

Community Advisory Group Meeting



June 27, 2013

Hudson River
PCBs SUPERFUND SITE

Project Update



- Project update
- Habitat reconstruction
- Community information and outreach



2013 Dredging Review



- 2013 Goal: 350,000 cubic yards
- Approach to dredging, processing, backfill and disposal similar to prior years
- Longer transport distances between dredging and processing location
- May — November (depending on weather and river flow)
- 24/6 work schedule

2013 Dredging Review (cont.)

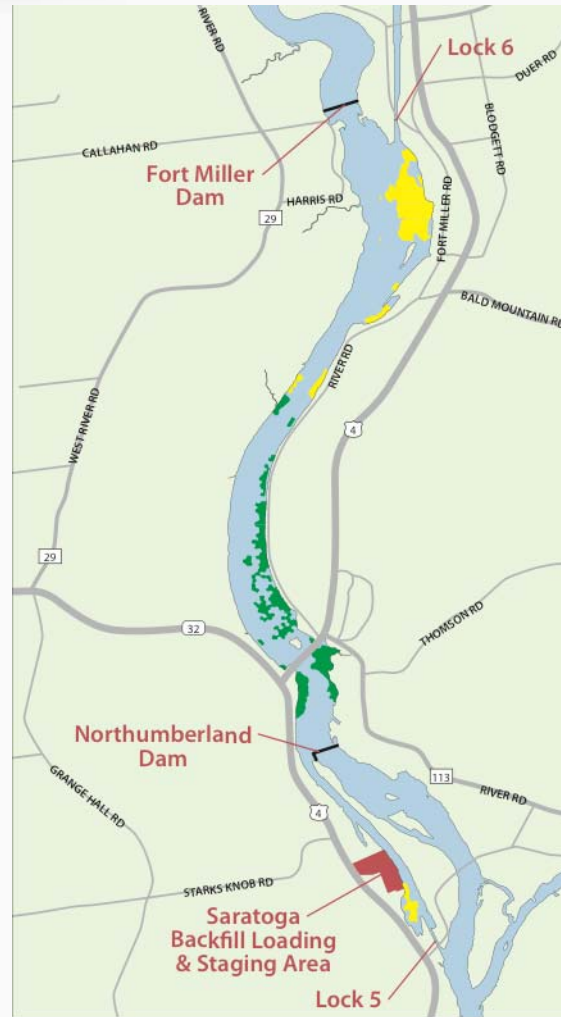


- Dredging to be performed:
 - North of Thompson Island Dam (CUs 49-60)
 - From Lock 6 to Lock 5 (CUs 67-78)
- Backfill/cap material placement
 - Transitioning from Moreau Backfill Loading Area to new location near Lock 5
- Habitat reconstruction





2013 Dredge Areas



LEGEND	
	Areas to be Dredged
	Dredging in Progress
	Backfill in Progress
	Activities Completed

Phase 2 Year 3: River Operations Shoreline Support Properties



Moreau Backfill Loading
Facility



Route 4 Support Property



Route 4 Crew Change Area

Phase 2 Year 3: River Operations Shoreline Support Properties



Saratoga Backfill Loading Area



Phase 2 Year 3: River Operations



- Dredging began April 29, 2013
 - 8 weeks completed (to-date)
 - 3-day suspension of river activities due to high river velocities (June 13-16)
- 4-5 dredges operating
- Dredged 165,000 cubic yards through June 22, 2013
 - 60 acres dredged
- Placing backfill in CU 49 and 5 CUs in West Griffin Island channel (CUs 50 – 54)
- Capping percentages below specified limits (4.62%)

Phase 2 Year 3: Monitoring



Water

- No Total PCB standard level exceedances to date
 - One result > 500 ppt on 6/11-6/12; not confirmed
- PCB Load at Stillwater and Waterford increased due to floods, but below standard; now trending downward



Phase 2 Year 3: Monitoring



Air

- Sporadic increases in PCB levels at facility and river corridor
 - 3% of total samples collected
- Best management practices implemented
 - Move dredge operations between high- and low-concentration areas
 - Cover higher-concentration sediments with water
 - Track, prioritize barges with higher-concentration sediments for transport, unloading and processing

Phase 2 Year 3: Facility Operations



Phase 2 Year 3: Facility Operations



- Consistent 24/6 operations
- More than 310 barges unloaded to date
- North and south unloading wharves fully operational
- ~2,300 filter press drops; material is finer-grained
- Unloading/processing keeping pace with dredging
 - Generally not necessary to operate facility on Sundays



Phase 2 Year 3: Transport



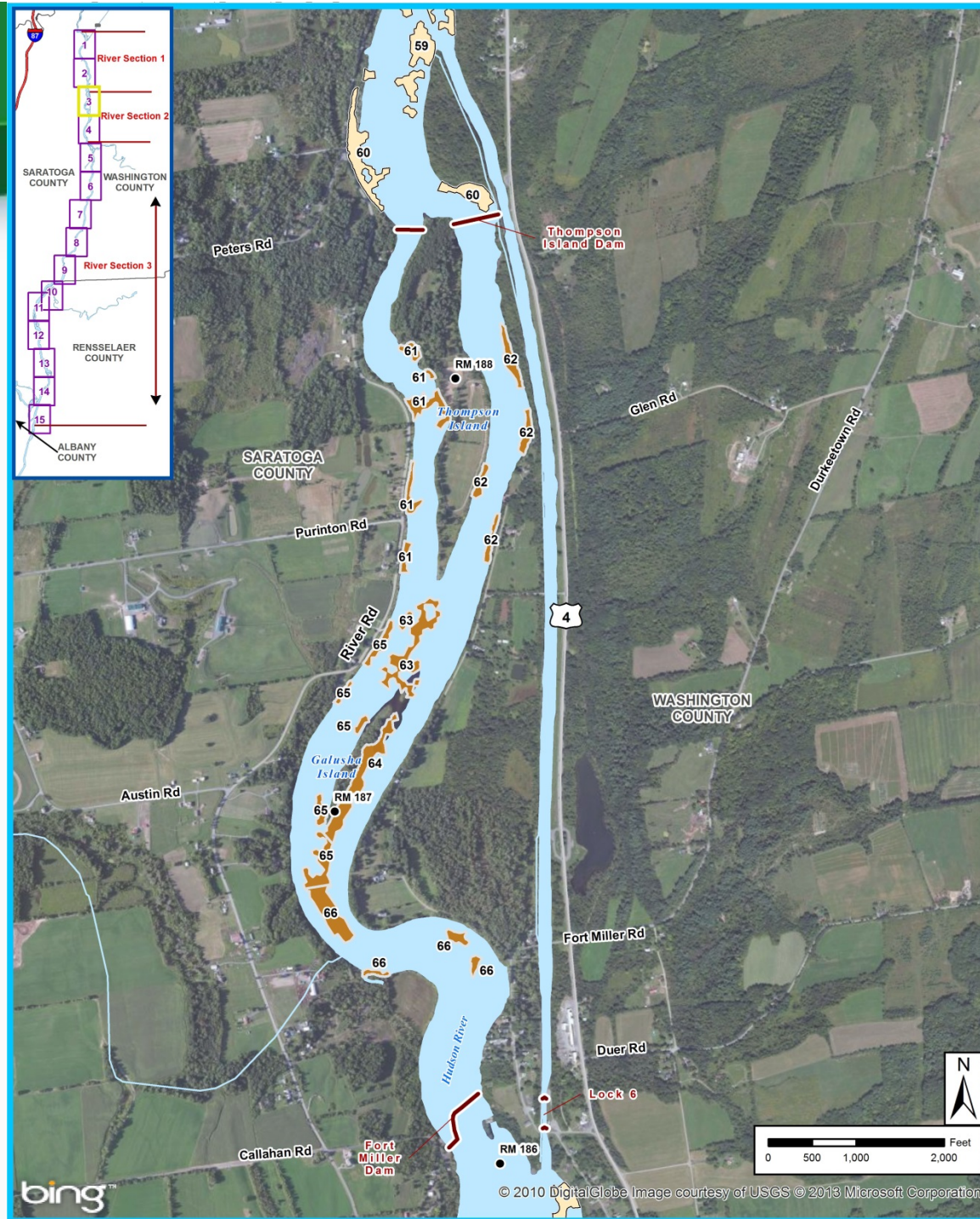
- Railcar shipping began May 18, 2013
- Material currently shipped to EPA-approved disposal facilities in Ohio and Oklahoma
- 16 unit trains (each 93 rail cars carrying 106 tons each) shipped through June 24, 2013
 - ~157,000 tons of material shipped off-site
 - On-site staging piles well below project limits



Phase 2 Dredge Areas Land-Locked Area

KEY:

- River Mileposts
- USA Major Roads
- + Primary Railroads
- Lock/Dam
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Phase 2 Dredge Areas (CU 100)

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Other Ongoing Activities



- Cultural Resources
- Floodplains
- Habitat Reconstruction
- Community Information and Outreach



Spill Response Boat

Questions/Comments



Habitat Reconstruction Update

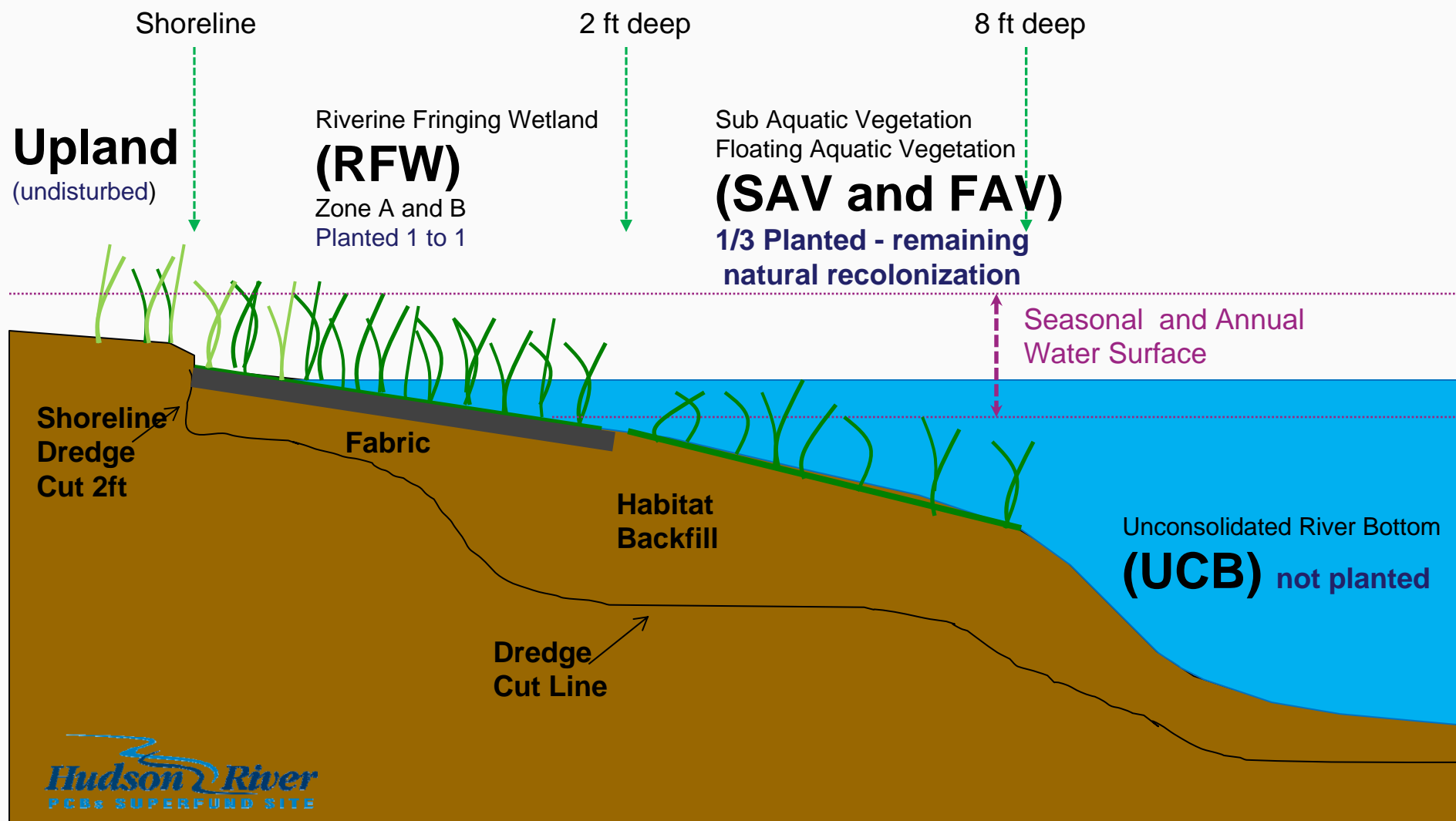


Habitat Reconstruction Approach/Steps



1. Pre- Dredge Surveys
2. Dredging
3. Backfilling – rebuild habitat to similar configuration (depth)
4. Pre-planting backfill survey (is depth correct)
 - Adjust as needed
5. Initial Planting (some cases seeding)
6. Post planting approval
7. Monitoring and maintenance
 - Annual surveys
 - Coverage, density, bio-mass etc.
 - Replanting as needed
 - Remove invasive plants (compare to reference areas)
8. Final EPA approval (overall function consideration by reach)

Typical Habitat On Hudson River



Project Habitat Reconstruction Requirements



- Habitat reconstruction and monitoring
 - Includes consultation with federal and state agencies
 - Preference for local plant materials
- Adaptive management approach
 - Includes lessons learned/allows necessary adjustments
- Ongoing monitoring to assess progress
 - Benchmarks and criteria have been established

