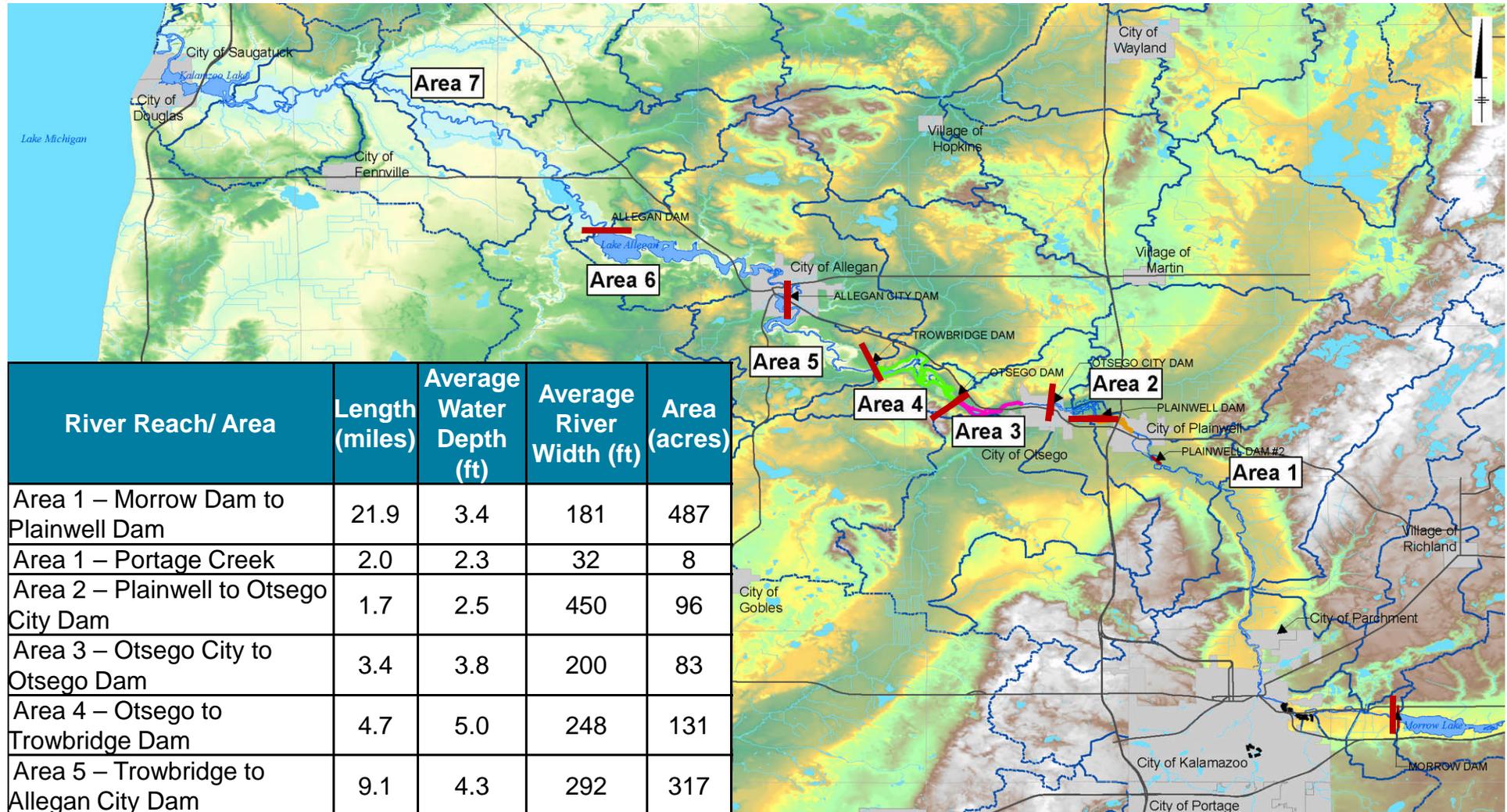


Allied Paper, Inc./Portage Creek/ Kalamazoo River Superfund Site

December 15, 2011



The Seven Areas of Operable Unit 5 (The Kalamazoo River and Portage Creek)



