



Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site

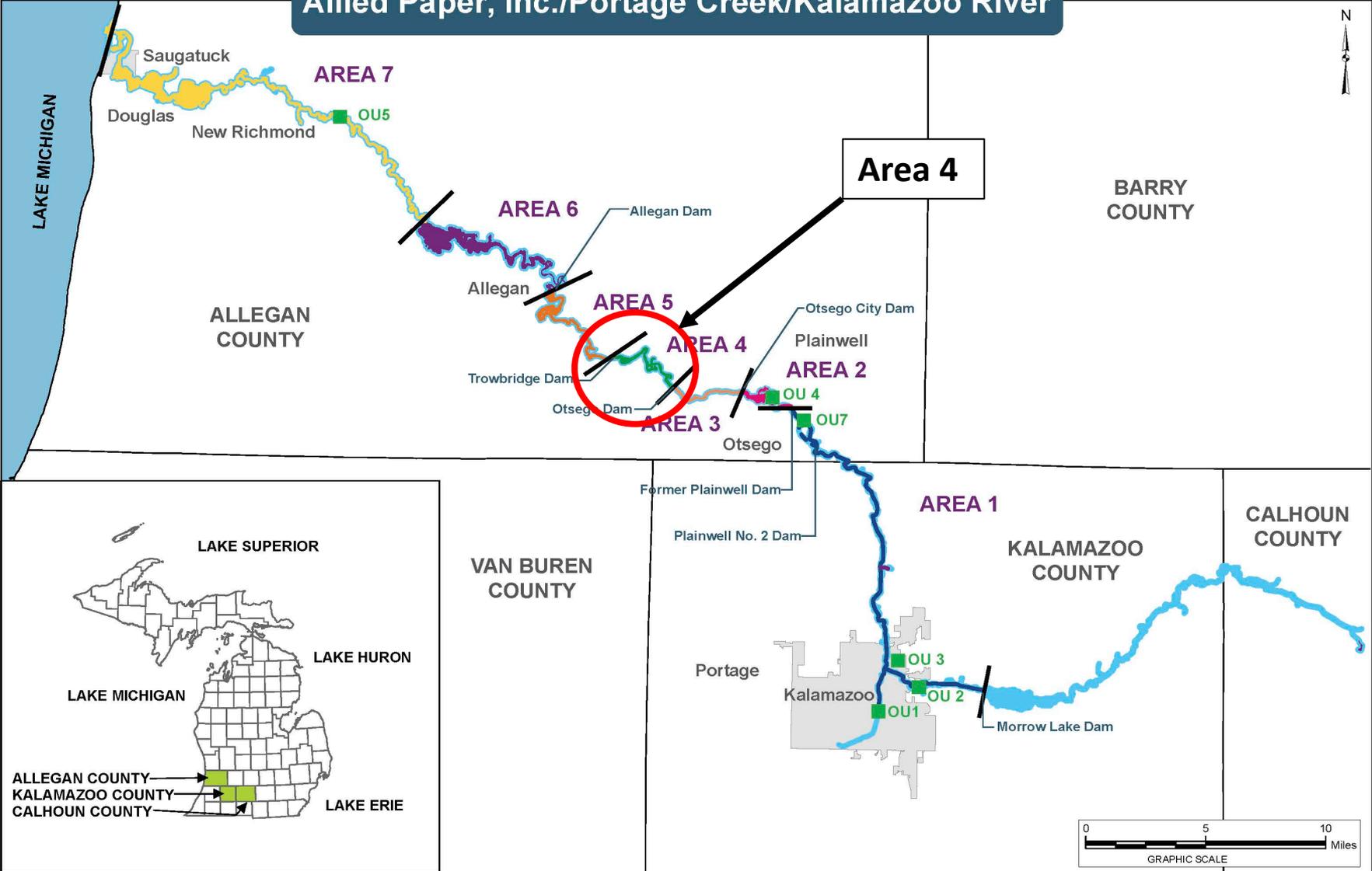
Trowbridge Dam Area Time Critical Removal Action



The logo for the Michigan Department of Environment, Great Lakes, and Energy (EGLE) is centered in the bottom row. It consists of the letters "EGLE" in a bold, sans-serif font. The "E" and "L" are green, while the "G" and "E" are blue.



Allied Paper, Inc./Portage Creek/Kalamazoo River



Otsego Township Dam – Summer 2015



Powerhouse Removal – Fall 2015



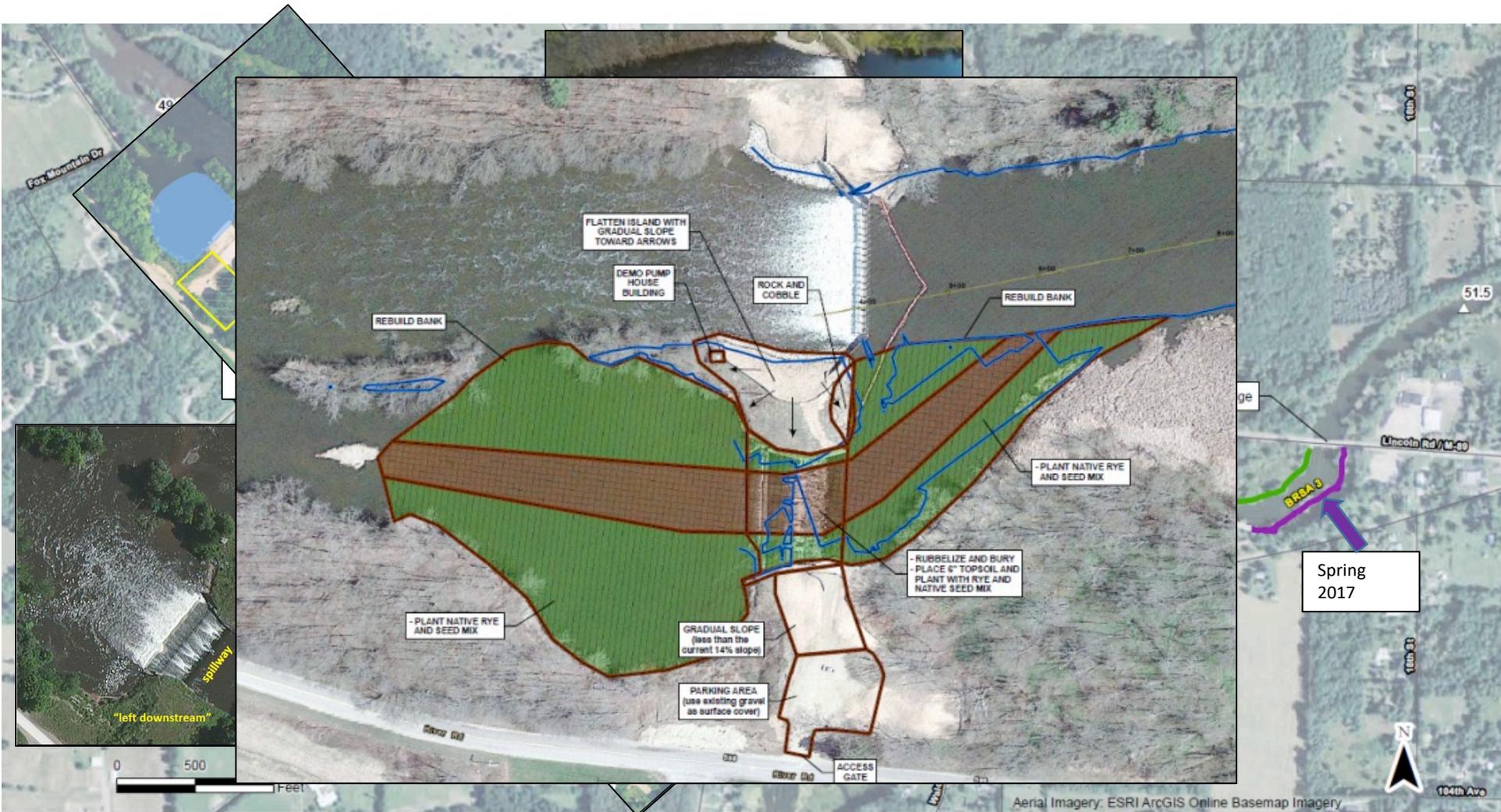
Temporary Water Control Structure Construction Winter 2015-16



Temporary Water Control Structure - 2017



Otsego Township Dam Area – Construction Sequence



Pilot Channel Dredging



Temporary Water Control Structure Removal - RDB (Winter 2017-18)



Temporary Water Control Structure Removal - LDB (Winter 2017-18)



Auxiliary Spillway Rubblization (Spring 2018)



