Hudson River
PCBs SUPERFUND SITE

Region 2: NJ, NY, PR, VI • 290 Broadway, New York, NY 10007

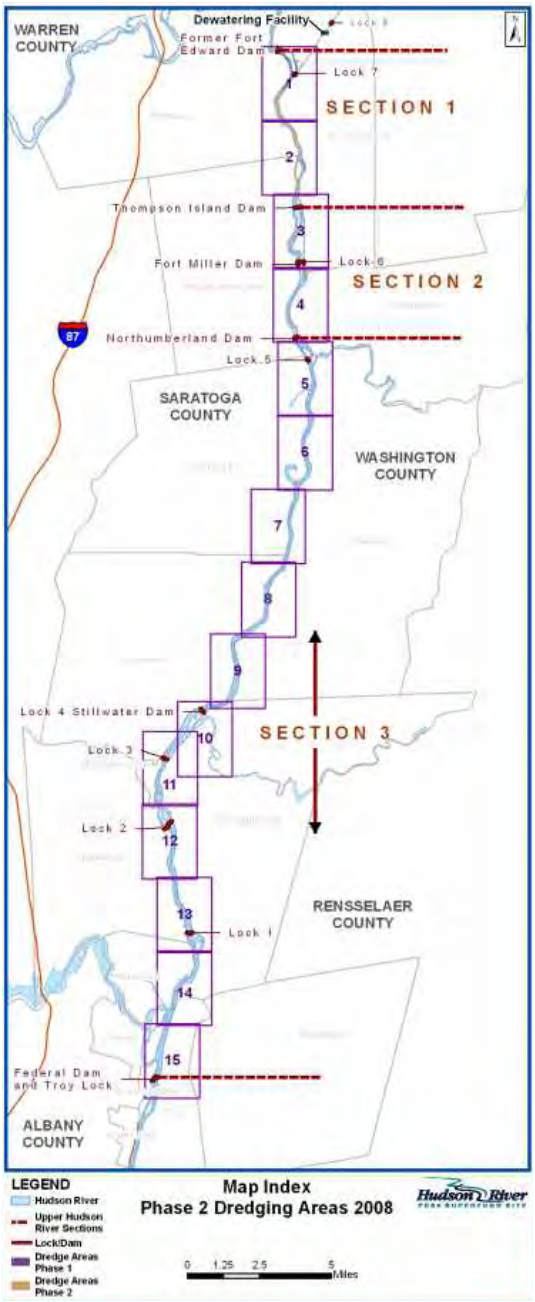
# Dredge Area Delineation Phase 2 Factsheet

January 2008

## Highlights

EPA has approved the Phase 2 Dredge Area Delineation (Phase 2 DAD), prepared by General Electric Company (GE). Approximately 400 acres are targeted for dredging in Phase 2 with a sediment volume of 1,531,000 cubic yards (cy) that contains a mass of 92,800 kg of polychlorinated biphenyls (PCBs). The average depth of contamination is less than 3 feet in most areas, although a few extend to depths of 5 feet or more. EPA will consider public input received on the Phase 2 DAD as we move ahead with the Phase 2 design.

The dredge area delineation process has produced a dredging project that is substantially more efficient than was estimated in the cleanup plan outlined in EPA's 2002 Record of Decision (ROD). It removes a higher percentage of PCBs present in the Thompson Island Pool (98%), while removing much less sediment. In addition, for River Sections 2 and 3, it is projected to remove more PCBs than what was estimated at the time the cleanup plan was selected.




## Where will the dredging be done?

The ROD covers three sections of the Upper Hudson River: River Section 1 (from the former Fort Edward Dam to the Thompson Island Dam); River Section 2 (from the Thompson Island Dam to the Northumberland Dam); and River Section 3 (from the Northumberland Dam to the Federal Dam at Troy).

**Continued on Next Page**

Phase 1 dredging will be conducted in two areas of River Section 1: the northern portion of the Thompson Island Pool and the east channel of Griffin Island (see Maps 1 and 2). All of the Phase 1 dredging will occur in River Section 1. Phase 2 dredging will take place in River Sections 1, 2, and 3.

## How much will be dredged?

The project design has been refined to remove more PCBs while dredging less sediment than originally estimated in the ROD. In Phase 1 — 263,600 cy of sediment will be dredged that contains 20,300 kg of PCBs. In Phase 2 — 1,531,400 cy of sediment will be dredged that contains 92,800 kg of PCBs. In total, about 490 acres of the Upper Hudson River will be dredged, removing 1,795,000 cy of sediments that contain approximately 113,000 kg of PCBs.

The overall project now targets approximately 113,000 kg of PCBs whereas the ROD indicates that the chosen remedy would remove 66,300 kg of PCBs. The volume difference is attributable to the finding from the sediment sampling program that PCB concentrations greater than 1 part per million (ppm) are not as deep as was estimated at the time the ROD was issued.

**Table 1 Comparison of ROD Estimates and Current Design Targets by River Section**

| | ROD Estimates | | Design Targets | |
|---|---|---|---|---|
| | Volume of Sediment (cy) | Mass of PCB (kg) | Volume of Sediment (cy) | Mass of PCB (kg) |
| River Section 1 | **1,492,000** | **36,000** | **939,800** | **60,600** |
| River Section 2 | **565,000** | **23,600** | **364,000** | **28,500** |
| River Section 3 | **393,000** | **6,700** | **491,000** | **24,000** |

**Table 2 Comparison of ROD Estimates and Current Design Targets by Project Phase**

| | ROD Estimates | | Design Targets | |
|---|---|---|---|---|
| | Volume of Sediment (cy) | Mass of PCB (kg) | Volume of Sediment (cy) | Mass of PCB (kg) |
| Phase 1 | **150,000–300,000** | **—** | **263,600** | **20,300** |
| Phase 2 | **2,350,000–2,500,000** | **—** | **1,531,400** | **92,800** |

**Approximate total (ROD) 2,650,000 cy sediment/70,000kg PCBs**

**Approximate total (Design Targets) 1,795,000 cy sediment/113,000 kg PCBs**

## How were the dredge areas selected?

The dredge areas were identified using the results of a multi-year sediment sampling program conducted by GE that began in 2002 and generated more than 50,000 sediment samples taken from the bottom of the Upper Hudson River. The sampling data allowed EPA and GE to determine the distribution of PCBs in the sediment, refine estimates of the amount of PCBs in the sediment, and establish river sediment characteristics (e.g., silt, sand, gravel).

## How will the dredge area information be used in the Phase 2 design?

The Phase 2 DAD Report will be used by GE to design phase 2 of the dredging project which includes preparation of a Phase 2 Intermediate Design Report. This report will be made available to the public for input.

The dredge areas may be adjusted during design to account for underwater structures (e.g., pipes), protection of habitats and cultural artifacts, and other design considerations. Any such changes will be included in the Phase 2 Intermediate and Final Design Reports.