River Reach/ Area	Length (miles)	Average Water Depth (ft)	Average River Width (ft)	Area (acres)
Area 1 – Morrow Dam to Plainwell Dam	21.9	3.4	181	487
Area 1 – Portage Creek	2.0	2.3	32	8
Area 2 – Plainwell to Otsego City Dam	1.7	2.5	450	96
Area 3 – Otsego City to Otsego Dam	3.4	3.8	200	83
Area 4 – Otsego to Trowbridge Dam	4.7	5.0	248	131
Area 5 – Trowbridge to Allegan City Dam	9.1	4.3	292	317
Area 6 – Lake Allegan	9.8	6.7	1,500	1,650
Area 7 – Allegan Dam to Lake Michigan	26	5.5	212	670

Update on River Investigation Progress

AREA 1

- Supplemental Remedial Investigation (SRI)
 - Report submitted to EPA: April 21, 2011
 - Disapproved by EPA: July 14, 2011
 - Resubmitted: October 3, 2011
- Feasibility Study of potential remedial alternatives
 - To be submitted in Summer 2012
- Proposed remedy decision for Area 1
 - Winter 2012

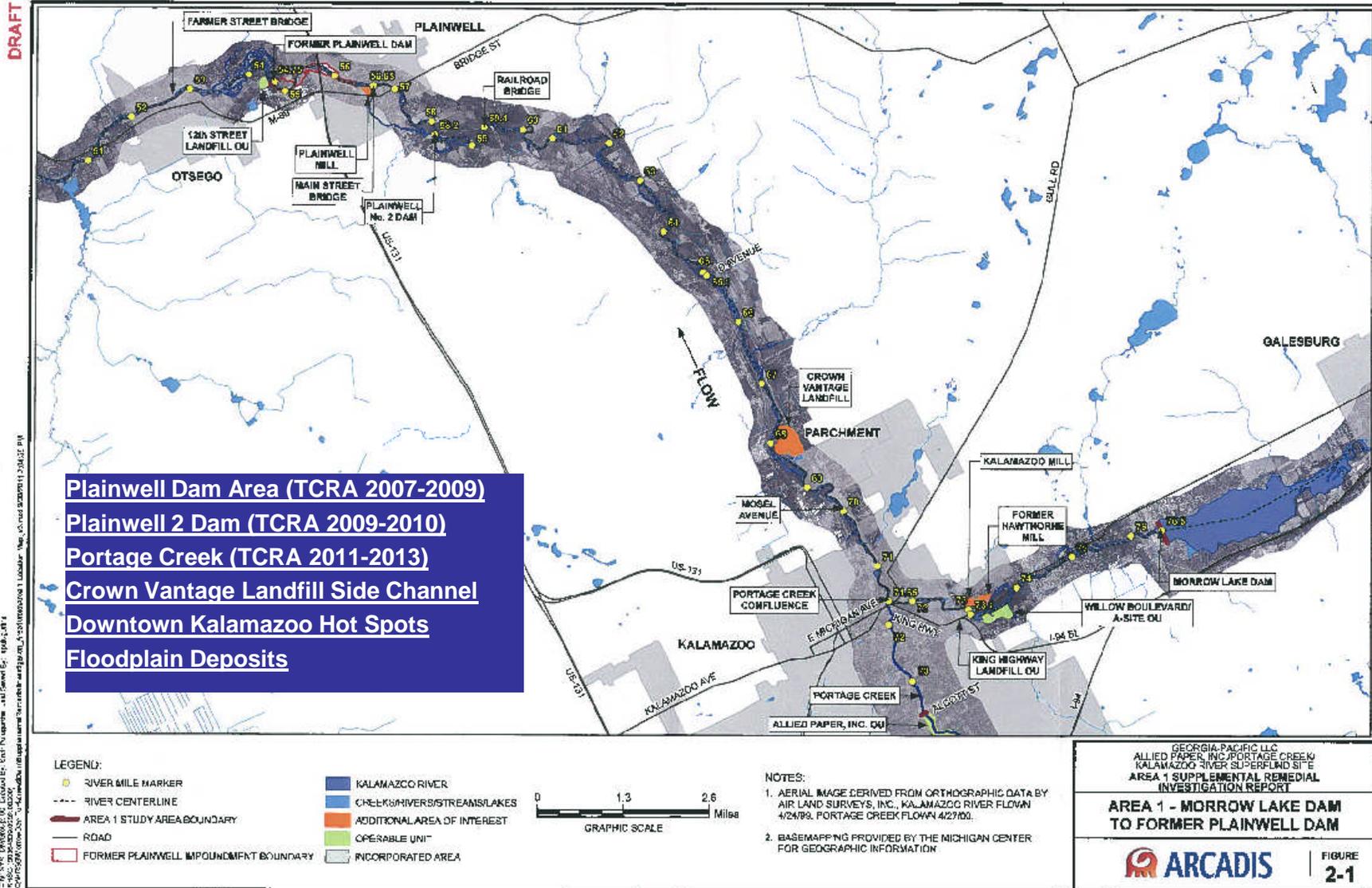
AREA 2

- Supplemental Remedial Investigation/Feasibility Study (RI/FS)
 - Sampling activity: September through November 2011

