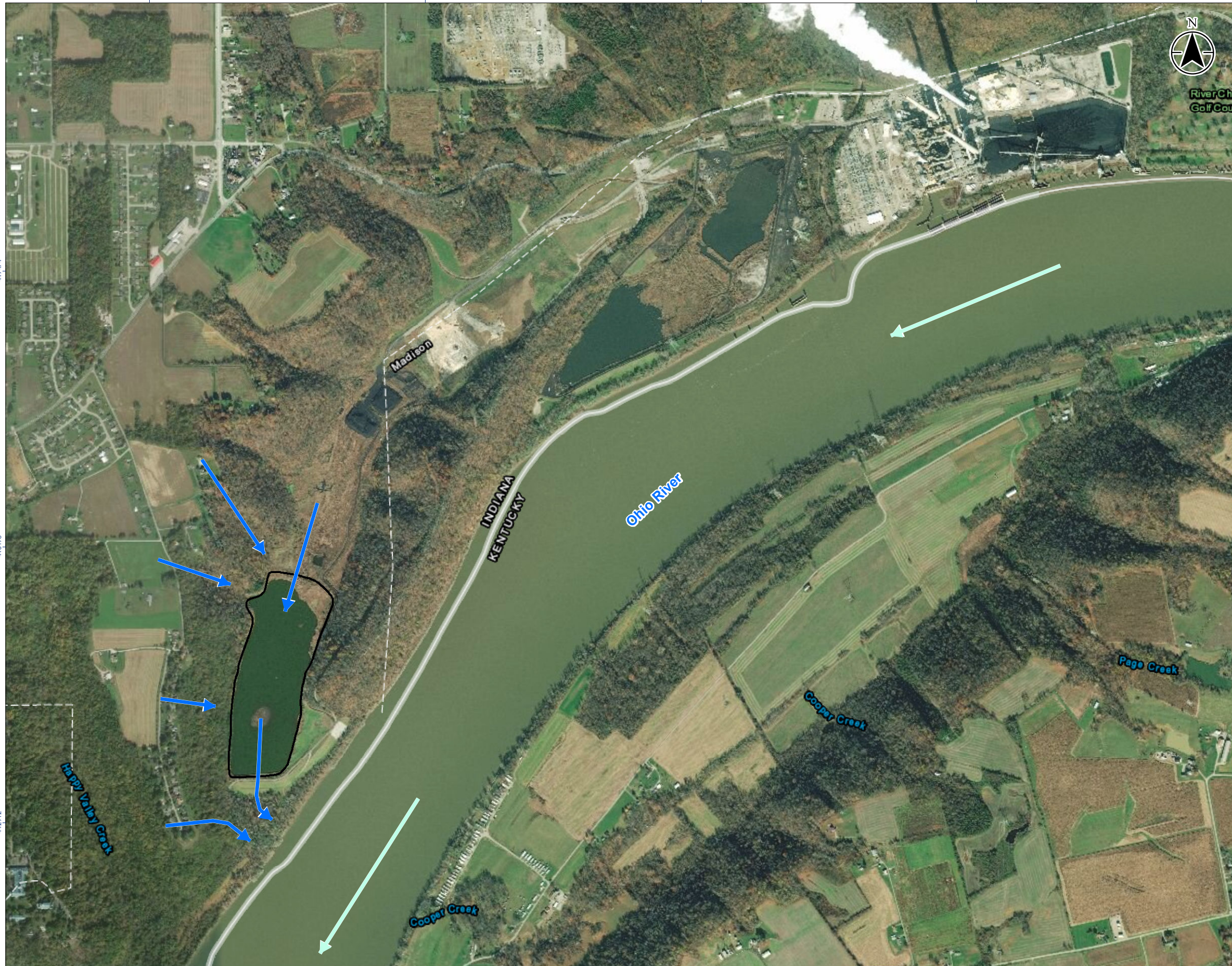


561022

564303

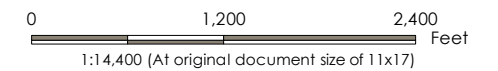
567584

570865



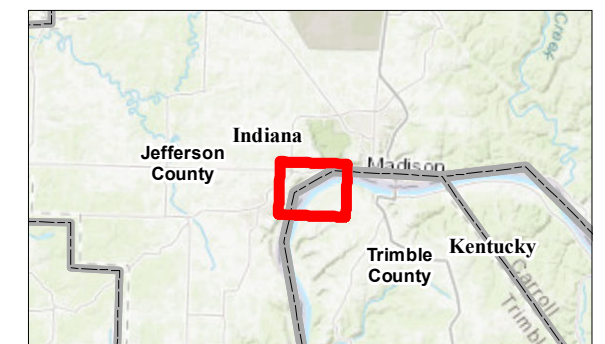
Legend

- General Direction of Groundwater Flow
- CCR Unit



Notes

1. Coordinate System: Latitude/Longitude NAD83
2. Base features - ESRI
3. Ortho-Imagery does not represent current conditions.



Project Location: 175534018
 Clifty Creek Station Prepared by AP on 10/28/2019
 Jefferson County, IN Technical Review by JH on 10/28/2019
 Independent Review by SH on 10/28/2019

Client/Project
 Indiana - Kentucky Electric Corporation
 Landfill Runoff Collection Pond

Figure No.

1

Title

Areal Groundwater

V:\175534018\175534018\Map\ArealGroundwater_Episode.mxd Revised: 2019-10-30 by: capooler 4/29/12