## Background

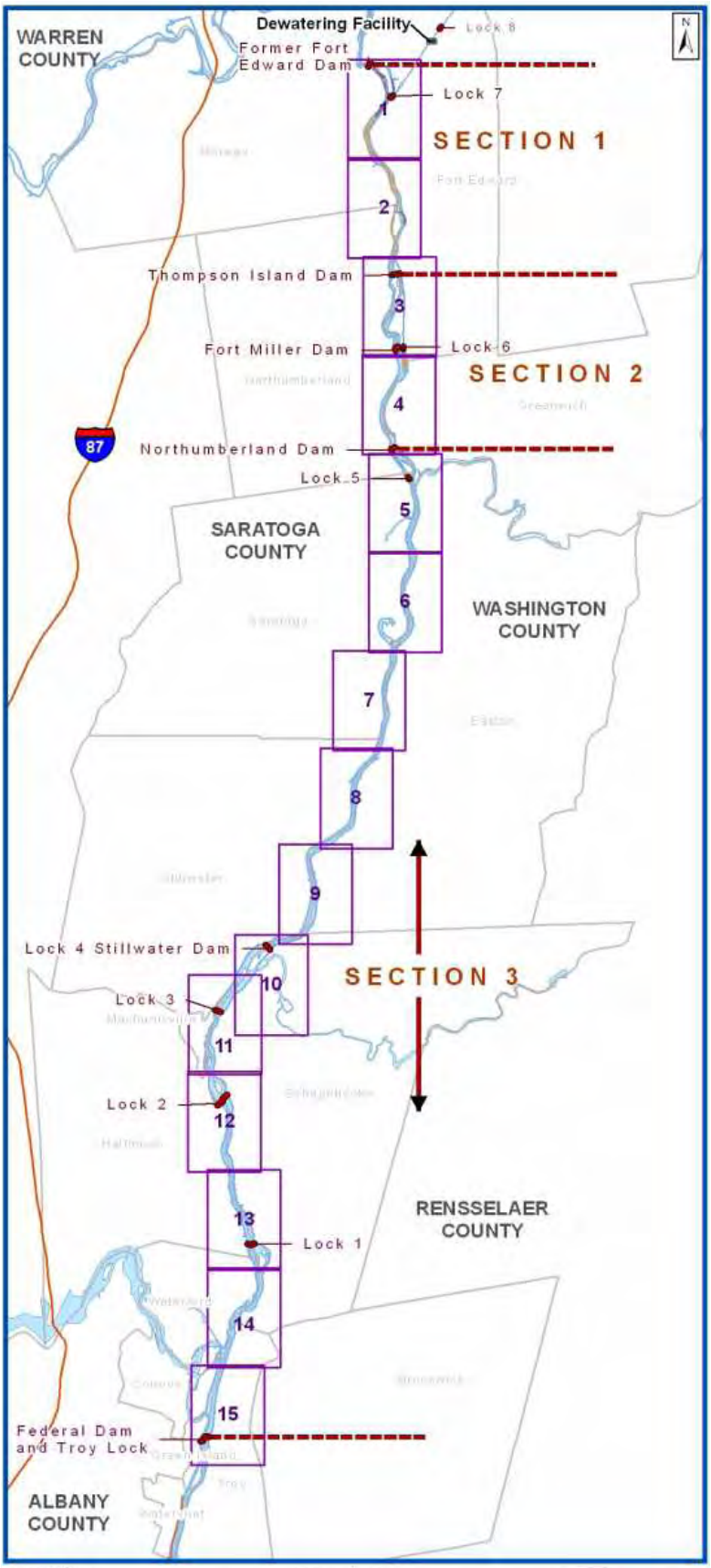
EPA's cleanup plan for the Hudson River PCBs Superfund Site was selected in the Agency's February 2002 ROD for the site. The ROD calls for targeted environmental dredging of PCB-contaminated sediment from the Upper Hudson River between the former Fort Edward Dam and the Federal Dam at Troy. The primary goal of the Hudson River PCBs cleanup is to protect people and the environment from unacceptable risks due to PCB-contaminated sediments in the Upper Hudson River.

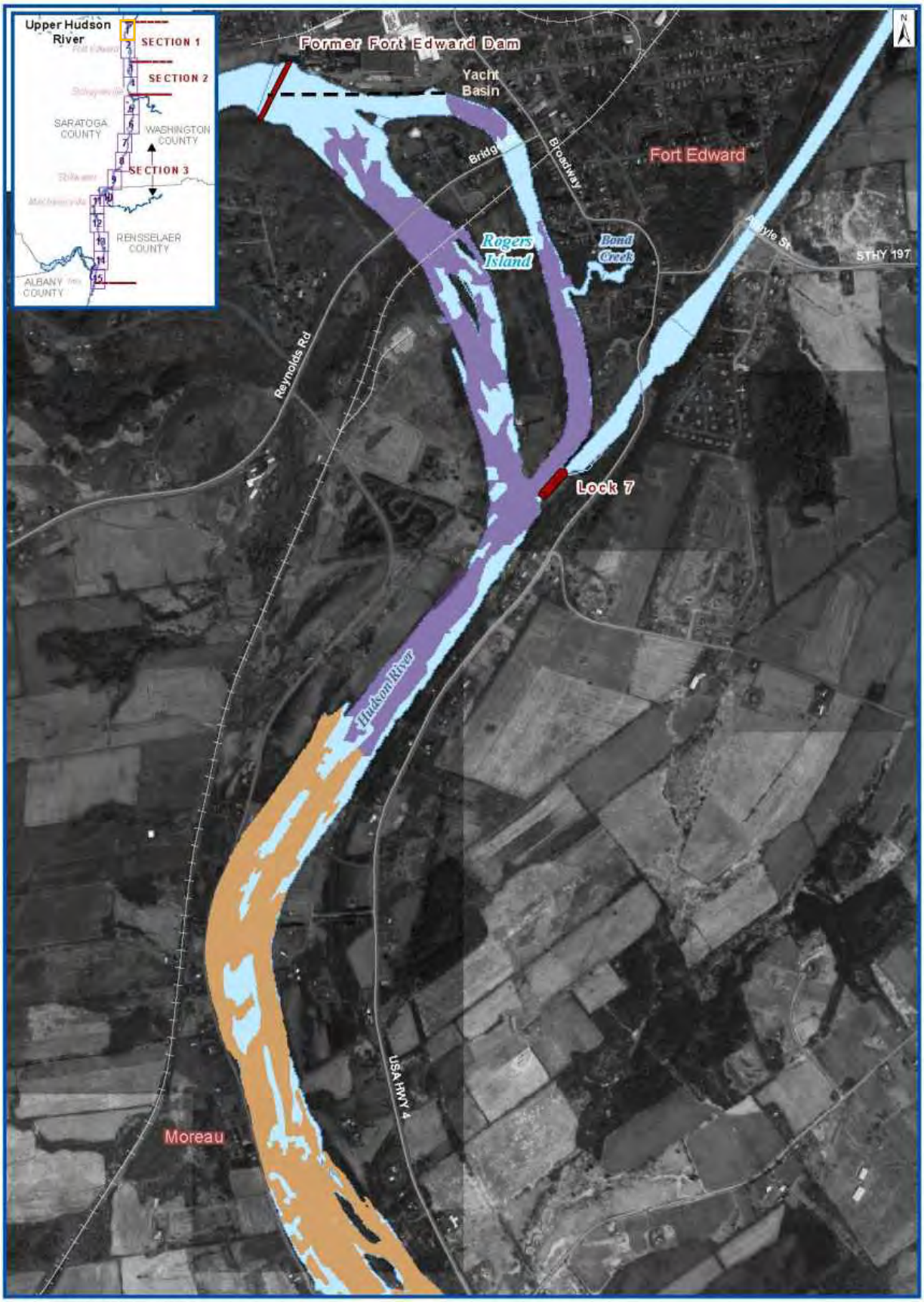
The cleanup of the Hudson River is separated into two phases with Phase 1 initially occurring at a reduced rate and Phase 2 starting at full production only after an evaluation of Phase 1 is made and reviewed by the public and an independent panel of experts. Extensive monitoring will be done during both phases to ensure that dredging operations are done safely and that public health is protected at all times. Phase 1 dredge areas were identified previously through various project design reports available on the project Web site at **www.epa.gov/hudson**.

## Next Steps

The Phase 2 DAD identified the need for some additional sampling to fill data gaps. This additional work will be conducted in 2008, with the results to be incorporated into the Phase 2 Intermediate and Final Design Reports.

EPA will continue the public outreach program for this project. The program includes maintaining the Hudson River Field Office, providing project information and meeting with riverfront residents living near the dredging areas.


WARREN COUNTY
Dewatering Facility
Lock 8
Former Fort Edward Dam
Lock 7
1
SECTION 1
2
Thompson Island Dam
3
Fort Miller Dam
Lock 6
SECTION 2
4
87
Northumberland Dam
Lock 5
5
SARATOGA COUNTY
6
WASHINGTON COUNTY
7
8
9
Lock 4 Stillwater Dam
SECTION 3
Lock 3
10
11
Lock 2
12
13
RENSSELAER COUNTY
Lock 1
14
15
Federal Dam and Troy Lock
ALBANY COUNTY
N
LEGEND
Hudson River
Upper Hudson River Sections
Lock/Dam
Dredge Areas Phase 1
Dredge Areas Phase 2
Map Index
Phase 2 Dredging Areas 2008
Hudson River
0 1.25 2.5 5
Miles