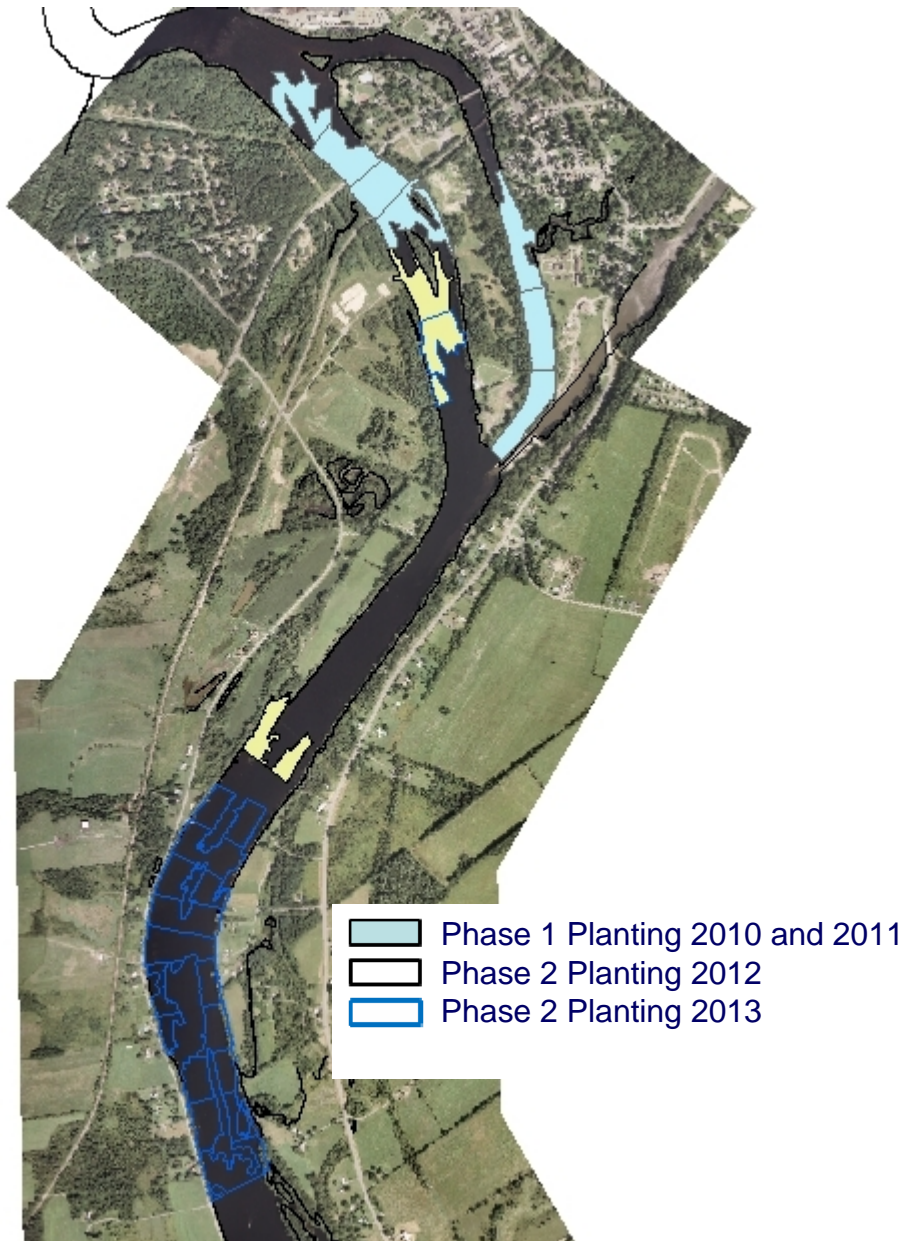
Habitat Reconstruction Progress to Date



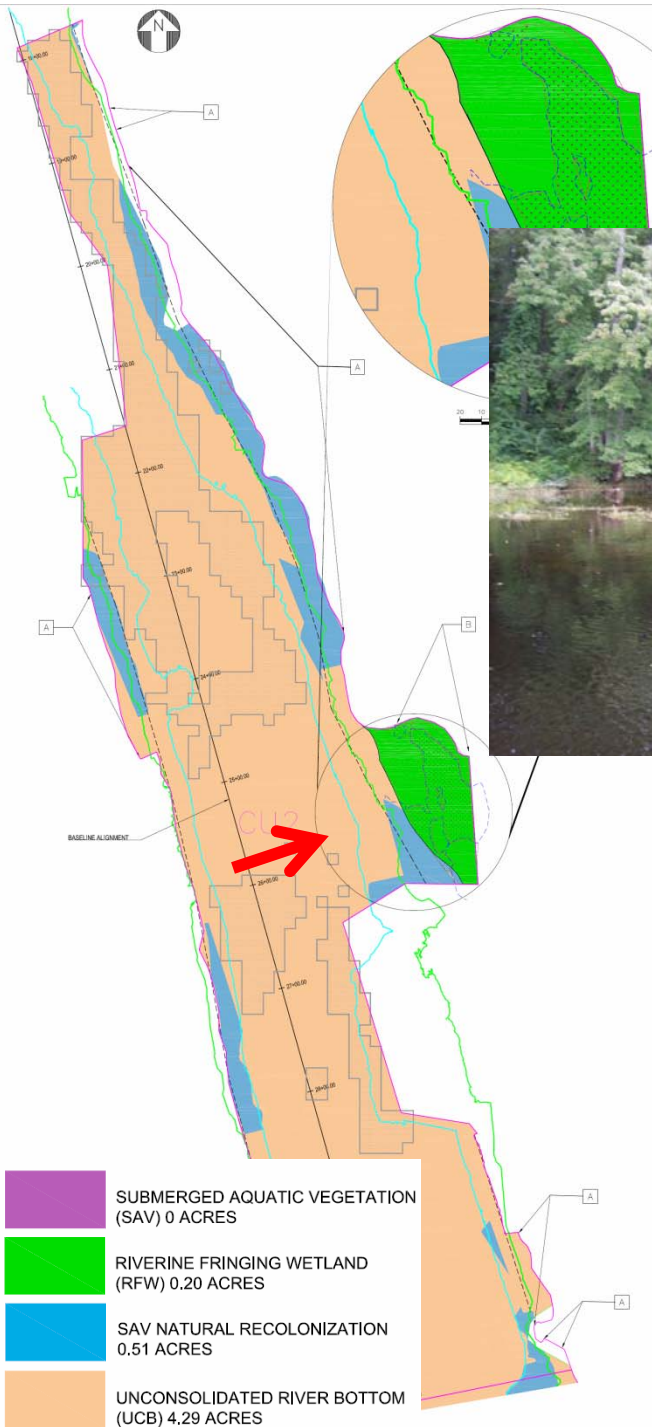
Habitat	Construction Year			Projected Through 2013 (ac)	Project Goal (ac)	Underway(%)
	2011 (ac)	2012 (ac)	2013* (ac)			
SAV Planting	6.64	3.38	10.78	20.8	90	30%
SAV Nat Recolonization	3.4	1.22	1.86	6.48		
RFW	0.39	0.36	0	0.75	20	4%

* through CU30

Habitat Reconstruction 2011-2013



Habitat Reconstruction CU2 (2010)



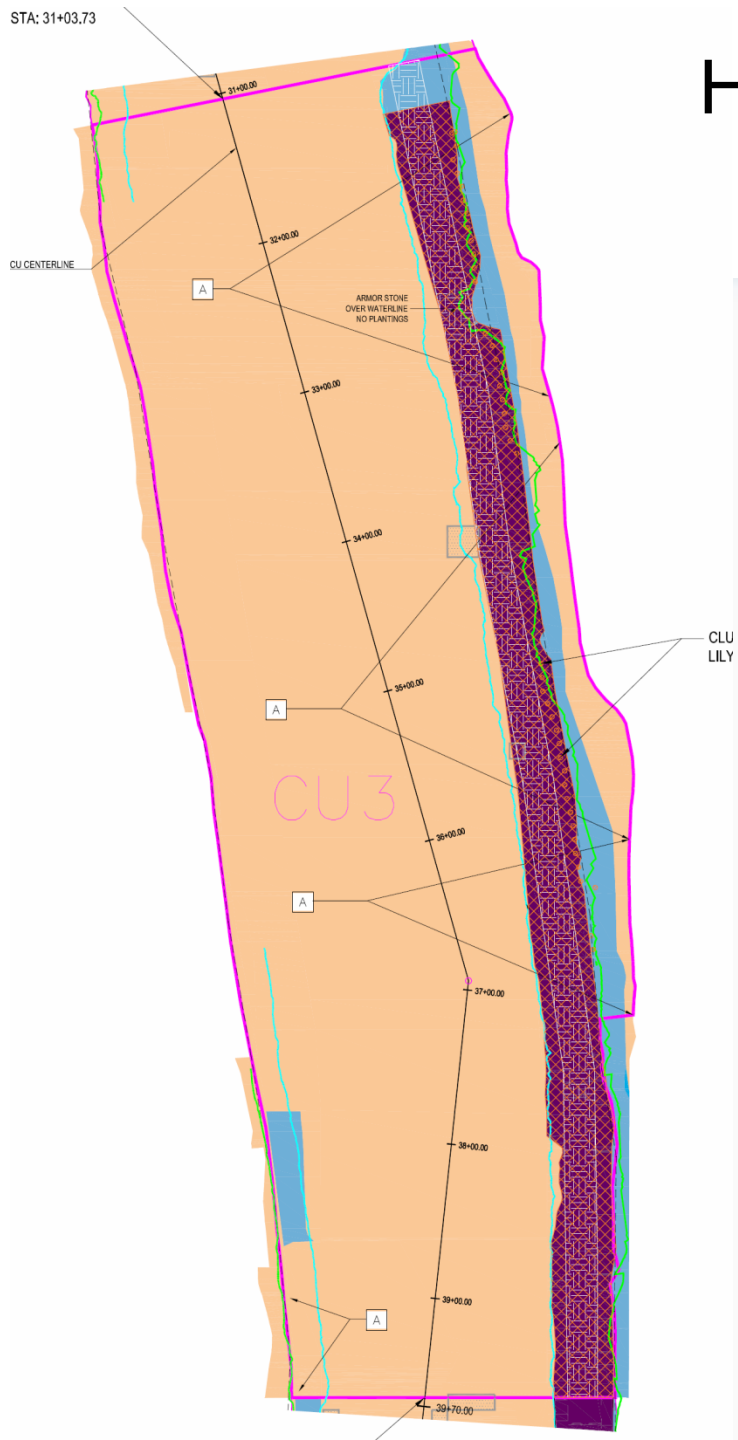
Preconstruction 2008







Post Construction 2012



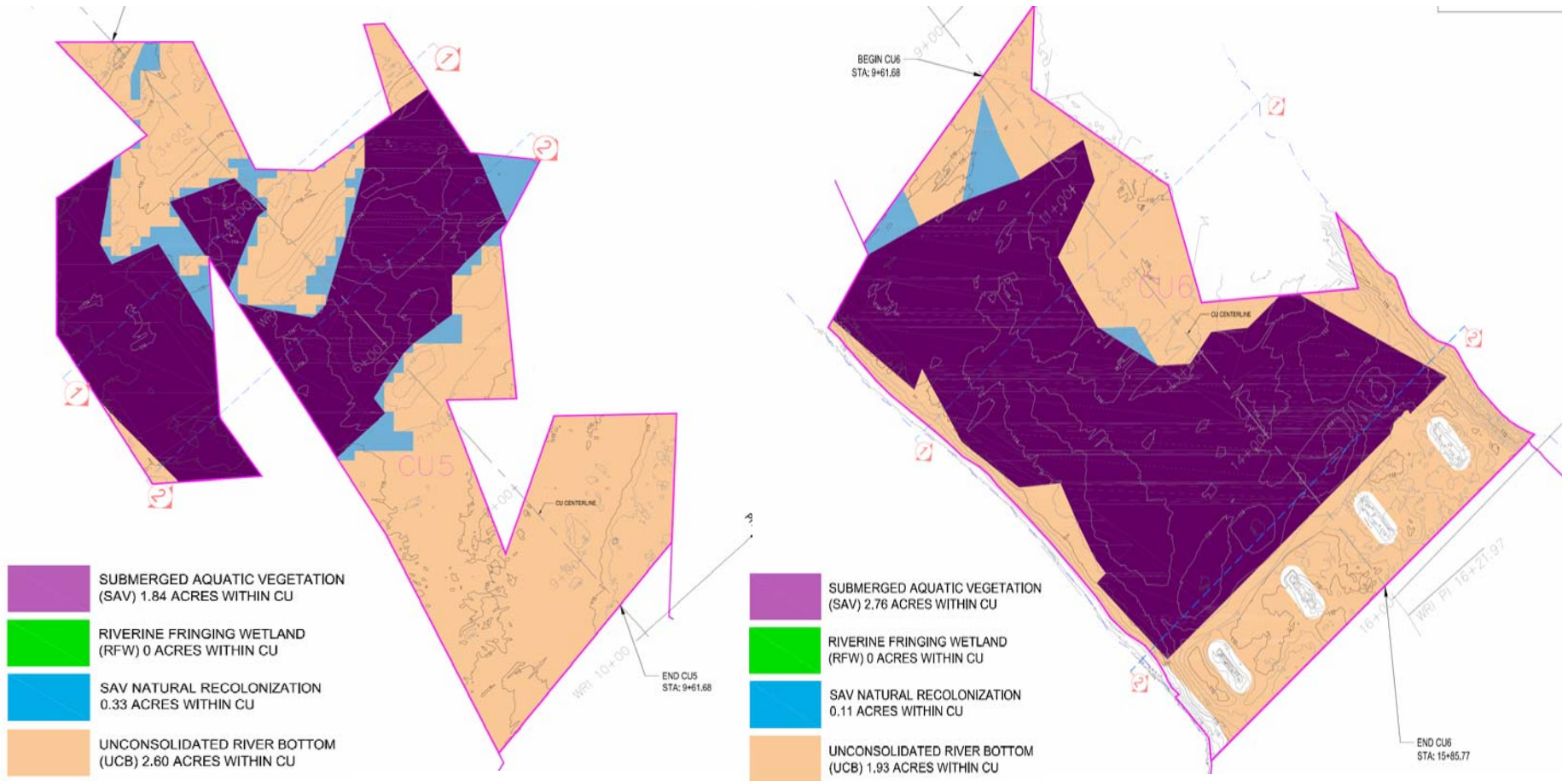
Habitat Reconstruction CU3/CU4 (2011)