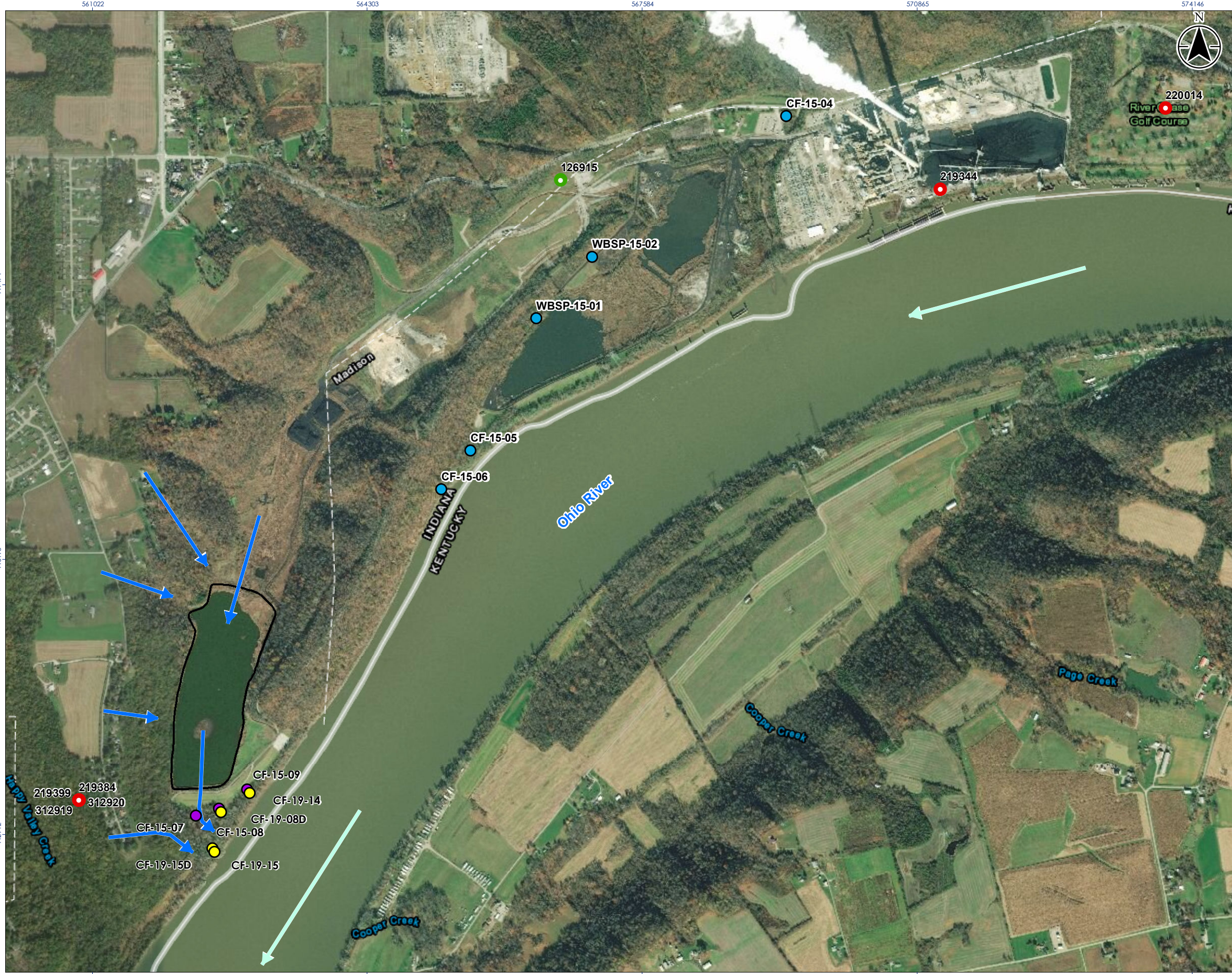
449274

446193

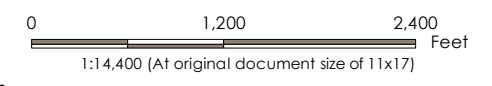
449274

446193

442912



- Legend**
- Private Wells
 - Petroleum Dry Well IGS
 - CCR Well - Background
 - CCR Well - Downgradient
 - CCR Well - Sentinel
 - General Direction of Groundwater Flow
 - CCR Units



- Notes**
1. Coordinate System: Latitude/Longitude NAD83
 2. Base features - ESRI
 3. Ortho-imagery does not represent current conditions.
 4. IDNR Water Wells June 2016
 5. The nearest municipal water wells are located 0.89 miles upstream of the West Boiler Slag Pond and 1.20 miles downstream of the Landfill Runoff Collection Pond.
 6. Indiana Geological Survey (IGS) - 2015
 7. No Mining Activities within One Mile Buffer.
 8. AGES (2014). Coal Combustion Residuals Regulation. Monitoring Well Installation Report. Indiana-Kentucky Electric Corporation, Clifty Creek Station. Madison, Indiana. October.



Project Location: Clifty Creek Station, Jefferson County, IN
 Prepared by AP on 10/28/2019
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 Independent Review by SH on 10/28/2019

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 Landfill Runoff Collection Pond