Source: NYS GIS Orthoimagery, 2004

**LEGEND**

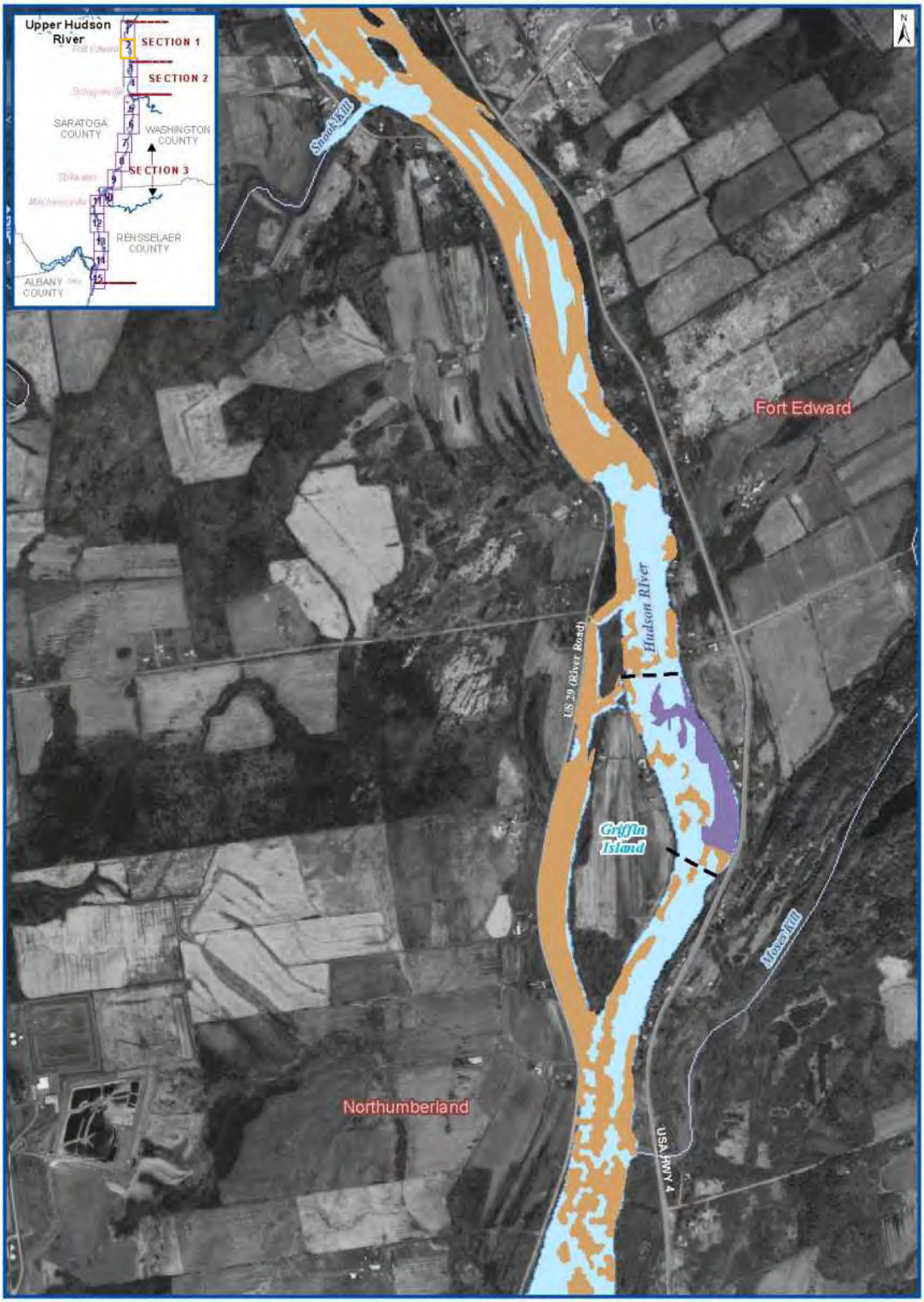
- Hudson River
- Dredge Areas Phase 1
- Dredge Areas Phase 2
- Lock/Dam
- Primary Railroads
- Limits of Phase 1 Dredging
- Major Roads

## Phase 2 Dredging Areas 2008

Hudson River PCBs SUPERFUND SITE

0 500 1,000 2,000 Feet

Map 1

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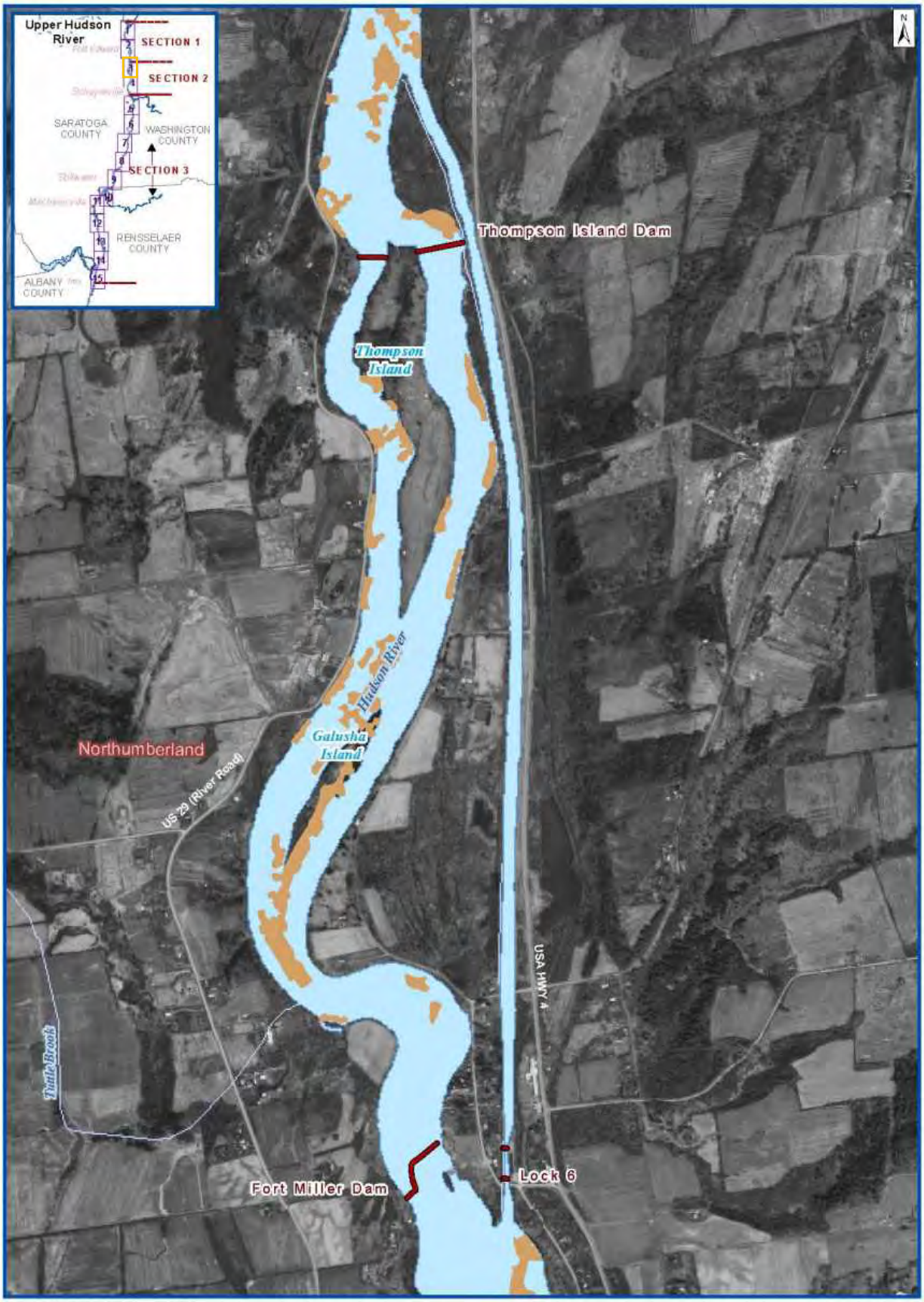
Map 2