AREA 3

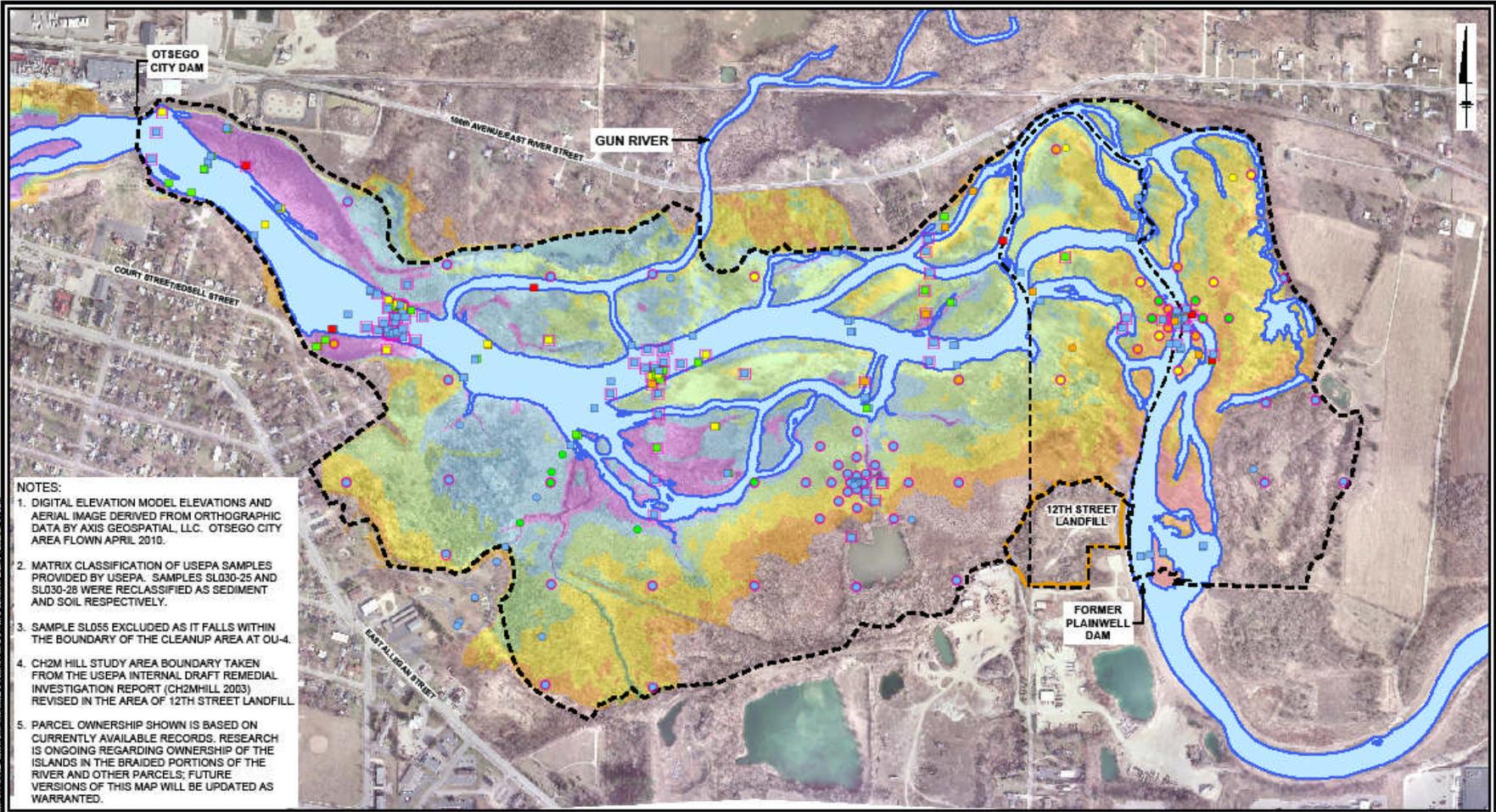
- Supplemental Remedial Investigation/Feasibility Study (RI/FS)
 - Workplan submitted to EPA: November 29, 2011
 - Sampling to occur in Summer 2012