Otsego Township Dam Area - After



Path / Parking at Fox Mountain / Bittersweet

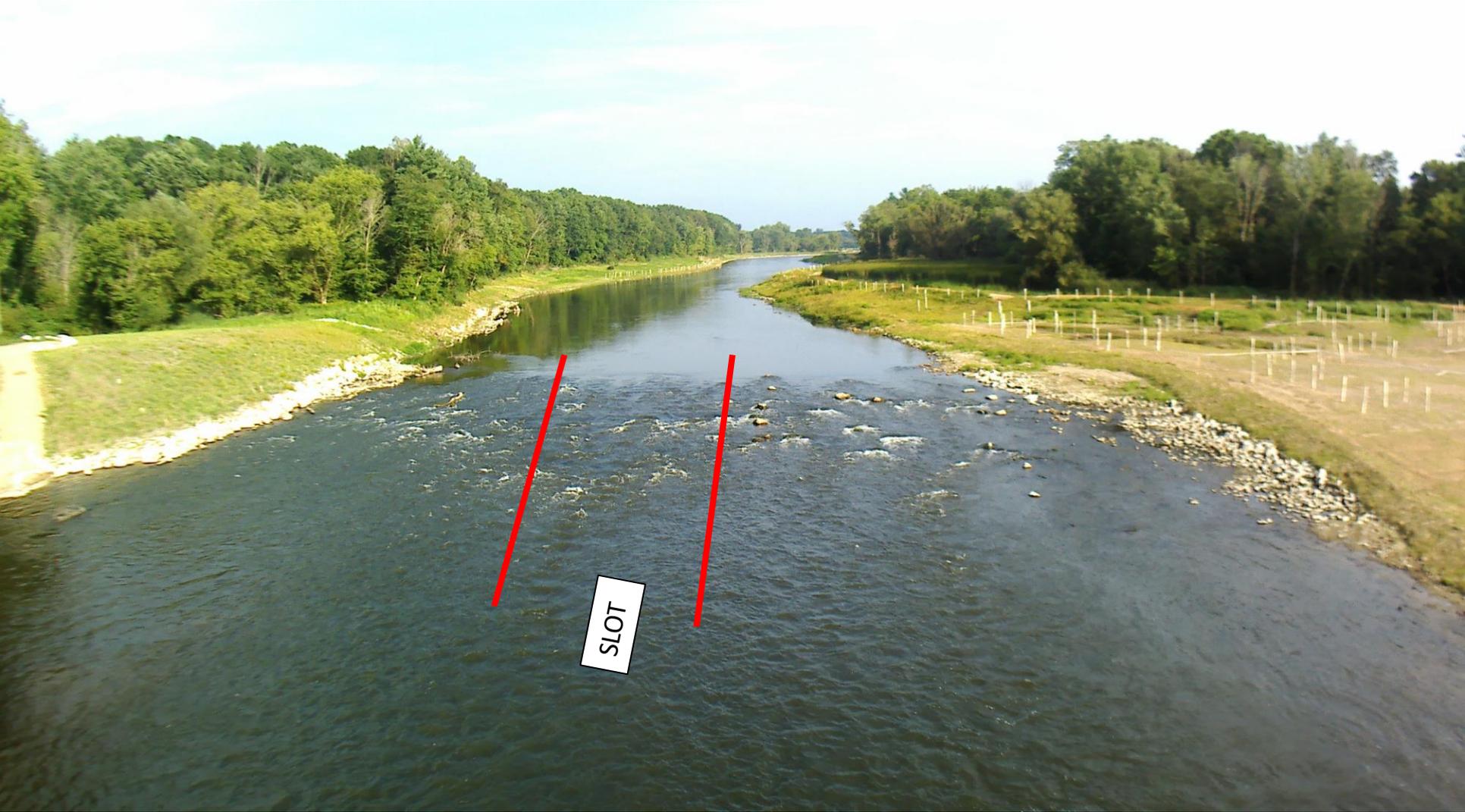


Path at Fox Mountain / Bittersweet





Former Otsego Township Dam Corridor



Pine Creek Launch / Parking

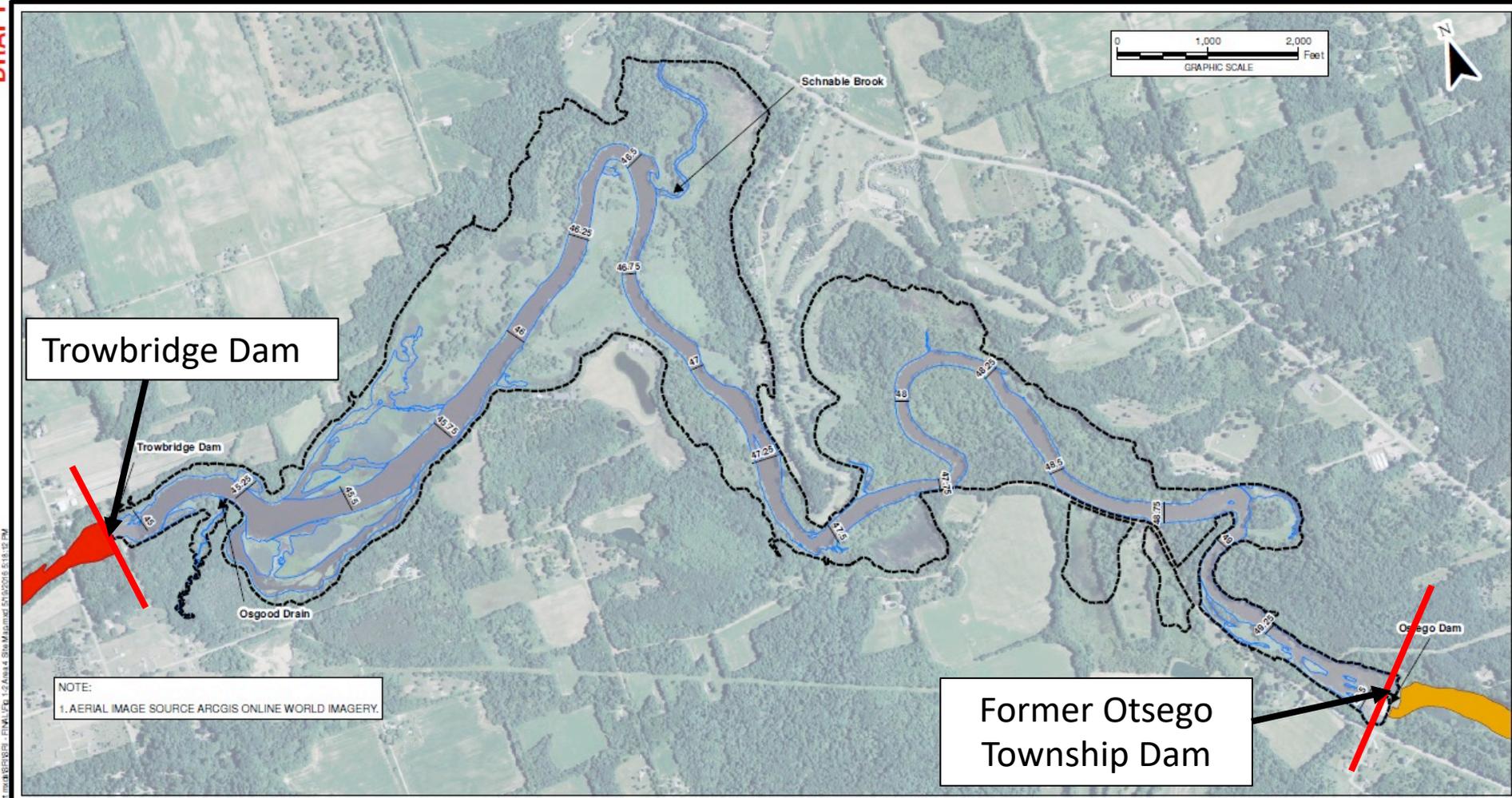


Just downstream of Pine Creek Confluence

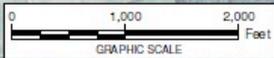


SLOT 1

SLOT 2



Trowbridge Dam



Schnable Brook

Osgood Drain

Former Otsego Township Dam

Otsego Dam

NOTE:
 1. AERIAL IMAGE SOURCE ARCGIS ONLINE WORLD IMAGERY.

