



NY Power Authority

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Interim President and Chief Executive Officer

March 17, 2022

VIA ELECTRONIC FILING

Secretary Kimberly D. Bose
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Re: Crescent Hydroelectric Project, FERC Project No. 4678-052
Vischer Ferry Hydroelectric Project, FERC Project No. 4679-049
Updated Study Report Meeting Summary

Dear Secretary Bose:

The Power Authority of the State of New York (Power Authority) is relicensing the Crescent and Vischer Ferry Hydroelectric Projects (Projects), FERC Nos. 4678 and 4679, respectively, using the Federal Energy Regulatory Commission's (Commission) Integrated Licensing Process (ILP). Pursuant to the ILP, on January 21, 2020, the Power Authority filed a Revised Study Plan. On February 20, 2020, FERC issued its Study Plan Determination for the Projects, which approved seven studies included in the RSP and added an eighth study.

After completing its second study season in 2021, pursuant to 18 C.F.R. § 5.15(f), the Power Authority filed its Updated Study Report (USR) with the Commission on February 17, 2022. On March 3, 2022, due to the COVID-19 pandemic, the Power Authority held a virtual public USR meeting with resource agencies and stakeholders to discuss the study results of three studies that were completed during the second study season in 2021 (the Bald Eagle, Recreation, and American Eel studies) and an additional Water Quality study completed in 2021.

Pursuant to 18 C.F.R. § 5.15(f), the Power Authority hereby submits a summary of the March 3, 2022 USR meeting, an USR meeting attendance list (Attachment A), and PowerPoint presentation (Attachment B). The Power Authority appreciates the contributions of the Commission, resource agencies and stakeholders through their participation in the USR meeting.

In accordance with the ILP schedule issued by the Commission, comments on the enclosed USR meeting summary must be filed with the Commission by April 20, 2022. In addition to filing the USR Meeting Summary with the Commission, the Power Authority will make the USR Meeting Summary available to

relicensing participants and the public by posting it on the Crescent and Vischer Ferry Project's relicensing website at <http://www.nypa.gov/cvf>. If you have any questions regarding this filing, please contact me at (914) 681-6564 or Rob.Daly@nypa.gov.

Sincerely,



Rob Daly
Director, Licensing

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Enclosures:

Updated Study Report Meeting Summary (including Attachment A: USR Meeting Attendance List,
Attachment B: USR Meeting PowerPoint Presentation)

cc: Distribution List (attached)

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Meeting Summary

Projects: Crescent and Vischer Ferry Hydroelectric Projects (FERC Nos. 4678 and 4679)

Subject: Updated Study Report Meeting

Date: Wednesday, March 3, 2022

Location: Microsoft Teams Virtual Meeting

Attendees: Attachment A – Attendance List

Agenda

- Introductions
- 2021 Water Quality Study
- American Eel Study
- Bald Eagle Study
- Recreation Study
- Closing

Overview

This document provides the meeting summary for the New York Power Authority's (Power Authority) Crescent and Vischer Ferry Hydroelectric Projects Updated Study Report (USR) Meeting. The meeting was held via Microsoft Teams to review with stakeholders the progress and results of the USR, which was filed with the Federal Energy Regulatory Commission (FERC) on February 17, 2022. The USR can be accessed from either FERC's website or from the Projects' website: [Crescent-Vischer-Ferry-Relicensing \(nypa.gov\)](https://www.nypa.gov/Projects/Crescent-Vischer-Ferry-Relicensing). A copy of the meeting presentation is included with this meeting summary as Attachment B.

Welcome and Introductions (Slides 1-5)

Tara Groom of the Power Authority opened the USR meeting at 10:00 a.m. with an introduction that described the USR meeting goals and objectives, and encouraged participation and feedback. She provided an overview of the agenda and the completed and upcoming Integrated Licensing Process (ILP) schedule milestones. The studies presented during the USR meeting were completed by the Power Authority during the second ILP study season in 2021 and are listed below (preliminary study reports were filed with the USR):

- 2021 Water Quality Study
- American Eel Study
- Bald Eagle Study
- Recreation Study

Several consultants to the Power Authority presented the studies using the attached PowerPoint presentation (Attachment B), which serves as a summary of the Power Authority's presentation for each study in the FERC approved study plan. Following the presentation of each study, the Power Authority opened the meeting for discussion. A summary of major discussion points for each study is provided below.

2021 Water Quality Study

Slides 6-26 (Attachment B)

Presenter: Jason George, Gomez and Sullivan Engineers

Study Results

Jason George (Study Lead), Gomez and Sullivan Engineers, introduced himself and presented the 2021 Water Quality Study methods and results. This study is complete and the final report was filed with FERC and distributed to the stakeholders.

Questions and Comments

There were no questions or comments on the 2021 Water Quality Study.

American Eel Study

Slides 27-44 (Attachment B)

Presenter: Mike Hreben, Kleinschmidt Associates

Study Results

Mike Hreben (Study Lead), Kleinschmidt, introduced himself and presented the American Eel Study methods and results. This study is complete and the final report was filed with FERC and distributed to the stakeholders.

Questions and Comments

A Riverkeeper staff member commented that the American Eel Study reported that there are no eels currently in the Project areas however, historically, Tribal members caught thousands of eels a night. Riverkeeper also commented that hydroelectric dams have precluded upstream eel passage.

Riverkeeper staff asked about the design of the electrofishing portion of the study, specifically how deep the electrofishing took place. Mike Hreben noted that it took place in the shoreline areas in habitats where eels would typically be located and where electrofishing would be effective. Riverkeeper staff noted that eels also like deeper water, and that the study design was flawed. Riverkeeper staff asked about "catchability." Riverkeeper staff noted that catchability is needed to estimate catch per unit effort. Riverkeeper staff also commented that the ramps and nighttime surveys were not in places where there is heavy river flow. Riverkeeper commented that eels are heavily pigmented when they reach the Mohawk River and will reach the Project areas later in the season; they will then be in the elver stage. Mike responded that the study used multiple gear types, sampled over the course of the spring and summer, to target all lifestages. Riverkeeper staff commented on the design of the ramp traps, noting that they did not see substrate in eel ramps, just plywood, and that the angle of approach looked high. Riverkeeper also noted that eels react critically to the amount of flow; flow must be adjusted. During the presentation, Mike had explained that Encamat substrate had been added to the ramp traps along with the tubular climbing substrate, and that ramp trap flows were adjusted throughout the fishing season, to keep flow conditions optimal. Riverkeeper staff asked if the study used eel pots. Mike responded that eel pots were not used, as

they are not very effective when used outside of estuaries, and the study methodologies were determined in consultation with the resource agencies. Finally, Riverkeeper staff asserted that the study report falsely claims that the Crescent and Vischer Ferry dams have no effect on eels and that, historically, eels were in the Mohawk River in high abundance, but are not there now due to dams. Mike noted that eels are uncommonly found at the Crescent and Vischer Ferry Projects.

FERC staff asked Mike Hreben about the 2021 New York State Department of Environmental Conservation (NYSDEC) electrofishing study that took place upstream of the Crescent Project and was noted in the American Eel Study report. Mike noted that per NYSDEC (Scott Wells), NYSDEC conducted sampling trips in the summer of 2021. FERC staff indicated that they would like more information, including the time of day when that sampling took place, whether it was along the shoreline, the number of transects, and the hours of electrofishing shocking time. Mike noted that he would contact NYSDEC to see if he could obtain the requested data. Following the USR virtual meeting, on March 4, 2022, Mike did reach out to NYSDEC, who replied that the report summaries are not yet available.

There were no further questions or comments on the American Eel Study.

10 Minute Break

At the conclusion of the American Eel Study Presentation Questions and Comments session, the USR meeting took a ten-minute break, from 11:10 to 11:20 AM, returning to the virtual meeting at 11:20am.

Bald Eagle Study **Slides 46-57 (Attachment B)** **Presenter: Mike Hreben, Kleinschmidt Associates**

Study Results

Mike Hreben (Study Lead), Kleinschmidt, presented the Bald Eagle Study methods and results. This study is complete and the final report was filed with FERC and distributed to the stakeholders.

Questions and Comments

FERC staff commented that it does not look as if the Projects have a transmission line corridor, and that it looks like they tie directly into substations. Mike Hreben noted that was correct, which Tara Groom with the Power Authority confirmed.

There were no further questions or comments on the Bald Eagle Study.

Recreation Study **Slides 58-82 (Attachment B)** **Presenter: Melanie Rheame, Gomez and Sullivan Engineers**

Study Results

Melanie Rheame (Study Lead), Gomez and Sullivan Engineers, introduced herself and presented the Recreation Study methods and results. This study is complete and the final report was filed with FERC and distributed to the stakeholders.

Questions and Comments

FERC staff asked for clarification regarding construction at the Crescent Project during 2021 and how construction activities affected the use of the Crescent Project recreation sites. Melanie Rheaume noted that the study did address measures that were taken by the Power Authority to keep the recreation sites open and useable and that the study report acknowledges that construction activity may have had some effect on use in 2021. Melanie also noted that while recreation use of the Crescent sites in 2021 may not be perfectly indicative of a “normal” year, both the Picnic Area and Tailrace Bank Fishing parking lots were found to be used at approximately 10 percent of the site’s capacity and are projected to be used at just 20 percent of capacity in 2060. It is unlikely that the construction activities, which did not actually close either site, affected use in 2021 to such an extent that the sites would be found not to have sufficient capacity for existing or future demand.

FERC staff asked if there was any information from pre-pandemic years that would indicate usage data. Melanie Rheaume noted that she would look at the 2015 Form 80 to see if there is any use data that could be helpful in understanding pre-pandemic use levels at these two sites. After the meeting, the 2015 Form 80 was examined and it was found that use data from the Form 80 does not distinguish use by site; it includes data from many sites in addition to the two Crescent Project sites, and there is no way to parse out individual information on recreation use specific to the two Crescent Project sites.

FERC staff asked if the Lock 7 user surveys indicated any issues with water chestnut and launching boats. Melanie responded that some survey respondents did mention water chestnut and its effects on boat launching, and that this is discussed in the report.

FERC staff asked if the Mohawk River Kayak/Canoe Access, within the I-87 right-of-way, is state-owned. Melanie responded that it appears to be state-owned and was closed due to construction at the time of the field inventory and condition assessment. FERC staff asked whether it was included due to people launching from that site. Melanie responded that online resources indicate that the site is utilized as a hand-carry boat launch. Melanie noted that for the recreation site inventory, the Power Authority conducted a thorough review of online resources, including aerial imagery, regional guides, and Google Maps, and added additional sites to the inventory where it appeared possible that a site provided some level of public access to the Projects.

There were no further questions or comments on the Recreation Study.

Crescent and Vischer Ferry Projects Relicensing Next Steps and Questions/Comments **Presenter: Tara Groom, New York Power Authority**

Next Steps

Tara Groom, Power Authority presented the next steps in the Projects’ relicensing, in accordance with the ILP regulations and schedule established by FERC:

- March 18, 2022 – The Power Authority files USR Meeting Summary with FERC.
- April 20, 2022 – Stakeholders file disagreements on USR.
- May 20, 2022 – Stakeholders file responses to disagreements and study modifications with FERC.

- June 19, 2022 – FERC issues Study Plan Determination.

Closing

The Power Authority closed the meeting at approximately 12:08 PM.

Attachment A

Crescent and Vischer Ferry Virtual USR Meeting – Attendee List **March 3, 2022**

Name	Affiliation
Jody Callihan	Federal Energy Regulatory Commission
Emily Carter	Federal Energy Regulatory Commission
Erin Stocksclaeder	Federal Energy Regulatory Commission
Jason George	Gomez & Sullivan Engineers
Melanie Rheaume	Gomez & Sullivan Engineers
Wendy Bley	Kleinschmidt Associates
Mike Hreben	Kleinschmidt Associates
Fatima Oswald	Kleinschmidt Associates
Rob Daly	New York Power Authority
Jairo Florez	New York Power Authority
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Rob Panepinto	New York Power Authority
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Brian Saez	New York Power Authority
John Skilling	New York Power Authority
Sarah Salem	New York Power Authority
Susan Watson	New York Power Authority
Dave Weiman	New York Power Authority
Andrew Weinstock	New York Power Authority
Kristen Cady-Poulin	New York State Department of Environmental Conservation
Matthew Porter	New York State Department of Environmental Conservation
Jen Epstein	Riverkeeper
George Jackman	Riverkeeper
Elizabeth McCormick	Troutman Pepper
John Wiley	United States Fish and Wildlife Service

Attachment B

Crescent and Vischer Ferry Virtual USR Meeting - PowerPoint Presentation March 3, 2022

Crescent Project (P-4678) Vischer Ferry Project (P-4679) Updated Study Report (USR) Meeting



March 3, 2022



**NY Power
Authority**



Meeting Purpose

Per 18 C.F.R. § 5.15:

To discuss study results.

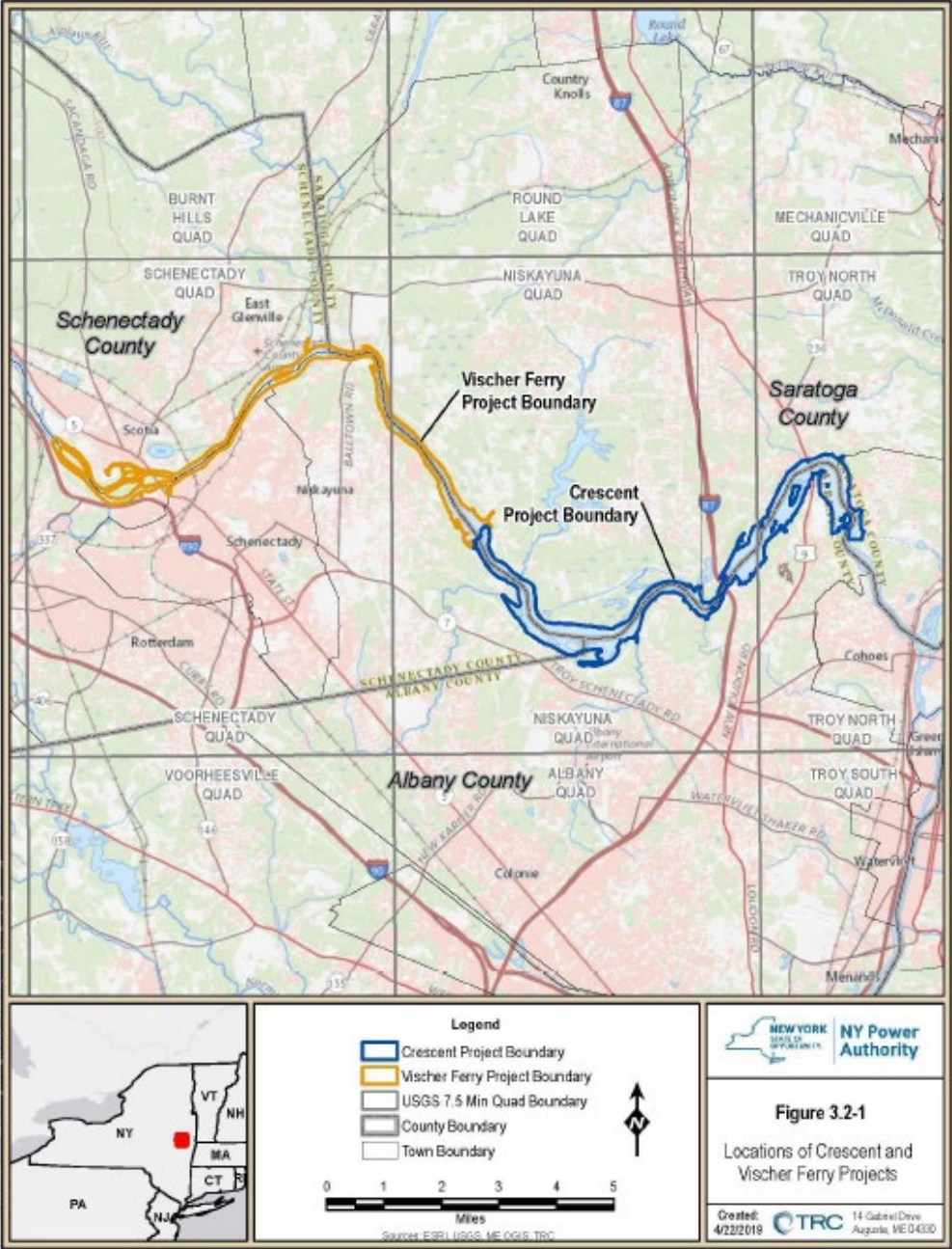
AGENDA

10:00 AM	Open and Introduction
	2021 Water Quality Study
	American Eel Study
<i>15-minute break</i>	
	Bald Eagle Study
	Recreation Study
	Closing

Project Relicensing Milestones and Schedule

- NOIs and PAD filed with FERC, May 3, 2019
- FERC issued Scoping Document 1, June 10, 2019
- FERC Scoping meetings and project site visits, July 10-11, 2019
- PSP filed with FERC, September 23, 2019
- PSP Meeting, October 23, 2019
- RSP filed with FERC, January 21, 2020
- FERC issued Study Plan Determination, February 20, 2020
- ISR Study Report, February 19, 2021
- ISR Meeting, March 3, 2021
- Second Year Studies Commence April 2021
- Draft License Application (DLA), December 22, 2021
- DLA comments due April 1, 2022
- Updated Study Report (USR), February 17, 2022
- **USR Meeting, March 3, 2022**
- Study Plan comments due April 20, 2022
- Final License Application, May 31, 2022

Location of Projects



2021 Water Quality Study



**NY Power
Authority**

Study Goals and Objectives

Goals:

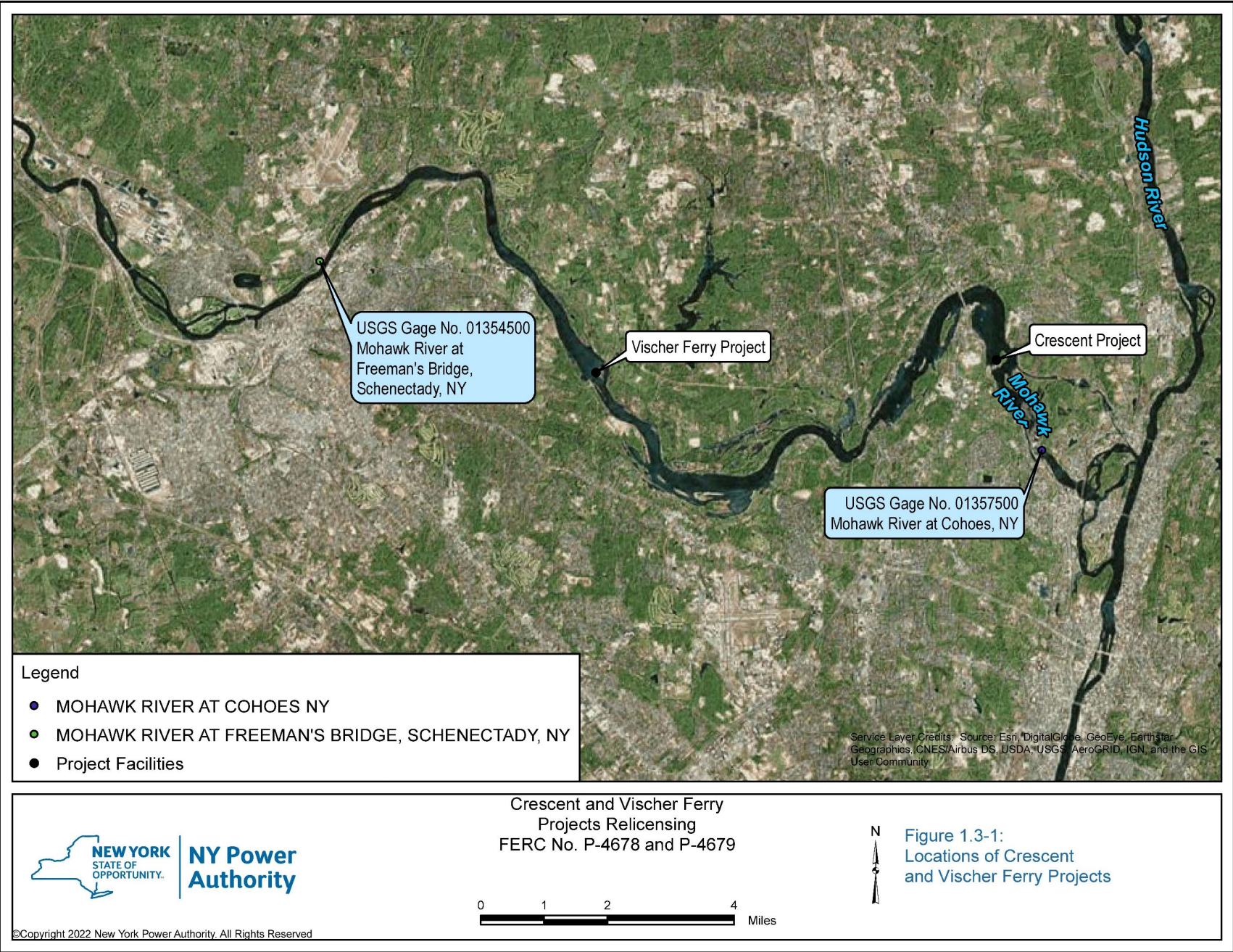
- Determine if the Dissolved Oxygen (DO) patterns observed in the Projects' forebays in 2020 occur in the Mohawk River upstream of the dams (impoundments) or if the conditions are localized to the Projects' forebays;
- Evaluate if the Projects' forebays are representative of DO and temperature conditions elsewhere in the impoundment.

Objectives:

- Collect vertical profile data, DO (mg/L and %) and temperature, in the impoundments and forebays during the summer months;
- Compare the water quality data to concurrent river flow, weather conditions and Project operations.

Overview of Projects

- Run-of-river operations
- Flashboards up during navigation season
- 10+ mile-long riverine impoundments
- Minimum flows during navigation season



Study Methods

- Six (6) sampling locations in 2021
 - Forebay sites from 2020 plus two additional sites in each Project impoundment
- Sampling from June 28 – September 29, 2021
- Weekly DO and temperature vertical profiles
 - Taken at 1-meter increments (0.1 meter to between 1 and 0.5 meters from the bottom)



- Crescent Project Water Quality Profile Sites

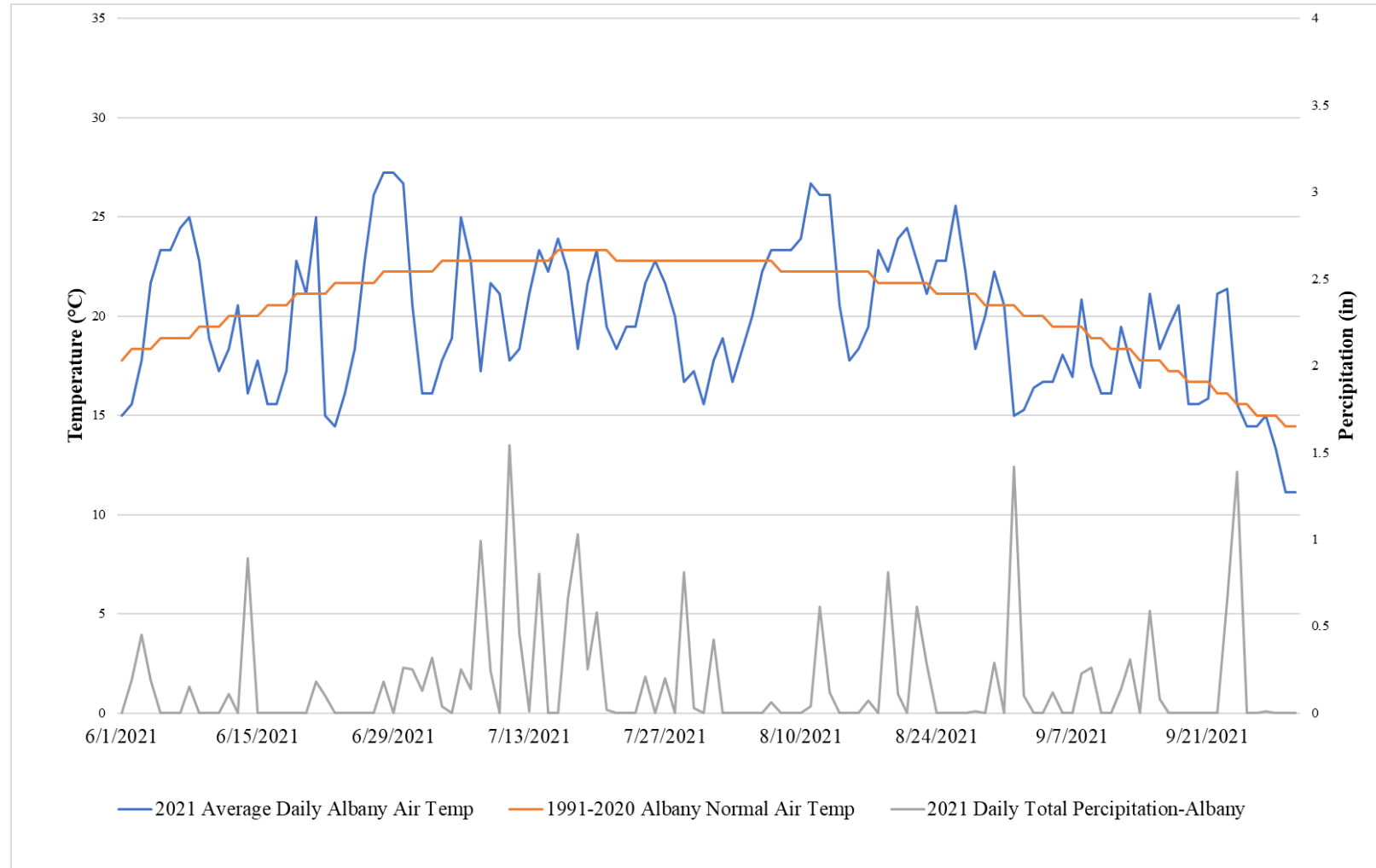


- Vischer Ferry Project Water Quality Profile Sites

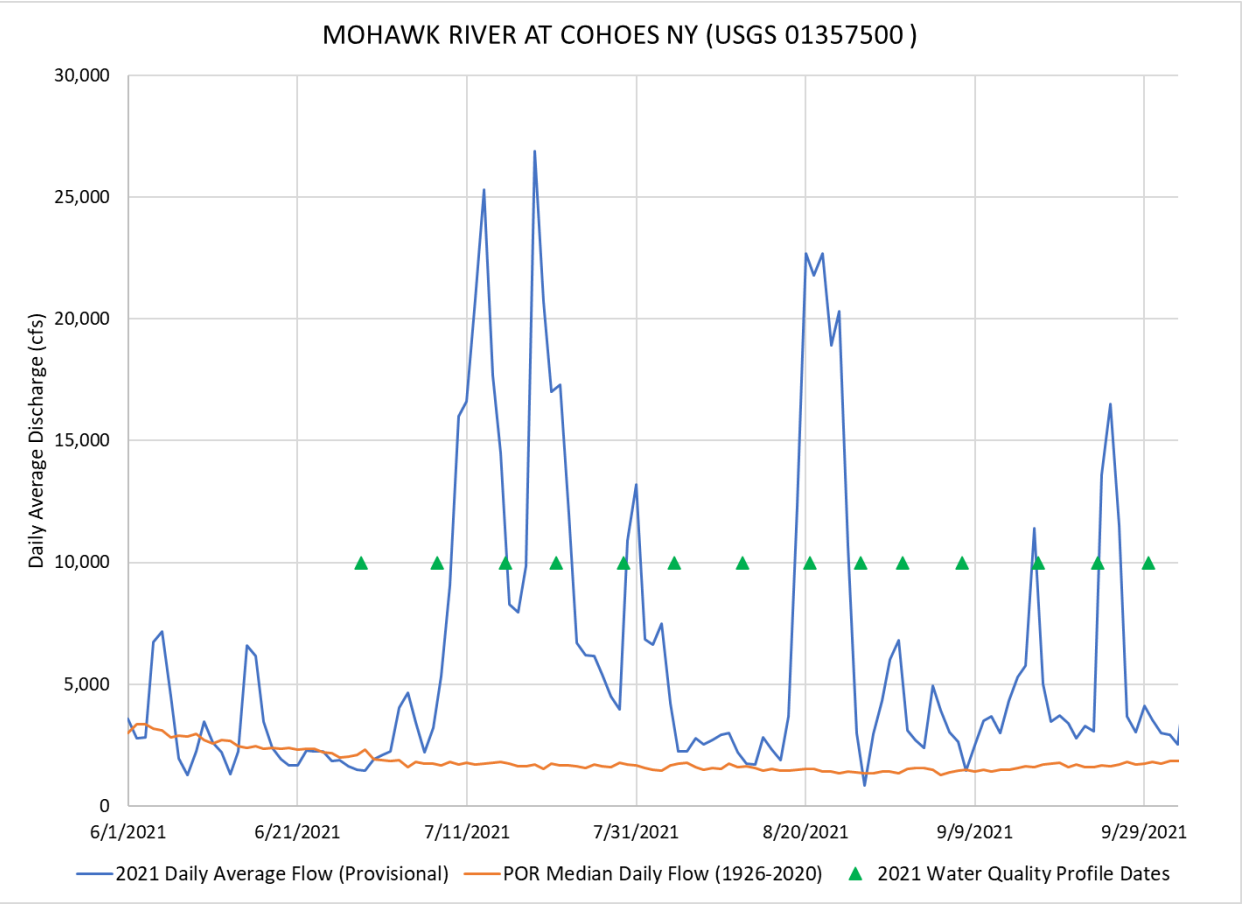
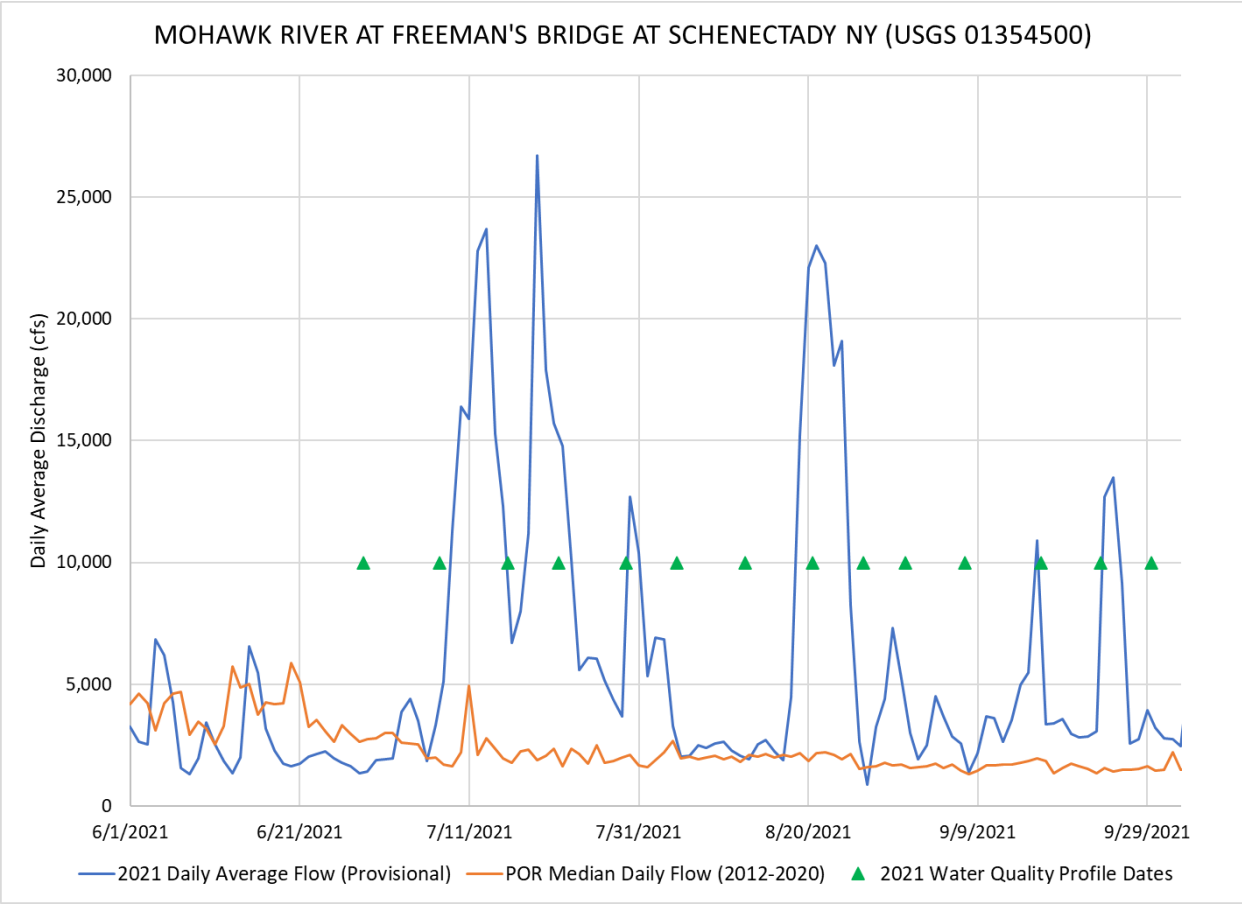
Study Results

- Weather and flow conditions
 - Wet and cool, with exceptions in late June and early August
 - High flows starting in July