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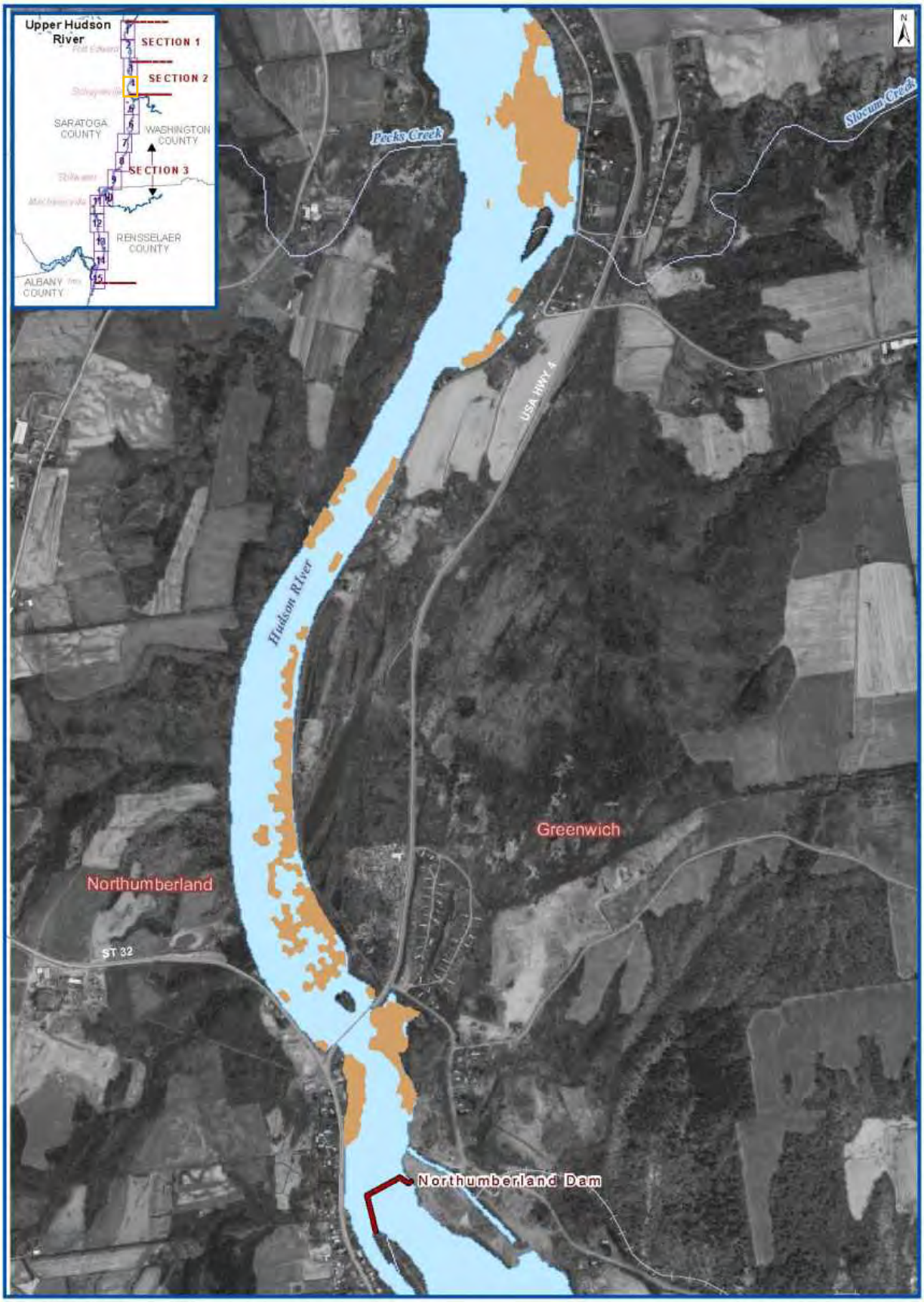
Map 3

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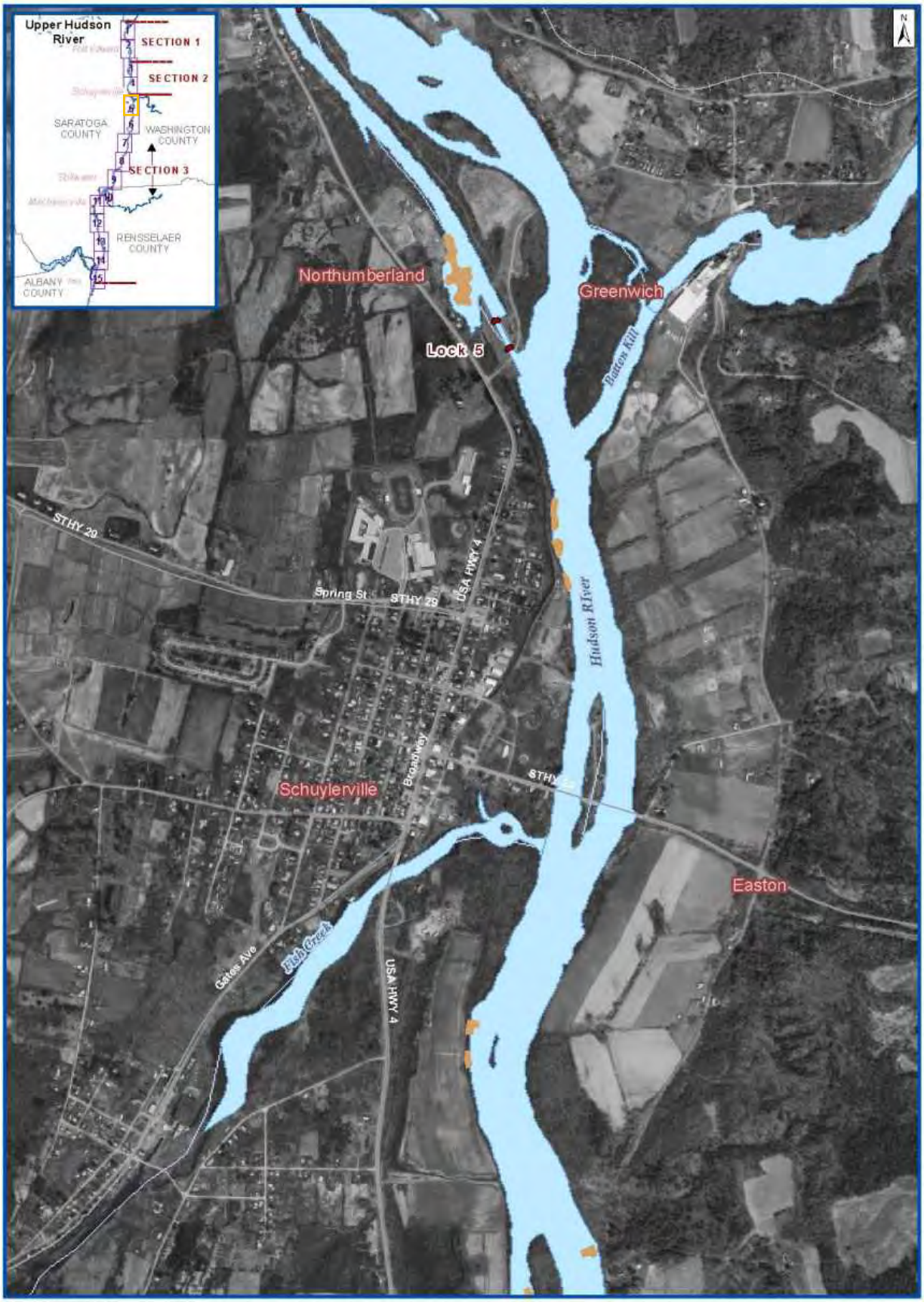
Map 4

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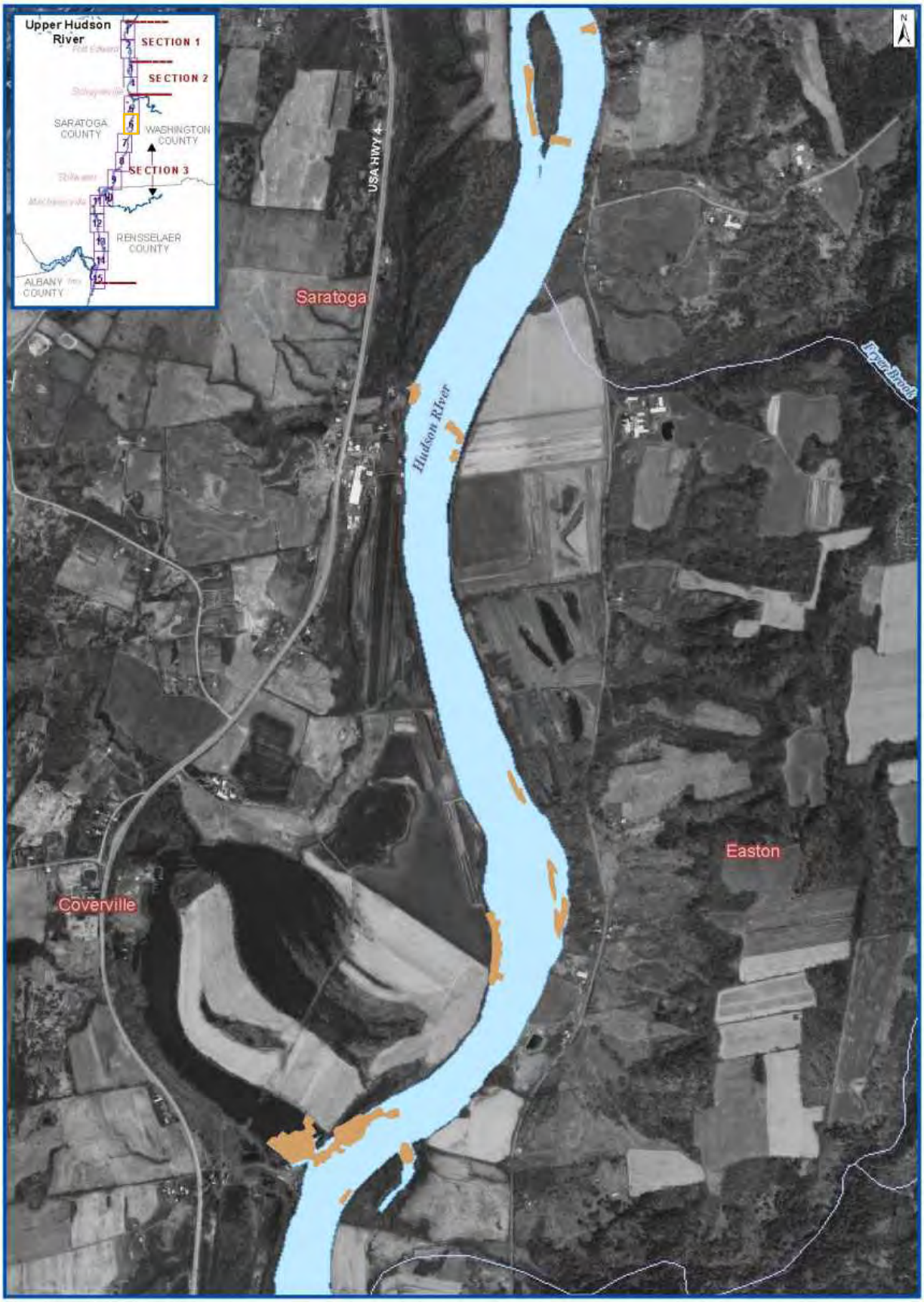
Map 5