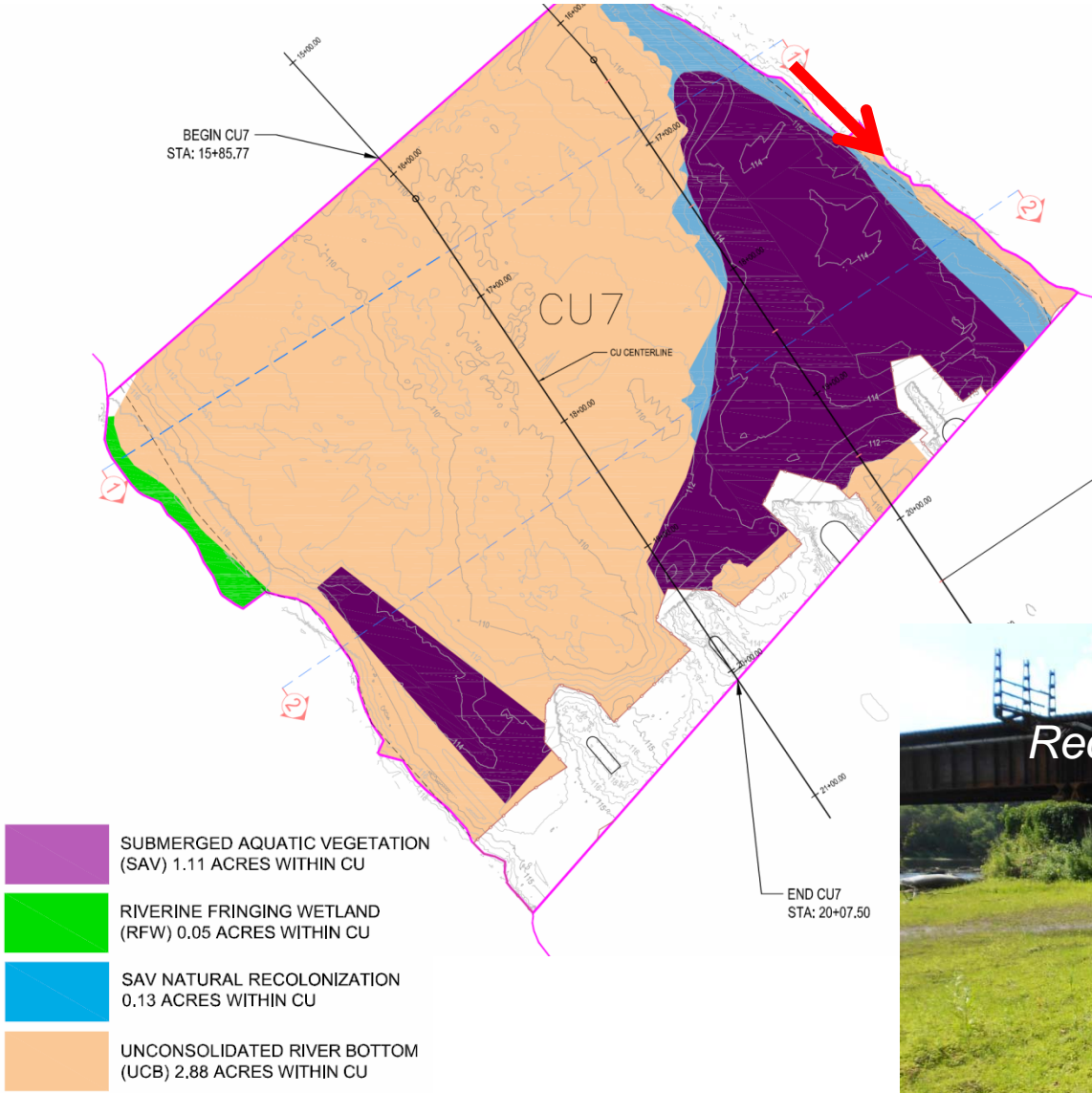
*Post-
Construction
2012*

-  SUBMERGED AQUATIC VEGETATION (SAV) 0.68 ACRES WITHIN CU
-  RIVERINE FRINGING WETLAND (RFW) 0 ACRES WITHIN CU
-  SAV NATURAL RECOLONIZATION 0.24 ACRES WITHIN CU
-  UNCONSOLIDATED RIVER BOTTOM (UCB) 3.95 ACRES WITHIN CU

Habitat Reconstruction CU5 and CU6 (2011)



Habitat Reconstruction CU7 (RFW 2010, SAV 2011)



Habitat Reconstruction CU8 (RFW 2010, SAV 2011)

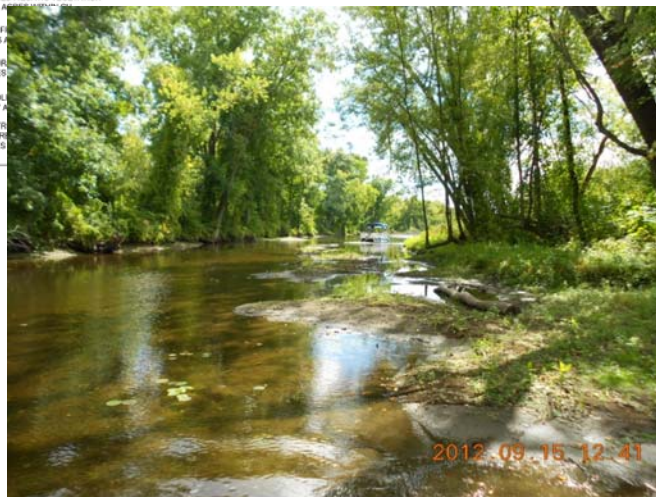


LEGEND

— CU BOUNDARY

EPA APPROVED HABITAT LIMITS, MAY 5, 2010

Submerged Aquatic Vegetation (SAV)	0.22 ACRES
Riverine Fringing Wetland (RFW)	0.15 ACRES
SAV Natural Recolonization	0.32 ACRES
Unconsolidated River Bottom (UCB)	3.97 ACRES
Other Stream Offset Area	0.25 ACRES



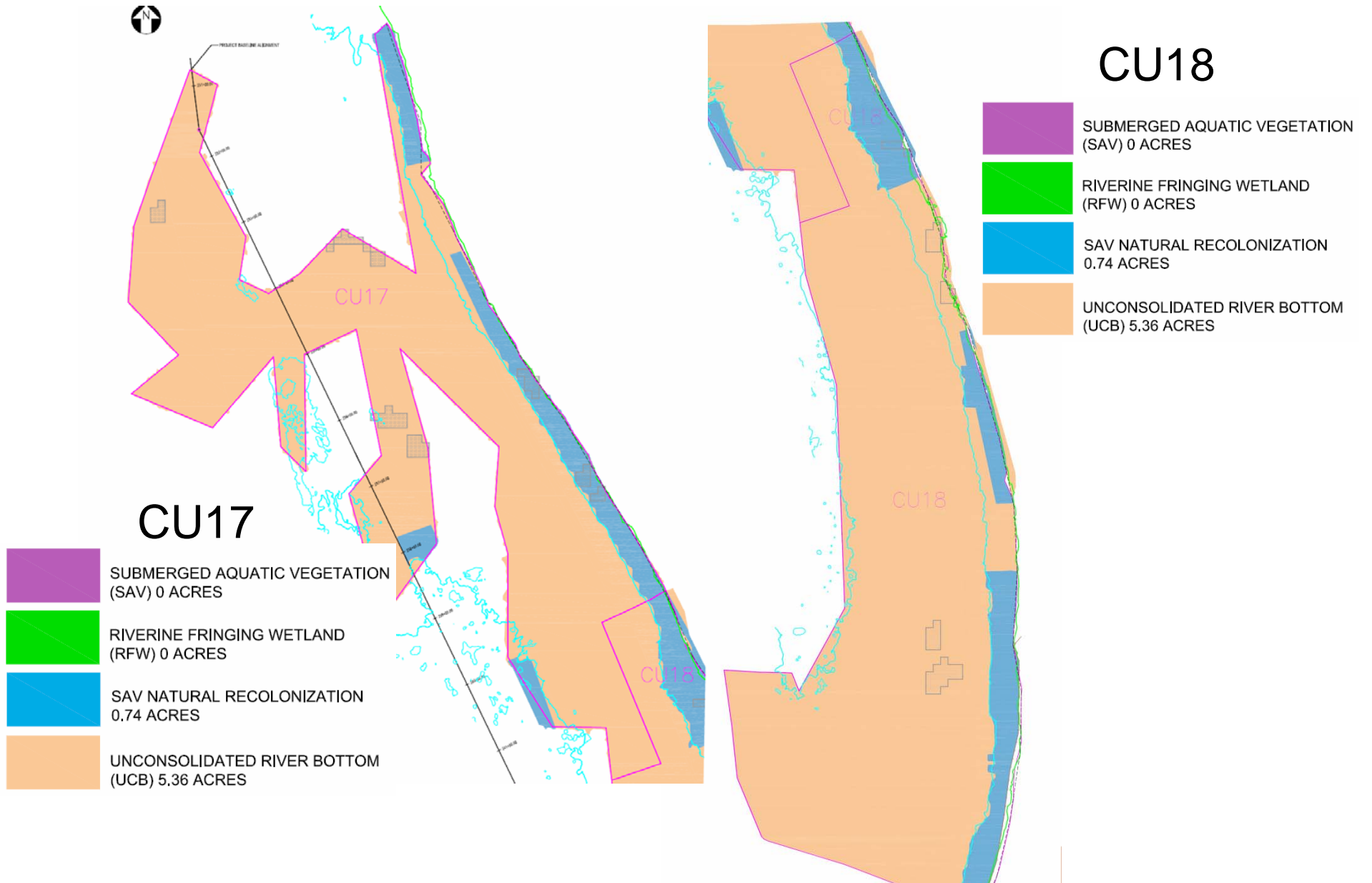
RFW Post Construction 2012

RFW Post Construction 2012

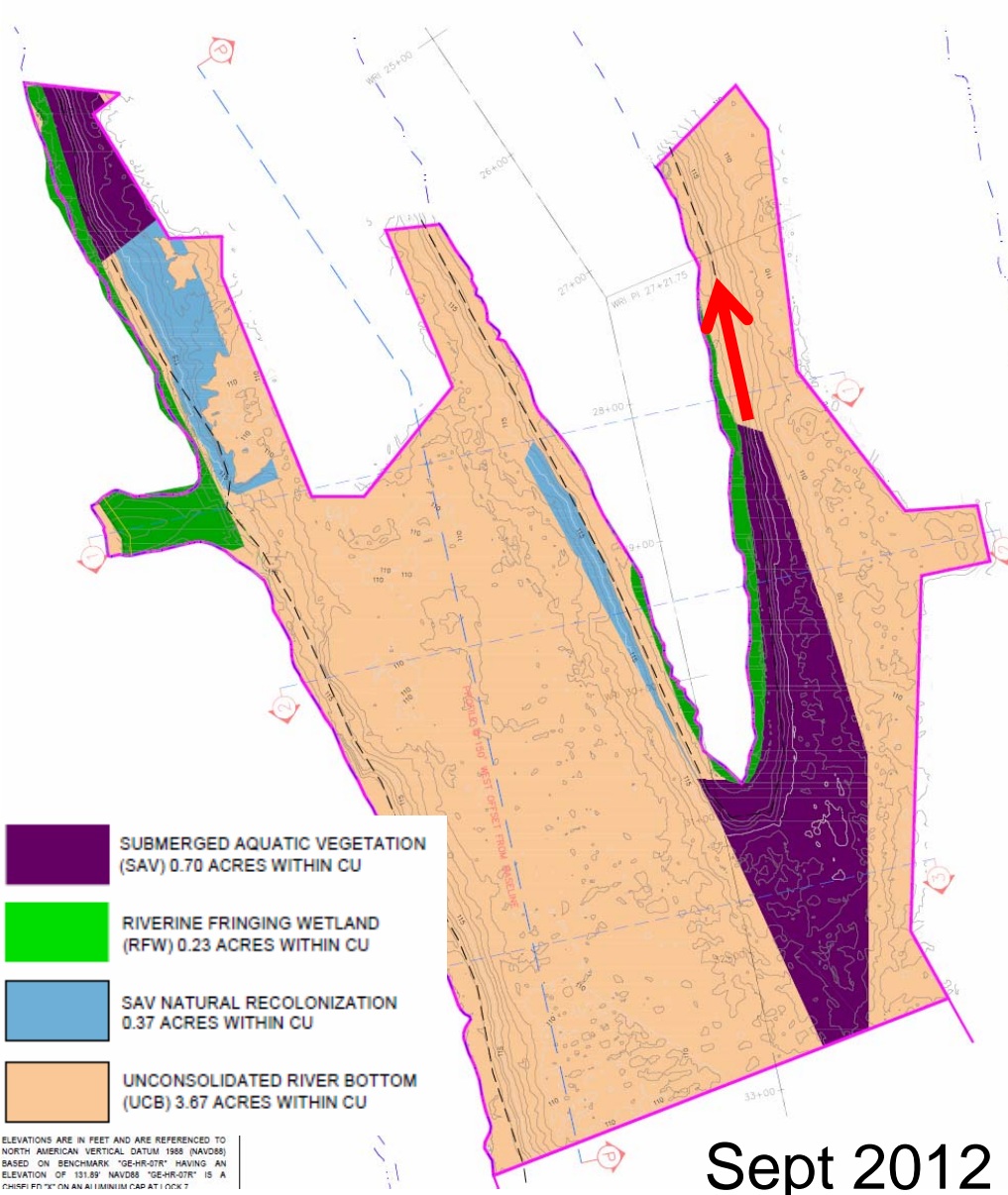
Submerged Aquatic Vegetation (SAV)	0.22 ACRES WITHIN CU
Riverine Fringing Wetland (RFW)	0.15 ACRES WITHIN CU
SAV Natural Recolonization	0.32 ACRES WITHIN CU
Unconsolidated River Bottom (UCB)	3.97 ACRES WITHIN CU



CU17 and CU18 Natural Recolonization Areas (2009)



Habitat Reconstruction CU9 (RFW and SAV 2012)

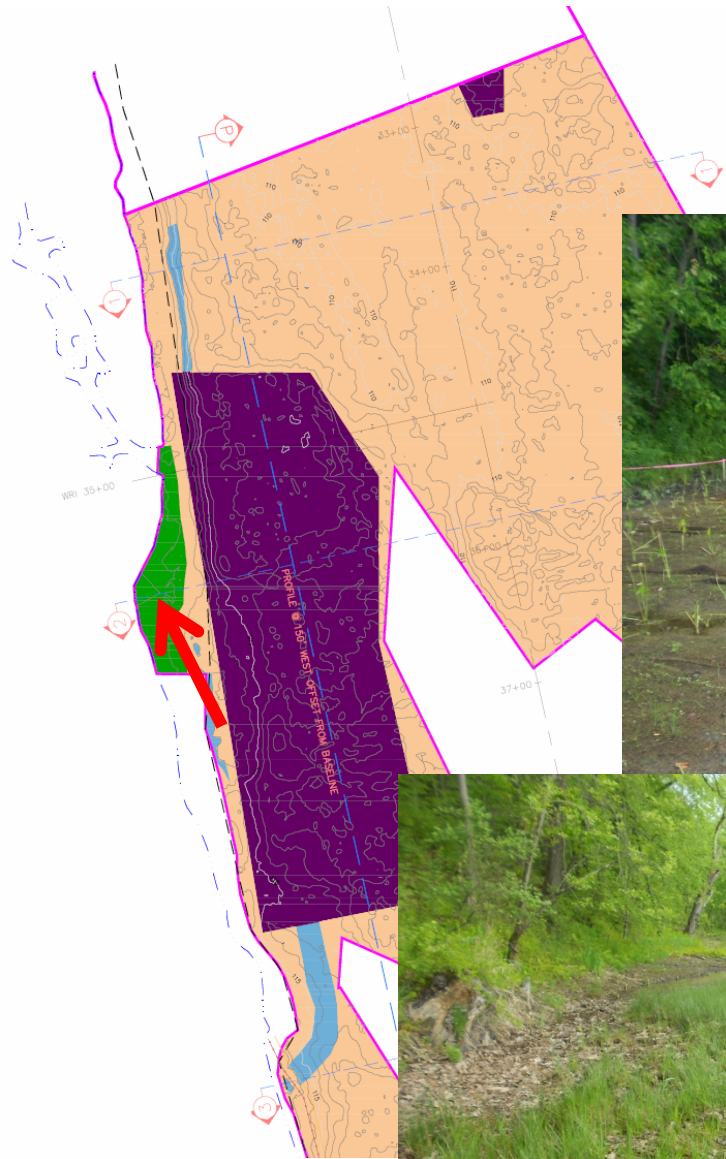


Pre-Construction 2007



Post Construction 2012

NATURAL RECONSTRUCTION CUTU (RFW 2012, SAV in progress)