- LEGEND:**
- AREA 3
 - AREA 5
 - APPROX. STUDY AREA
 - SHORELINE
 - RIVER 0.25 MILE MARKER

Area 4

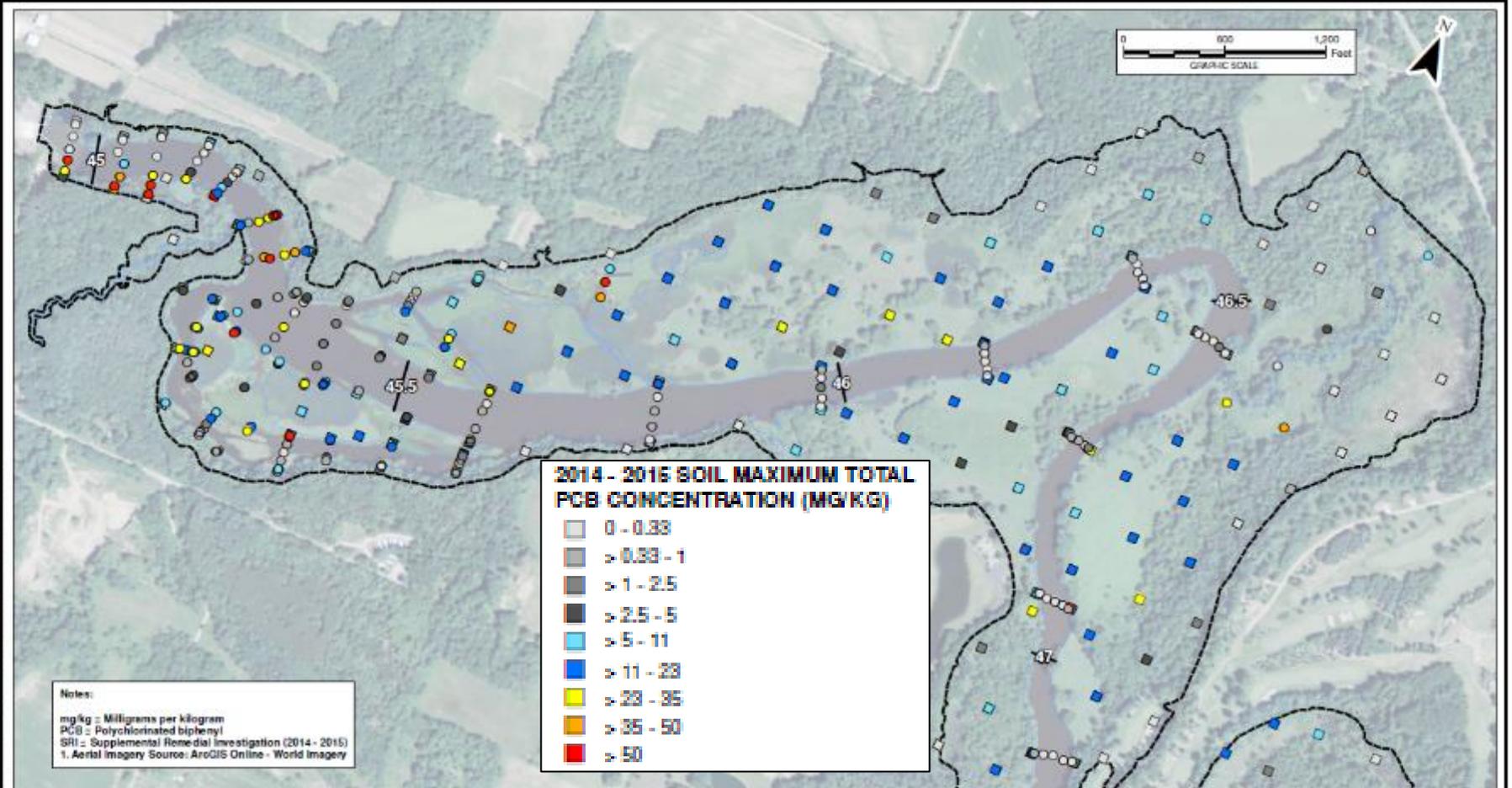
4.7 mi between former Otsego Township Dam & Trowbridge Dam. ~ 600 acres.

GEORGIA-PACIFIC LLC ALLIED PAPER, INC./PORTAGE CREEK/ KALAMAZOO RIVER SUPERFUND SITE AREA 4 SUPPLEMENTAL REMEDIAL INVESTIGATION REPORT	
AREA 4 SITE MAP	
Prepared by: CTR Date: 5/19/2016 Checked by: CLK Date: 5/19/2016 Project Number: 1000150004	FIGURE 1-2

C:\Users\jlp... \Public\KalamazooRiver\Area4\StudyArea\Area4_SiteMap.mxd 5/19/2016 5:18:12 PM

PCB Sample Distribution - Area 4

DRAFT



LEGEND:

2014 - 2015 SEDIMENT MAXIMUM TOTAL PCB CONCENTRATION (MG/KG)

Light Gray	0 - 0.33
Dark Gray	> 0.33 - 1
Medium Gray	> 1 - 2.5
Black	> 2.5 - 5
Light Blue	> 5 - 11
Blue	> 11 - 23
Yellow	> 23 - 35
Orange	> 35 - 50
Red	> 50

2014 - 2015 SOIL MAXIMUM TOTAL PCB CONCENTRATION (MG/KG)

Light Gray	0 - 0.33
Dark Gray	> 0.33 - 1
Medium Gray	> 1 - 2.5
Black	> 2.5 - 5
Light Blue	> 5 - 11
Blue	> 11 - 23
Yellow	> 23 - 35
Orange	> 35 - 50
Red	> 50

— RIVER MILE
 — AREA 4 STUDY AREA BOUNDARY
 — SHORELINE

BECHSIA PACIFIC LLC
 ALLED PAPER, INC./PORTAGE CREEK
 KALAMAZOO RIVER SUPERFUND SITE
 AREA 2 SUPPLEMENTAL REMEDIAL
 INVESTIGATION REPORT