2021 Average Daily Air Temperature and the Total Daily Precipitation in Albany, NY

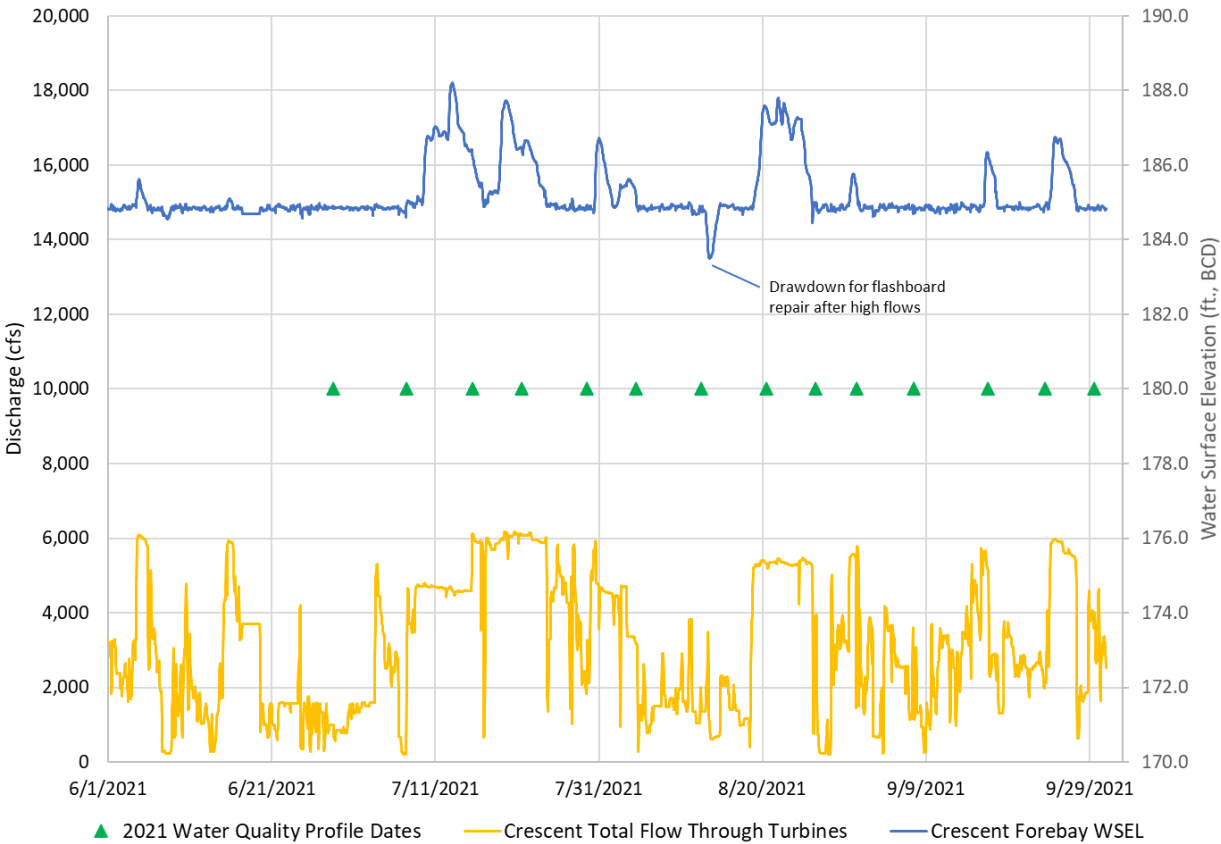


Daily Average Flows at USGS Gages, June-September 2021

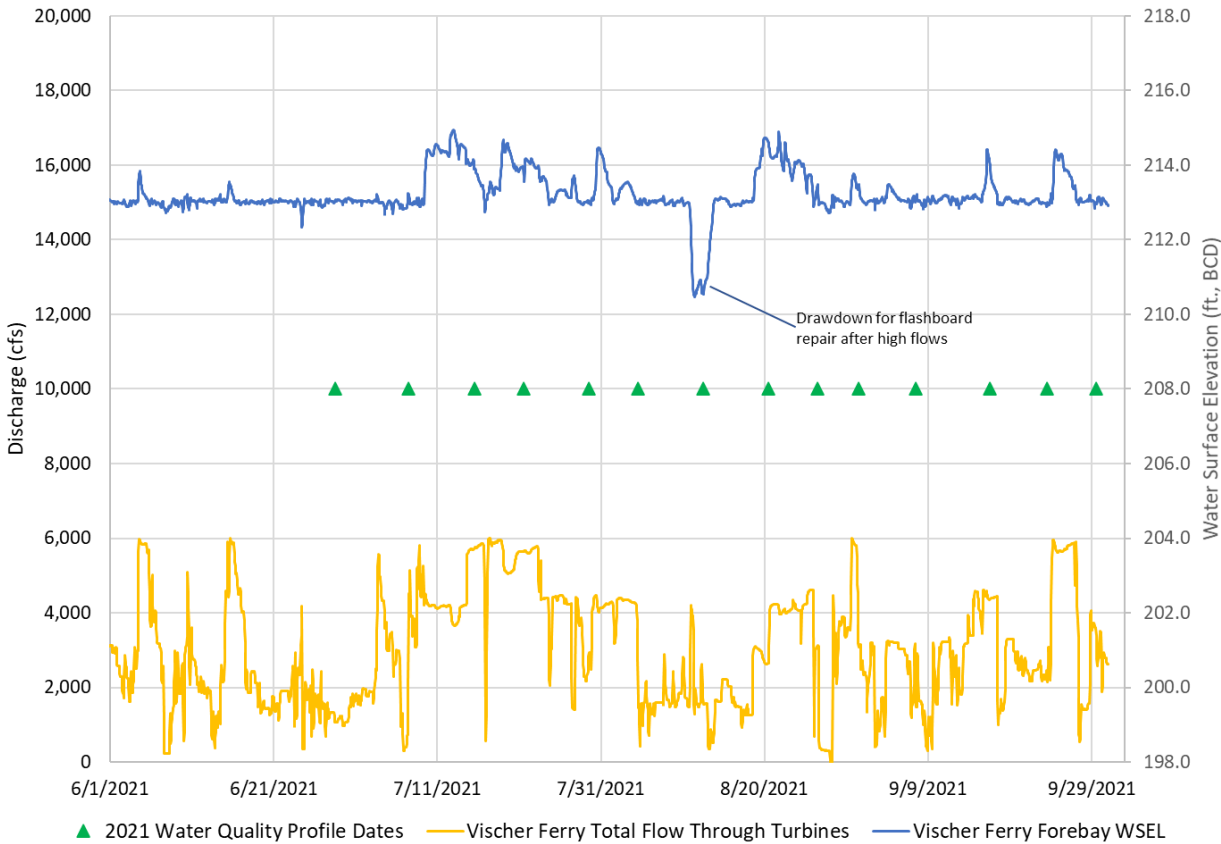


Crescent and Vischer Ferry Projects Operations Data

Crescent Project - Impoundment Level and Turbine Discharge



Vischer Ferry Project - Impoundment Level and Turbine Discharge

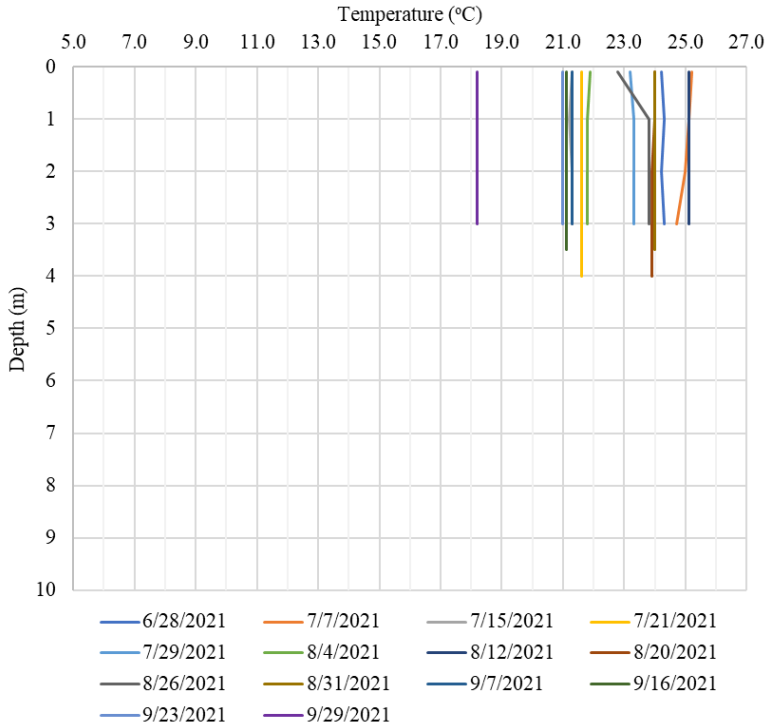


Study Results – Water Temperature

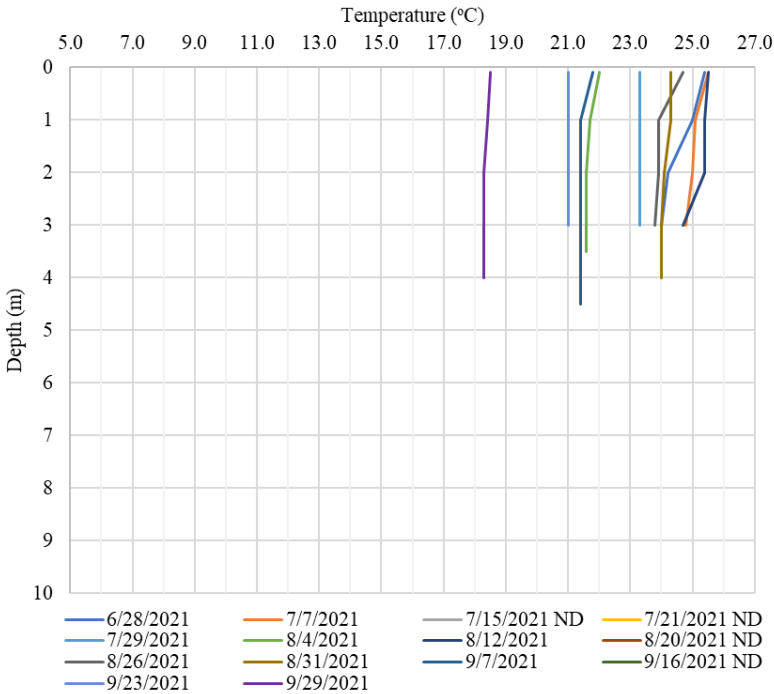
- Water temperature consistent among all sampling sites
- Surface warming/cooling observed at Projects, most significantly June 28, July 7, and August 12, during periods of lower river flow

Study Results – Crescent Water Temperature

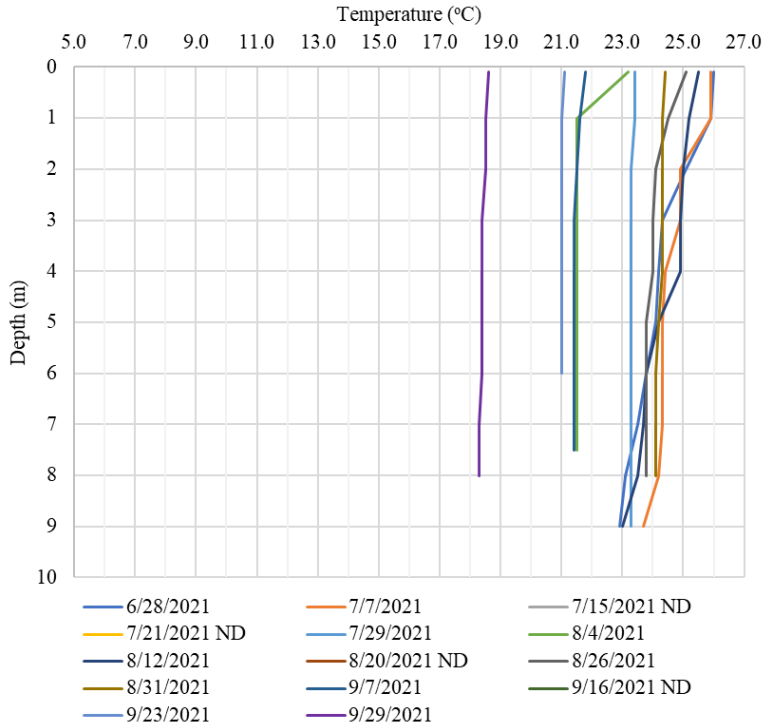
Crescent Forebay



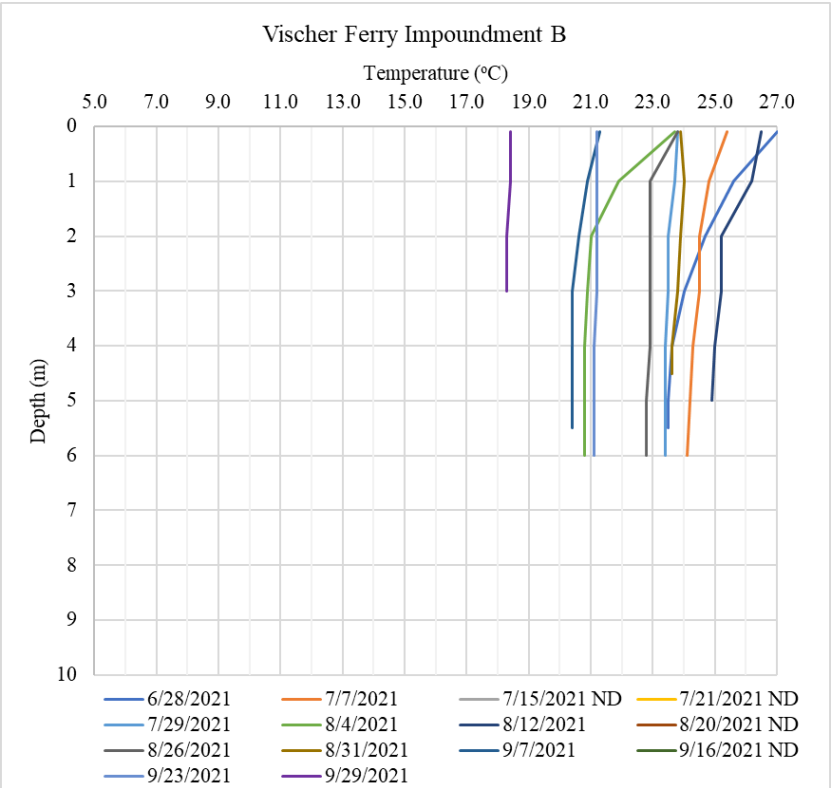
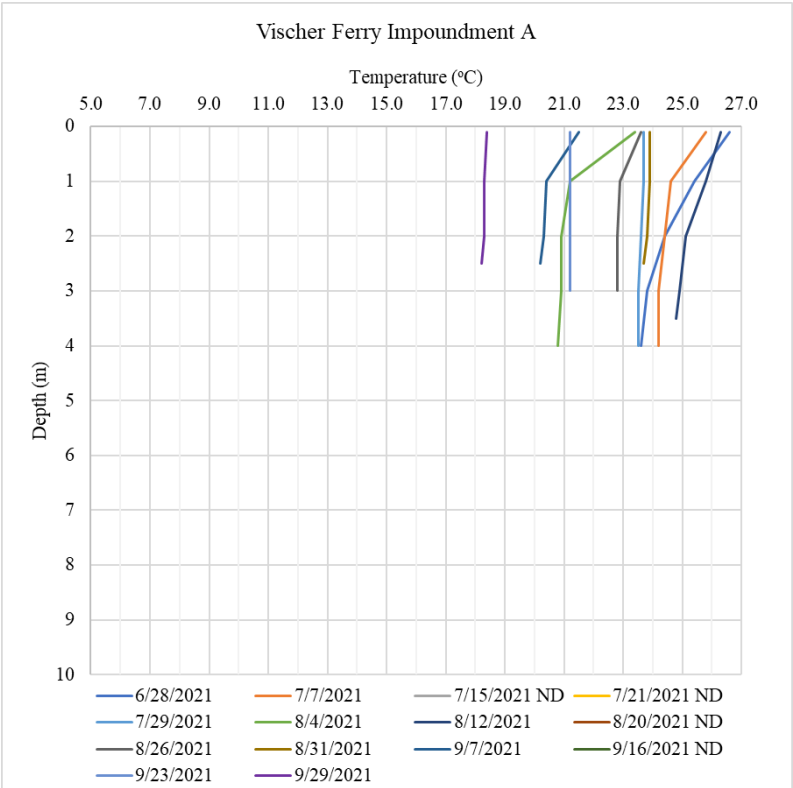
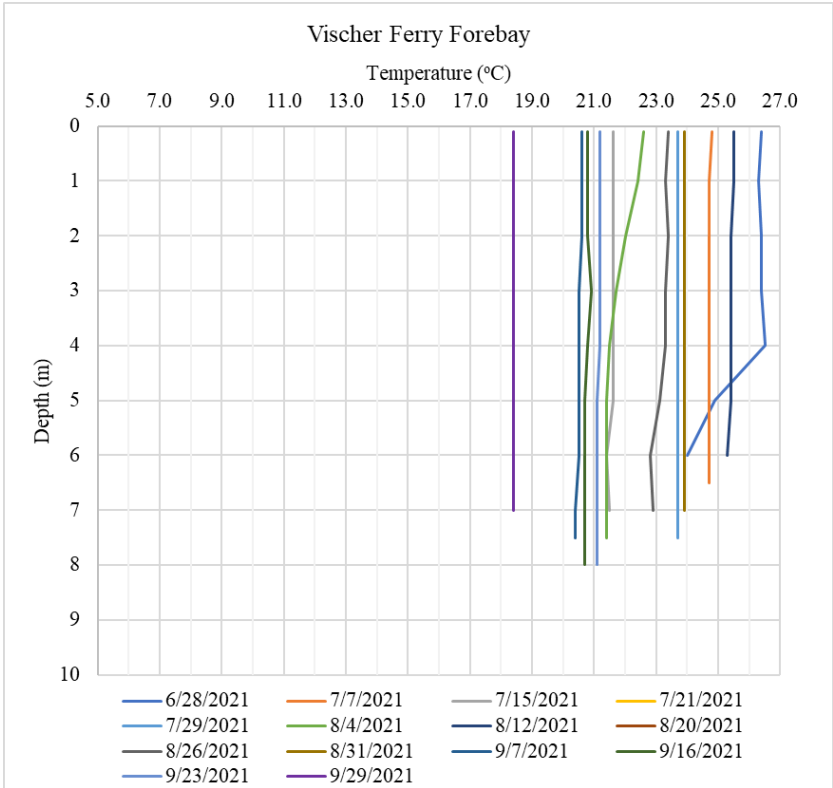
Crescent Impoundment A