Figure No. **2**

Title: **Regional Influences**

561022 564303 567584 570865 574146

449474 446193 442912

220014 River Base Golf Course

219344

126915

CF-15-04

WBSP-15-02

WBSP-15-01

Madison

INDIANA KENTUCKY

Ohio River

Page Creek

Cooper Creek

CF-15-05

CF-15-06

CF-15-09

CF-19-14

CF-19-08D

CF-15-07

CF-15-08

CF-19-15D

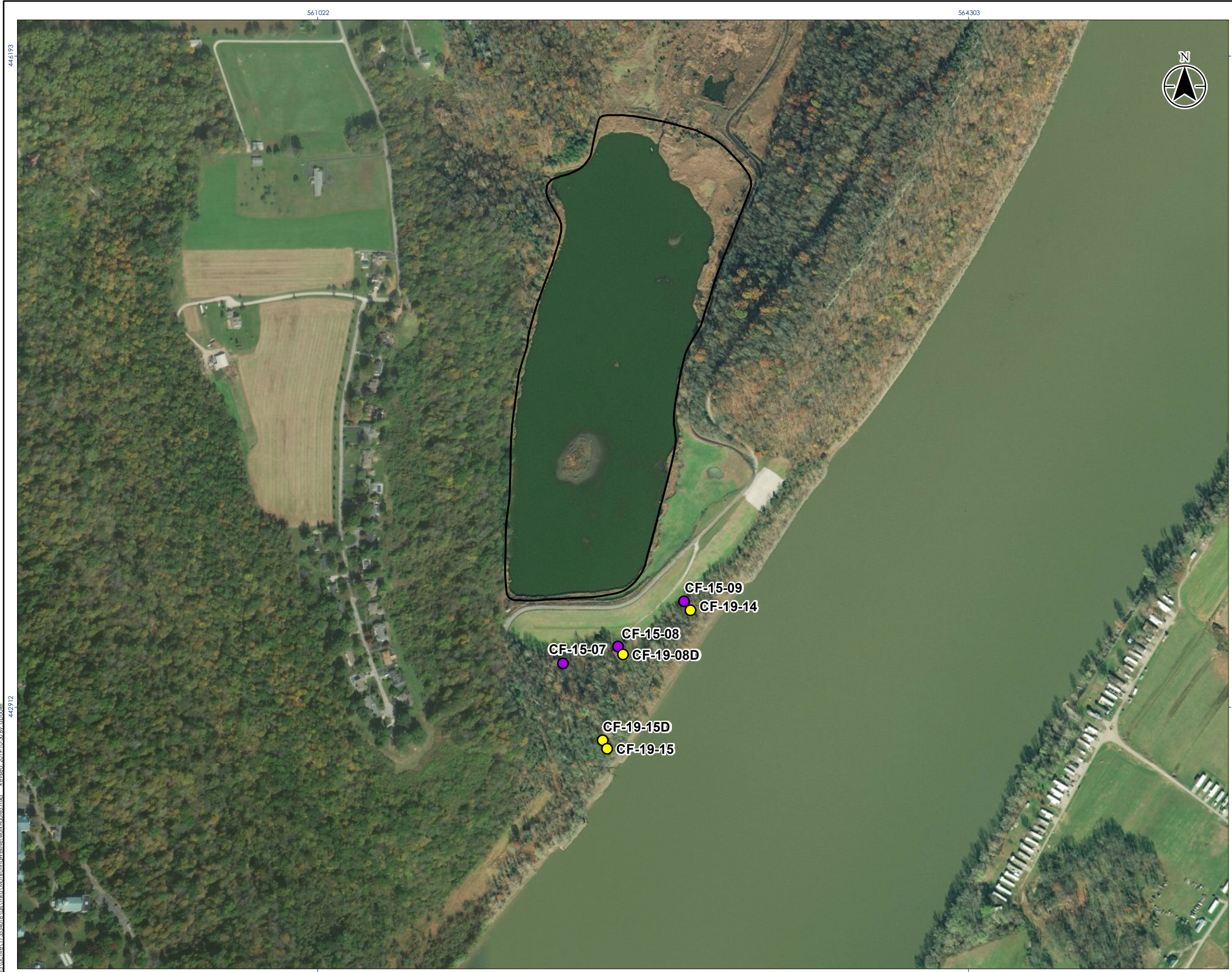
CF-19-15

219399 219384 312919 312920

Happy Valley Creek

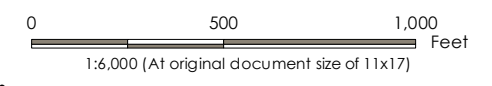
VA172530active\172534018\08\mxd\Regional Influences\Enr02.mxd, Revised: 2019-10-30 10:30 AM, capooler

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Legend

- CCR Well - Downgradient
- CCR Well - Sentinel
- CCR Unit



Notes

1. Coordinate System: Latitude/Longitude NAD83
2. Base features - ESRI
3. Ortho-imagery does not represent current conditions.
4. AGES (2016). Coal Combustion Residuals Regulation. Monitoring Well Installation Report. Indiana-Kentucky Electric Corporation, Clifty Creek Station. Madison, Indiana. October.