**PCB MAX CONCENTRATIONS FOR SRI
 SOIL AND SEDIMENT - DOWNSTREAM
 (ALL INTERVALS)**

Prepared by: Dale
Checked by: G.A. H. 1/2017
Project Manager: 2017 10/24

amec foster wheeler **FIGURE 4-1b**

Area 4 Bank Erosion



Trowbridge Dam Current Condition – 9/18



Construction – early 1900's



Township Dam Construction – early 1900's



Construction – early 1900's



1903

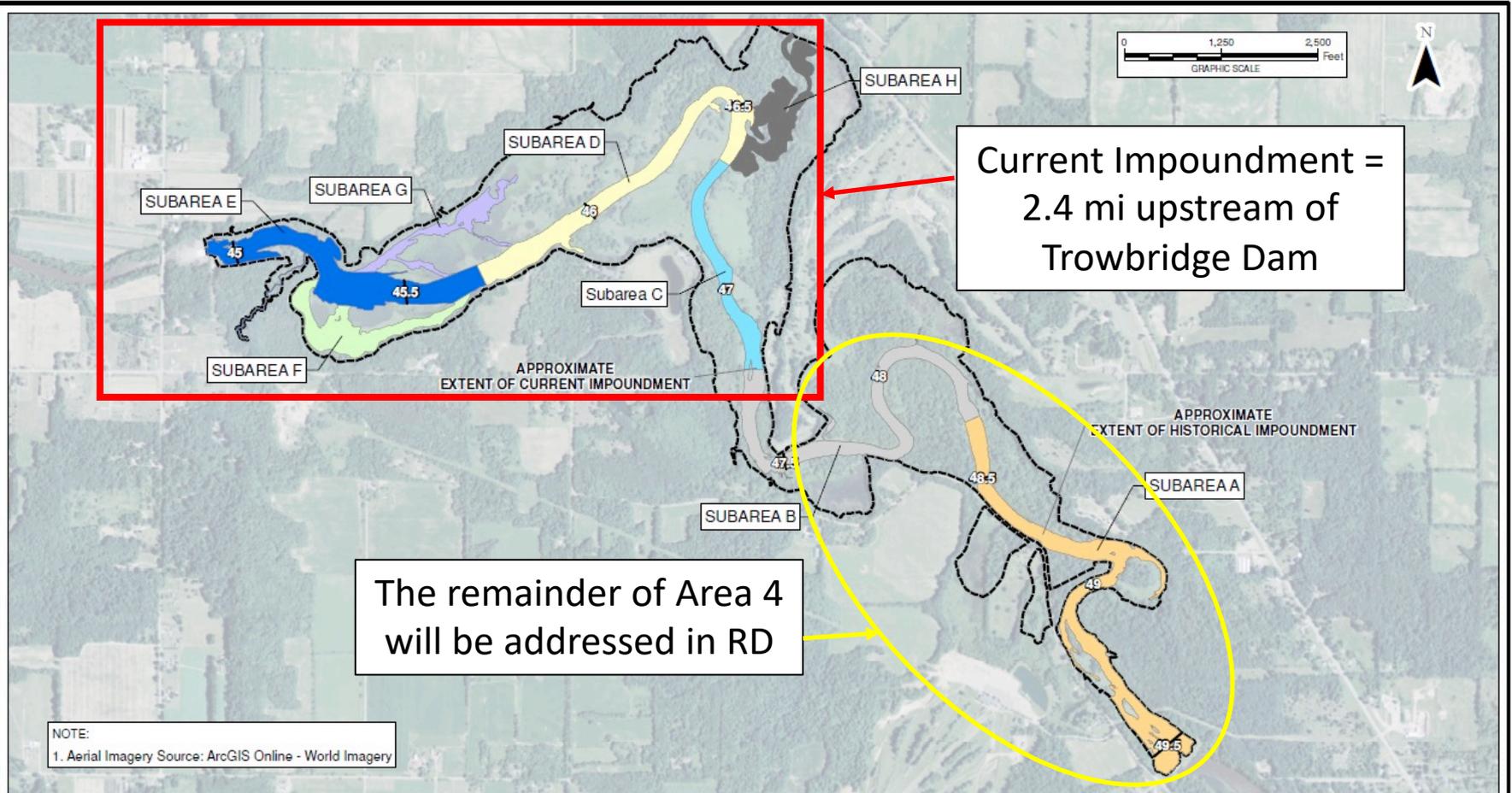


ACOE Demo ~ 1970's



Target Sub-Areas in Area 4

DRAFT



Current Impoundment =
2.4 mi upstream of
Trowbridge Dam

The remainder of Area 4
will be addressed in RD

NOTE:
1. Aerial Imagery Source: ArcGIS Online - World Imagery

- LEGEND:**
- SUBAREA A
 - SUBAREA E
 - RIVER MILE
 - SUBAREA B
 - SUBAREA F
 - AREA 4 STUDY AREA BOUNDARY
 - SUBAREA C
 - SUBAREA G
 - SUBAREA D
 - SUBAREA H

GEORGIA-PACIFIC LLC ALLIED PAPER, INC./PORTAGE CREEK/ KALAMAZOO RIVER SUPERFUND SITE AREA 4 SUPPLEMENTAL REMEDIAL INVESTIGATION REPORT	
SEDIMENT SUBAREAS	
Prepared by Date: GP 11/20/16	
Checked by: CLK 11/20/16	
Project Number: 203110004	
FIGURE 4-9	

Subarea E, F & G Looking upstream



Trowbridge Dam Looking downstream



Trowbridge Dam

12/17



Last 5 yrs of inspection reports show rapidly deteriorating condition

Trowbridge Dam Deteriorating LDB

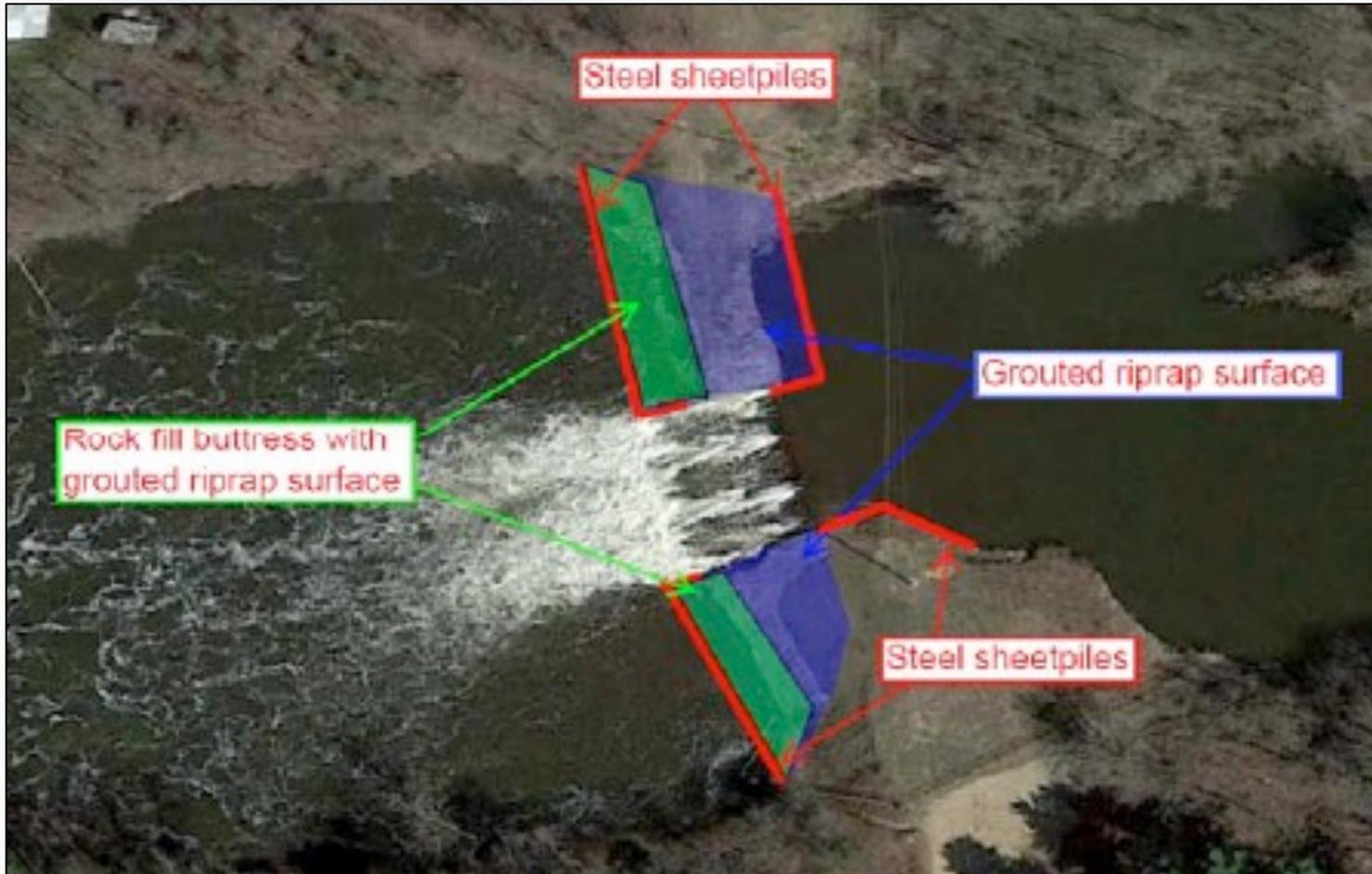


Trowbridge Dam Overtopping Flood events 12/17 & 3/17



The Trowbridge Township Dam has overflowed several times in the past year for several days at a time.

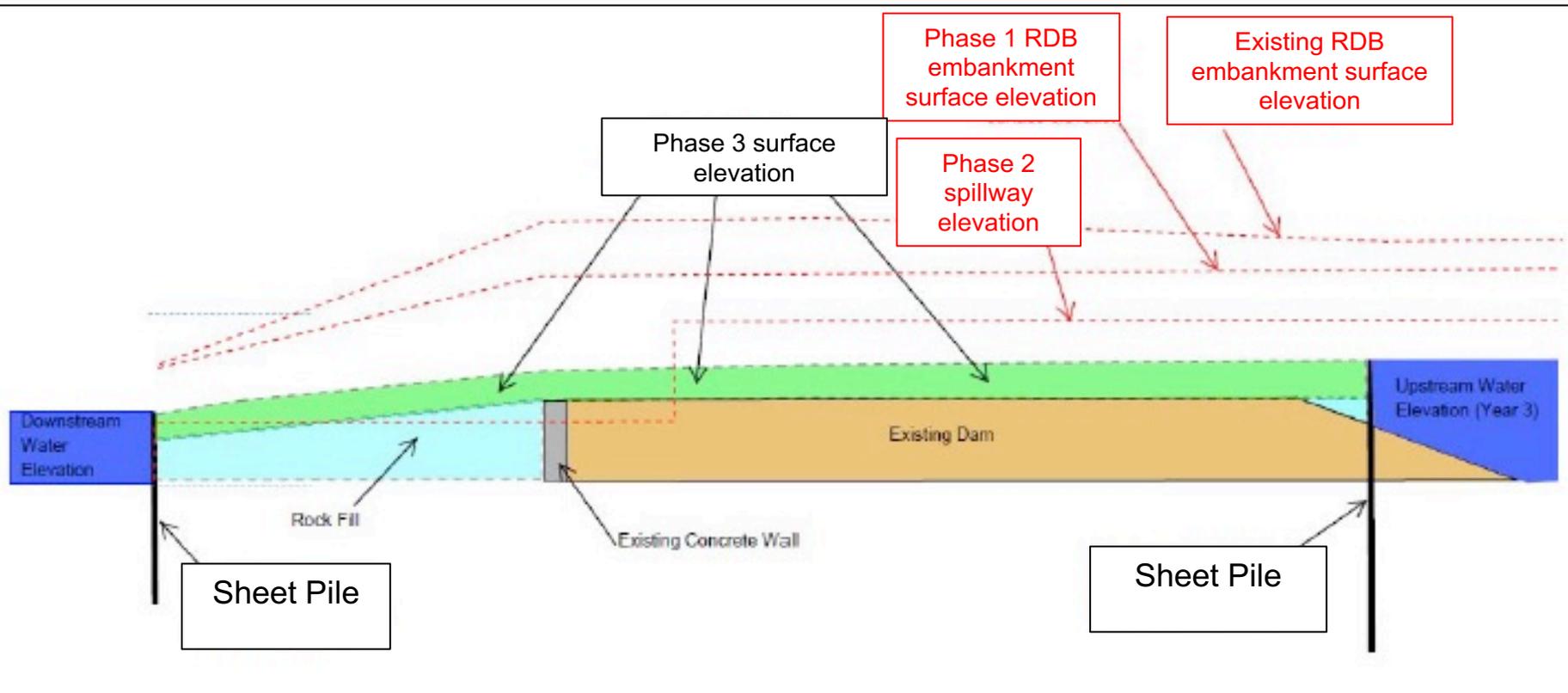
Trowbridge Dam Removal Proposed Approach Conceptual