Crescent Impoundment B



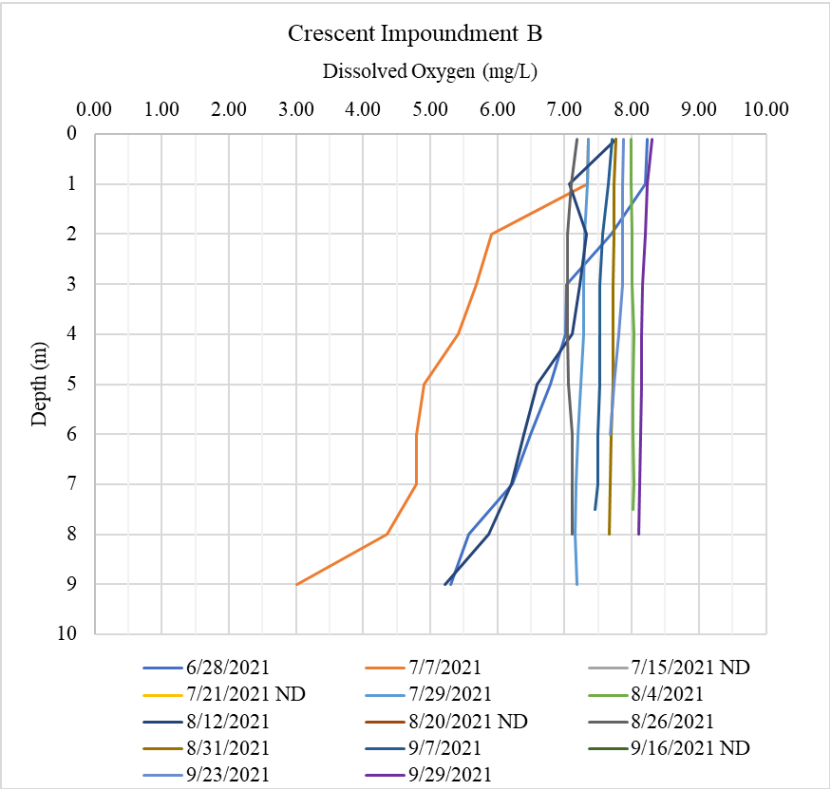
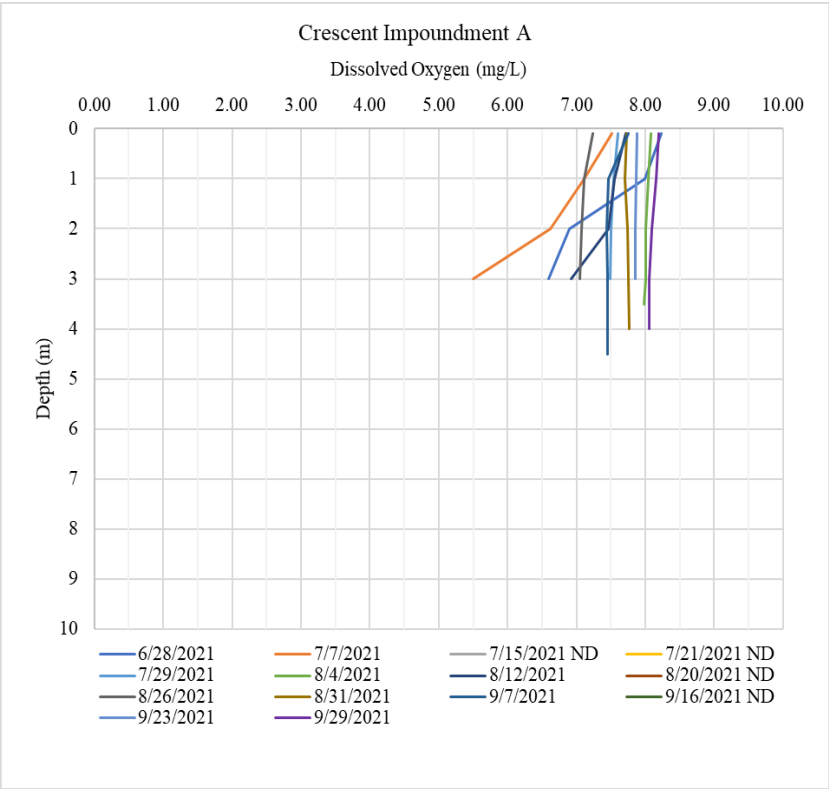
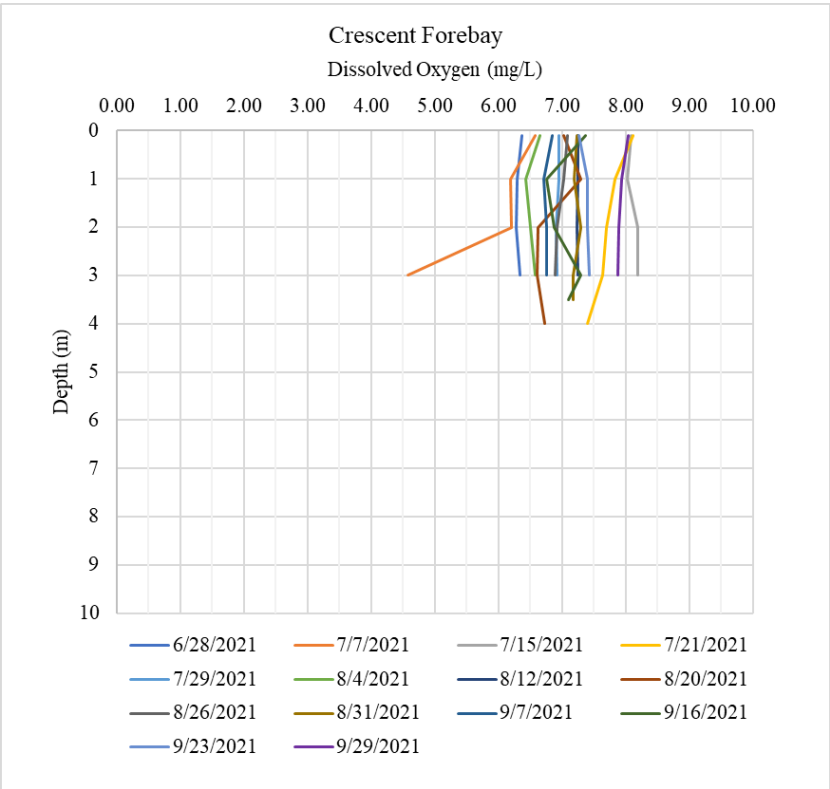
Study Results – Vischer Ferry Water Temperature



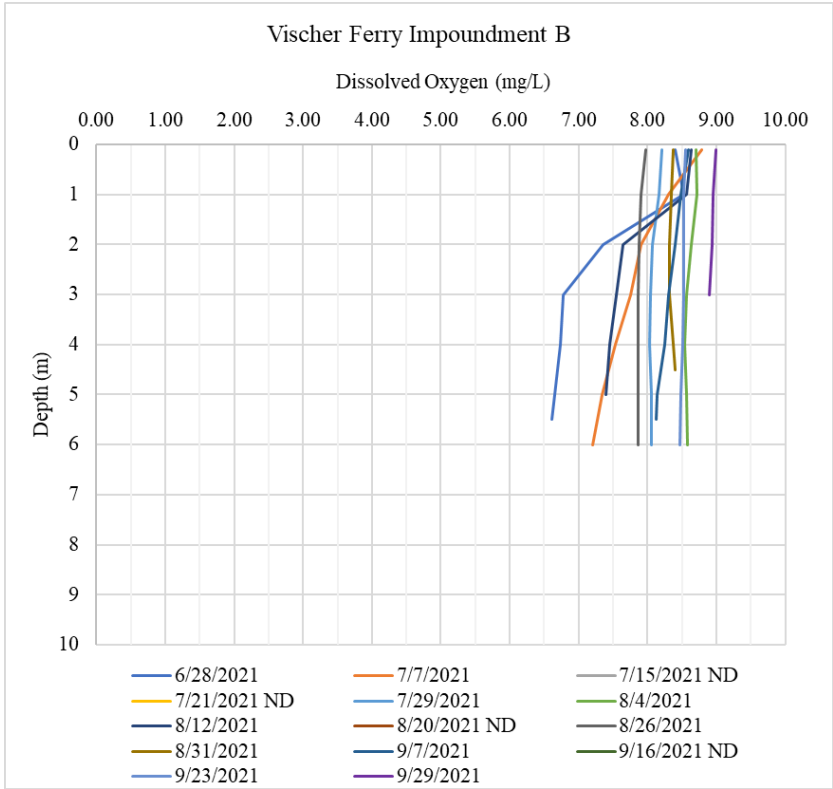
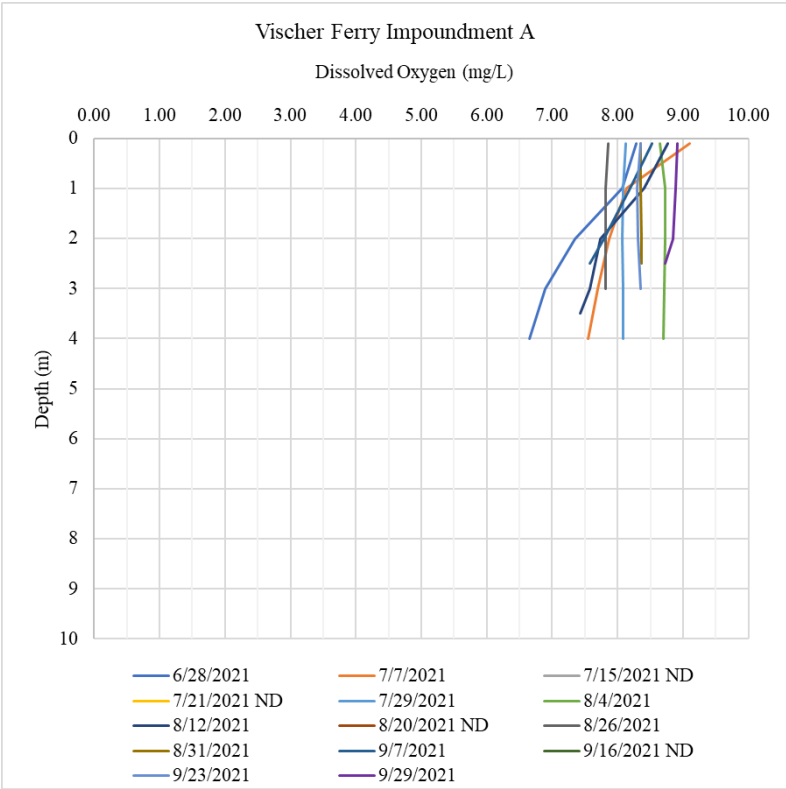
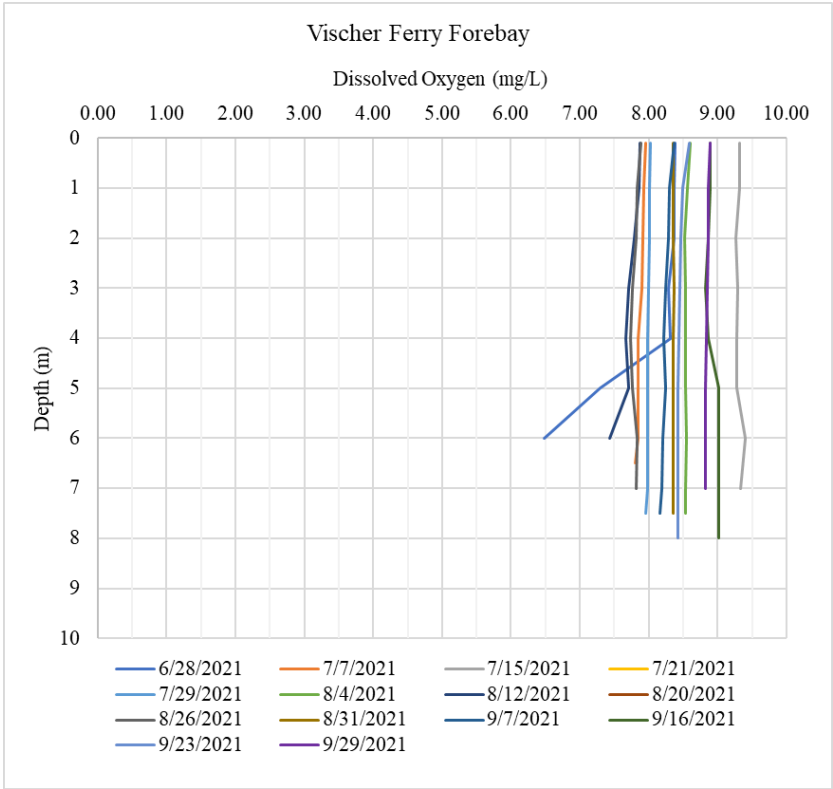
Study Results – Dissolved Oxygen

- Crescent Project
 - Generally consistent from top to bottom at all three sites
 - Exceptions were June 28, July 7, and August 12, during low flow periods, where vertical stratification was observed
 - DO stratification observed at all sites on July 7
- Vischer Ferry
 - Generally consistent from top to bottom at all three sites
 - Vertical stratification was observed on June 28 at all sites

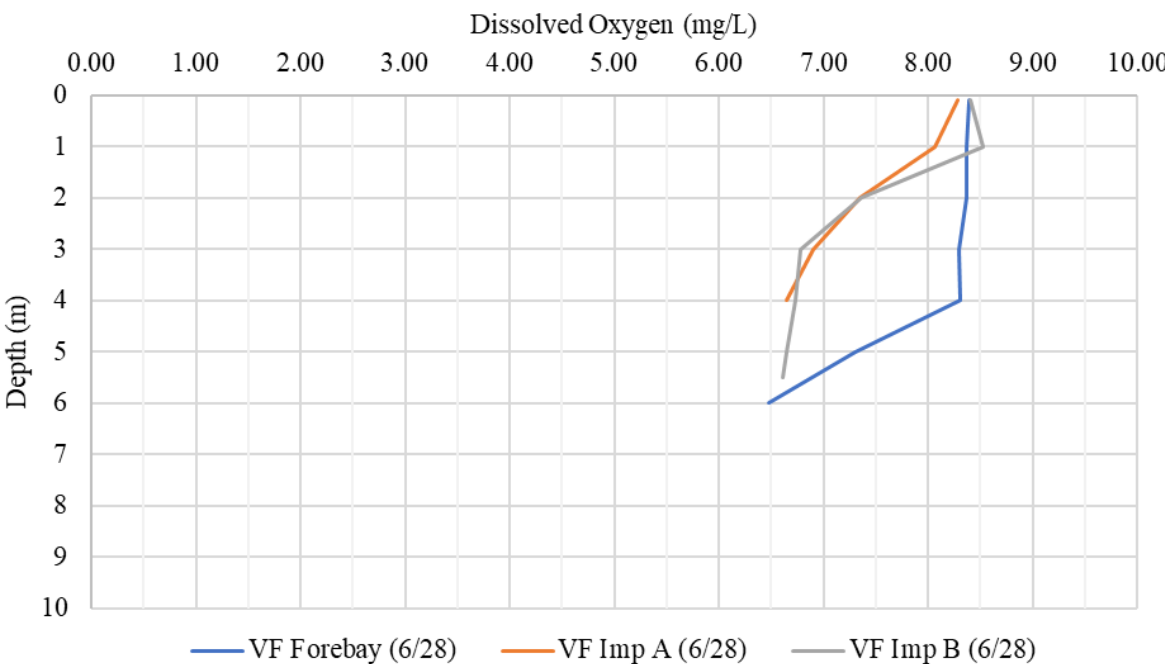
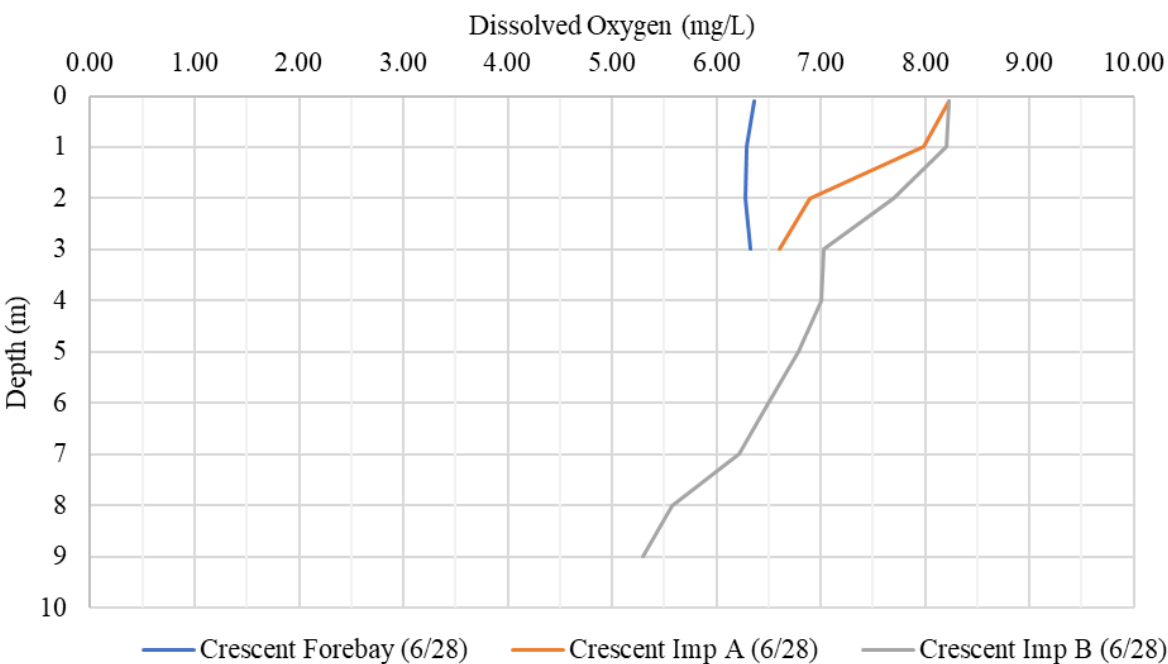
Study Results – Crescent Dissolved Oxygen