- SUBMERGED AQUATIC VEGETATION (SAV) 1.07 ACRES WITHIN CU
- RIVERINE FRINGING WETLAND (RFW) 0.08 ACRES WITHIN CU
- SAV NATURAL RECOLONIZATION 0.12 ACRES WITHIN CU
- UNCONSOLIDATED RIVER BOTTOM (UCB) 3.47 ACRES WITHIN CU



Constructed 2012

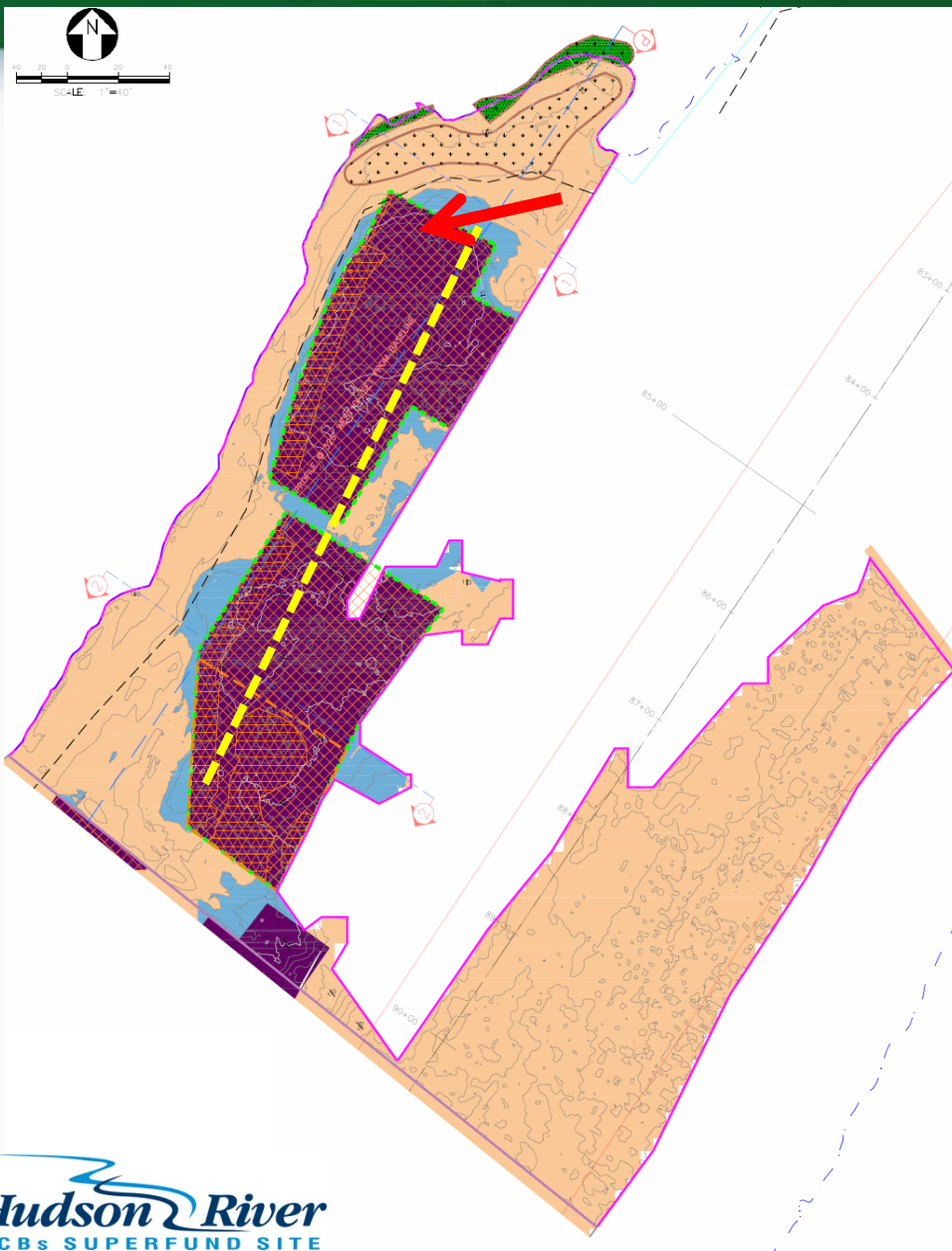


Post-Construction 2012



Post-Construction 2013

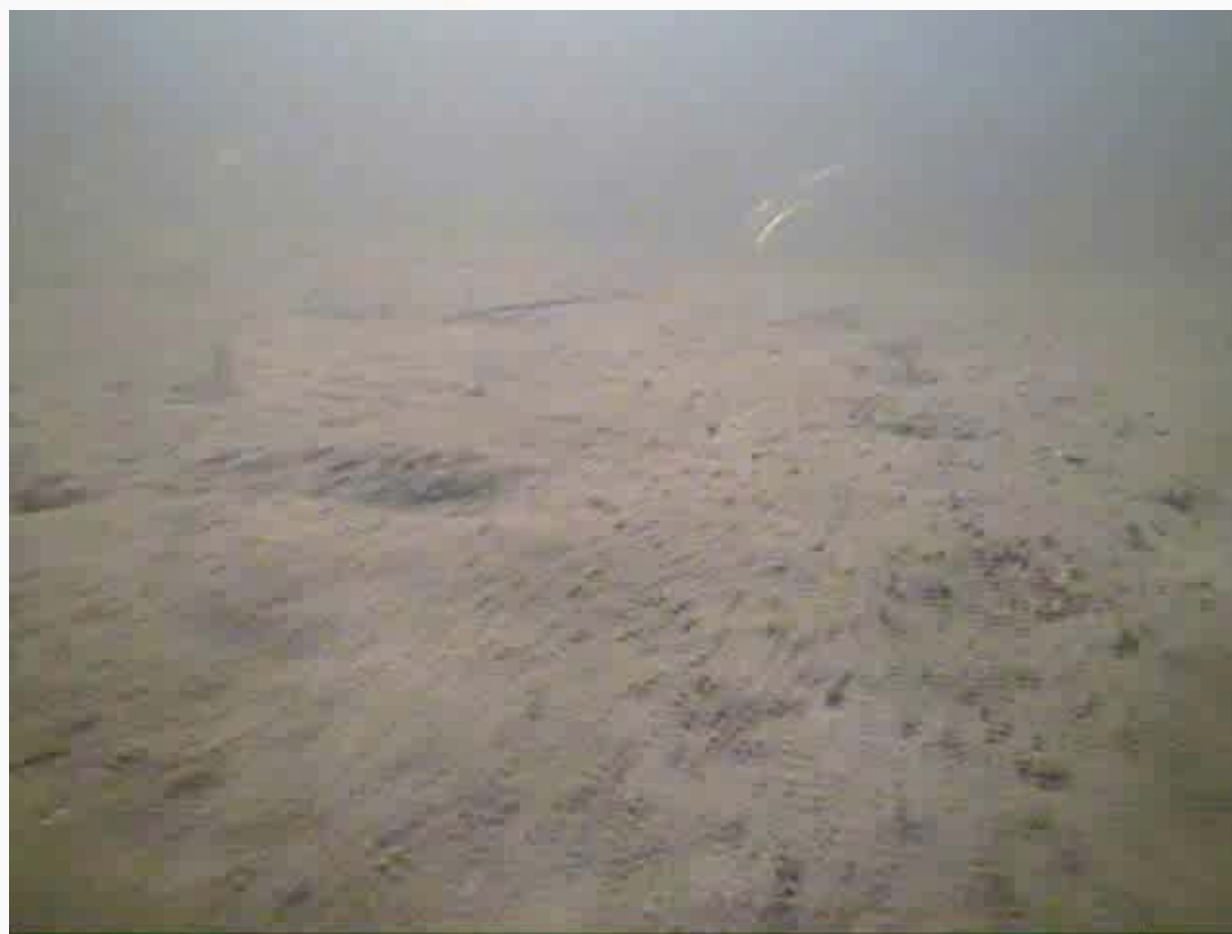
SAV Habitat Reconstruction CU19



RFW Post-construction 2013



SAV Post-construction 2013



SUMMARY TABLE: Total Plants Installed To-Date by CU

CU	Submerged Aquatic Vegetation	Riverine Fringing Wetland
2	0 (all natural recolonization)	1,055
3	8,676	No RFW
4	1,402	No RFW
5	18,561	No RFW
6	24,299	No RFW
7	12,473	(seed mixes only)
8	3,152	1,424
9	7,680	2,780
10	959 (planned)	No SAV 2012
12-18	0 (all natural recolonization)	No RFW
19	12,680	1,789
21-23	~ 18,000 to date 2013 (~70,000 planned 2013)	No RFW
Totals	107,882	7,048

Habitat Reconstruction Lessons Learned



Large-scale installation is possible

RFW Construction and Planting

- Seed mix application (timing important)
- Seeding alone may not be adequate
- Plant species diversity important
- Planting elevation in relation to water surface very important
- Areas need to remain stable until after plants establish

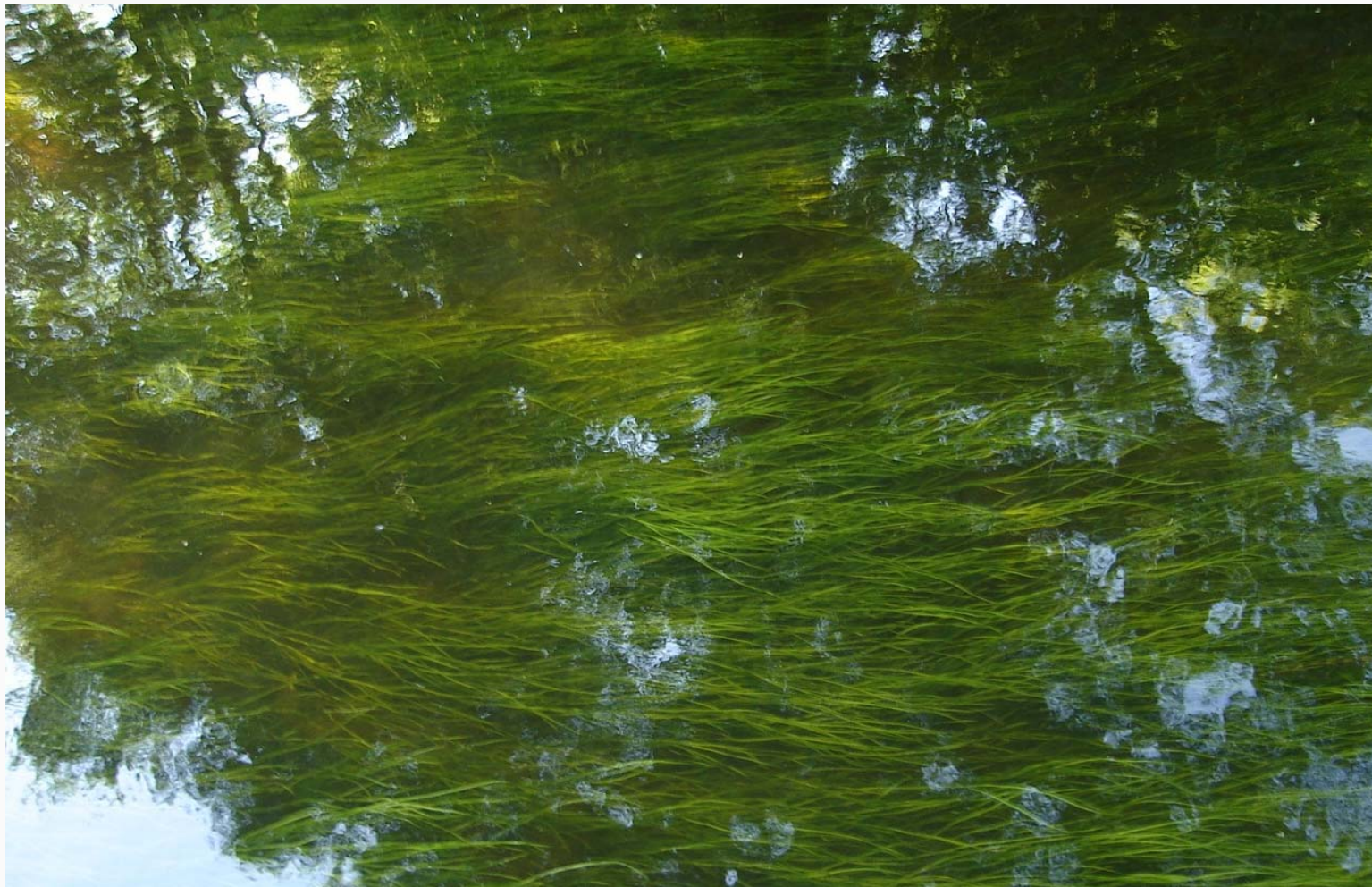
SAV Construction and Planting

- Local stock can be harvested, transplanted, and propagated locally
- 2-ft spacing and planting depths appear adequate
- Stock has to be vigorous at time of planting
- Early planting is better
- Anchoring plant in river bottom is important

Adaptive Responses to RFW Stabilization and Protection



Success!!