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Figure No.

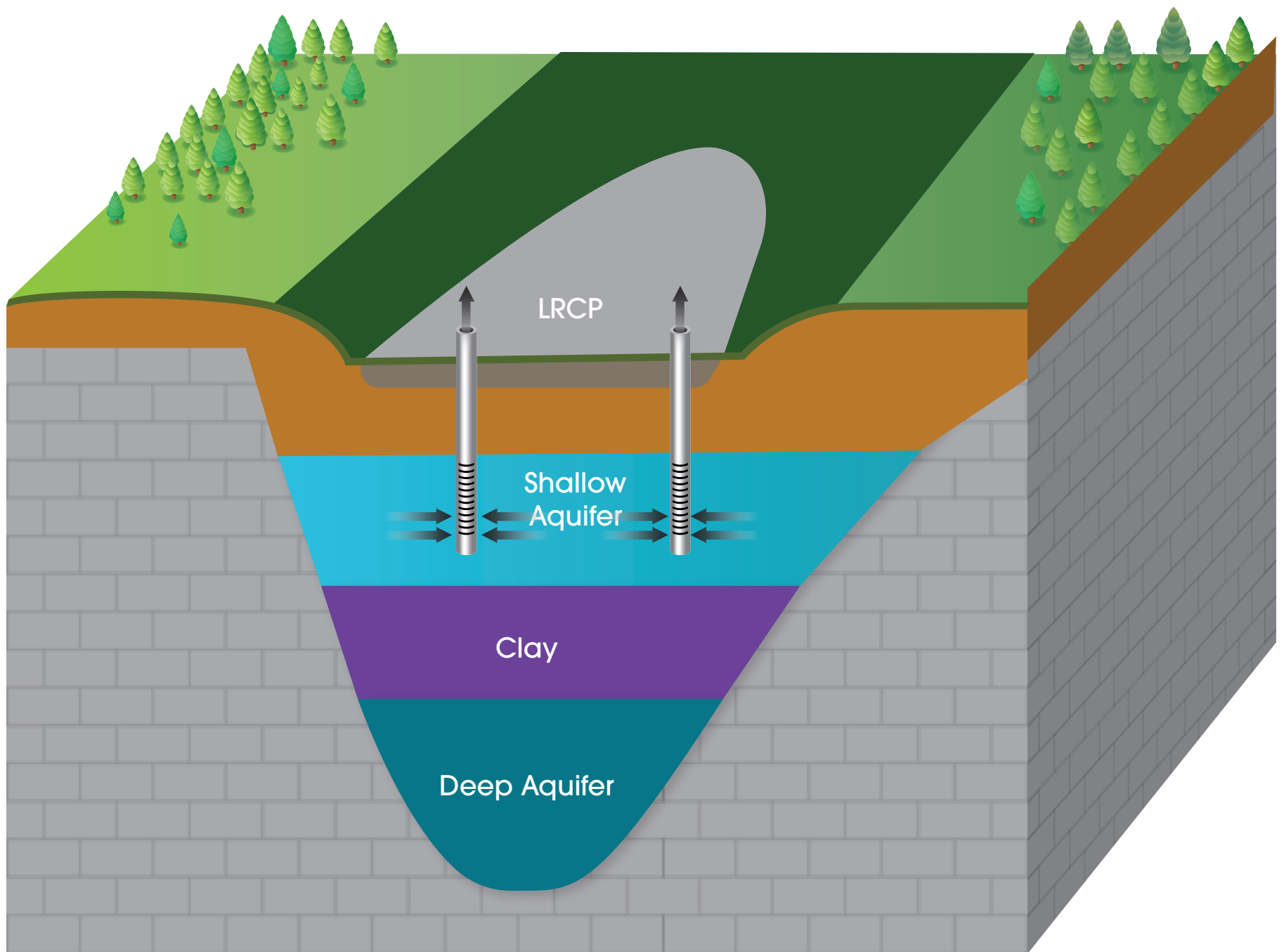
3

Title

Monitoring Well Network

446193
 442912
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 Revise: 2019.10.30 By: cpo26r