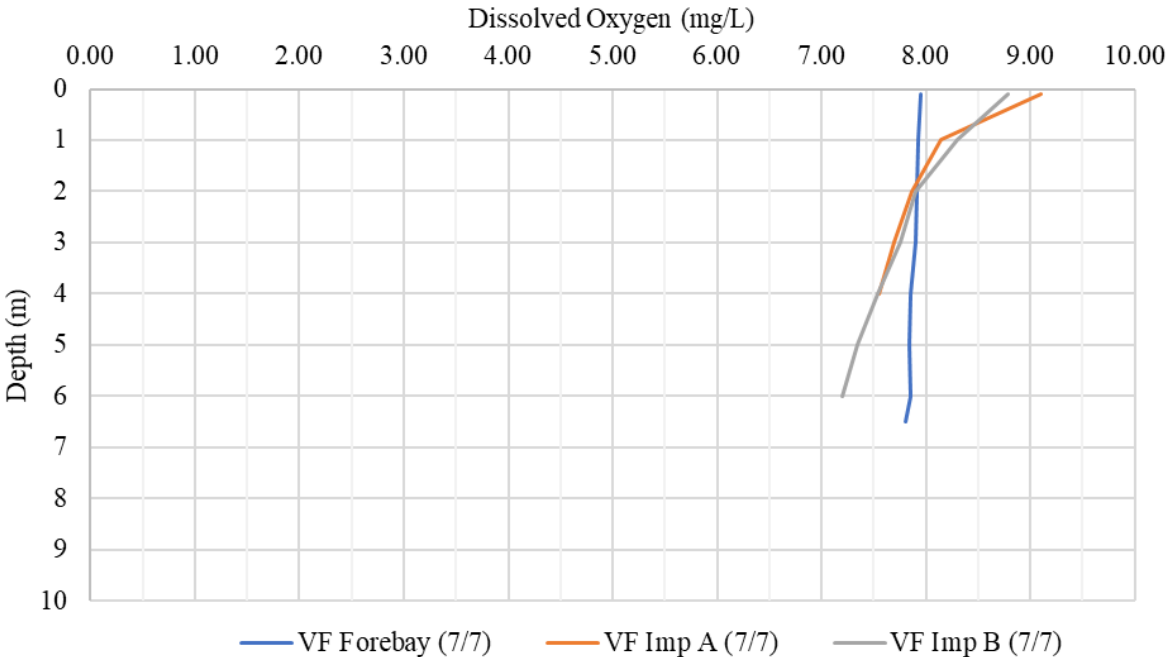
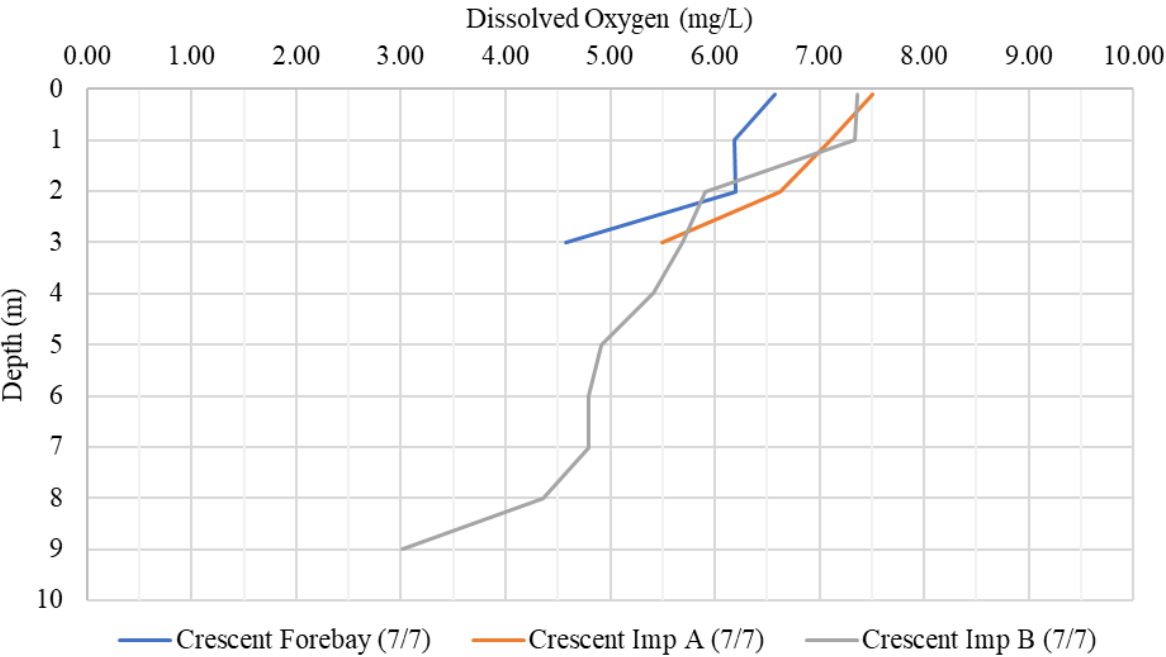
Study Results – Vischer Ferry Dissolved Oxygen



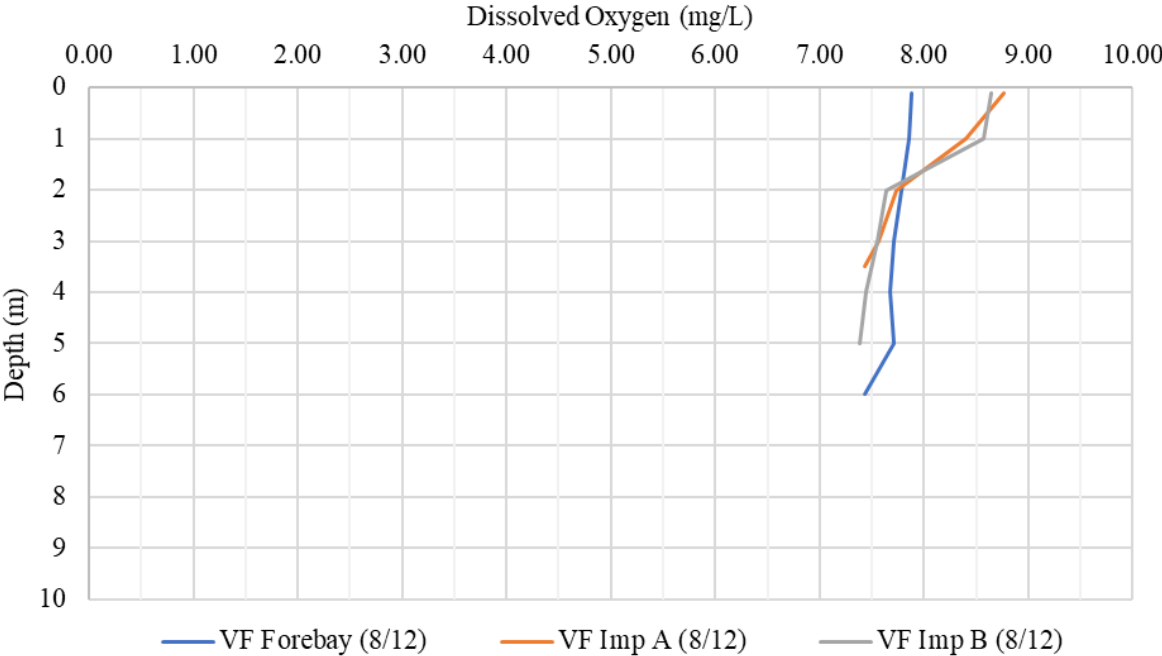
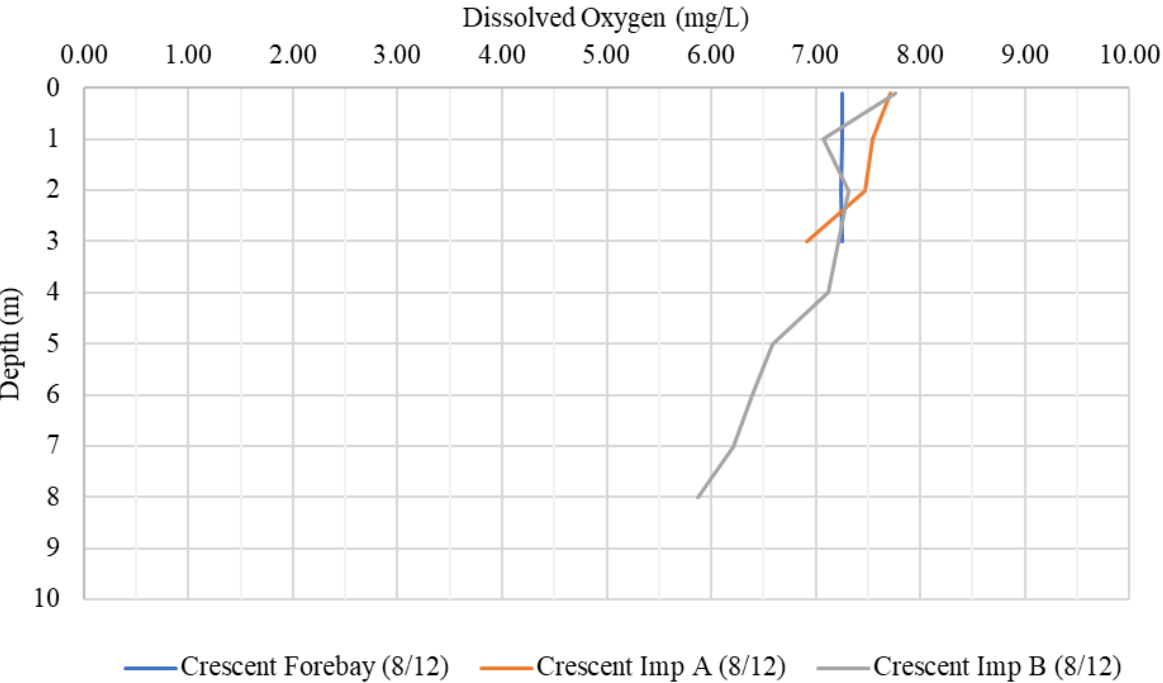
Study Results – Comparison on Days of DO Stratification, June 28, 2021



Study Results – Comparison on Days of DO Stratification, July 7, 2021



Study Results – Comparison on Days of DO Stratification, August 12, 2021



Study Conclusions

- Temperature patterns were generally consistent from top to bottom at the Projects in both the impoundments and forebays
- DO stratification can occur during low flow periods in the Project impoundments and forebay locations
- The DO stratification patterns observed in 2020 are not localized to the Project forebays and are representative of overall impoundment conditions
- Combined, the 2021 and 2020 water quality study results demonstrate that the operation of the Projects does not adversely affect water quality conditions

Questions?



American Eel Study



**NY Power
Authority**

Study Goals and Objectives

- Study Purpose and Goals
 - Assess the presence and quantity of American eel (*Anguilla rostrata*) upstream and downstream of the Crescent and Vischer Ferry Projects on the Mohawk River

American Eel Study Consultation

- Feb 2020 FERC issued SPD, recommended additional study: American Eel Study
- NYPA undertook additional informal consultation with USFWS and NYSDEC.
- Nov 2020 site visit with agencies to discuss potential eel sampling methods and locations.
- NYPA shared draft American Eel Study plan with agencies; consultation call held Dec 2020.
- Comments received; NYPA revised the draft study plan and again shared it with the agencies.

American Eel Study Consultation

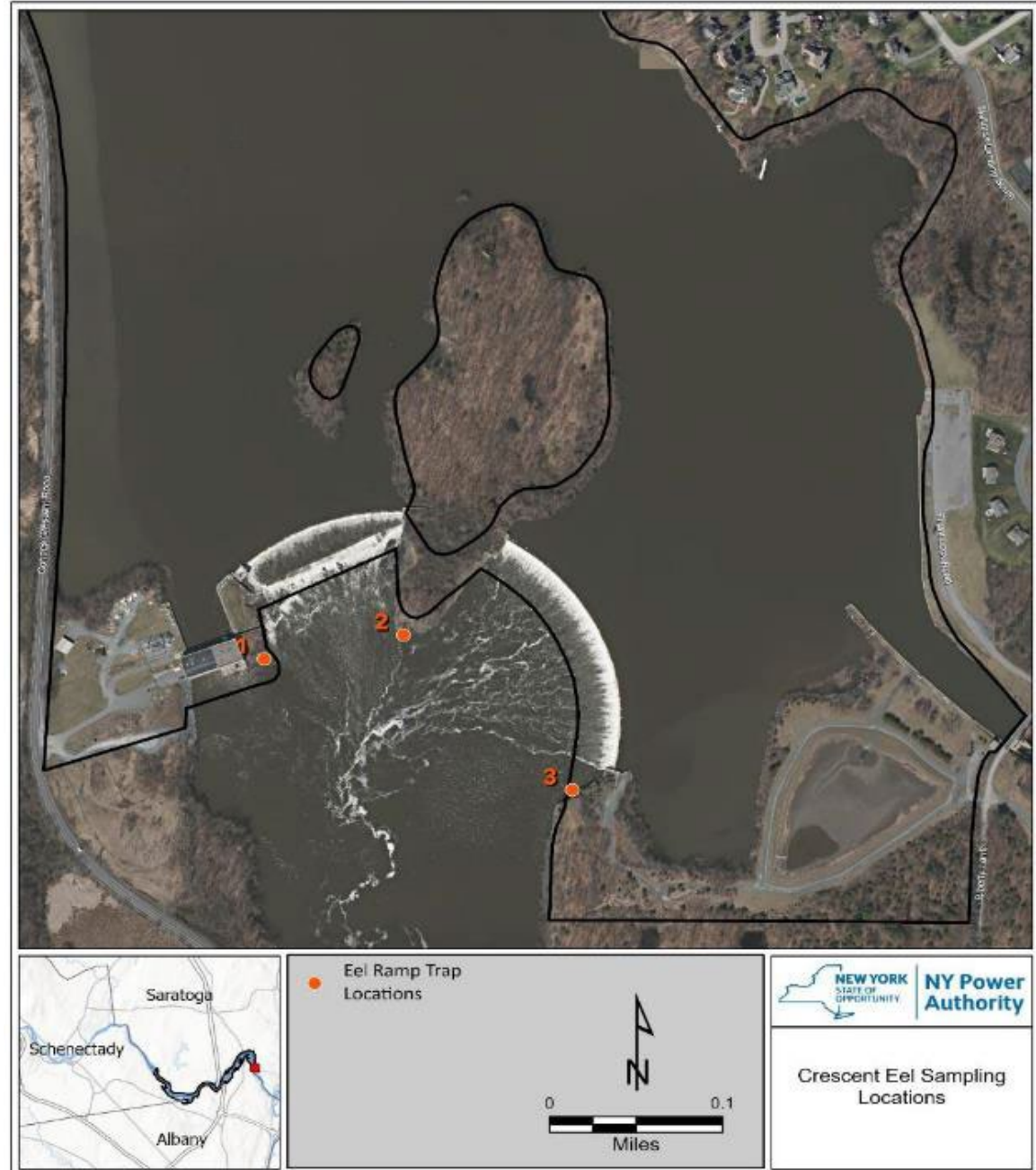
- Jan 2021 USFWS and NYSDEC in agreement with the study plan.
- Feb 2021 NYPA submitted the American Eel Study Plan to FERC as an RSP addendum.
- June 2021 call and site visit with the agencies.
- American eel study conducted at the Crescent and Vischer Ferry Projects April - October 2021.

American Eel Study Methods

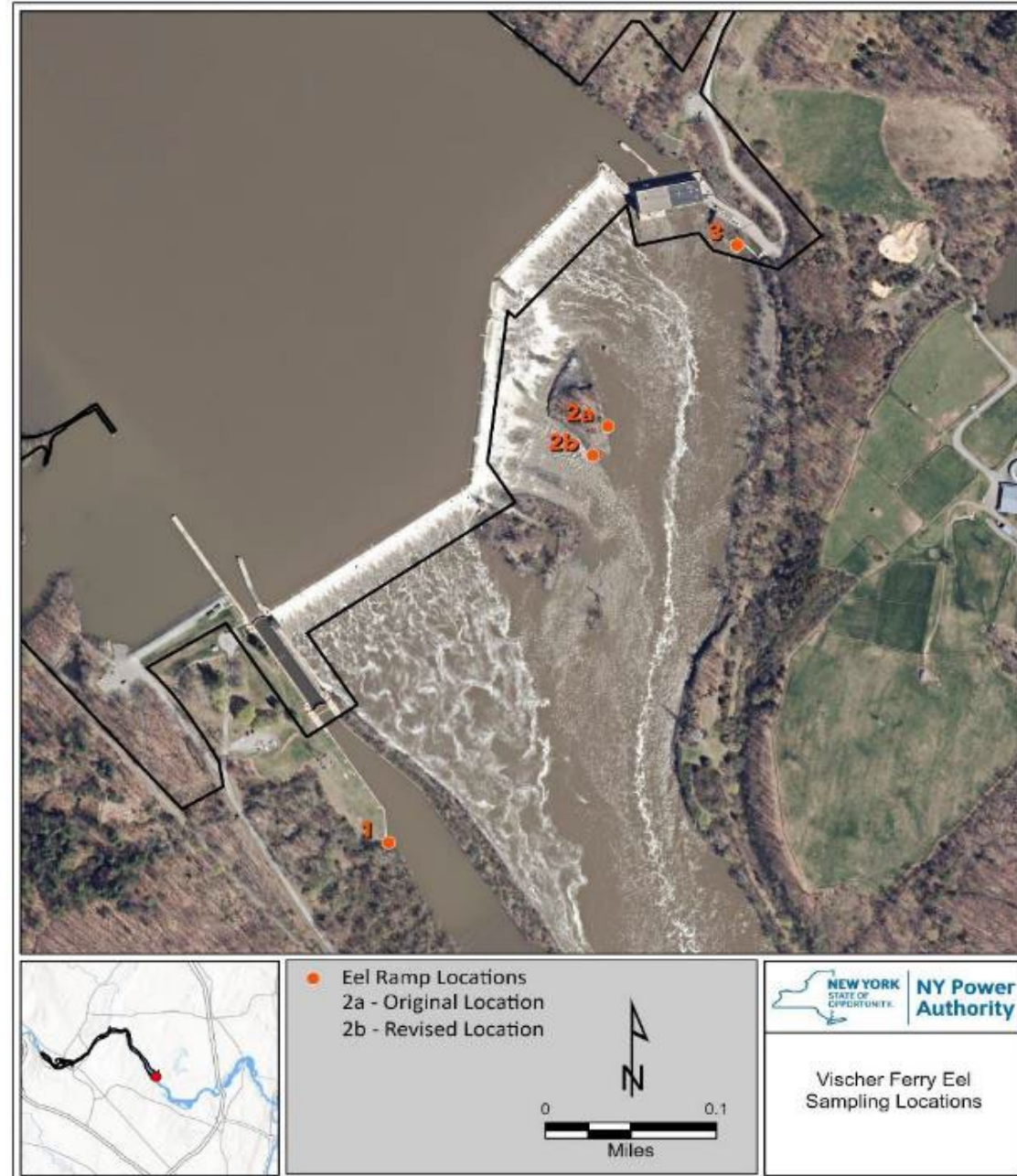
Three sampling methods used:

1. Weekly **nighttime observations** immediately downstream of each Project from mid-April through mid-May;
2. Two nighttime boat **electrofishing** events upstream of the Vischer Ferry Dam; and
3. Deployment of three **eel ramp traps** downstream of each Project from mid-May through September.