Trowbridge Dam Removal Proposed Approach



General Overview - Phases 1 - 3





Left Descending Bank Stabilization – October 2019



(Partial) Power House Removal – November 2019



Turbine Removal – November 2019



Right Descending Bank – March 2020



26th Street Staging / Support Area



Staging Area Restoration Workgroup

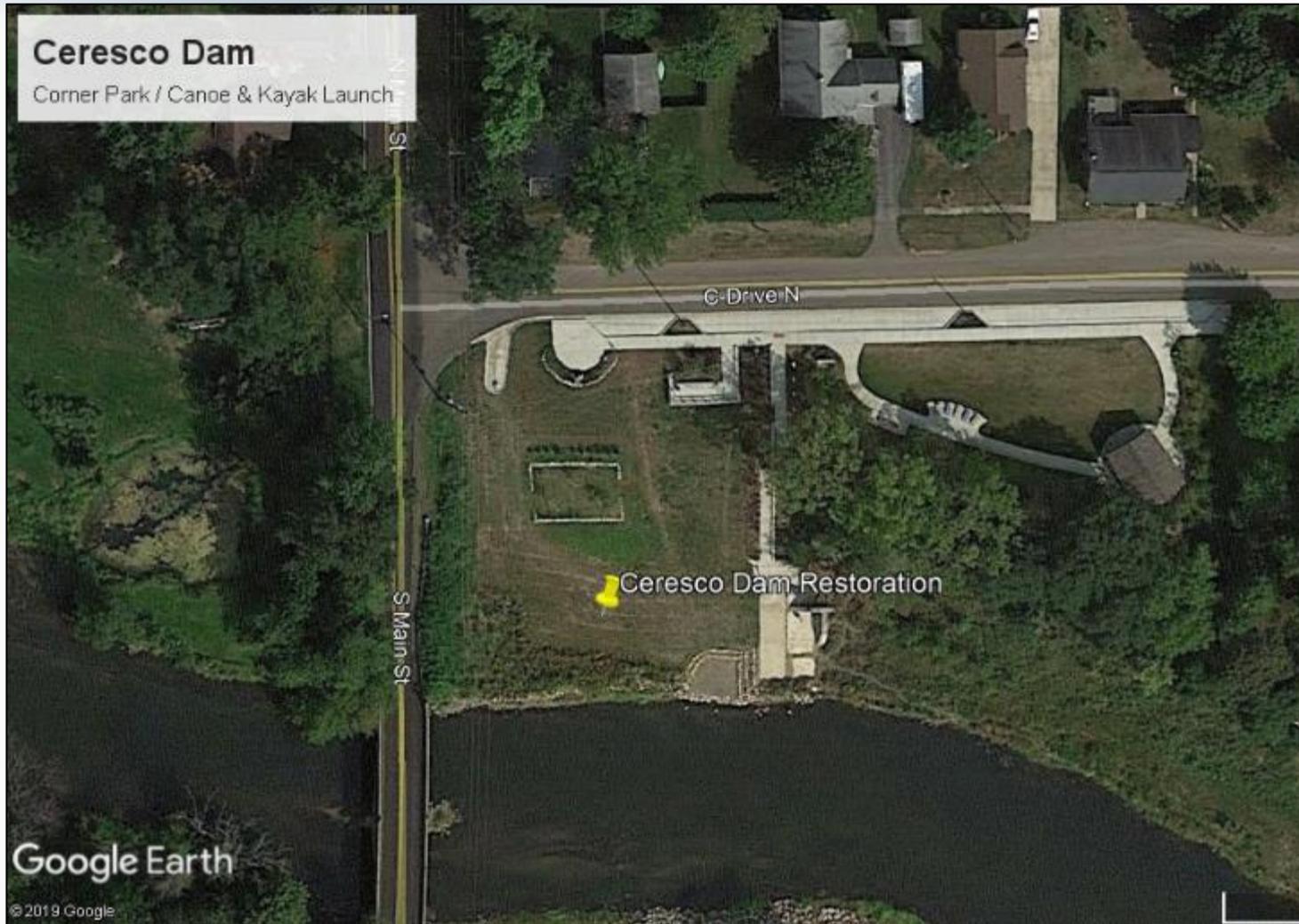


- Started meeting in Summer 2019
- Current participation:
 - Jeff Kaylor (Trowbridge Twp)
 - Gale Dugan, Brandy Gildea, Dan Wedge (Allegan County)
 - Joel Dye (City of Allegan)
 - Mark Mills, Don Poppe (Michigan DNR)
 - Dan Peabody (Michigan EGLE)
 - Dennis McKee (Consumers Energy)
 - Dan Callam (Outdoor Discovery Center)
 - Jedd Smith (Envirocon)
 - Dan Capone (Mannik Smith Group)
 - Dave Helmstetter (AECOM)
- Application placeholder for Trustee settlement funding