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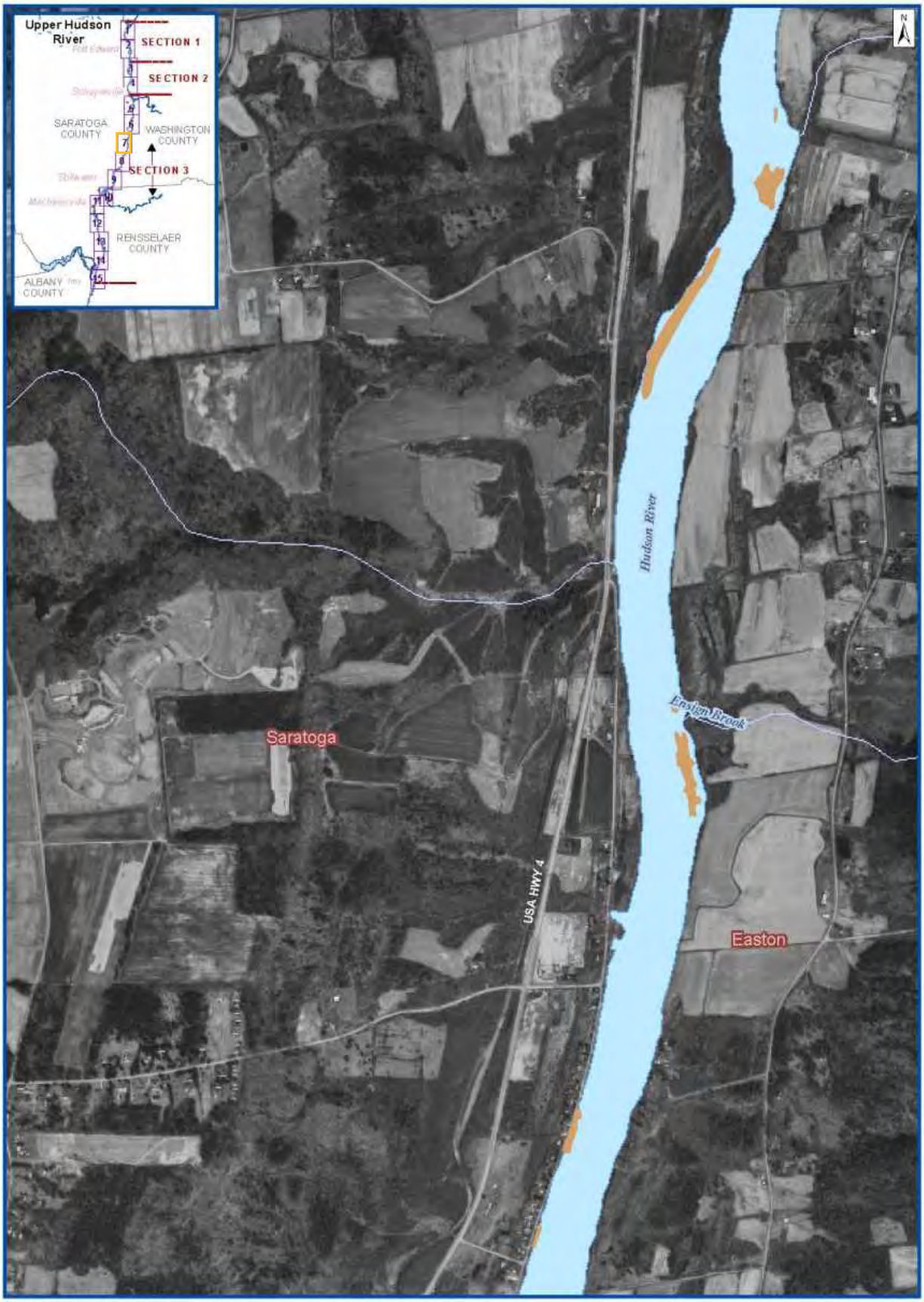
Map 6

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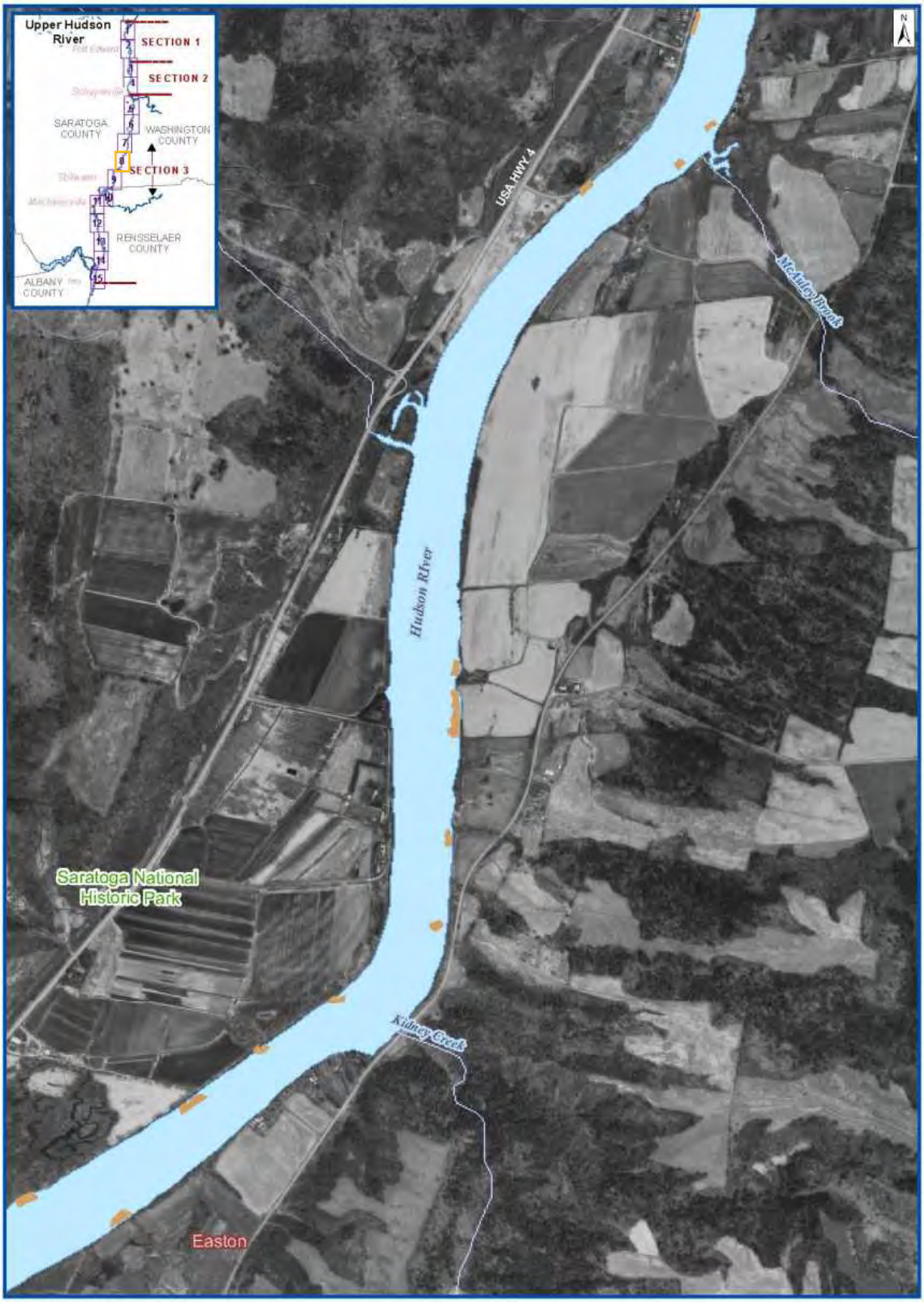
Map 7