Operable Unit 5: Area 1



Operable Unit 5: Area 2

DRAFT

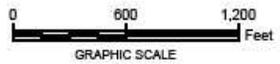


- NOTES:**
1. DIGITAL ELEVATION MODEL ELEVATIONS AND AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AXIS GEOSPATIAL, LLC. OTSEGO CITY AREA FLOWN APRIL 2010.
 2. MATRIX CLASSIFICATION OF USEPA SAMPLES PROVIDED BY USEPA. SAMPLES SL030-25 AND SL030-28 WERE RECLASSIFIED AS SEDIMENT AND SOIL RESPECTIVELY.
 3. SAMPLE SL055 EXCLUDED AS IT FALLS WITHIN THE BOUNDARY OF THE CLEANUP AREA AT OU-4.
 4. CH2M HILL STUDY AREA BOUNDARY TAKEN FROM THE USEPA INTERNAL DRAFT REMEDIAL INVESTIGATION REPORT (CH2MHILL 2003) REVISED IN THE AREA OF 12TH STREET LANDFILL.
 5. PARCEL OWNERSHIP SHOWN IS BASED ON CURRENTLY AVAILABLE RECORDS. RESEARCH IS ONGOING REGARDING OWNERSHIP OF THE ISLANDS IN THE BRAIDED PORTIONS OF THE RIVER AND OTHER PARCELS. FUTURE VERSIONS OF THIS MAP WILL BE UPDATED AS WARRANTED.

City of Chicago, DuSable 03, Created By: mshah/bjg, Last Saved By: MICHAEL BERGER, 1/15/2010 10:58:00 AM, Chicago City (2010) (64623) (10/22/2010) 010010

LEGEND:

<p>MAXIMUM SEDIMENT PCB RESULTS (MG/KG):</p> <ul style="list-style-type: none"> ■ ND - 1 ■ 1 - 5 ■ 5 - 10 ■ 10 - 50 ■ > 50 ○ EPA SOIL SAMPLE LOCATION 	<p>MAXIMUM SOIL PCB RESULTS (MG/KG):</p> <ul style="list-style-type: none"> ● ND - 1 ● 1 - 5 ● 5 - 10 ● 10 - 50 ● > 50 □ EPA SEDIMENT SAMPLE LOCATION 	<p>UPLAND DIGITAL ELEVATION MODEL ELEVATIONS (FT NGVD29):</p> <ul style="list-style-type: none"> ■ ≤ 697 ■ 697 - 698 ■ 698 - 699 ■ 699 - 700 ■ 700 - 701 ■ > 701 	<ul style="list-style-type: none"> --- WEYERHAEUSER PARCEL BOUNDARY (APPROXIMATE) --- OU-4 CLEANUP BOUNDARY (APPROXIMATE) --- RIVER (APPROXIMATE) --- SRIFS STUDY AREA (CH2M HILL 2003 - SEE NOTE 4)
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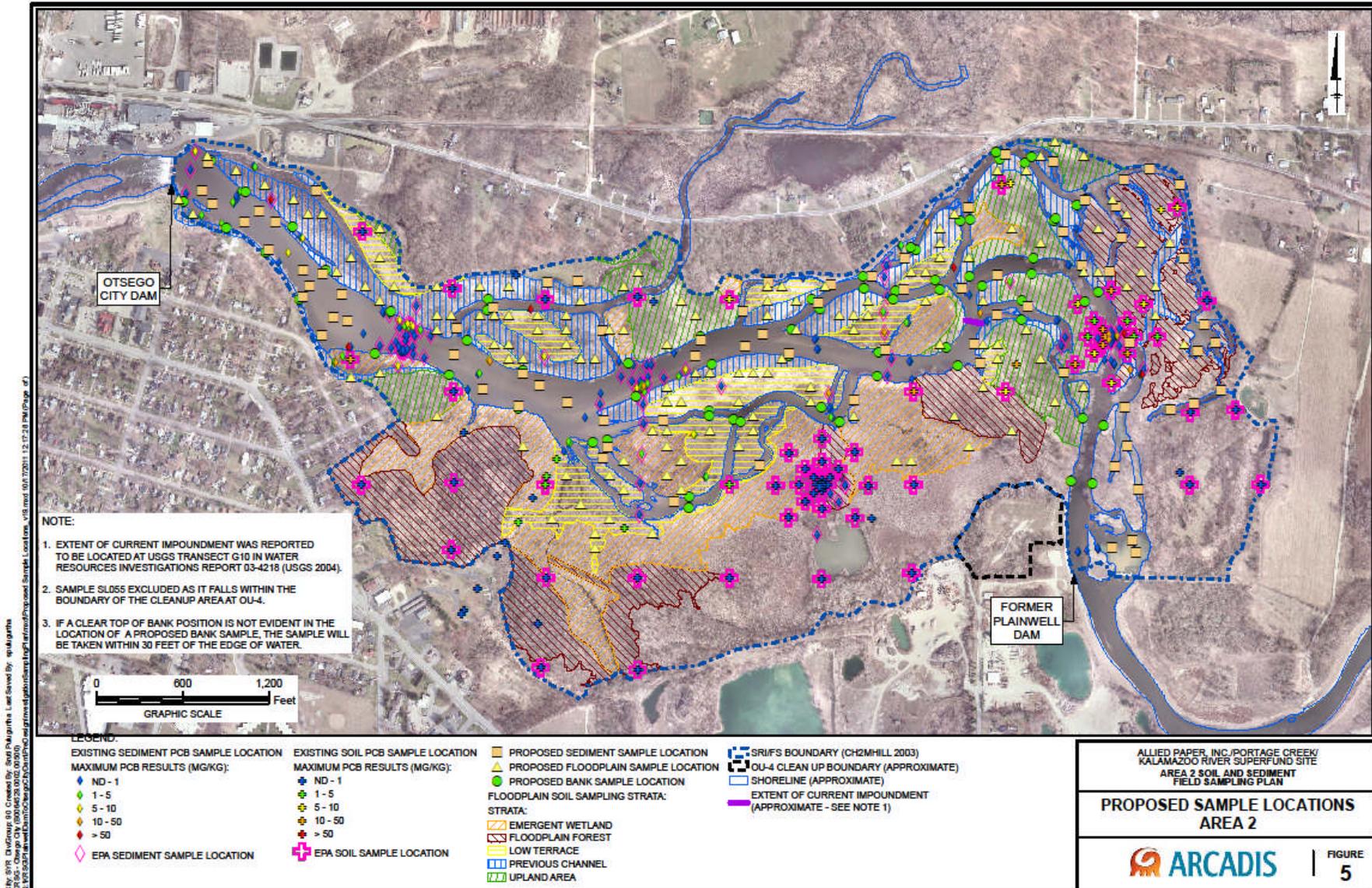
GEORGIA-PACIFIC LLC
 ALLIED PAPER, INC. PORTAGE CREEK/
 KALAMAZOO RIVER SUPERFUND SITE
**AREA 2 SUPPLEMENTAL REMEDIAL INVESTIGATION/
 FEASIBILITY STUDY RECONNAISSANCE PLAN**
**AREA 2 MAXIMUM PCB RESULTS
 INCLUDING UPLAND TOPOGRAPHY**

ARCADIS | **FIGURE 5**

Soil and Sediment Sampling Activities in Area 2 – Fall 2011

Sample Type	Total Number of Samples (including duplicates)
Floodplain Soil	691
Bank Soil	461
Sediment	506
Total Soil & Sediment Samples	1658