Area 3 Parking Areas / Access



Restoration Concept - 1



Restoration Concept 2



Morrow Lake

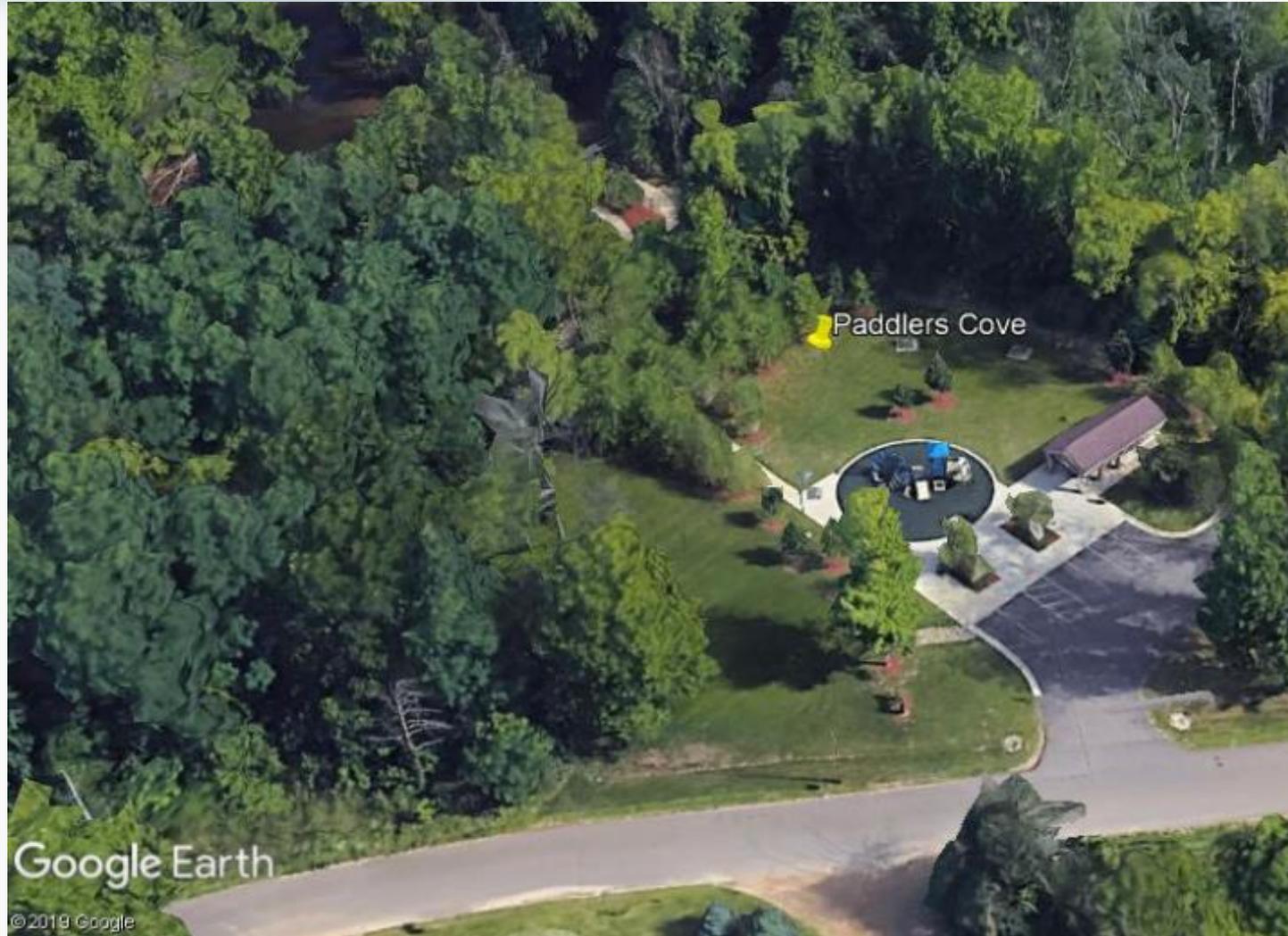
Park / Launch

Morrow Lake Restoration

Google Earth

©2019 Google

Restoration Concept 3



Restoration Concept 4



Sailor's Landing

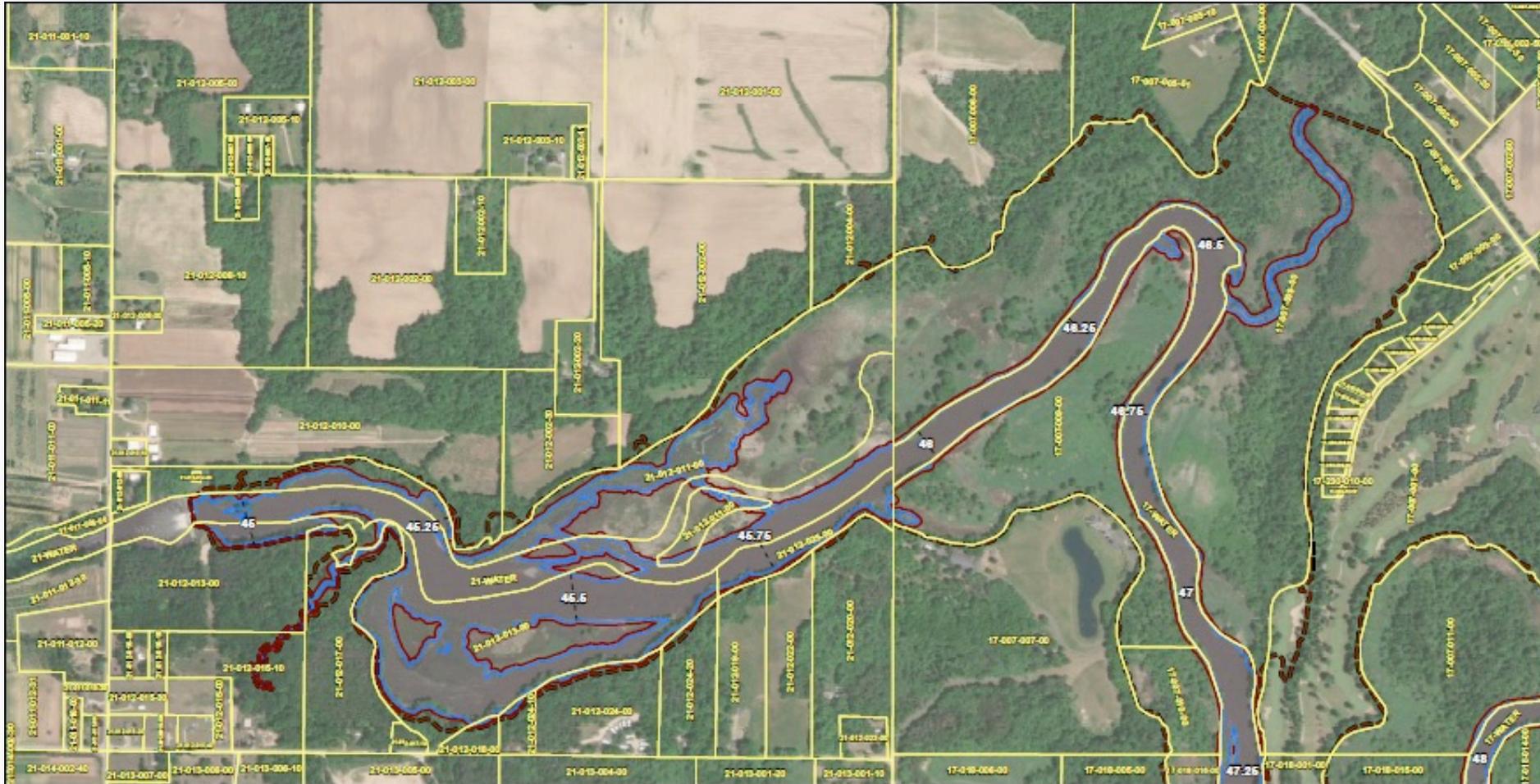
Park / Launch

Sailor's Landing Restoration

Google Earth

© 2019 Google

Neighborhood Outreach



Fact Sheet – December 2019



952642



Public comment period

You may comment on the proposed plan from Dec. 17, 2019, through Jan. 16, 2020. To submit comments:

- By email, send to:
pubcomment-ees.eard@msdoj.gov.
- By mail, send to: Assistant Attorney General, U.S. DOJ—ENRD, P.O. Box 7611, Washington, D.C. 20044-7611

NOTE: Comments should be addressed to the Assistant Attorney General, Environment and Natural Resources Division and should refer to *United States of America and the State of Michigan v. NCR Corporation*, D.J. Ref. No. 90-11-2-07912/11.

Instructions and the consent decree can be found at:
www.justice.gov/eard/consent-decree/us-et-al-vs-ncr-corporation.

CAG to Host Informational Meeting

The Kalamazoo River Community Advisory Group will be hosting an informational meeting on the proposed settlement of liability and cleanup activities for the Kalamazoo River site Tuesday, Jan. 7, 2020, at 6 p.m., at Otsego Township Hall, 400 N. 16th St., Otsego. Federal representatives will present details of the settlement and answer questions.

Proposed \$245 Million Settlement for River Cleanup

Allied Paper/Portage Creek/Kalamazoo River Site
Kalamazoo, Michigan

December 2019

U.S. Environmental Protection Agency (EPA) and its partners have negotiated a proposed legal agreement called a "consent decree" with NCR Corp. calling for cleanup activities on the Kalamazoo River and a monetary settlement worth up to \$245 million. Besides EPA, the U.S. Department of Justice, Michigan Department of Environment, Great Lakes, and Energy (EGLE), and the natural resources trustees are involved in the settlement with NCR. The public has an opportunity to comment on the proposed consent decree. Those comments will be considered before finalizing the settlement. Under the terms of the proposed agreement, NCR will conduct significant cleanup activities on the Kalamazoo River, and pay money to the agencies. In exchange, NCR will receive legal covenants protecting the company from lawsuits.

The settlement will require NCR to do the following work in the Kalamazoo River:

- Conduct what is called a time-critical removal action in the Trowbridge Impoundment within Area 4 (see map on Page 2) removing PCB-contaminated sediment, bank soil, and the Trowbridge Dam.
- Implement the cleanup work described in the 2017 Record of Decision for Area 2 of Operable Unit 5 of the Kalamazoo River.

For Area 3, NCR will have the option to:

- Implement the cleanup set forth in the Record of Decision.
- Pay \$35 million to EPA if a Record of Decision is not issued within six years of entry of the consent decree; or
- Pay EPA \$52.5 million within 60 days of opting out of the cleanup plan outlined in the Record of Decision.