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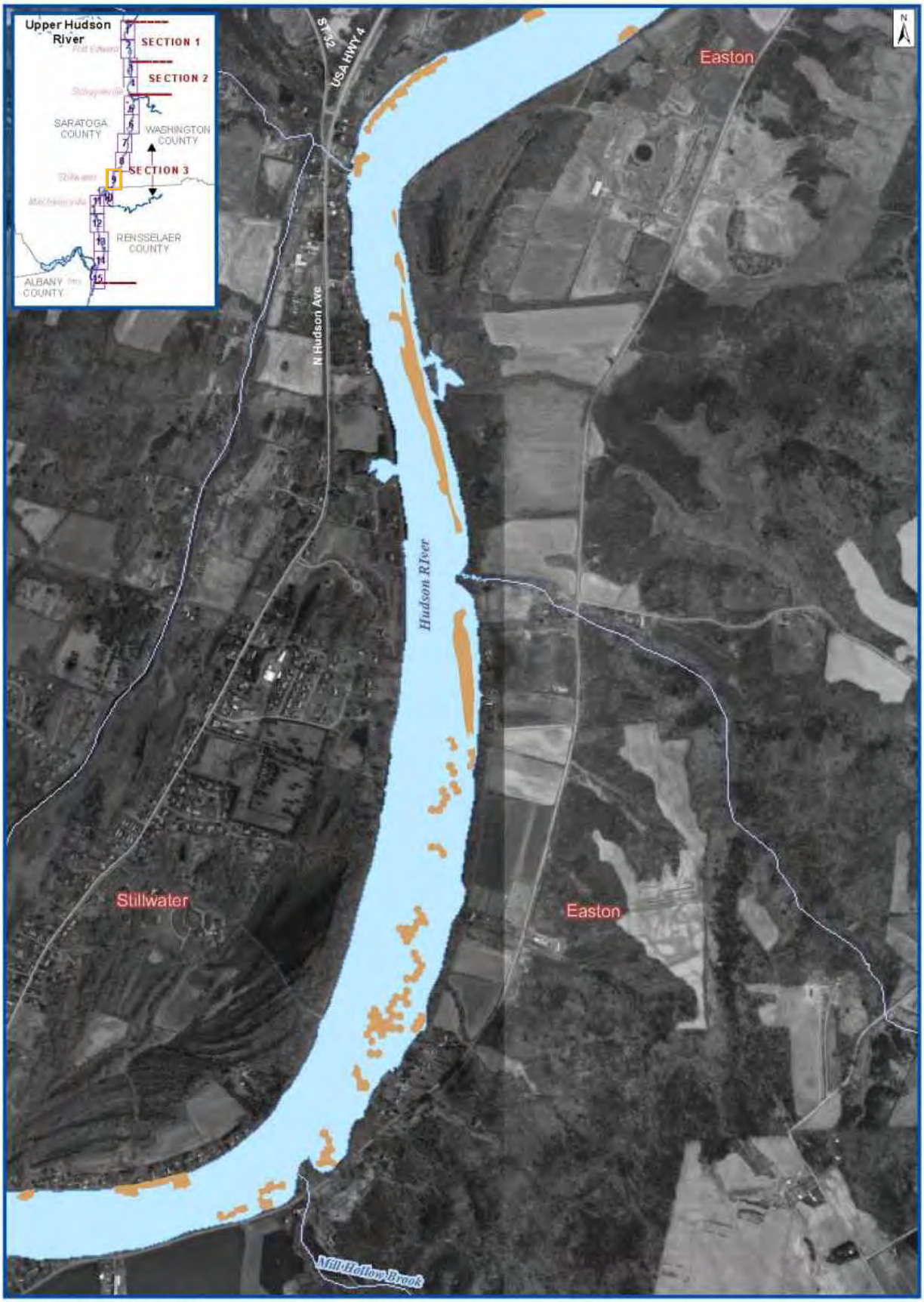
Map 8

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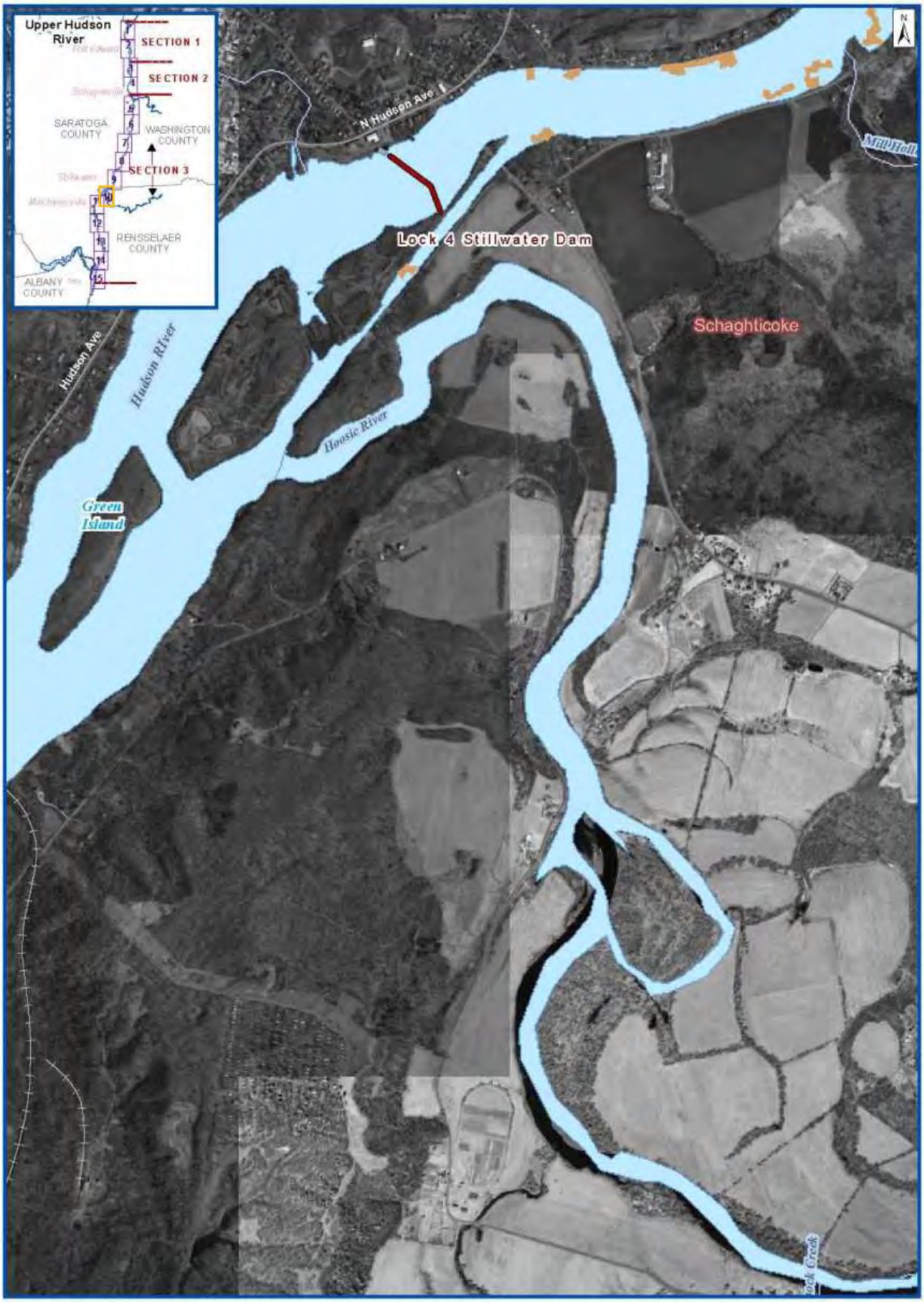
Map 9