Challenge – West Griffin Island Area





Questions/Comments

Community Information and Outreach



In advance of dredging

- Calls and meetings with elected officials
- GE door-to-door outreach to shoreline property owners
 - Targeted outreach re: tree trimming, water usage
- EPA letter to shoreline property owners with project details
- Local availability session for shoreline residents
- Meeting with processing facility neighbors
- Coordination with local emergency responders
- Combining dredging and floodplain outreach

Community Information and Outreach



During dredging

- Outreach to owners with docks and other shoreline structures
- Weekly NYS Canal Corp. Notice to Mariners
- Project fact sheet distributed by NYSCC to boaters at locks
- Project signage
- Meetings with processing facility neighbors
- Drills with local emergency responders



Community Information and Outreach



- Outreach to owners of property near Saratoga Backfill Loading Area
- Outreach to shoreline properties in land-locked area (between Thompson Island and Fort Miller dams)



Community Information and Outreach



Complaint Management Program

- Concerns may be reported via phone, website or mail
 - 518-792-4087 or 1-888-596-3655
 - Info@hudsondredging.com
 - P.O. Box 295, Fort Edward, NY 12828
- When a complaint is recorded:
 - GE initiates investigation and notifies EPA
 - If quality-of-life concern, monitoring is conducted at complainant's location
- EPA and GE discuss potential mitigation measures
- GE contacts complainant with investigation conclusions
- EPA follow up as needed
- Record of complaints is included in monthly report submitted to EPA



Community Information and Outreach



Informational Resources

- Hudson River Field Office
- Press releases
- Fact sheets
- Community events
- Video
- Student visits & educational resources
- CAG
- Websites

EPA: www.epa.gov/ HUDSON


www.hudsondredgingdata.com

GE: www.hudsondredging.com



Community Information and Outreach






EPA Hudson River PCBs SUPERFUND SITE Dredging Data Website

HOME

- EPA PERFORMANCE STANDARDS **UPDATED**
- WATER QUALITY MONITORING (RESUSPENSION)
- PCB LOAD
- AIR QUALITY MONITORING
- ODOR MONITORING
- NOISE MONITORING
- LIGHTING MONITORING
- NAVIGATION MONITORING
- INTERACTIVE DATA MAPS
- PROJECT ACTIVITIES
- PRODUCTIVITY
- RESIDUALS / CAPPING / BACKFILLING
- PHASE 1 EVALUATION
- CONTACT / STAY INFORMED



Welcome to EPA's Hudson River Dredging Data Website

This site provides access to performance standard monitoring data that is being generated as part of Phase 2 dredging and sediment processing facility operations. For more information about the Hudson River PCBs Superfund Site go to: www.epa.gov/udson.

Phase 2 dredging began June 6, 2011. Performance standard monitoring data will be collected daily.

NEW To view Phase 2 data, click on one of the categories on the left side of the screen, or go to the interactive data maps. The interactive data maps show, by location, project activities and monitoring data for both engineering performance standards of water quality (resuspension) and quality of life performance standards such as air quality, odor, noise, lighting, and navigation. [Click here](#) to view the interactive data maps.


Phase 1 dredging occurred between May 15 and October 26, 2009. Performance standard monitoring data was collected daily between May and December 2009. Phase 1 data can be accessed at the bottom of each monitoring page.

What's New

- NEW** EPA Marks the Startup of the Final Phase of Hudson River PCB Dredging. [Read more](#)
- NEW** Second Phase of Historic Hudson River Cleanup Underway. [Read more](#)
- NEW** [Click here](#) to view the Interactive Data Maps which show, by location, project activities and monitoring data. The monitoring data is shown for both engineering performance standards (water quality/resuspension) and quality of life performance standards such as air quality, odor, noise, lighting, and navigation.

Phase 2 Documents for the 2011 Dredging Season

- [Click here](#) to read the Fact Sheet on EPA Technical Requirements for Phase 2 of the Hudson River Dredging Project (767 KB).
- NEW** [Click here](#) to read the Phase 2 Overview Fact Sheet (5 MB).
- [Click here](#) to read the Phase 2 Engineering Performance Standards



Community Information and Outreach



For More Information

- Phase 2 Remedial Action Community Health & Safety Plan for 2013:
<http://www.hudsonredgingdata.com/>
- Hudson River PCBs Superfund Site Community Involvement Plan:
<http://www.epa.gov/hudson/plans.html#cleanup26>

Questions/Comments

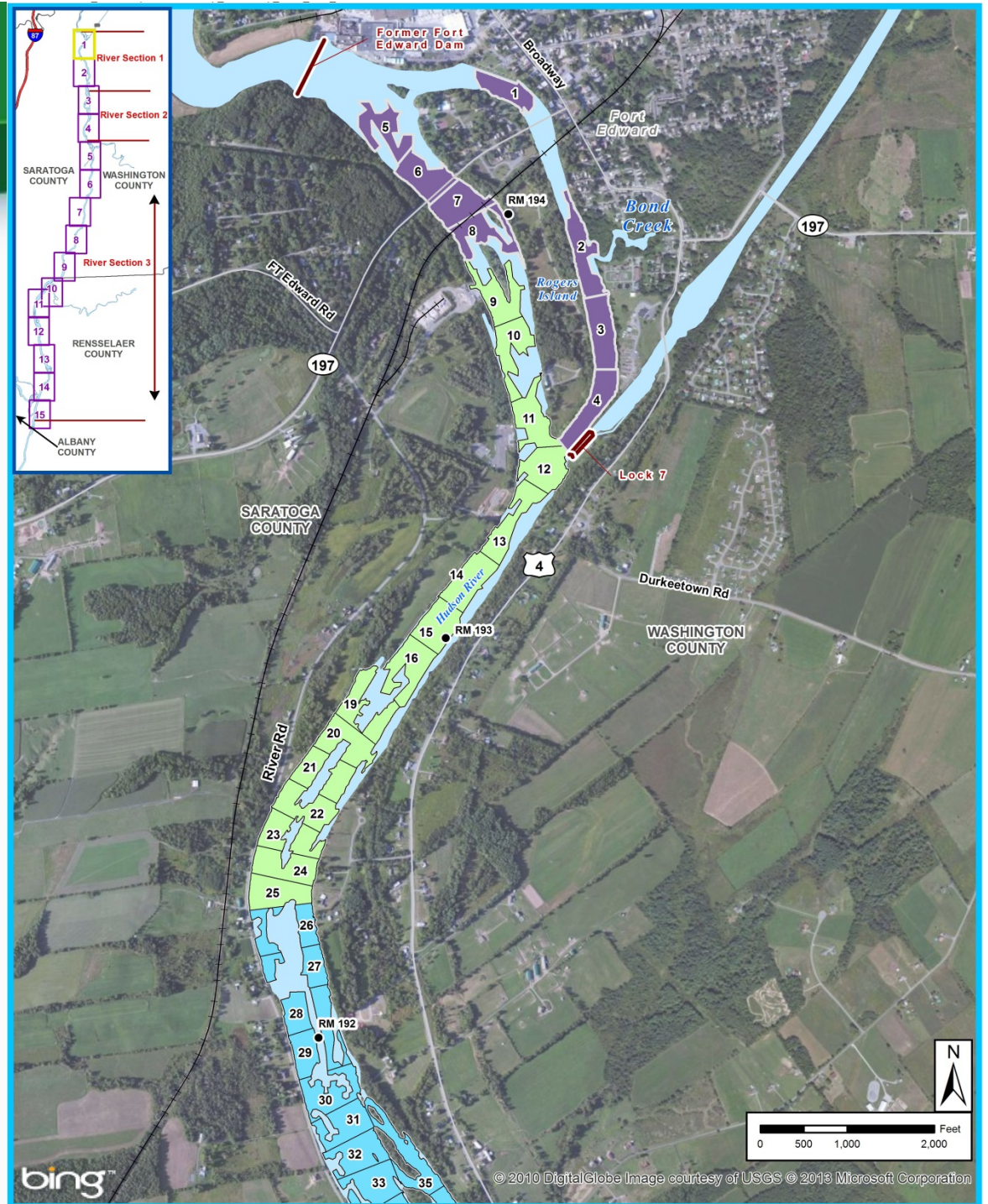




Phase 1 and 2 Dredge Areas Map 1

KEY:

- River Mileposts
- USA Major Roads
- + Primary Railroads
- Lock/Dam
- Phase 1 Dredging Areas
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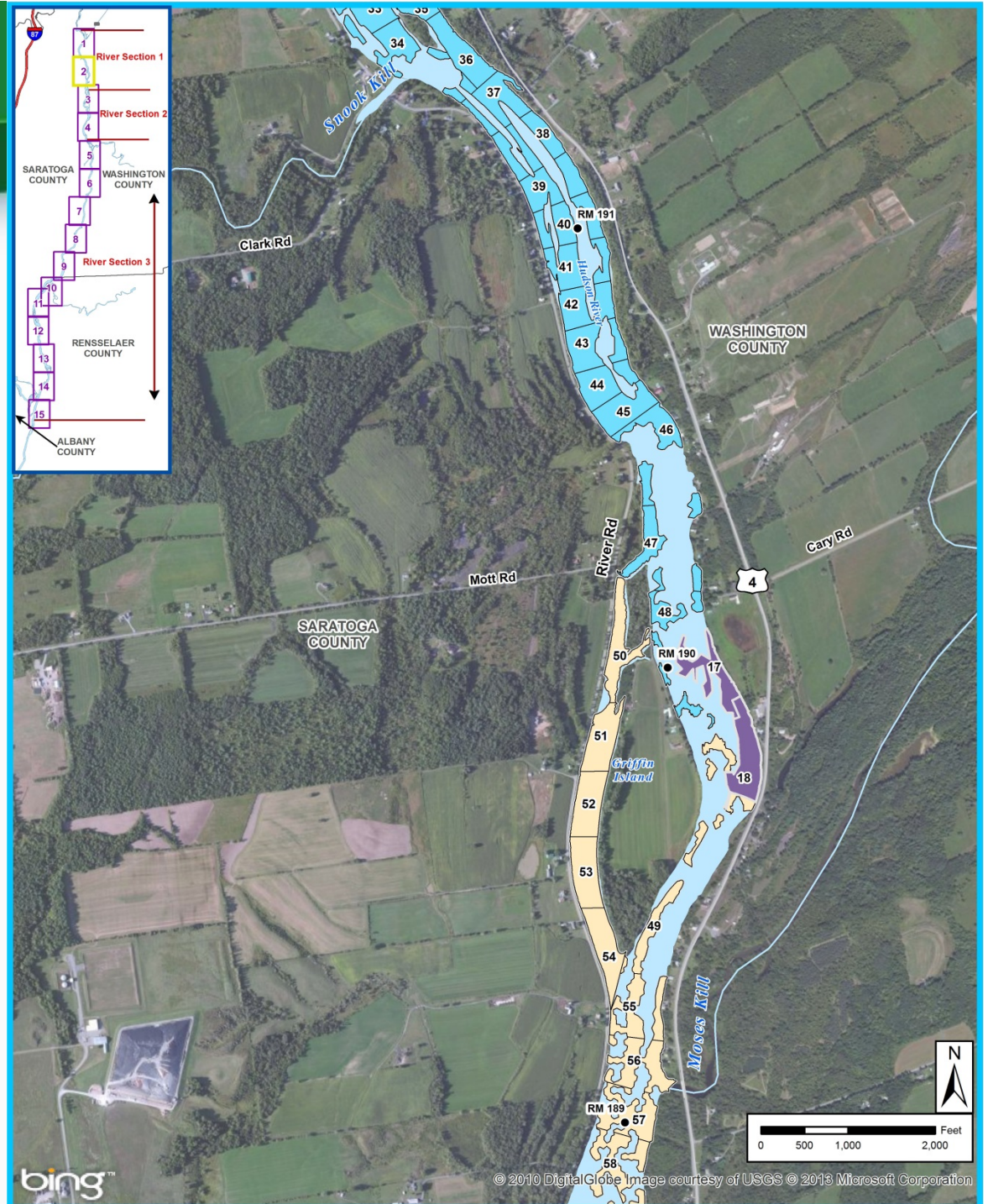


Phase 1 and 2 Dredge Areas

Map 2

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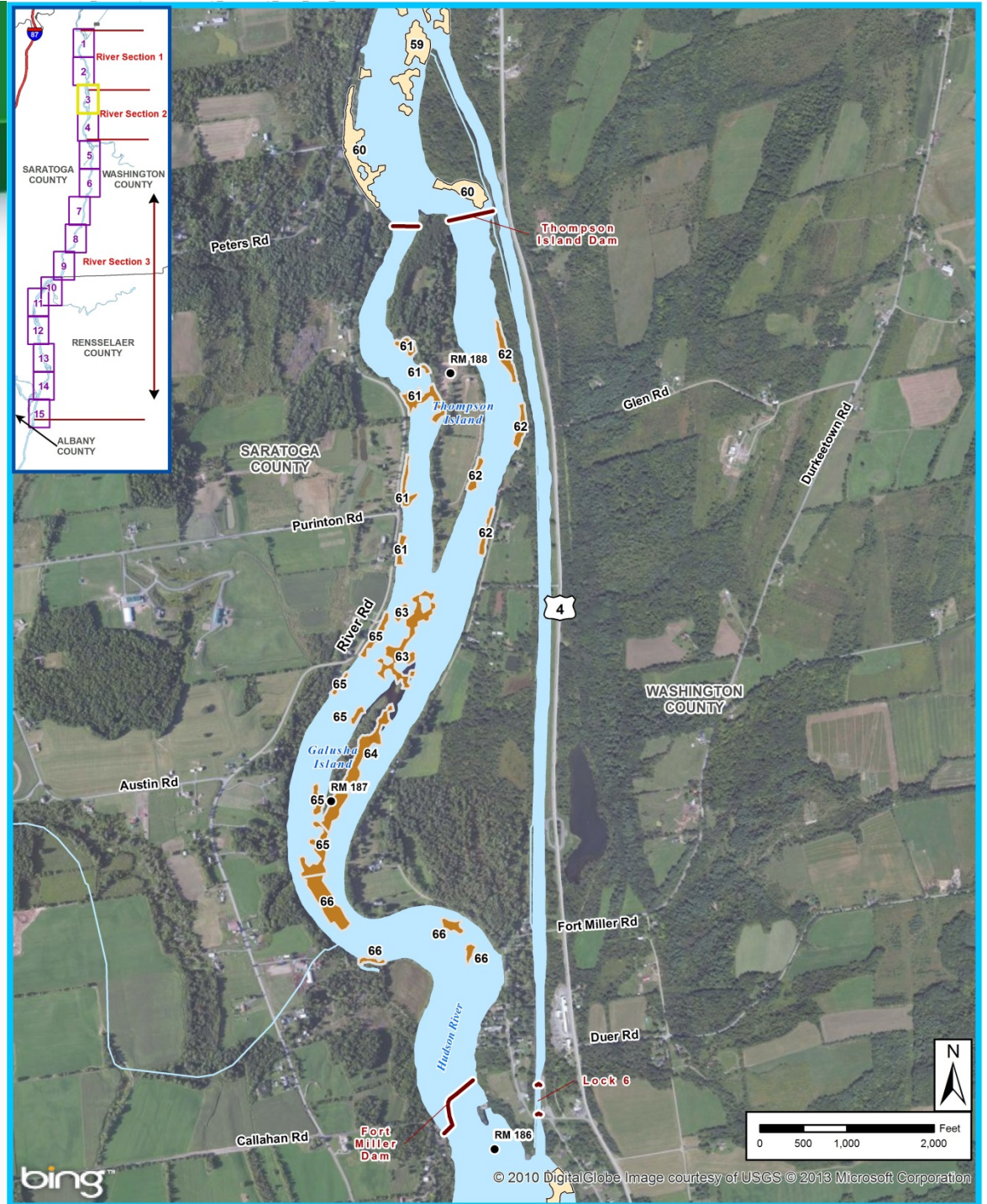
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Phase 1 and 2 Dredge Areas Map 3