In addition, NCR will make the following payments to the agencies:

- \$76.5 million to EPA for past and future costs.
- \$27 million to the natural resources trustees for environmental damage.
- \$6 million to EGLE for past and future costs.

The work to be performed and funds paid by NCR will result in ongoing cleanup activities on the Kalamazoo River for the next 10 years. The total estimated value of this settlement agreement is around \$245 million.

Cleanup plans explained

The NCR proposed settlement calls for several cleanup projects. The following text provides details:

Trowbridge Impoundment cleanup plan

The Trowbridge Impoundment is located within Area 4 of Operable Unit 5 of the Allied Paper/Portage Creek/Kalamazoo River site.

Continued on P. 2 ...

Outreach Letter – Mailed 4/2020



Trowbridge Dam Cleanup Update - April 2020



The U.S. Environmental Protection Agency (EPA), Michigan Department of Natural Resources (DNR), and Michigan Department of Environment, Great Lakes and Energy (EGLE) are working with paper companies to remove PCB-contaminated sediments and soils along the Kalamazoo River. Cleanup efforts will take place in Trowbridge Township from 2020-2023, and we would like to keep you updated.

As you may have seen this past fall, crews worked on the 26th Street (Trowbridge) Dam to stabilize the structure so it does not collapse, and cause PCB-contaminated sediments built up behind it to wash downstream.

Beginning this spring, you will see continued work from the 26th Street Dam upstream to Lincoln Road (M-89) by sampling crews and surveyors both on the water and in the floodplain. On the rare occasion that we need to cross or enter any private property, someone will ask permission first.

Crews will also clear a staging area at the 26th Street boat launch. Though the launch and kayak/canoe portage will remain in service in 2020, this area may close in 2021 once dredging begins.

If you have any questions or concerns, please contact us. In addition to sending you updates by mail, we may attend regularly scheduled Trowbridge Township Board meetings to give updates and answer questions. You can also obtain more information at: <https://response.epa.gov/trowbridgedam>.

Thank you for your patience with our progress.

We understand this parcel may be rented or leased. Please pass this notice along to the tenant. We also invite you to mention this notice to other members of the community.

Please contact us if you have questions.

Respectfully,

Paul Ruesch
U.S. EPA - Superfund
312-919-4382
ruesch.paul@epa.gov

Mark Mills
Michigan DNR - Plainwell
269-967-5367
millsm@michigan.gov

Kalamazoo River Cleanup Website

www.epa.gov/superfund/allied-paper-kalamazoo



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[Laws & Regulations](#)

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[Contact Us](#)

Superfund Site:

[Superfund Home](#)

[This Site's Home Page](#)

[Site Contacts](#)

[Cleanup Activities](#)

[Health & Environment](#)

[Stay Updated, Get Involved](#)

[Redevelopment](#)

[Site Documents & Data](#)

[View Site on Map](#)

ALLIED PAPER, INC./PORTAGE CREEK/KALAMAZOO RIVER KALAMAZOO, MI

Announcements and Key Topics

Community Advisory Group

The Kalamazoo River Community Advisory Group will be holding their next meeting online on **Thursday, April 23 from 6:00-8:00 p.m.** Visit the CAG's website for meeting links are more information:

<https://www.kalamazoorivercag.org/post/april-23rd-cag-meeting-will-go-viral-with-zoom>

A community advisory group, or CAG, meets to discuss issues related to a Superfund site and its cleanup. The Kalamazoo River Community Advisory ...

[Continue reading announcements and key topics »](#)

Background

The Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site is located in Allegan and Kalamazoo Counties, Michigan. The site includes soil and sediments contaminated by a group of chemicals called polychlorinated ...

[Continue reading background »](#)

Site Contacts

Community Involvement Coordinator

[Diane Russell](#)
(989) 395-3493

Remedial Project Manager

[JIM SARIC](#)
(312) 888-0992

[View all site contacts »](#)

Site Location

Street Address:

320 EAST ALCOTT STREET
KALAMAZOO, MI 49003

Trowbridge TCRA Website

<https://response.epa.gov/trowbridgedam>



Profile | Events | Notices | Images | Documents | Pol/SitReps | Contacts | Links | Map | Account-



TROWBRIDGE TOWNSHIP DAM AREA



ALLEGAN, MI - REGION V



Site Contact:
Paul Ruesch
OSC
ruesch.paul@epa.gov
26th Street & Kalamazoo River
Allegan, MI 49010
response.epa.gov/trowbridgedam
Latitude: 42.5743210
Longitude: -85.7362747

[Edit Site Info](#) [Edit Contaminants](#)

This website contains supporting information associated with a time critical removal action in the Trowbridge Township Dam Area, which is located in Area 4 of Operating Unit 5 (OUs) of the Kalamazoo River Superfund Site.

The project involves removal of PCB contaminated in-stream sediments and riverbank soils within an approximate 2.4 mile section of the river immediately upstream of the Trowbridge Township Dam (aka 26th Street Dam) in Trowbridge Township, Michigan.

For additional information, visit the Pollution/Situation Report (Pol/SitReps) section.

You must have a response.epa.gov account before requesting access to this resource.

To get access, send an email message with your request to Paul Ruesch (ruesch.paul@epa.gov) and provide a description of why you want access to this resource, including your first name, last name, email address, organization, and phone number.

Once you receive communication from Paul Ruesch (ruesch.paul@epa.gov), return to this Web page, and click the button below to open the map.

When prompted to sign in, select the Enterprise Login option.

[Kalamazoo Area 4 TCRA Viewer](#)

For additional information, visit the [Notices](#) section.

Viewer

Delete Site

RESOURCE 8

Events

List All...

Notices

[Community/Worker Health & Safety: COVID-19...](#)

List All...

Images

None for this site

Documents

[Action Memorandum...](#)
[Consent Decree Settlement Fact...](#)
[Outreach Presentation...](#)
[Resident Outreach Letter - Ots...](#)
List All...

Pol/SitReps

None for this site

Contacts

O&C
ruesch.paul@epa.gov
CIC
russell.diane@epa.gov
Director
bellotti.douglas@epa.gov
List All...

Links

[Kalamazoo River Superfund Site...](#)
List All...