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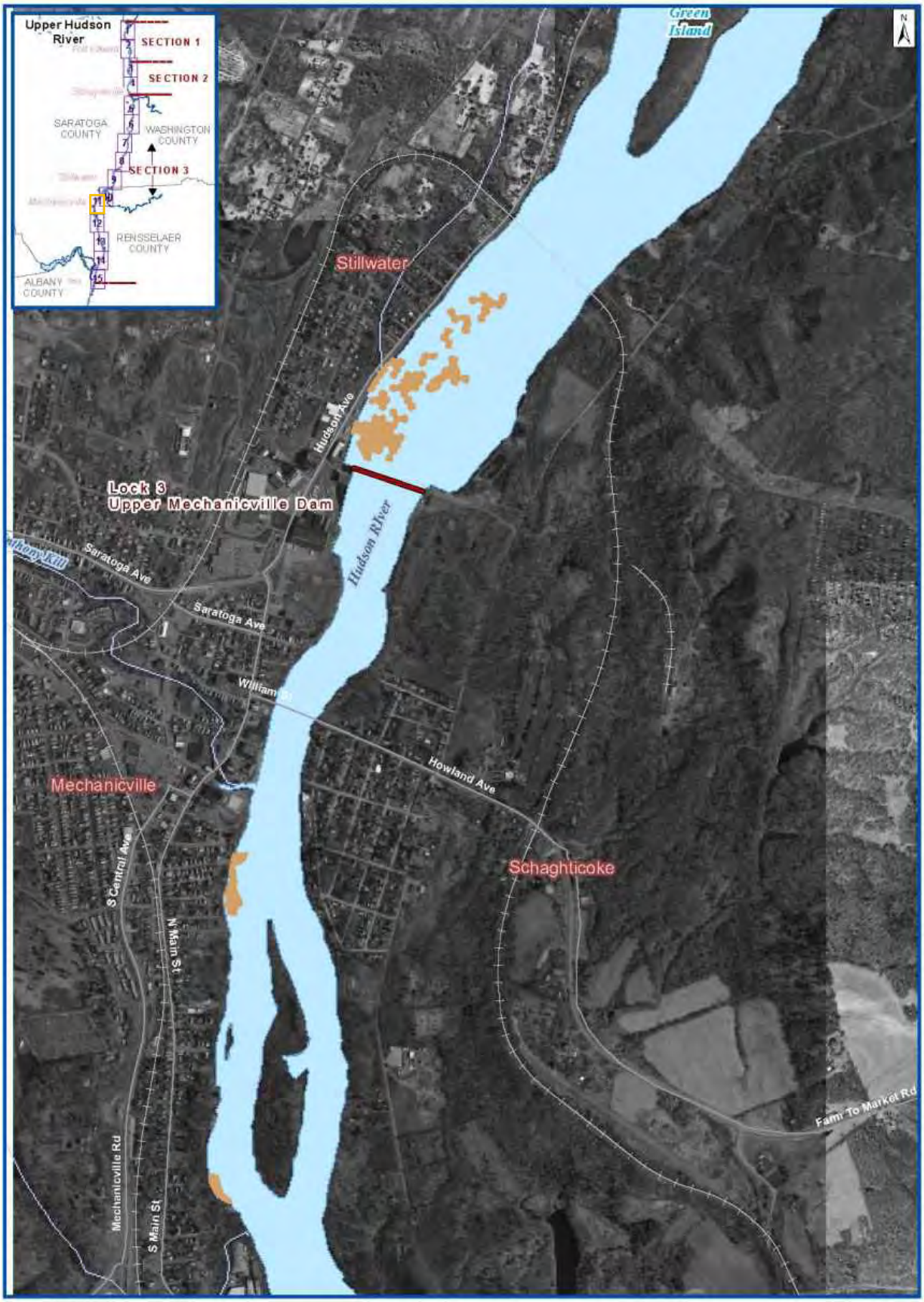
Map 10

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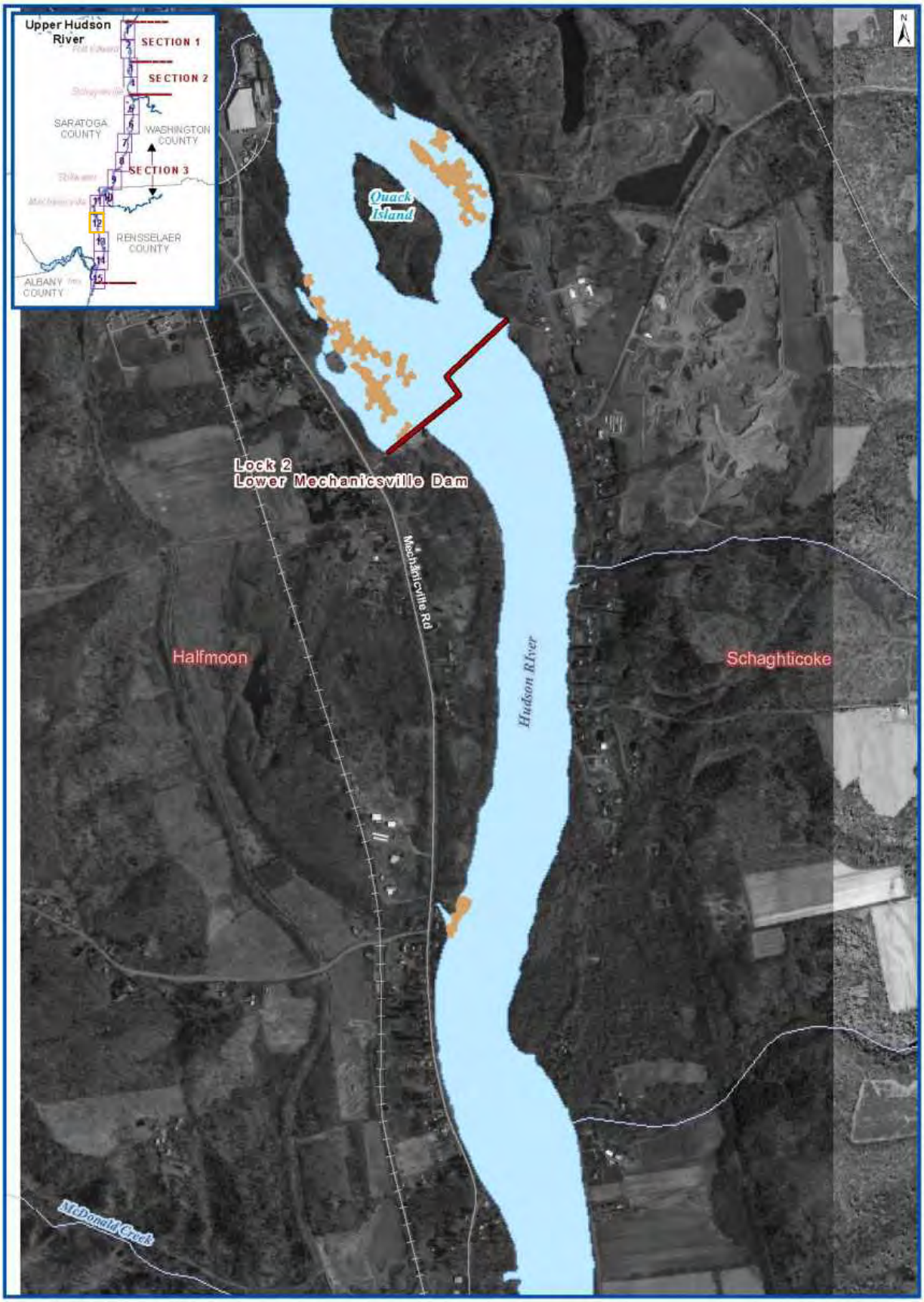
Map 11