Groundwater Pump & Treat

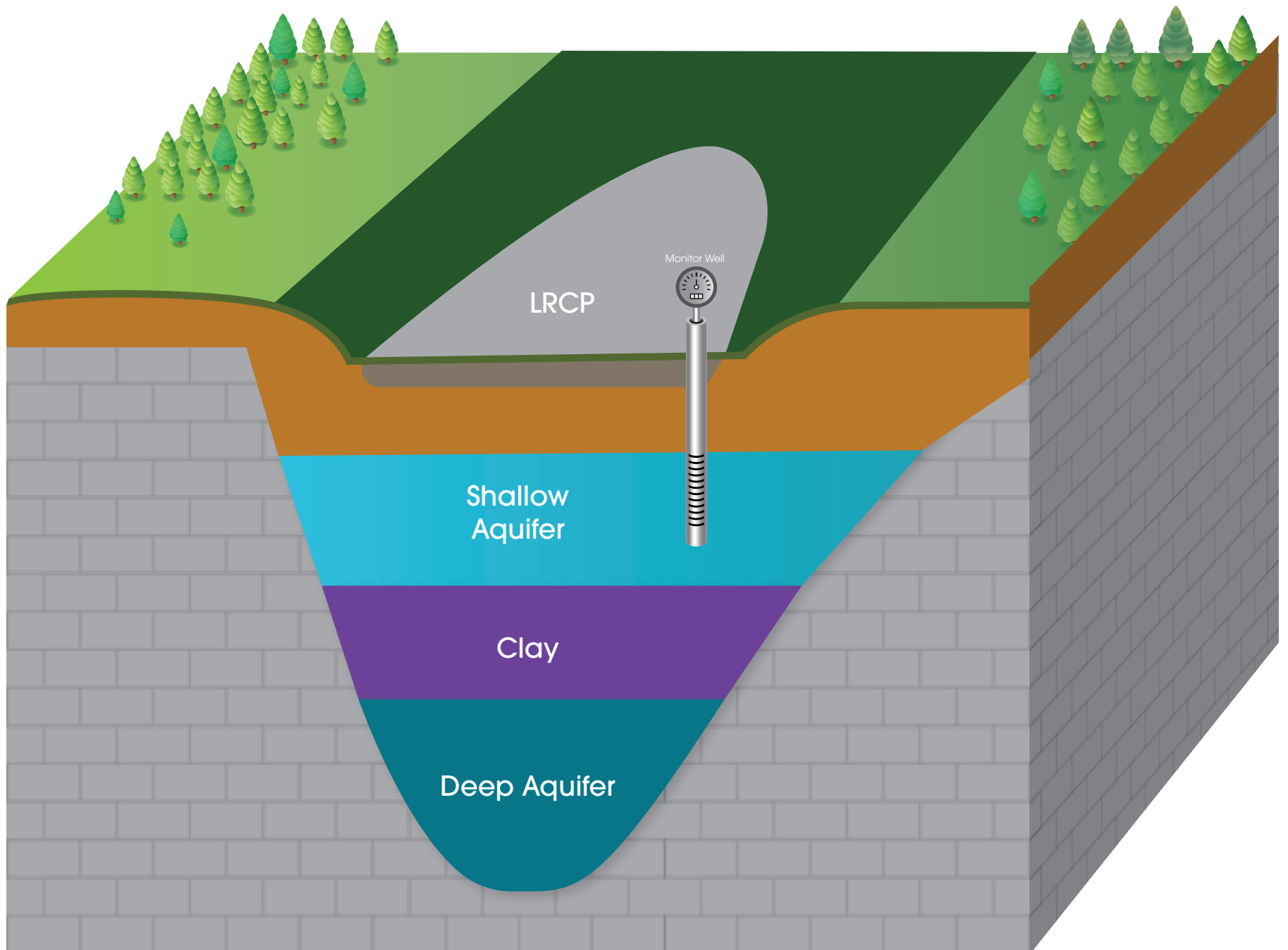


Groundwater Pump & Treat involves withdrawing and cleaning the groundwater before returning it back to natural drainage systems.

Overview

- Install wells into the groundwater at the LRCP and pump the groundwater with Molybdenum in it to the surface.
- At the surface, the water will be treated to remove the Molybdenum, the treated water will be sampled to make sure it's clean, and then discharged under a state permit.
- The monitoring program includes routine collection of water samples from the wells with analyses by an outside laboratory for Molybdenum.
- The lab results will be studied to make sure that the pump and treat system is working. If not, then more wells may be needed the wells may be pumped at different rates.
- Remedial program will continue until Molybdenum levels meet the standard.

Monitored Natural Attenuation (MNA)



Monitored Natural Attenuation allows for natural processes to attenuate (reduce) contaminants. The effectiveness of this remediation is demonstrated by periodic monitoring.

Overview

- Allows natural physical and chemical processes to attenuate (reduce) concentrations of Molybdenum in the groundwater.
- Molybdenum levels are reduced through mixing and by the adsorption of Molybdenum into the soils.
- Attenuation happens on its own as a result of the natural chemistry of the groundwater and the affinity of the soil to bind up Molybdenum.
- The monitoring program includes the routine collection of water samples from wells with analyses by an outside laboratory for Molybdenum.
- The remedial program will continue until Molybdenum levels meet the standard.

ATTACHMENT B

**Archived Pages, Madison Courier
(October 29 and 31, 2019)**