Special Notices

Photos

Consent Decree
Action Memo
Fact Sheets
Work Plans
Presentations
Reports

Links

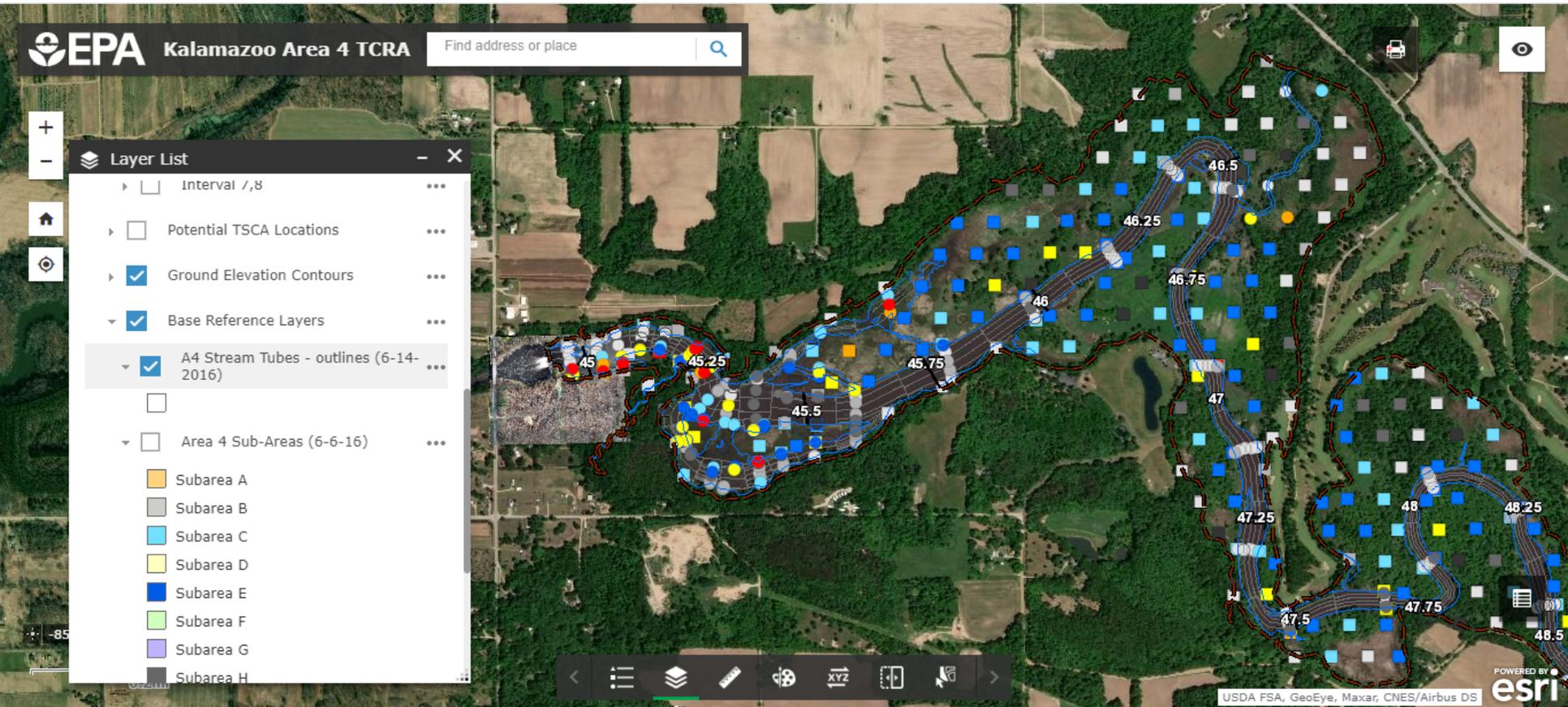
Viewer Demo



Kalamazoo Area 4 TCRA

maps.response.epa.gov/portal/apps/webappviewer/index.html?id=f1415fee61384b039eabff5030640353

EPA OSC Response... Region 5 Intranet... Remote Access Sig... Citi Commercial Car... Imported From IE Fleet Manager WebEOC 8.5



A4 TCRA Implementation Status Work Plans



Area 4 TCRA Deliverable Tracking					
v04/14/2020 DRAFT					
Number	Work Plan	Acronym	CD SOW	AM	Due (days)
1	Area 4 Removal Work Plan		3.2	V.A.1,3,4,5	30-Apr
	Area 4 Schedule		3.2		30-Apr
	Pre-Design Sampling Plan				
	Contractor List				
2	Staging Area Tech Memo				
3	Health & Safety Plan	HASP	3.3, 10.7(a)		30-May
4	Dam Removal Work Plan			V.A.2	
5	Field Monitoring Plan (Air & Water)				
6	Emergency Response Plan	ERP	10.7(b)		
	Security Plan				
7	Field Sampling Plan	FSP	10.7(c)		
	Data Management Plan				
8	Quality Assurance Project Plan	QAPP	10.7(d)		
9	Quality Management Plan				
	Construction Quality Assurance/Quality Control Plan	CQA/QCP	10.7(f)		
10	Transportation & Off-Site Disposal Plan	TODP	10.7(g)		
	Traffic Control Plan				
11	Invasive Plant Management Plan				
12	Soil Erosion Sediment Control Plan	SECP			
13	Water Treatment Plan				
14	Waste, Soil & Debris Management Plan				
15	Artifact Discovery Plan				
16	Post-Removal Site Control Plan		3.5	V.A.6	
17	Mussel Relocation / Salvage Plan	MRSP			
	Monthly Reports		9.1		
	Final Report		3.4		

Example Work Plan



April 13, 2020

Mussel Work Plan

OU5 Area 4 Time-Critical Removal Action
Allied Paper/Portage Creek/
Kalamazoo River Superfund Site

Prepared for:
Kalamazoo River Areas 2, 3, and 4 Remediation LLC



Coordination



- Natural Resource Trustees
 - Michigan EGLE, MDNR, DAG, US FWS, NOAA
- Tribes
- Michigan DTMB (dam stabilization)
- Michigan EGLE (ARARs)
- NHPA Section 106 – Michigan SHPO
- ESA Section 7 – US FWS
- Local officials
 - County, Townships, City
- Community
 - Area 4 neighbors, CAG, community groups

Anticipated Work Sequence



- 2020
 - Mobilization
 - Pre-design investigation
 - Surveying (trees, mussels, bathymetry, topographic, aerial)
 - Site preparation activities (access, staging)
- 2021 - 2022
 - Dredging / bank excavation
 - Lower water level(s) - dam
 - Bank restoration
- 2023
 - Restoration
 - Dam removal
 - Demobilization

***** THESE ARE PROJECTIONS, SUBJECT TO CHANGE *****

COVID-19 Considerations



Fact Sheet

Trowbridge Dam Area Work & Protection from Coronavirus

Spring 2020

Overview

The U.S. Environmental Protection Agency (EPA) and the state of Michigan are leading an effort to [clean up the polychlorinated biphenyls \(PCBs\) in the Kalamazoo River](#). To keep up the momentum for cleanup, one of the next steps is for a consulting firm, GEI Consultants, to conduct sampling and surveying crews to access the water and floodplains this spring. Sampling and surveying crews are operating under strict procedures to protect your health and safety as they do their work.

Health & Safety Measures

All work is performed according to an EPA-reviewed Health and Safety Plan (HASP). The HASP guides worker conduct to prevent and minimize accidents and injury, including unintentional exposure or transmission of ailments.

All workers are screened for health prior to deployment. Any worker displaying any symptoms presenting any health risk, including symptoms related to the [Coronavirus-19](#) (COVID) or any other infectious ailments (e.g., influenza, colds, etc.), are prohibited from doing work on this project until symptoms have subsided and Centers for Disease Control & Prevention (CDC) recommended conditions for discontinuing isolation have been met.

Once in the field, sampling and surveying crews are to comply with [social distancing guidelines](#) by the Centers for Disease Control & Prevention to minimize the risk of pathogen transmission. Workers are also to wear personal protective equipment (PPE) as an extra measure.

Workers accessing private lands are instructed to avoid touching private property, such as structures, playgrounds, vehicles, etc.

All workers will be trained to contact GEI's designated emergency triage medical service provider in the event they begin to exhibit symptoms. Follow-up action may include isolation and other CDC and other medical professional recommendations to ensure protection of fellow workers and the community.

Where Can I Get More Information?

More information about the cleanup is available online and through agency personnel via the [EPA website](#).

Frequently Asked Questions

Trowbridge Dam Area Work & Protection from Coronavirus

Spring 2020

Where Will Sampling & Surveying Crews Be?

Crews will be in Operable Unit 5 of "Area 4." Area 4 is the segment of the Kalamazoo River between the Otsego Township Dam downstream to Trowbridge Dam. Beginning in spring 2020, work will be performed from the 26th Street Dam upstream to Lincoln Road (M-89) by sampling crews and surveyors on the water and in the floodplain. Much of this work will be through public access, though on rare occasion, access to private property might be necessary for sampling and surveying. Permission is sought when access through private property is needed. Crews will also clear a staging area at the 26th Street boat launch.

What Work Will Be Performed?

Sampling and surveying can involve workers accessing the land and water to perform manual work, fly drones and take other steps to collect information this year to guide actual cleanup work to begin in 2021.

How Will My Health and Community's Health Be Protected from Coronavirus?

Sampling and surveying will be performed by GEI Consultants, which has decades of experience with large, complex cleanup and restoration projects across the country. GEI has prepared a Health and Safety Plan (HASP) that directs its workers to take strong steps to prevent and minimize the risk of pathogen transmission to themselves and in areas where river access is needed for its work. GEI Consultants, whose personnel will be undertaking sampling and surveying, have been directed to avoid contact with property owners. Property owners may contact the agencies listed below for more information.

Why Is Work Important to Do Now? Why Not Wait?

In April 2020, EPA and the State designated Trowbridge Dam removal as a "time critical" (urgent) action because of the Dam's age and poor condition. With polychlorinated biphenyls (PCBs) trapped in sediment upstream of the Dam, the structure's failure could pose an "imminent and substantial danger" to public health and safety from the release of PCBs, flooding, and other consequences. Therefore, field work is beginning this spring to start the cleanup process as soon as possible to minimize the additional public health and safety risks.

Who Can I Contact for More Information?

Paul Ruesch – EPA-Superfund
312-919-4382
ruesch.paul@epa.gov

Mark Mills – Michigan DNR-Plainwell
269-967-5367
millsm@michigan.gov

<https://response.epa.gov/trowbridgedam>

Good People are Coming to Trowbridge & Otsego Township!



Questions ?



Paul Ruesch

312-919-4382

ruesch.paul@epa.gov

Mark Mills

269-967-5367

millsm@michigan.gov



Dan Peabody

517-284-5072

peabodyd@michigan.gov

The logo for the Michigan Department of Environment, Great Lakes, and Energy (EGLE). The letters "EGLE" are rendered in a bold, sans-serif font. The "E" and "L" are blue, while the "G" and "E" are green. The letters are slightly overlapping and have a modern, clean aesthetic.