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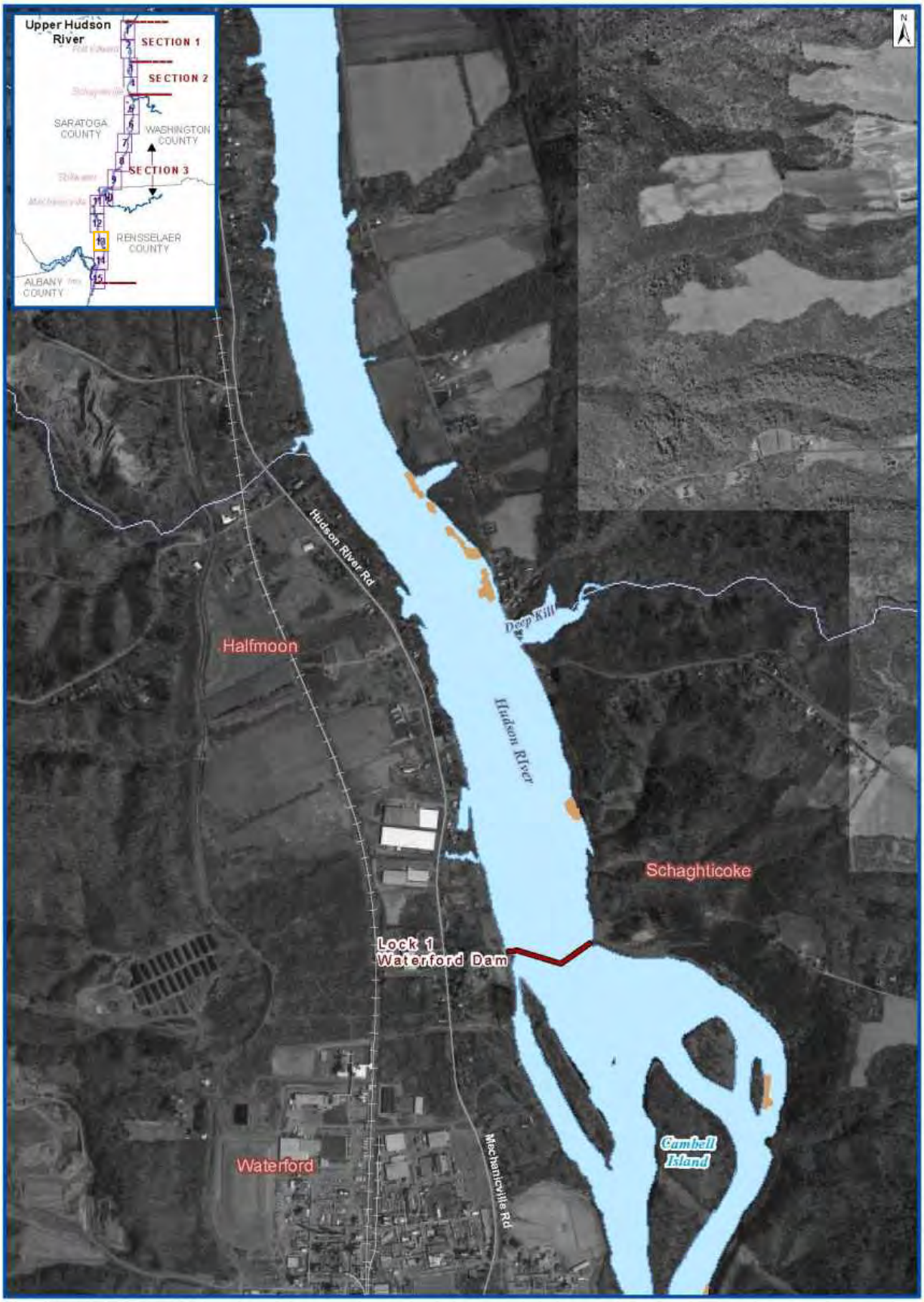
Map 12

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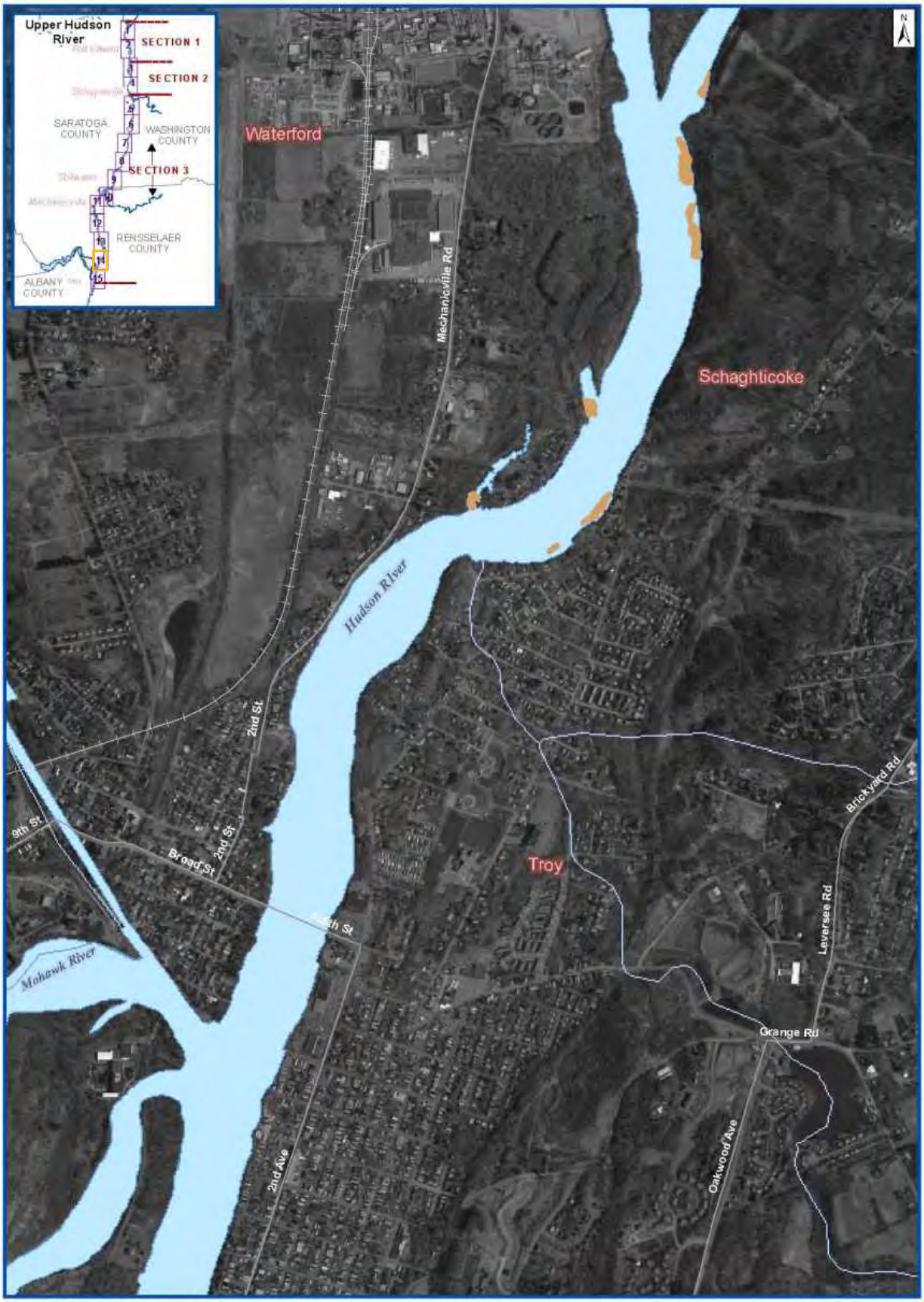
Map 13

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Map 14

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Map 15

## For More Information

Visit, call toll-free (**1-866-615-6490**), or write to the Hudson River Field Office at the address below or log on to www.epa.gov/hudson. Phase 2 Dredge Area Delineation Report documents are available at the information repositories located in Glens Falls, Ft. Edward (Hudson River Field Office), Ballston Spa, Albany, Poughkeepsie, New York City (EPA Region 2 offices), and in Edgewater, New Jersey. Electronic versions can be found on the EPA project Web site (www.epa.gov/hudson). Copies are available on CD-ROM by calling the Hudson River Field Office.

### EPA Contacts

**Dave King**
***Director***
Hudson River Field Office
421 Lower Main Street
Hudson Falls, NY 12839
(518) 747-4389
king.david@epa.gov

**Kristen Skopeck**
***Public Affairs Specialist***
Hudson River Field Office
421 Lower Main Street
Hudson Falls, NY 12839
(518) 747-4389
skopeck.kristen@epa.gov

**David Kluesner**
***Public Affairs Specialist***
EPA Region 2 Office
290 Broadway
New York, NY 10007
(212) 637-3653
kluesner.dave@epa.gov

The Field Office hours are Monday - Friday 8:00 am - 4:30 pm, with evening hours by appointment. Email **hrfo@capital.net**.

**EPA Regional Public Liaison**

EPA Region 2 has designated a public liaison as a point-of-contact for community concerns and questions about the federal Superfund program in New York, New Jersey, Puerto Rico, and the U.S. Virgin Islands. To support this effort, the Agency has established a 24-hour, toll-free number that the public can call to request information, express concerns, or register complaints about Superfund. The public liaison for EPA's Region 2 office is George H. Zachos, U.S. EPA, Region 2, 2890 Woodbridge Avenue MS-211, Edison, New Jersey 08837, (732) 321-6621, Toll-free (888) 283-7626.

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