Eel Ramp Trap Locations downstream of Crescent Dam (Report Figure 2-4)



Eel Ramp Trap Locations downstream of Vischer Ferry Dam (Report Figure 2-4)



Eel Ramp Traps

Eel Ramp Trap Installed Downstream of the Crescent Dam Tailrace Area
(Crescent Trap #1)



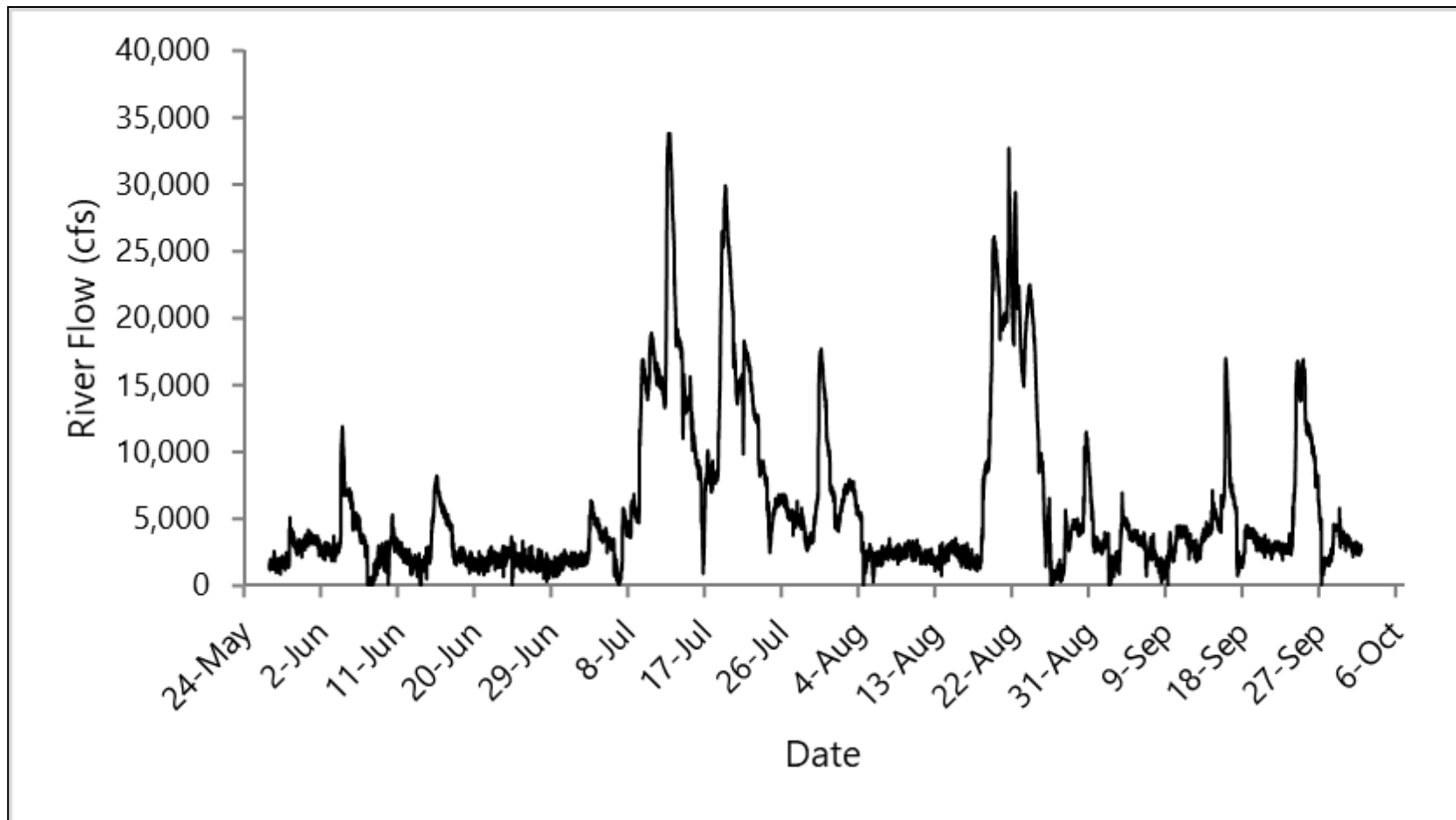
Eel Ramp Traps

Eel Ramp Trap Climbing Substrate with Encamat®



American Eel Study Results

River Flow (cfs) for the Eel Ramp Trap Monitoring Period
(May 24 to October 1, 2021)



American Eel Study Results

Eel Ramp Trap Operation Dates, 2021



American Eel Study Results – Eel Ramp Traps

- 6 eel traps (3 at each Project) were installed the week of May 18, 2021.
- The traps were checked twice a week unless prevented by unsafe conditions such as high flow events or severe weather.
- No eels were captured at any of the traps ($n = 6$) at either Project throughout the entirety of the study (May 24 through October 1).

American Eel Study Results

Water Temperature Data Summary for Eel Ramp Traps and Mohawk River at Eel Trap Locations

Location	Trap #	Temperature (°C)		
		Min	Max	Mean
Vischer Ferry	1	18.8	26.1	22.9
	2	17.0	26.1	22.6
	3	16.5	26.6	22.8
Crescent	1	10.9	26.5	22.9
	2	15.6	25.6	22.1
	3	10.9	26.1	22.2
Mohawk River		12.5	26.5	22.7

American Eel Study Results – Nighttime Surveys

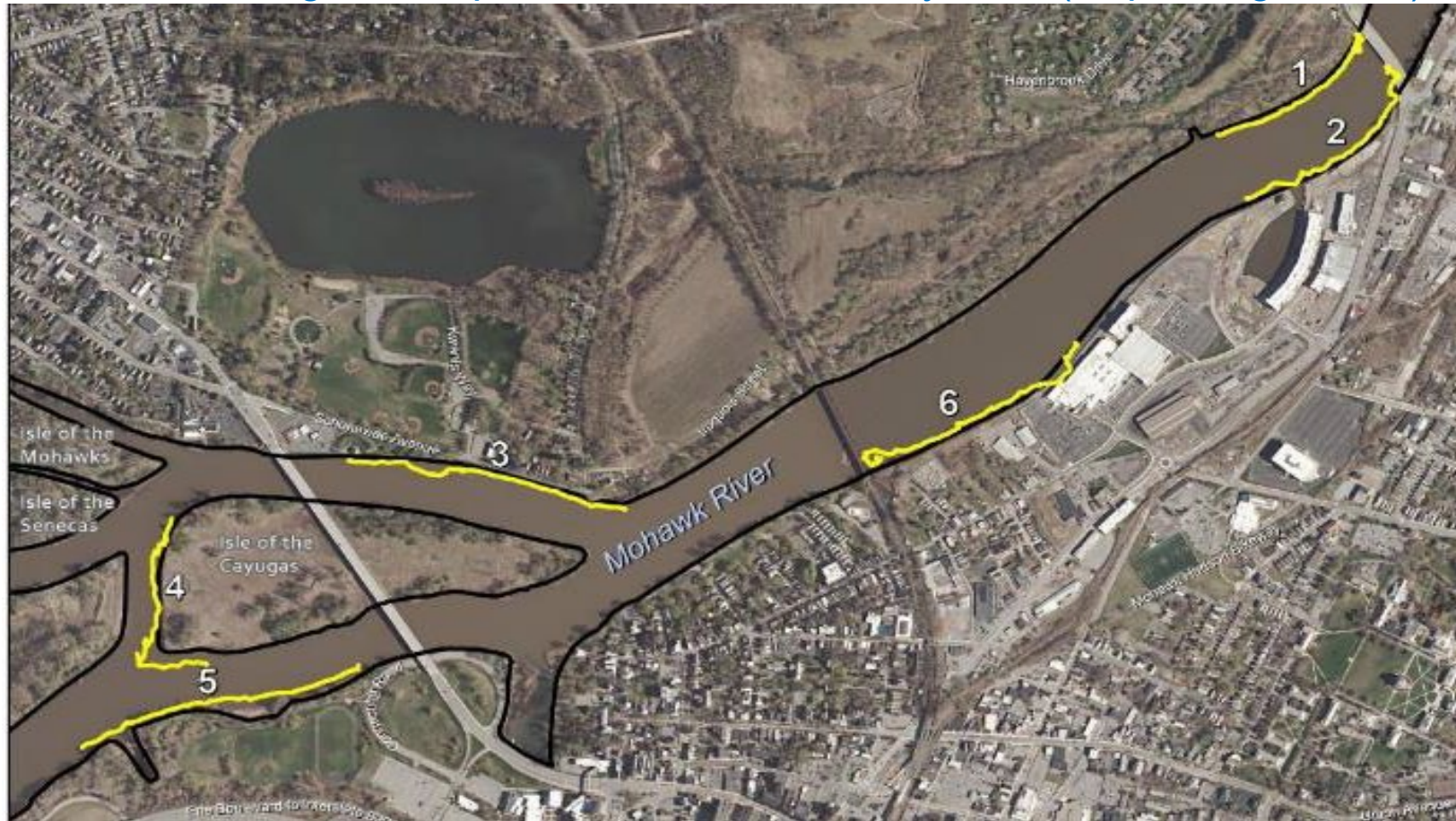
- Nighttime surveys were performed in the tailrace and spillway locations downstream of the Crescent and Vischer Ferry dams, respectively, on five dates:
 - April 22, April 28, May 13, May 18, and June 9, 2021
- No eels were observed during any of the observation events.



American Eel Study Results – Nighttime Boat Electrofishing

- Nighttime boat electrofishing occurred on the nights of 12 August and 14 September 2021.
- No American eel were observed or collected during any of the electrofishing surveys.

Electrofishing Sites Upstream of Vischer Ferry Dam (Report Figure 3-3)



American Eel Study Discussion

- American Eel Study results were consistent with other fisheries study efforts.
- Fish Community Study reviewed existing fisheries data and few eels were documented.
- Recent sampling of 35 tributary streams by USGS for eels in 2014-15 did not document their presence.
- 2021 electrofishing sampling by NYSDEC between the Waterford Flight and St. Johnsville, NY collected one American Eel (near Lock 8).

Study Conclusion

The American Eel Study Results and the results of other fisheries research efforts indicate that American Eel are uncommon at the Crescent and Vischer Ferry Projects.

The operation of the Crescent and Vischer Ferry Projects have no adverse effect on American eels.



Thank you
Questions?



**NY Power
Authority**

15 minute Break

Bald Eagle Study



Study Goals and Objectives

- Study Purpose and Goals
 - Identify and map areas of existing and potential bald eagle nesting, roosting, and foraging habitats at the Projects
 - Monitor and record bald eagle activities in those areas

Bald Eagle Study Overview

- Bald Eagle Study start delayed due to the Covid-19 pandemic
 - General observations of eagle use of Project areas made during Aquatic Mesohabitat and Water Quality monitoring visits in 2020
 - Study update provided in ISR
- Bald Eagle surveys conducted in spring and summer 2021
 - Winter use (2020-2021) evaluated based on online observations
 - Nesting surveys conducted in spring 2021
 - General observations made during the American Eel and Water Quality studies in 2021

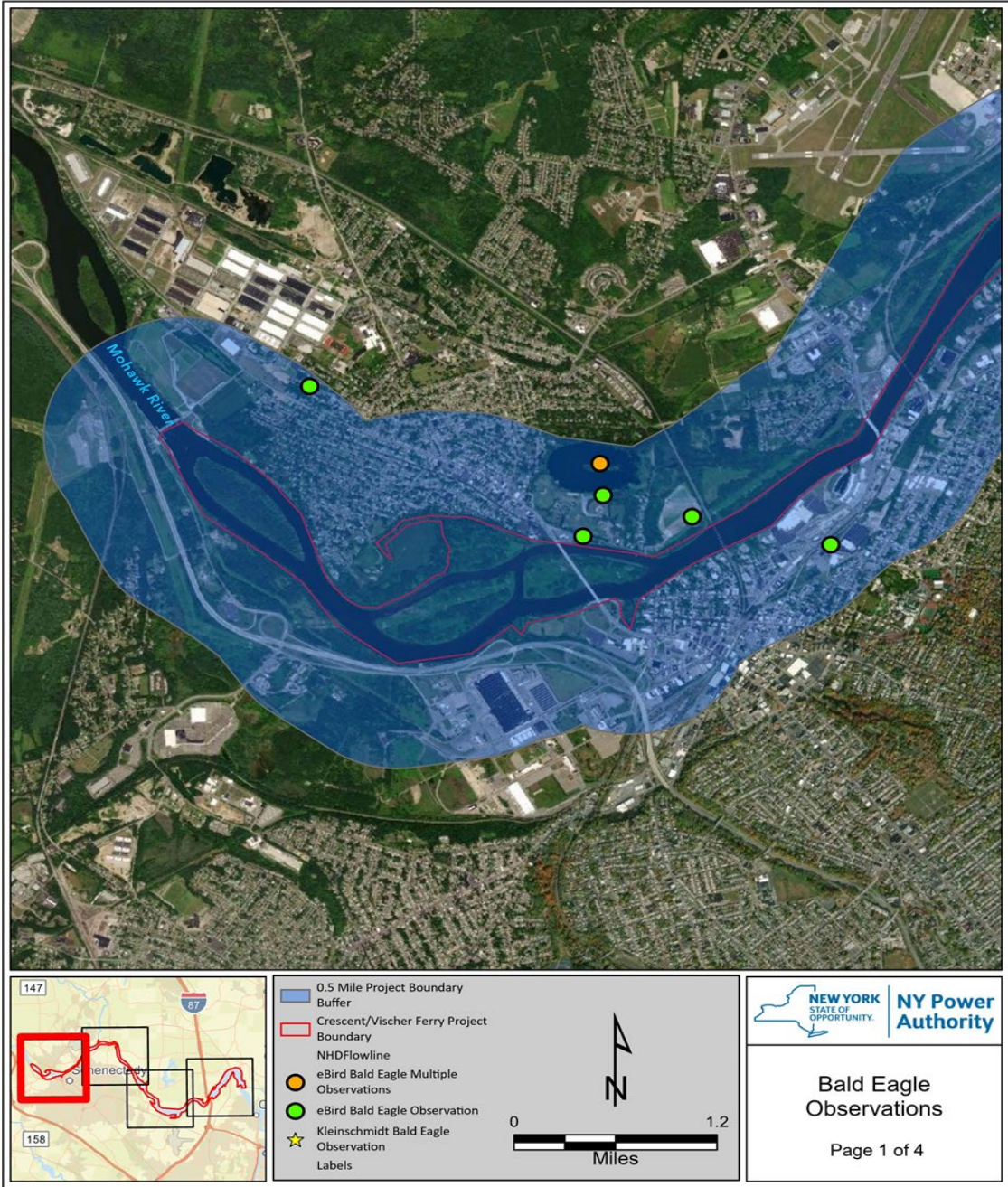
Bald Eagle Study

- Winter Use
- Online records recorded in eBird
 - Period December 1, 2020 - March 31, 2021
 - Crescent - 210 Observations
 - Vischer Ferry - 50 observations
- Actual number of distinct bald eagles is unknown

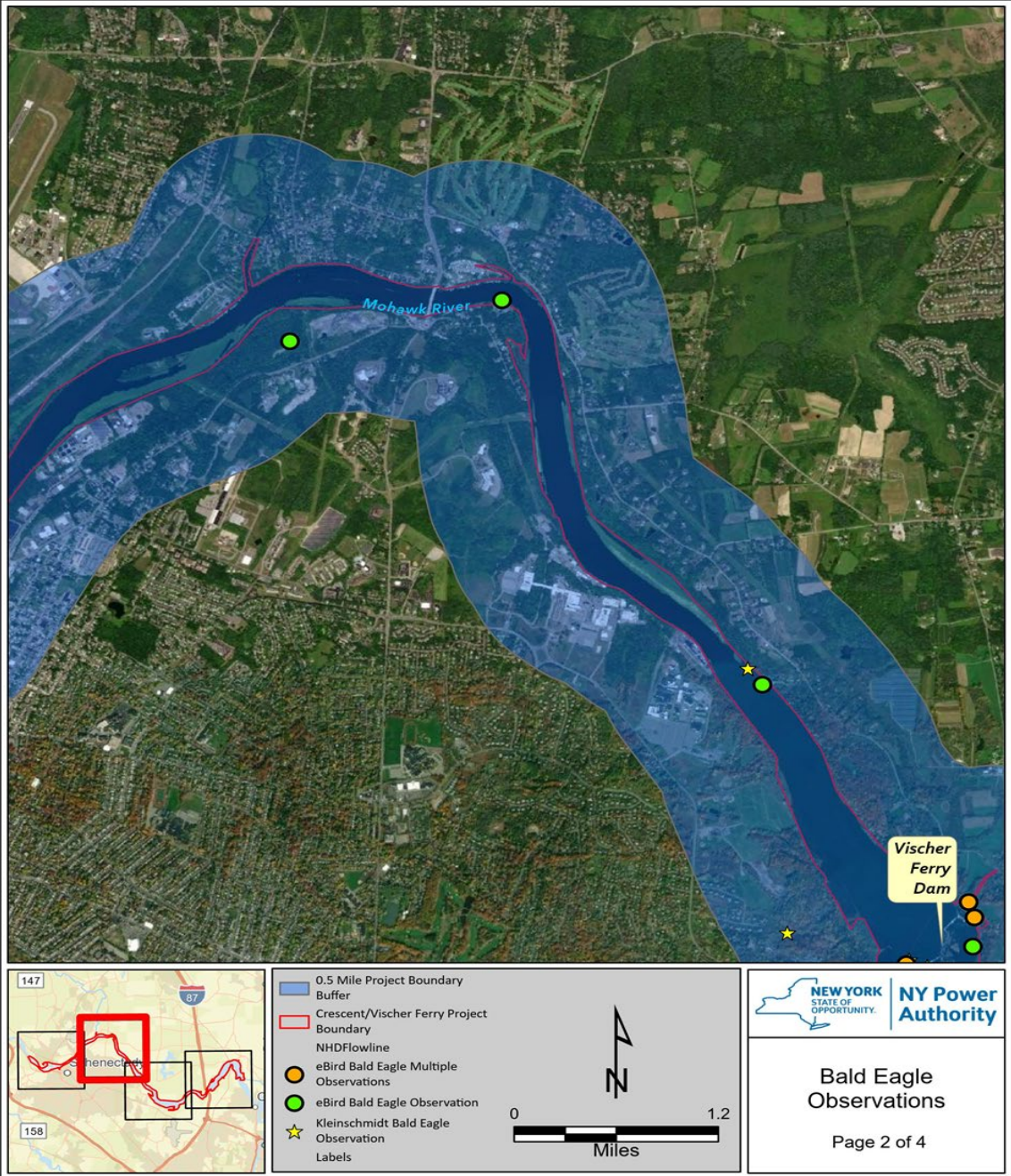
Bald Eagle Study

- Designated Bald Eagle Surveys
 - Surveys conducted by boat, truck and on foot
 - April and August
 - Eight observations: four each at Crescent & Vischer Ferry
 - Two active nests at Crescent
 - Confirmed by NYSDEC as new nests
- Bald Eagle Observations 2020-2021
 - 45 observations recorded
 - Number of distinct bald eagles is unknown