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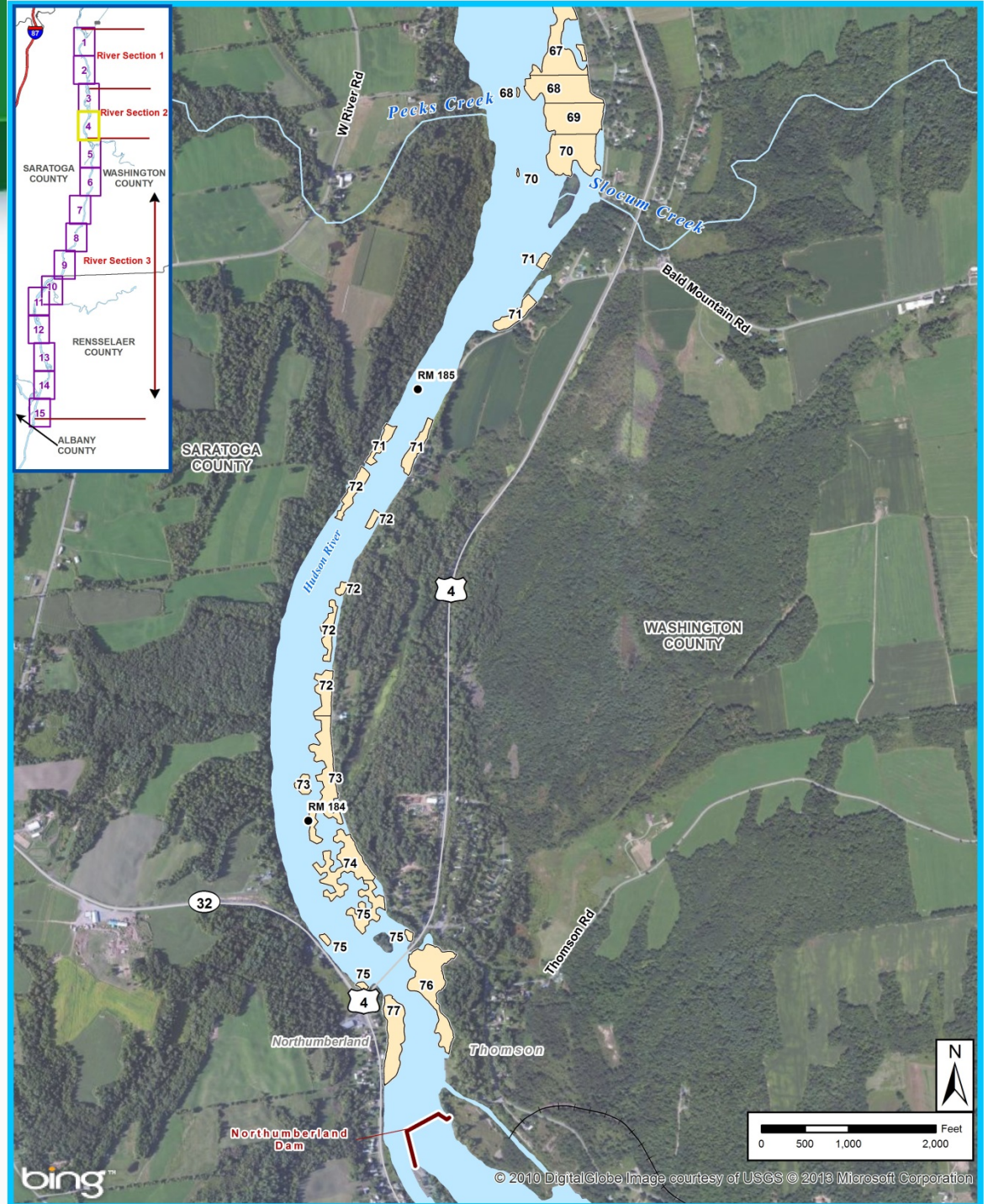


Phase 1 and 2 Dredge Areas

Map 4

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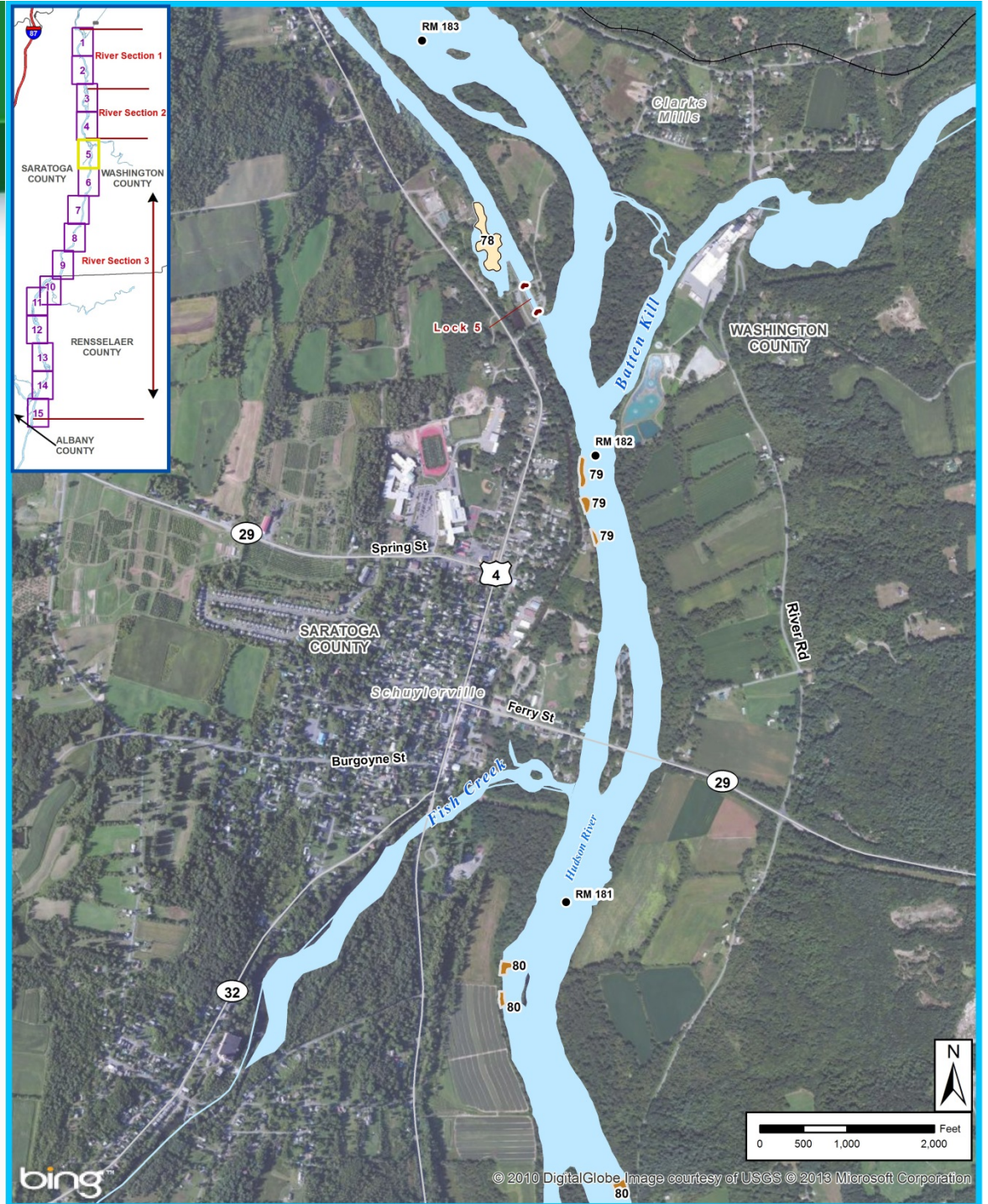
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Phase 1 and 2 Dredge Areas Map 5

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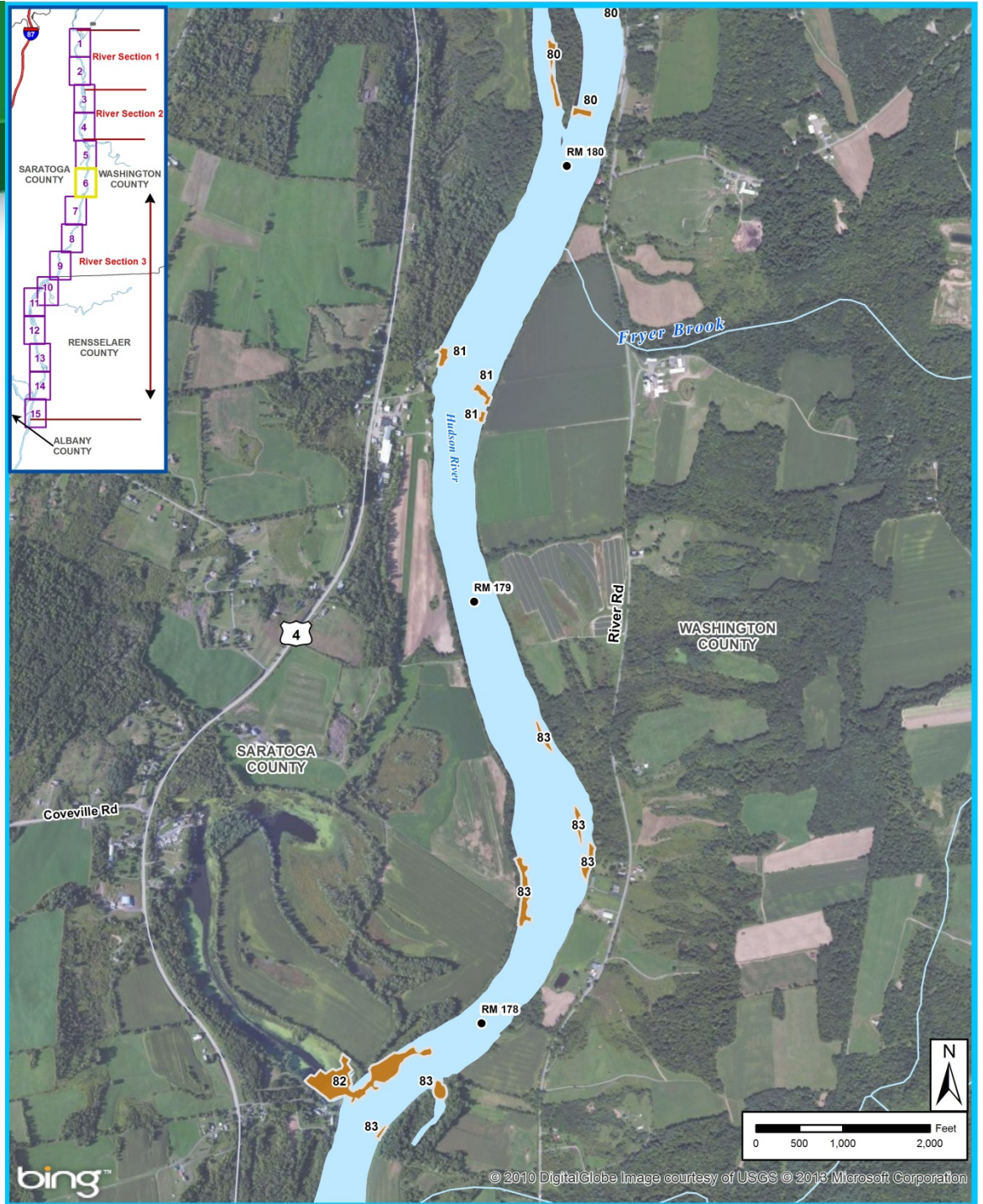
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Phase 1 and 2 Dredge Areas Map 6