ATTACHMENT C

**Notification of Initiation of Corrective Measures
Letter to Bruno Pigott, Commissioner
(May 15, 2019)**



OHIO VALLEY ELECTRIC CORPORATION

3932 U. S. Route 23
P. O. Box 468
Piketon, Ohio 45661
740-289-7200

WRITER'S DIRECT DIAL NO:
740-897-7768

May 15, 2019

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Bruno Pigott, Commissioner
Indiana Department of Environmental Management
100 N. Senate Avenue
Mail Code 50-01
Indianapolis, IN 46204-2251

Dear Mr. Pigott:

Re: Indiana-Kentucky Electric Corporation
Notification of Initiation of Assessment of Corrective Measures

As required by 40 CFR 257.106(h)(7), the Indiana-Kentucky Electric Corporation (IKEC) is providing notification to the Commissioner (State Director) of the Indiana Department of Environmental Management (IDEM) that an Assessment of Corrective Measures has been initiated for a confirmed Statistically Significant Increase (SSI) of Appendix IV constituent Molybdenum at Clifty Creek Station's Landfill Runoff Collection Pond (LRCP). IDEM was previously notified that SSIs had been confirmed for both the Clifty Creek Station Landfill and LRCP. However, IKEC was able to conduct a successful Alternative Source Demonstration (ASD) for the Clifty Creek Landfill so it will therefore remain in Detection Monitoring.

Upon completion of the Assessment of Corrective measures, IKEC will hold a public meeting to discuss the findings and results at least 30 days prior to selecting and implementing a remedy, as prescribed by 40 CFR 257.96(e).

If you have any questions, or require any additional information, please call me at (740) 897-7768.

Sincerely,

A handwritten signature in black ink that reads "Tim Fulk".

Tim Fulk
Engineer II

TLF:klr