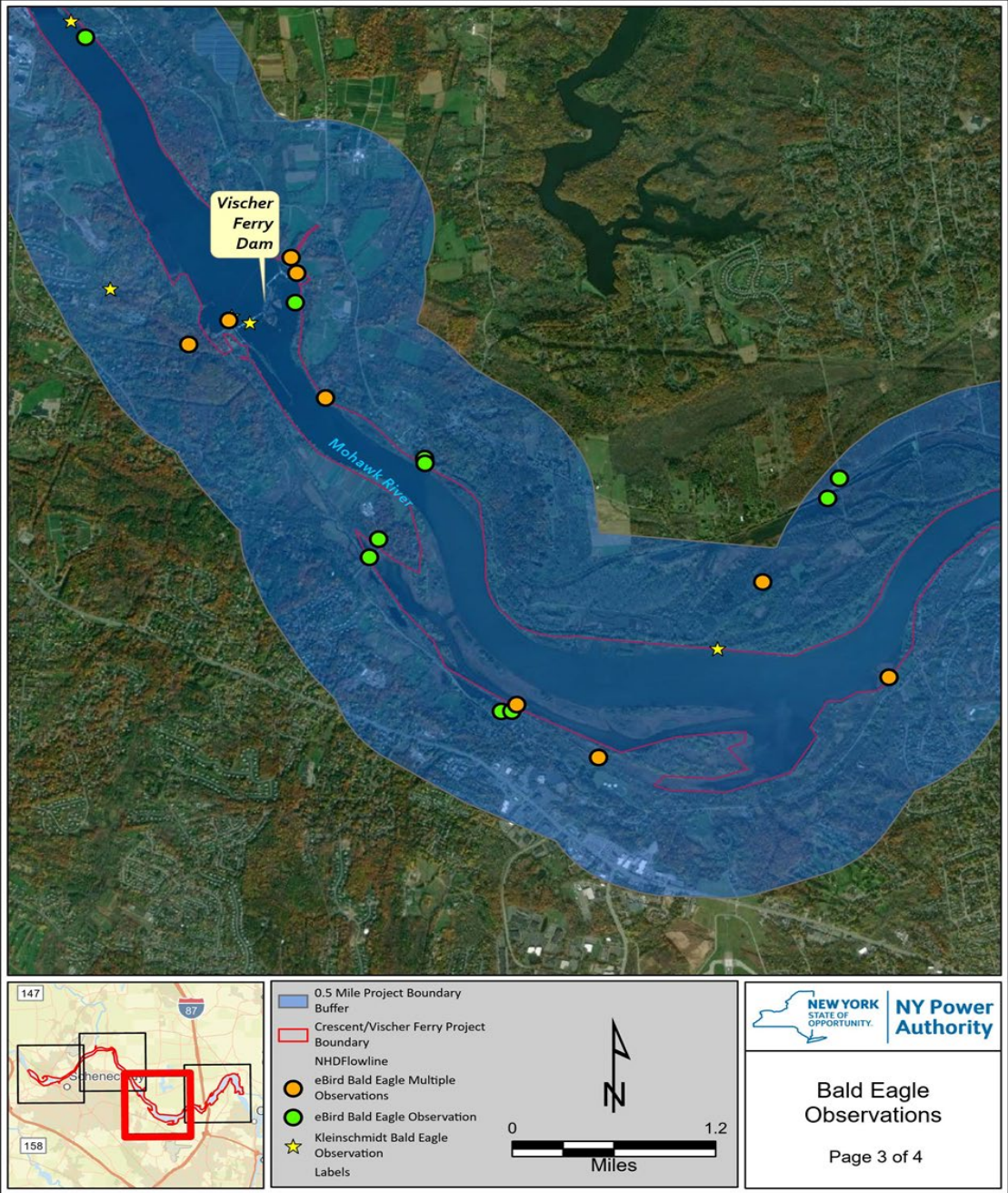
2021 Vischer Ferry Project Bald Eagle Observations (Report figure 3-1)



2021
Vischer Ferry Project
Bald Eagle
Observations
(Report figure 3-2)

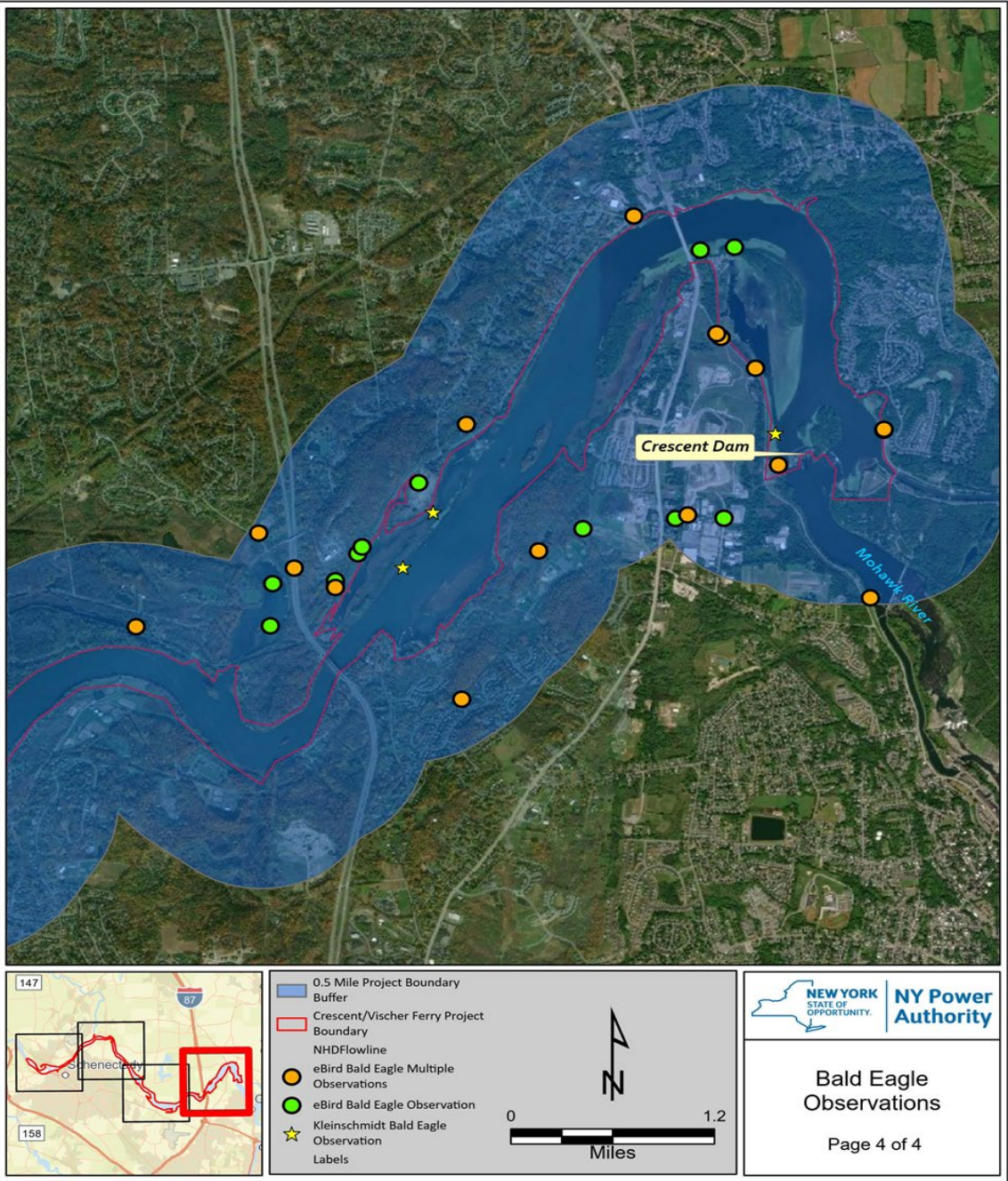


2021
Crescent &
Vischer Ferry Projects
Bald Eagle
Observations
(Report figure 3-3)

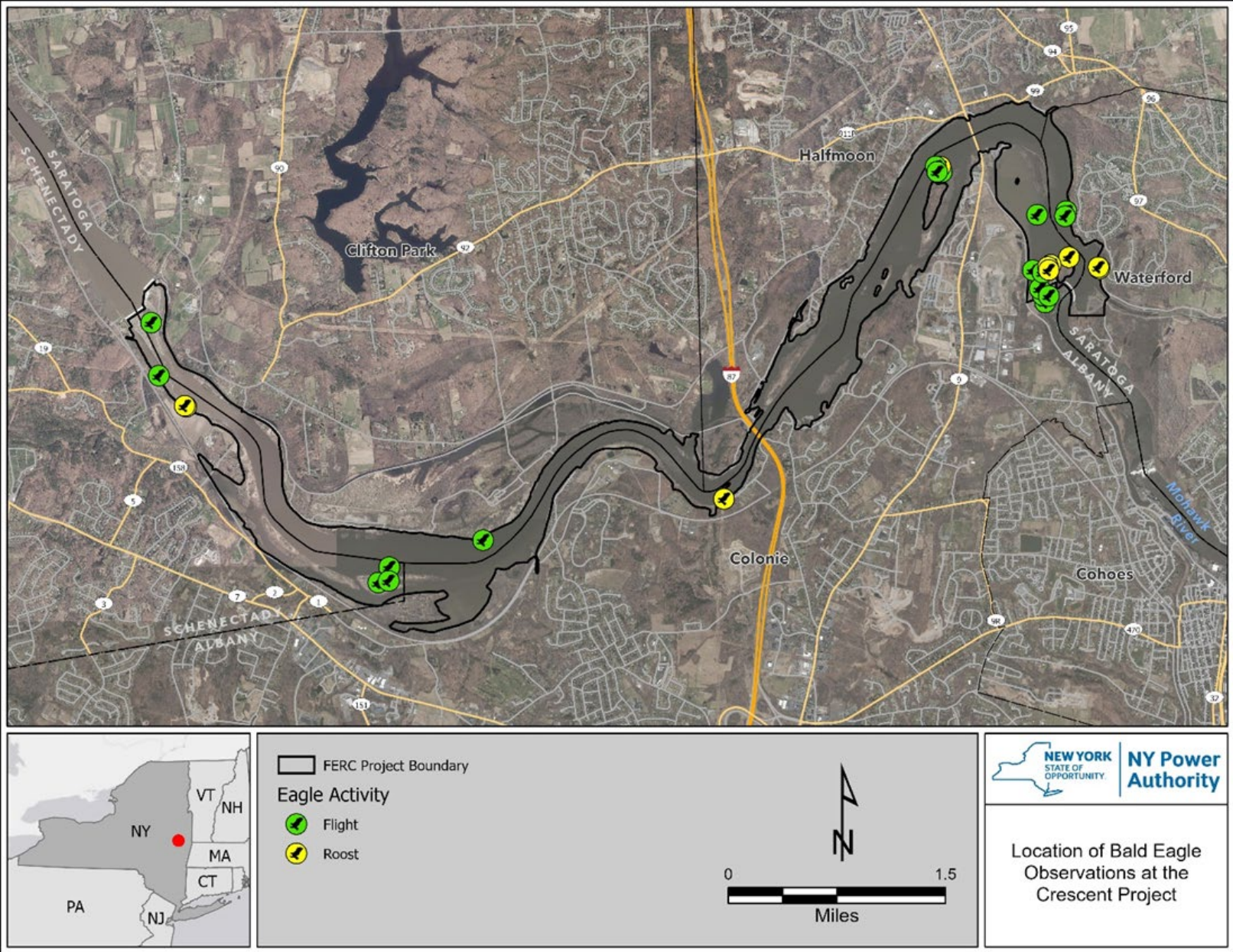


2021 Crescent Project Bald Eagle Observations

(Report figure 3-4)



2020-2021 Crescent Project Bald Eagle Observations by Activity

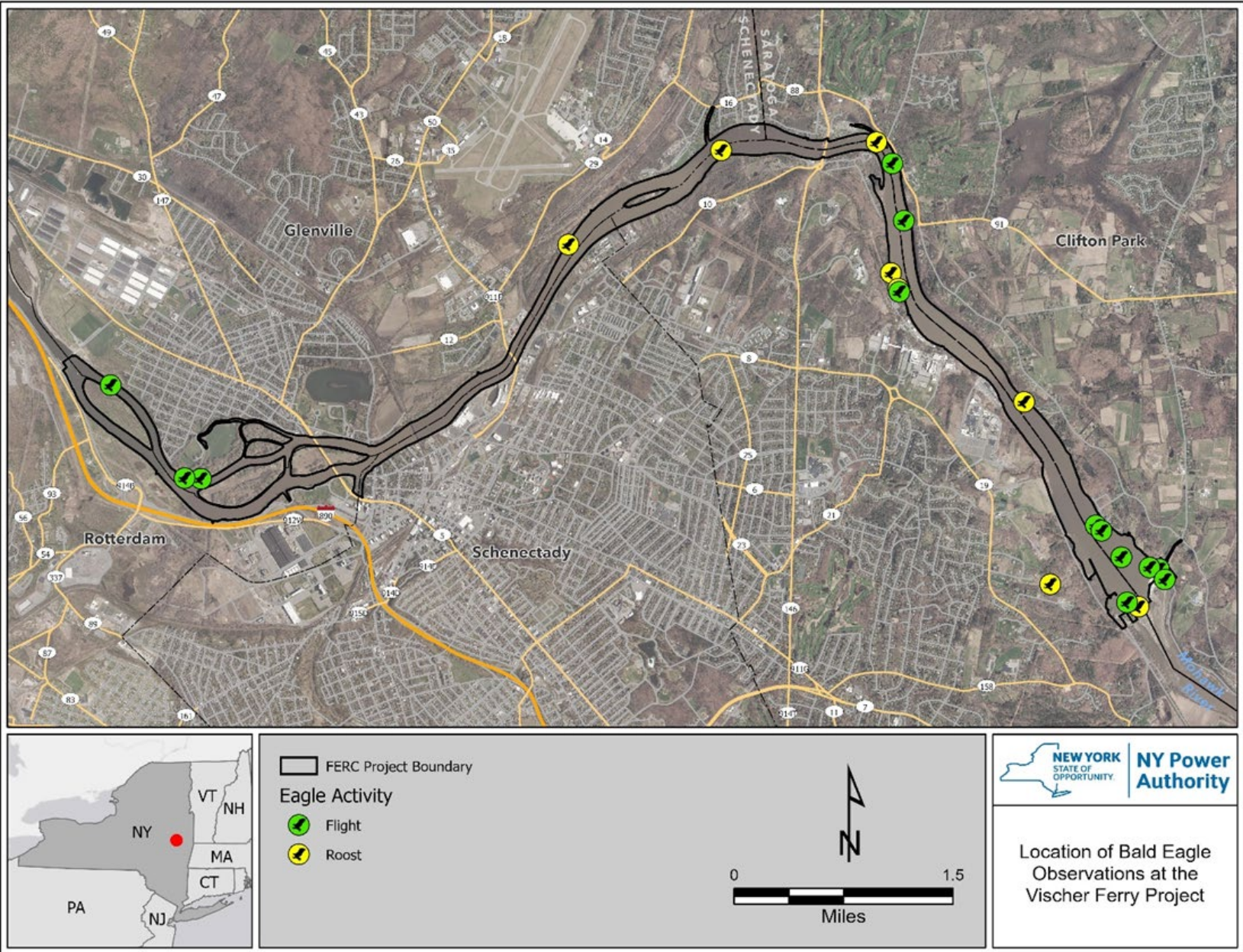


Observations include:

- 210 ebird observations
- 2 active nest sites

(Report figure 3-5)

2020-2021 Vischer Ferry Project Bald Eagle Observations by Activity



Observations include:

- 50 ebird observations
- No active nests

(Report figure 3-5)



Location of Bald Eagle Observations at the Vischer Ferry Project



Bald Eagle Study Conclusions

- Bald eagles utilize the Project areas throughout the year
- Use includes foraging, roosting, and nesting
- The Projects do not impact bald eagles



Thank you
Questions?

2021 Recreation Study

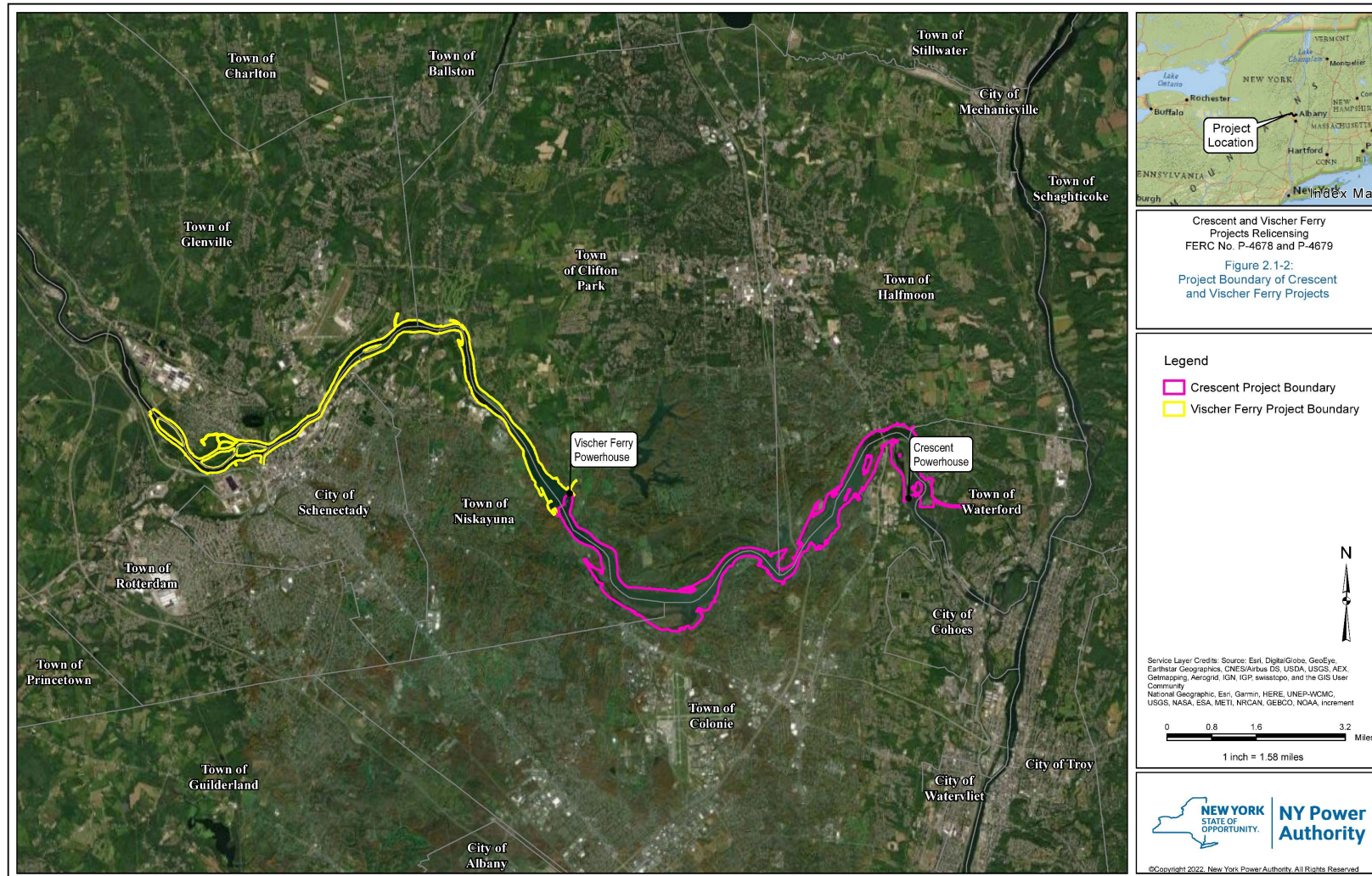


**NY Power
Authority**

Study Goals and Objectives

- Goals:
 - Inventory Project and non-Project recreation sites (formal, informal, commercial, and non-commercial) providing public recreational access to Project waters.
 - Evaluate current use and future needs of the FERC-approved Project recreation sites by conducting use counts and user surveys.
- Objectives:
 - Complete a recreation site inventory and condition assessment.
 - Evaluate recreation use at the Project recreation sites.
 - Conduct user surveys to help determine the adequacy of the existing Project recreation sites.