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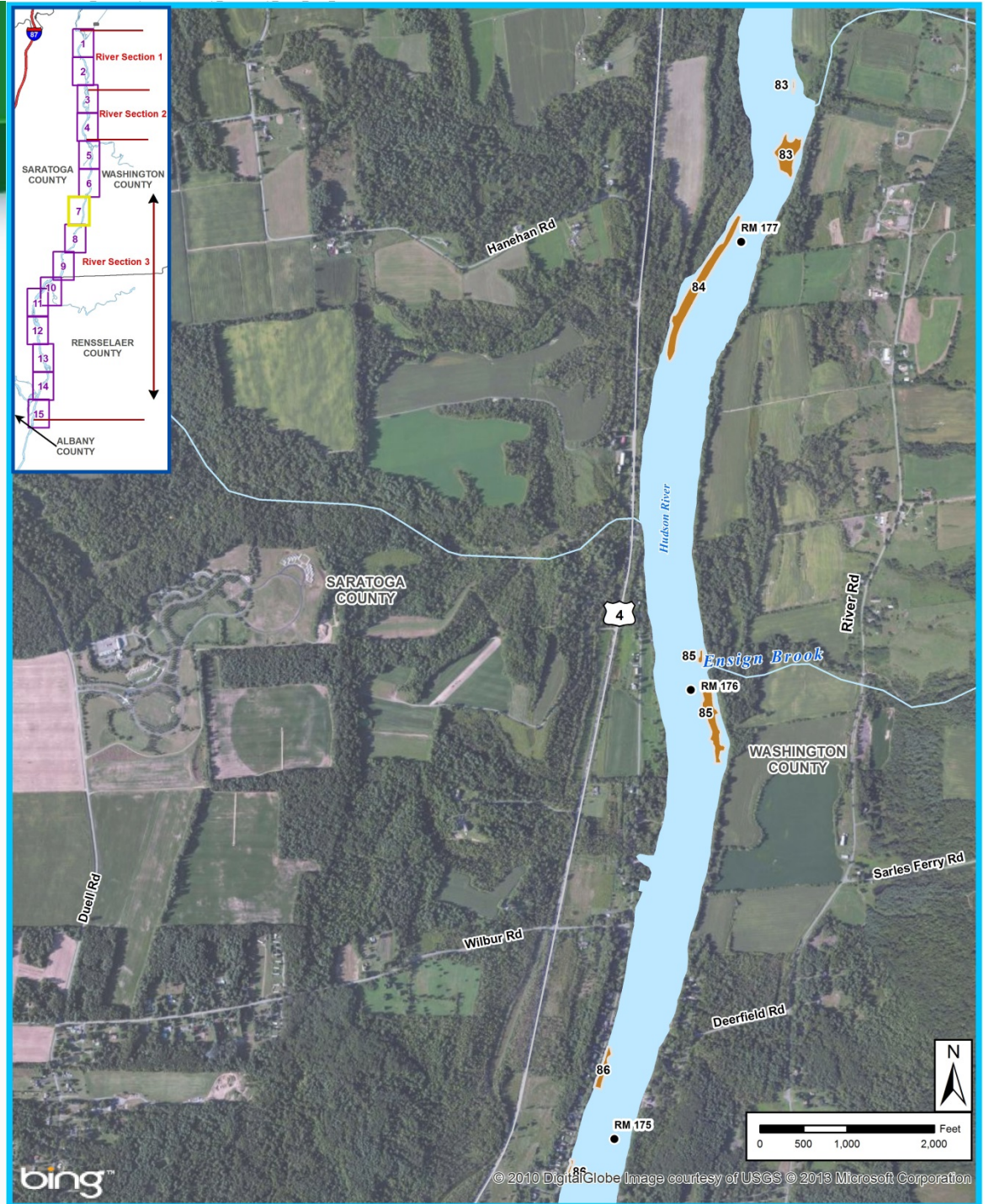
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Phase 1 and 2 Dredge Areas Map 7

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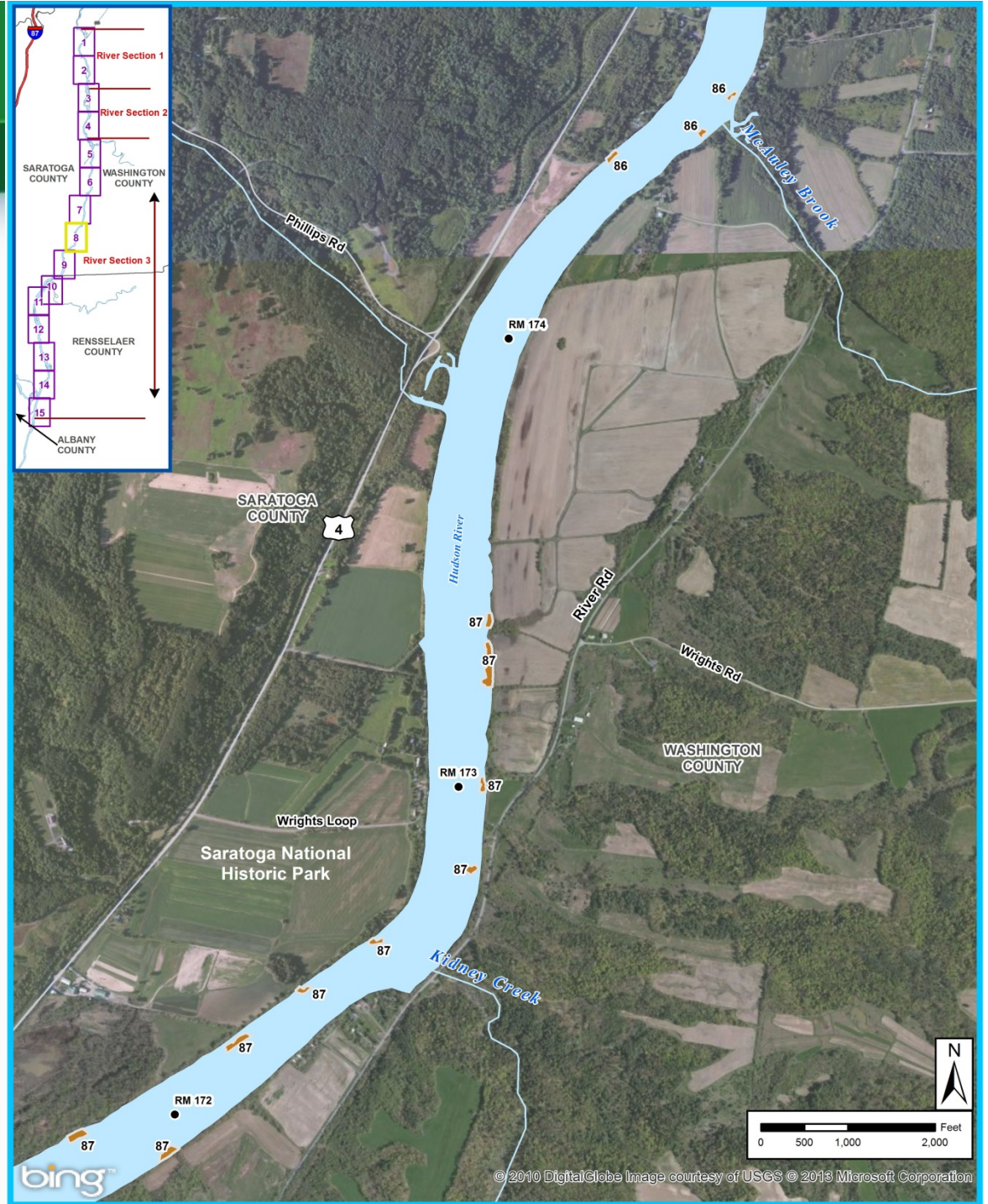
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Phase 1 and 2 Dredge Areas Map 8

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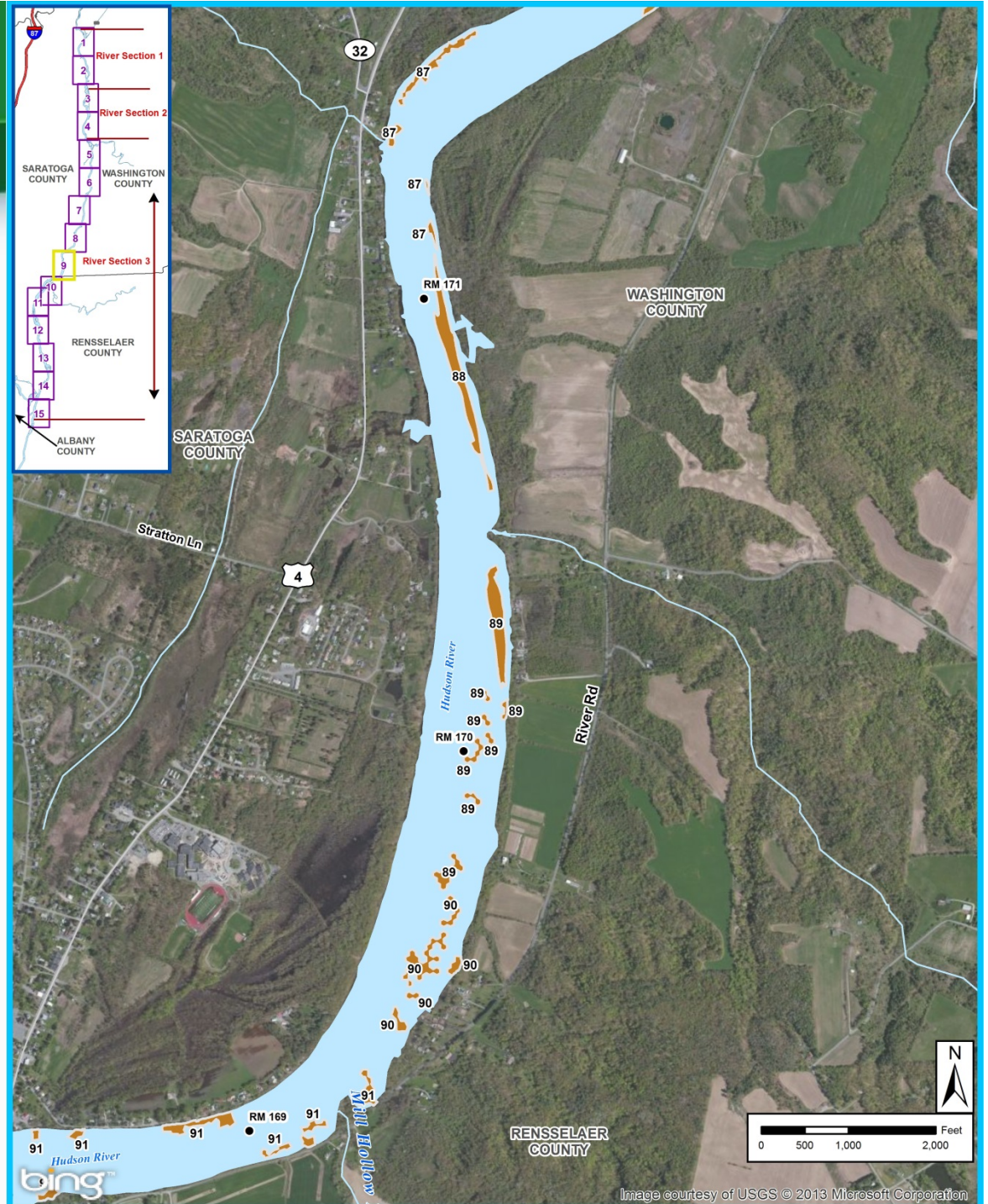
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Phase 1 and 2 Dredge Areas Map 9

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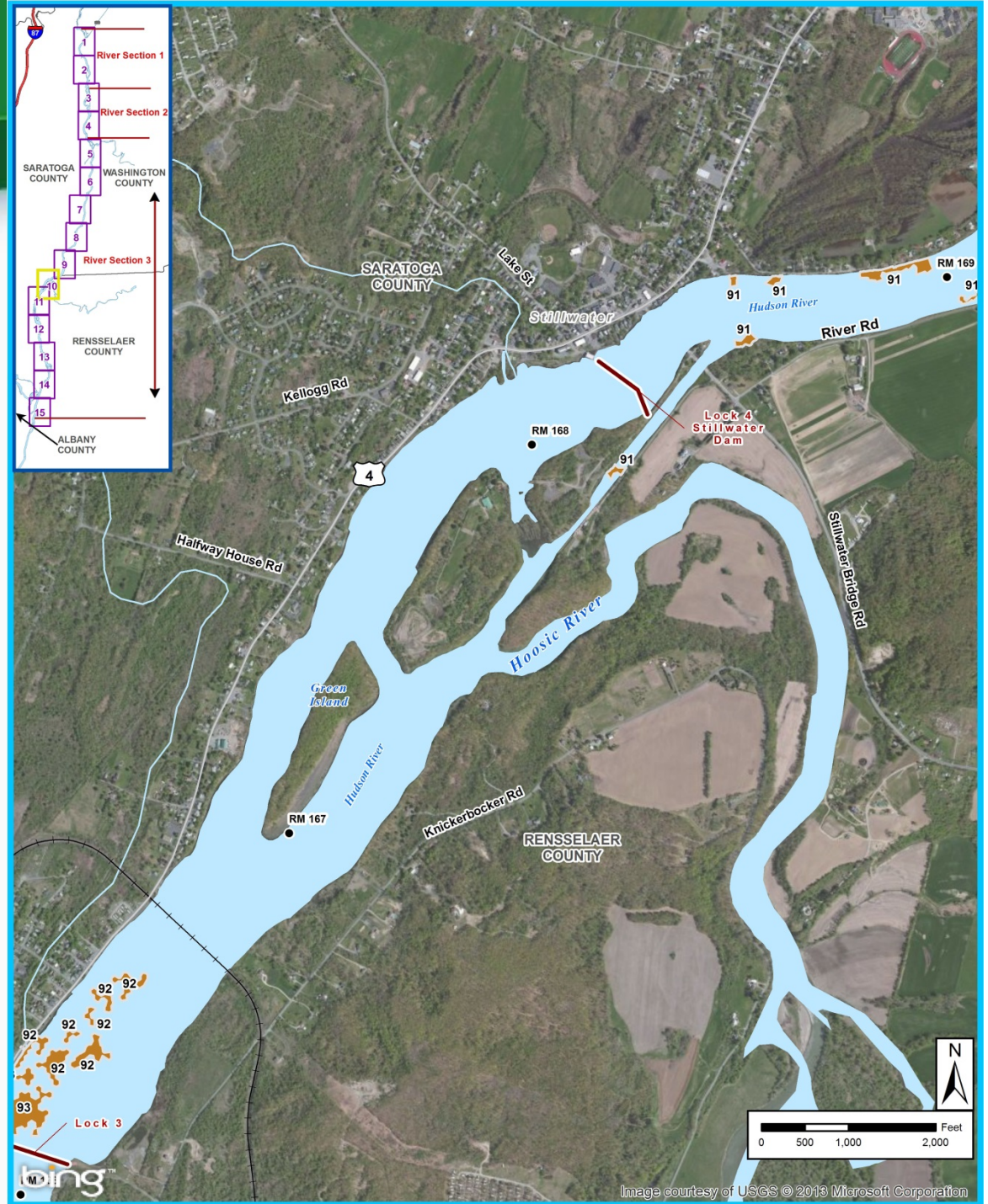
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Phase 1 and 2 Dredge Areas Map 10