Operable Unit 5: Area 2 Sample Locations





Soil coring and sampling work in Area 2



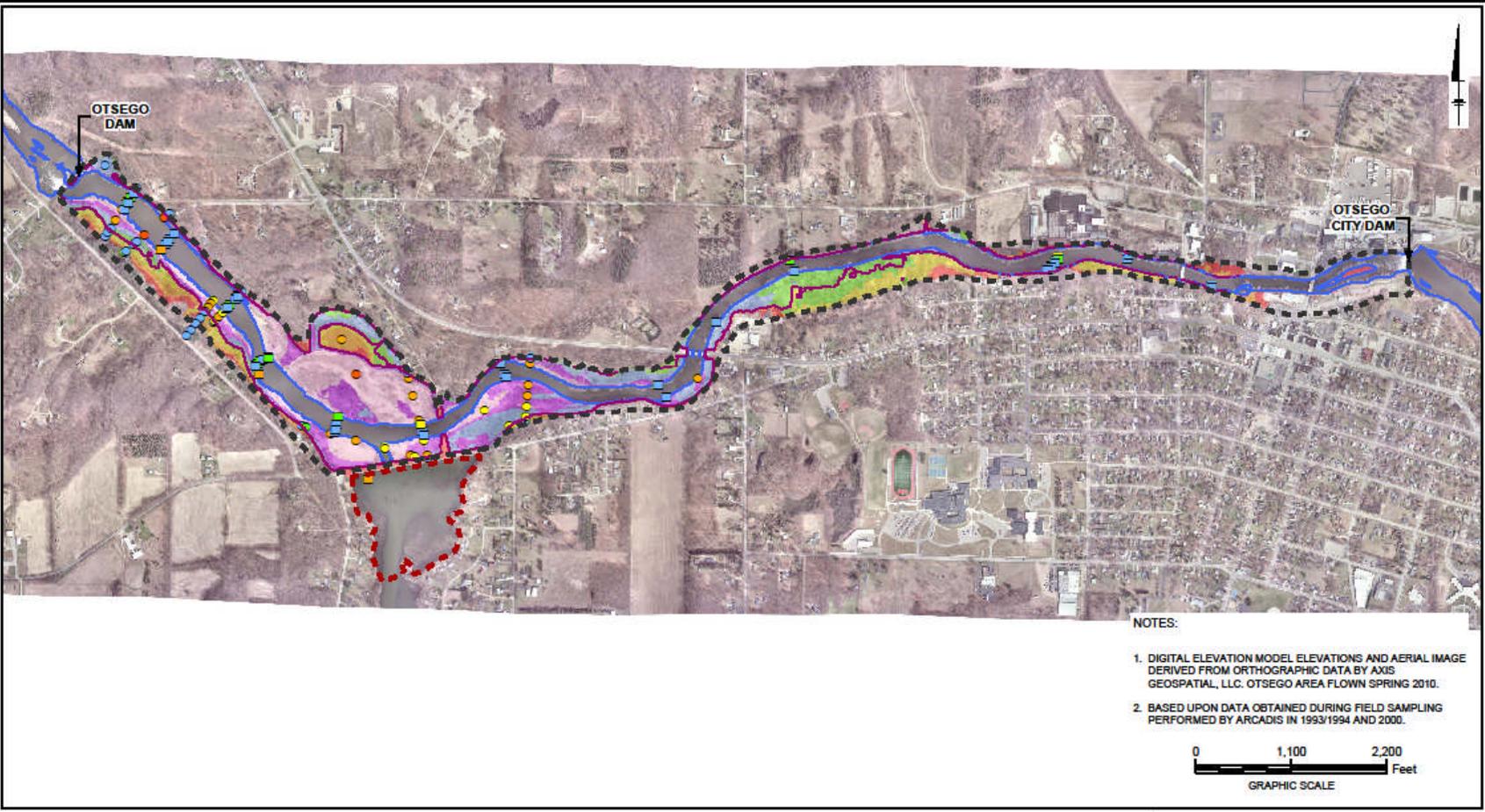
Collecting sediment samples in Area 2



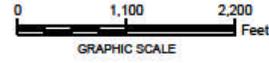
Collecting sediment samples in Area 2

Operable Unit 5: Area 3

DRAFT



- NOTES:**
1. DIGITAL ELEVATION MODEL ELEVATIONS AND AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AXIS GEOSPATIAL, LLC. OTSEGO AREA FLOWN SPRING 2010.
 2. BASED UPON DATA OBTAINED DURING FIELD SAMPLING PERFORMED BY ARCADIS IN 1993/1994 AND 2000.



LEGEND:		APPROXIMATE PINE CREEK STUDY AREA BOUNDARY APPROXIMATE AREA 3 STUDY AREA BOUNDARY TOPOGRAPHIC ELEVATIONS (FT NGVD29): < 676 676 - 678 678 - 680 EXISTING SHORELINE (APPROXIMATE)		680 - 682 682 - 684 684 - 686 686 - 688 688 - 690 > 690	
ND - 1 1 - 5 5 - 10 10 - 50 > 50	MAXIMUM SEDIMENT PCB RESULTS (MG/KG): ND - 1 1 - 5 5 - 10 10 - 50 > 50	ND - 1 1 - 5 5 - 10 10 - 50 > 50	MAXIMUM SOIL PCB RESULTS (MG/KG): ND - 1 1 - 5 5 - 10 10 - 50 > 50	683 FT CONTOUR	

GEORGIA-PACIFIC LLC
 ALLIED PAPER, INC. PORTAGE CREEK/
 KALAMAZOO RIVER SUPERFUND SITE
 AREA 3/FORMER OTSEGO IMPOUNDMENT SUPPLEMENTAL
 REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN

AREA 3 MAXIMUM PCB RESULTS

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www.epa.gov/region5/sites/kalproject