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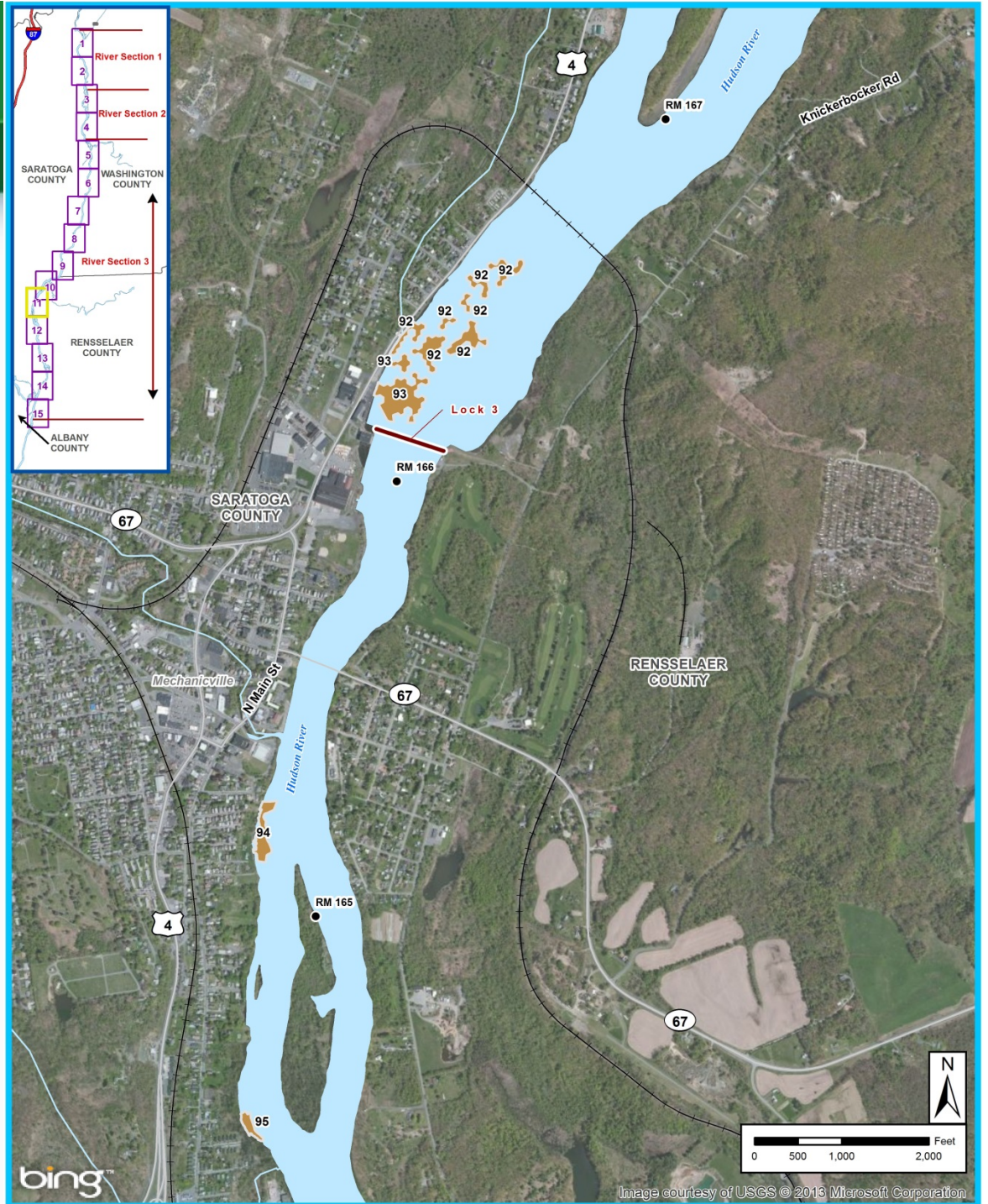
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Phase 1 and 2 Dredge Areas Map 11

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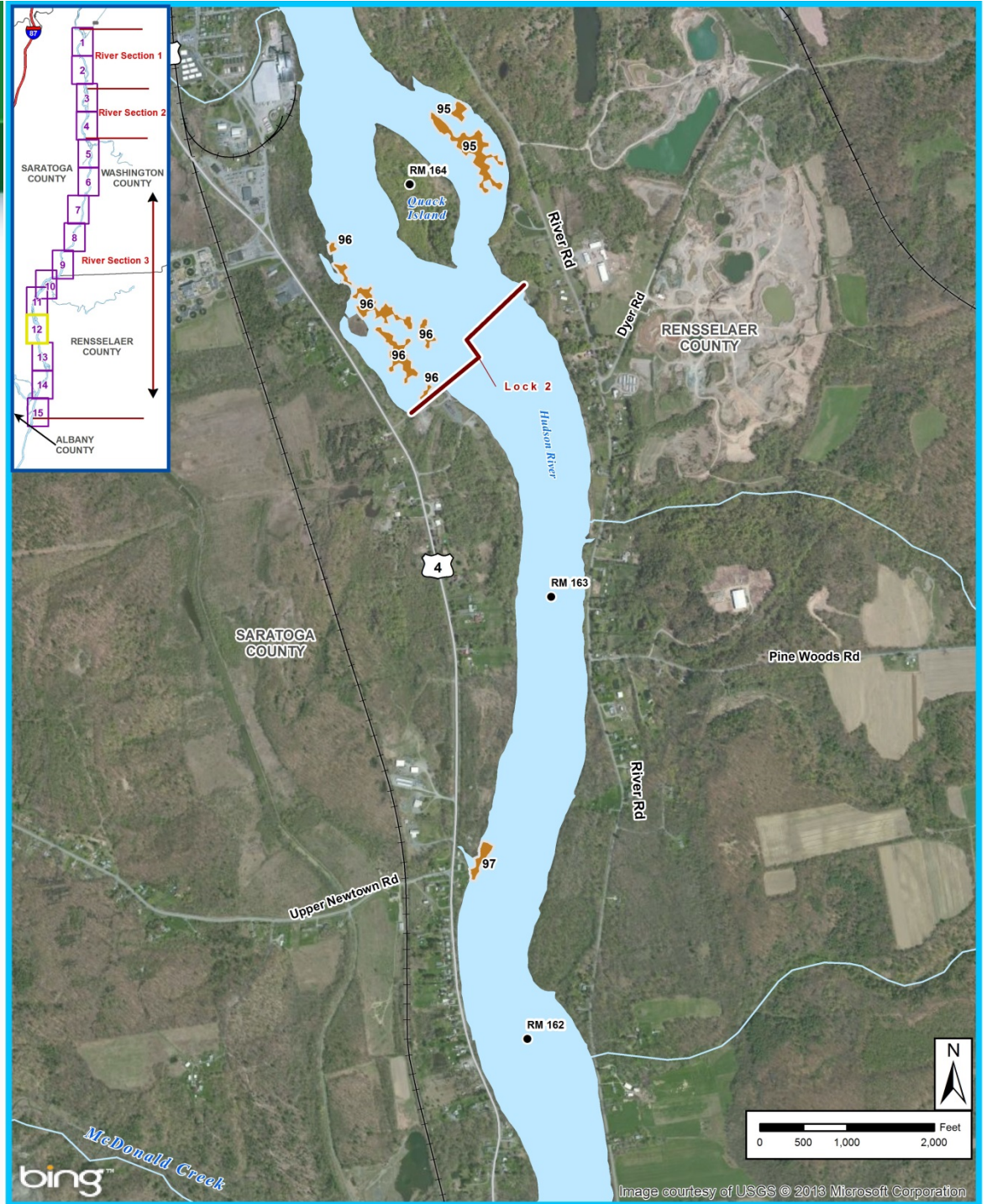
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Phase 1 and 2 Dredge Areas Map 12

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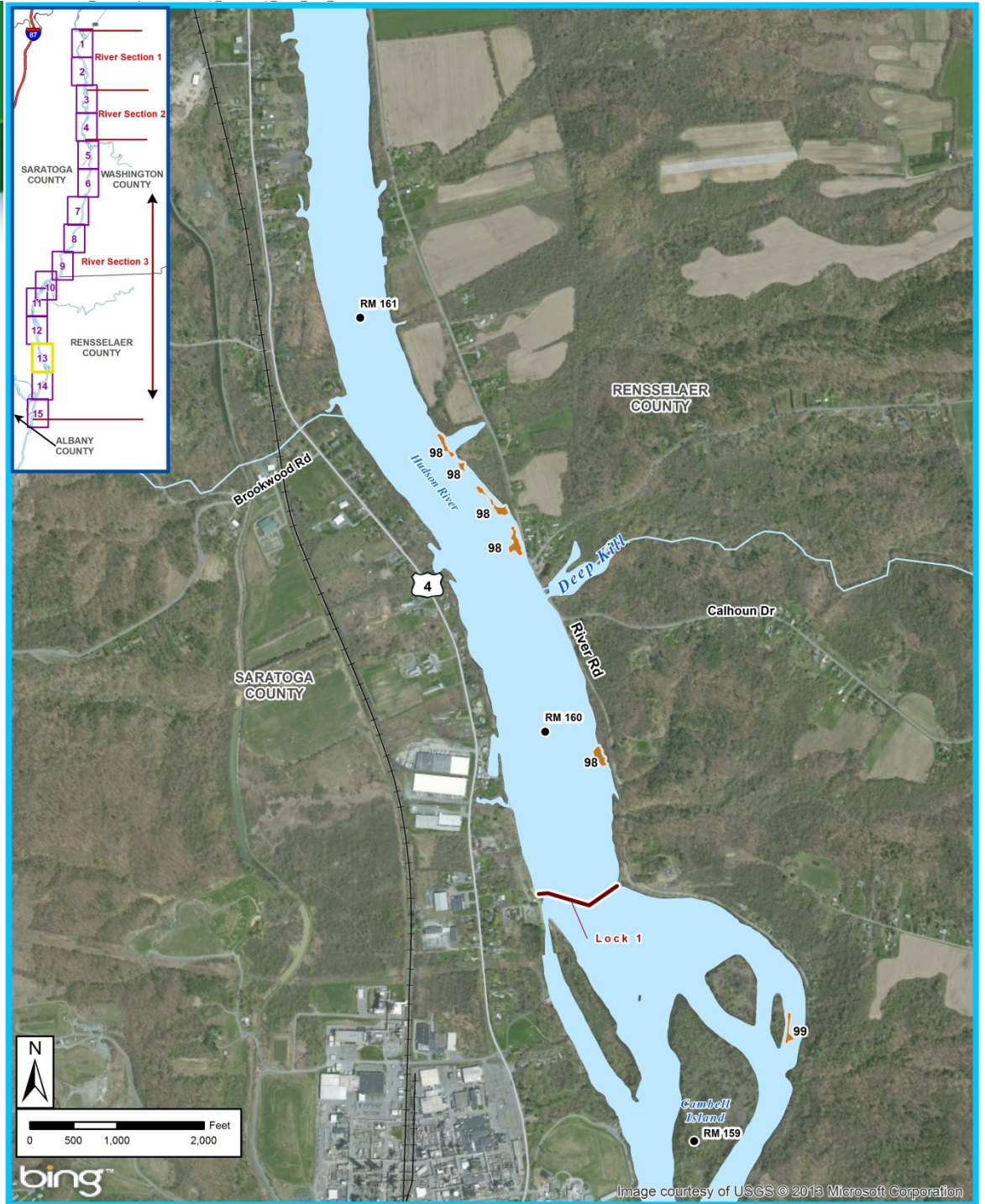
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Phase 1 and 2 Dredge Areas Map 13

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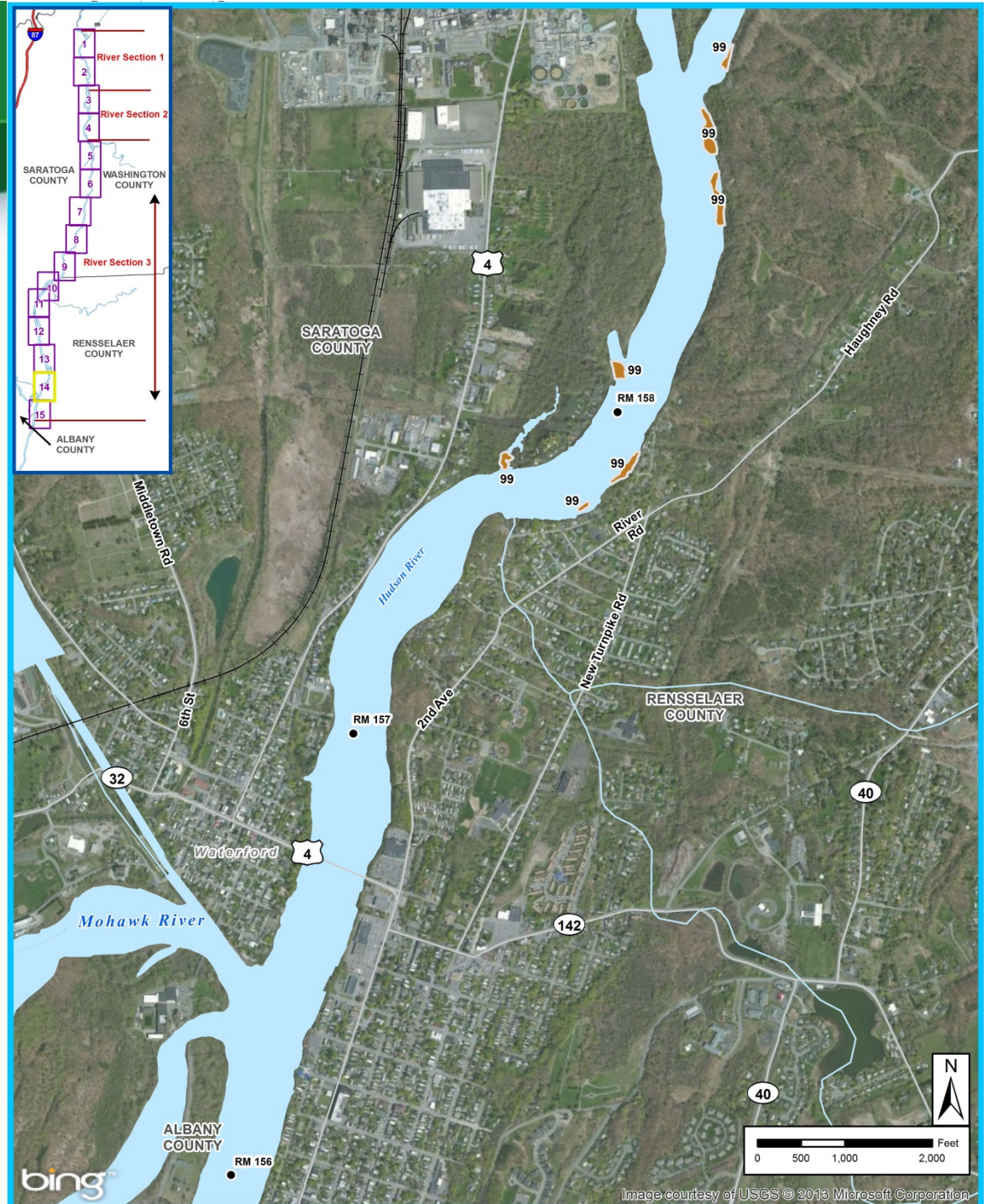


Phase 1 and 2 Dredge Areas

Map 14

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Phase 1 and 2 Dredge Areas Map 15

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