Study Area



- All lands and waters within the FERC Project boundaries of each Project, as well as non-Project recreation sites (commercial and non-commercial) that provide public recreational access to Project lands and waters

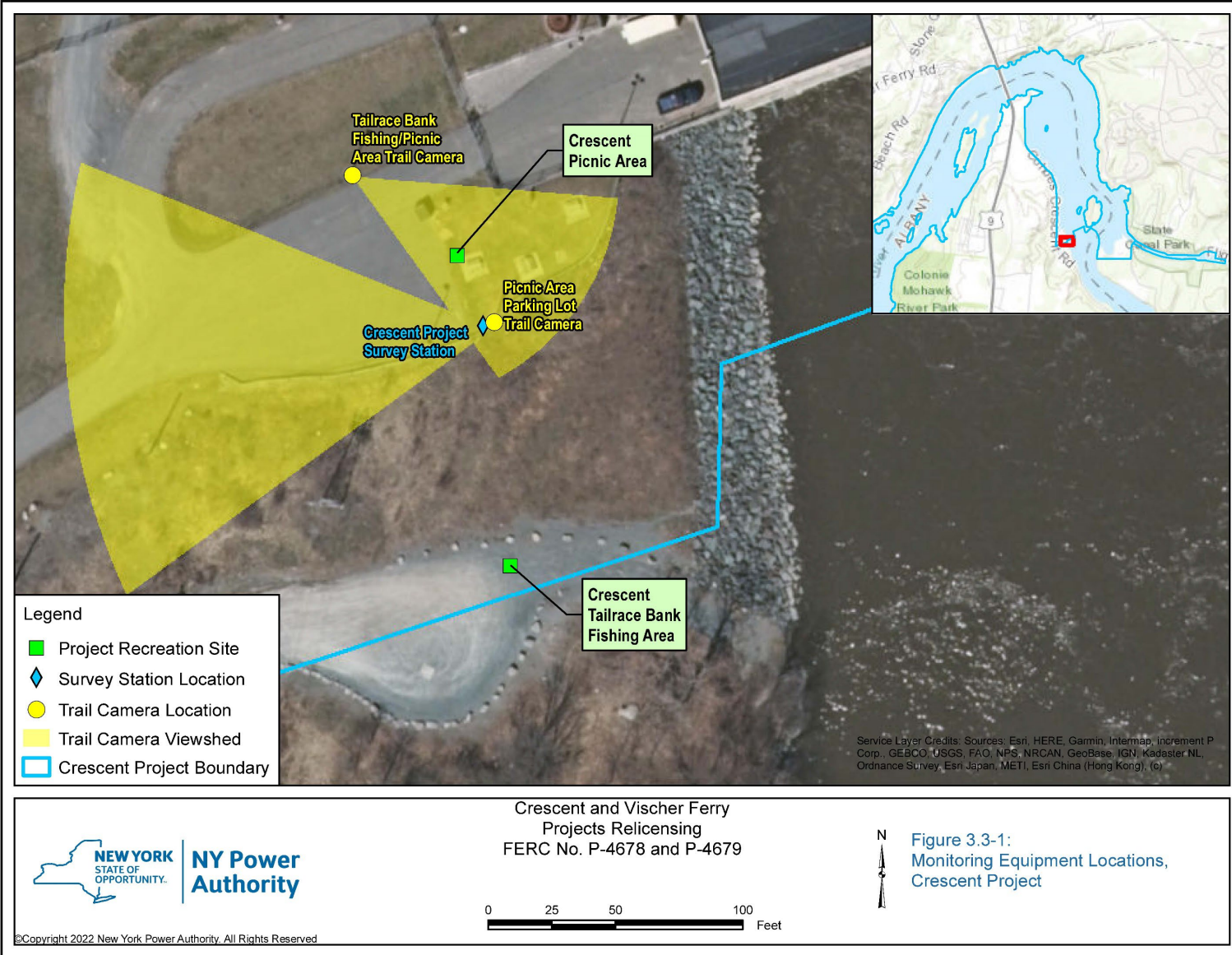
Methods

- Recreation Site Inventory:
 - Conducted a field inventory and condition assessment August 16 - August 18 at public recreation sites in the study area, supplemented with online resources where necessary.
- Existing Recreation Use:
 - Conducted a field study of existing use at Project recreation sites using trail cameras.
- User Survey:
 - Solicited recreationist feedback using voluntary, self-administered surveys made available online and at collection stations strategically located at Project recreation sites.
- Projected Recreation Demand:
 - Projected recreation demand at Project recreation sites through 2060 based on estimated existing use, population projections, and recreation activity participation rate projections.

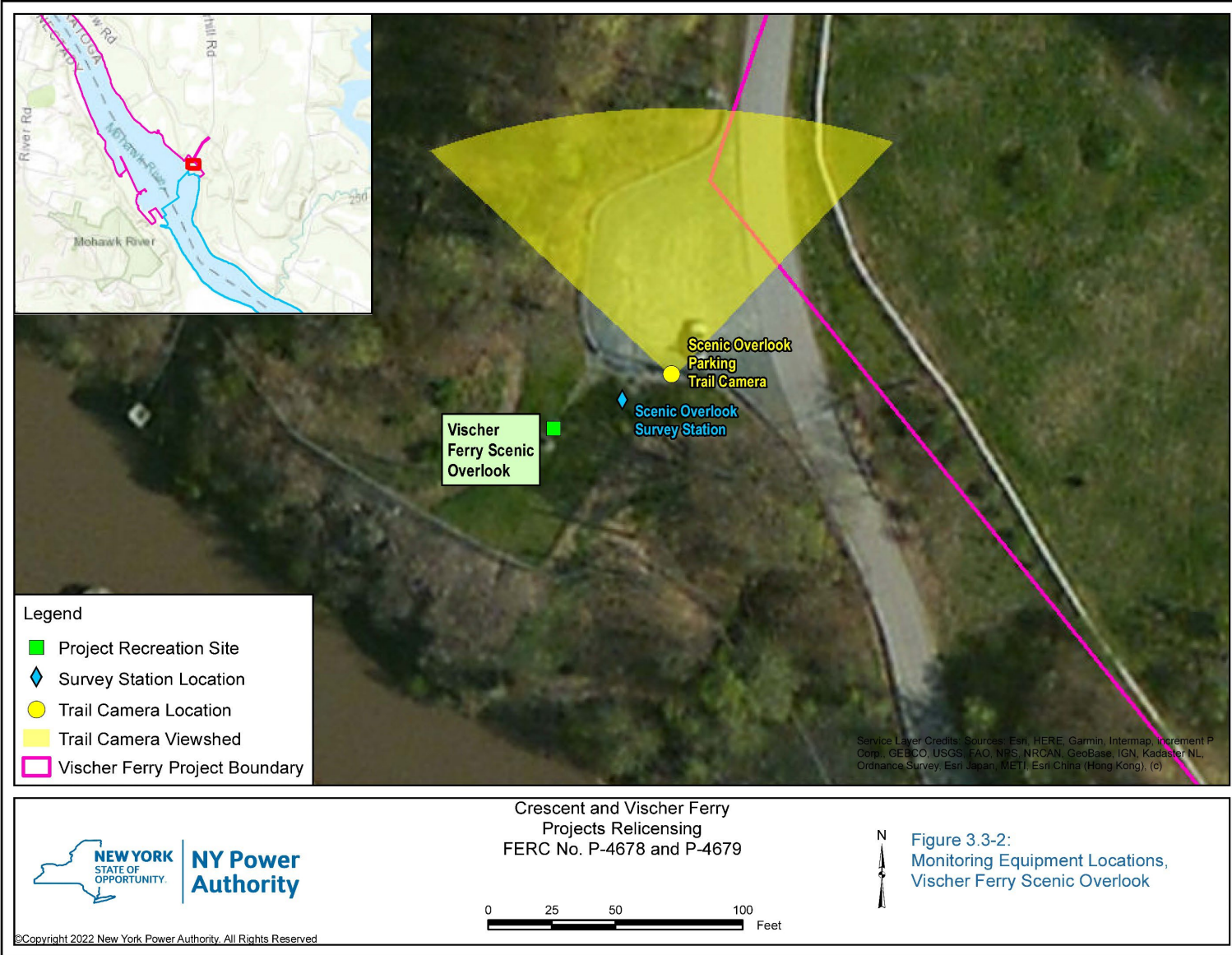
Methods

- Variances from the RSP:
 - The study was conducted in accordance with the FERC-approved RSP.
 - The study was postponed until 2021 due concerns that the COVID-19 pandemic could cause anomalous recreational use conditions.
 - During the 2021 recreation season, construction and maintenance activities at Crescent Dam resulted in temporary modification to the Crescent Project recreation sites. Appropriate adjustments were made to the study to collect valid and reliable use and user information at these sites.

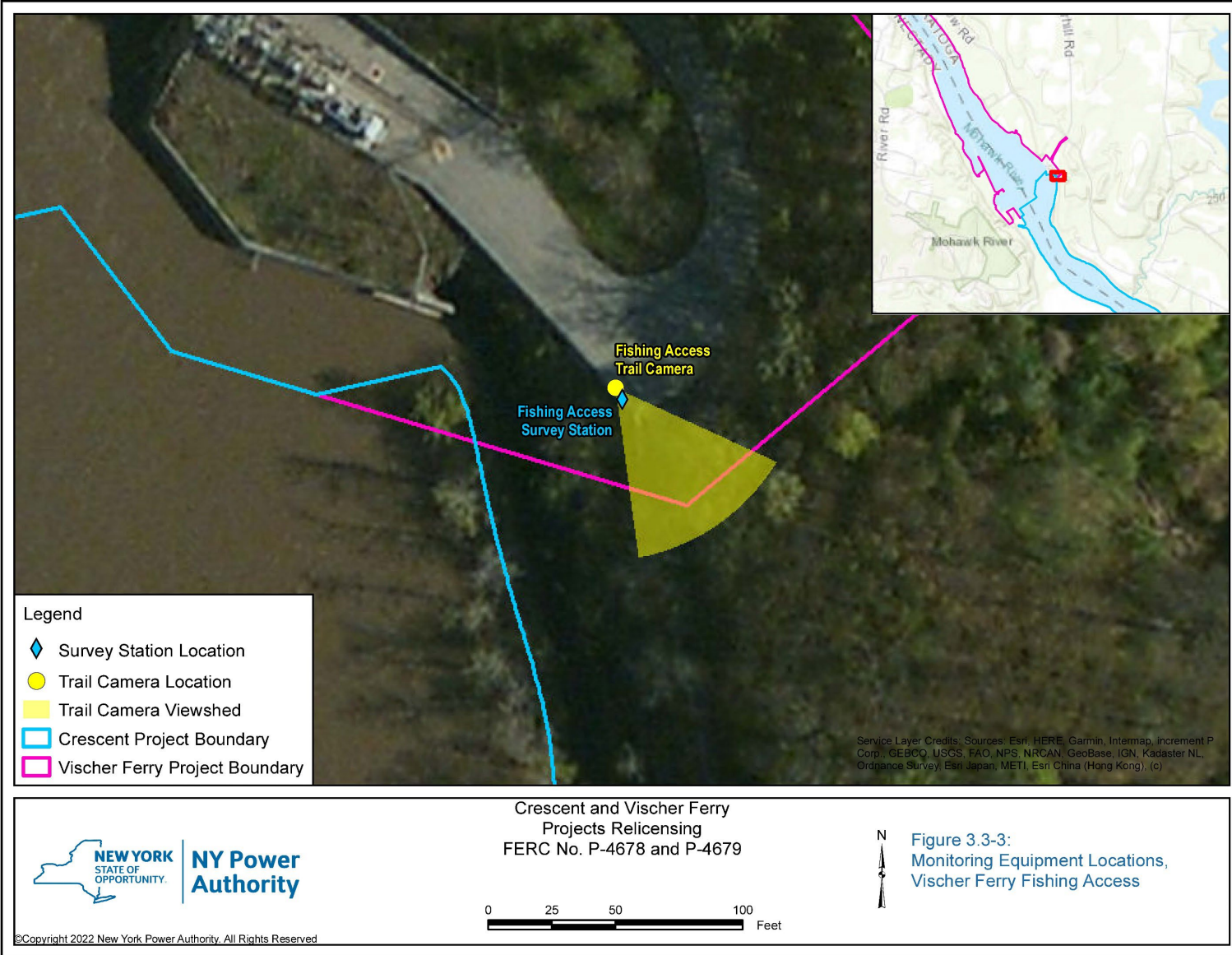
Methods – Monitoring Equipment Locations



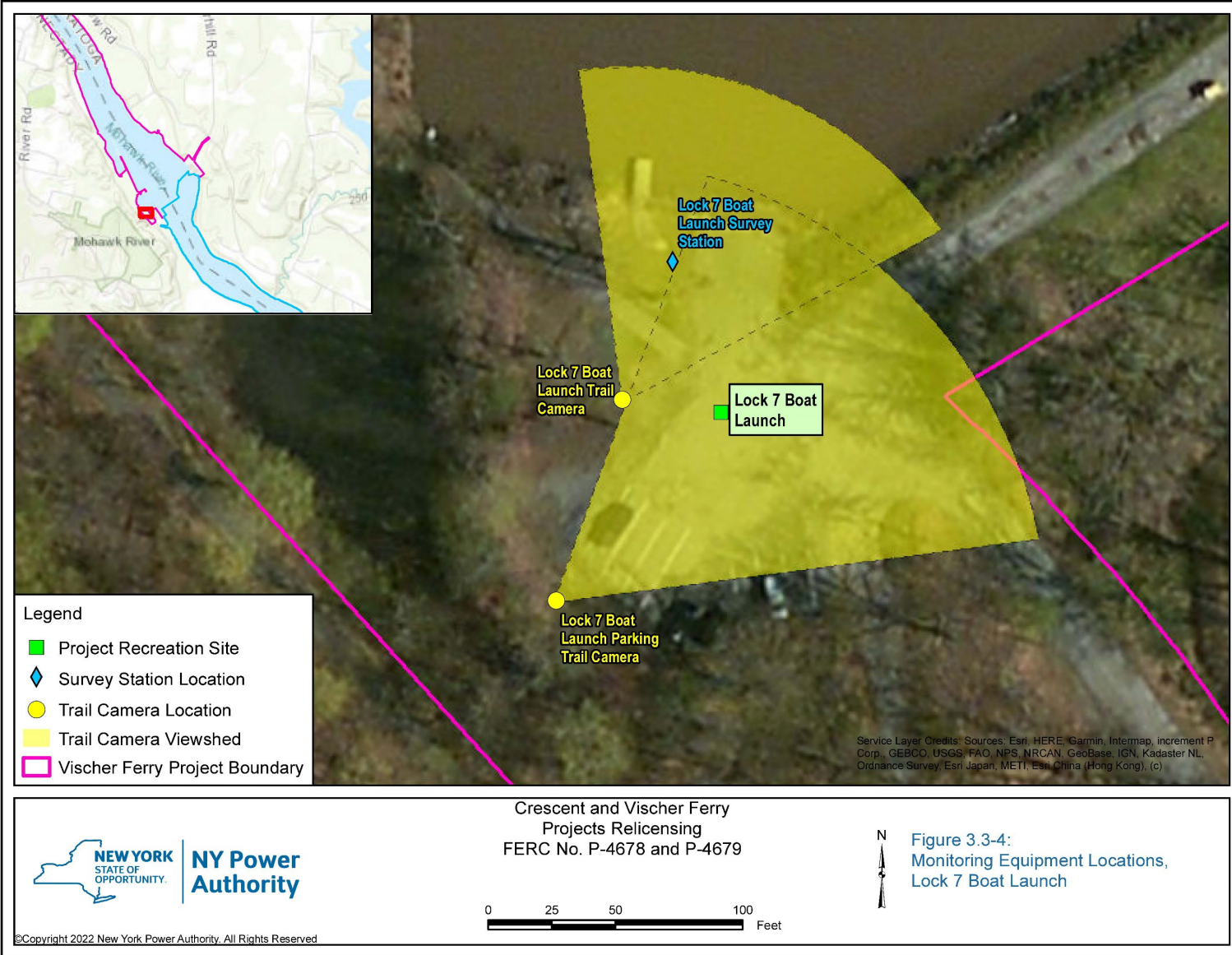
Methods – Monitoring Equipment Locations



Methods – Monitoring Equipment Locations



Methods – Monitoring Equipment Locations



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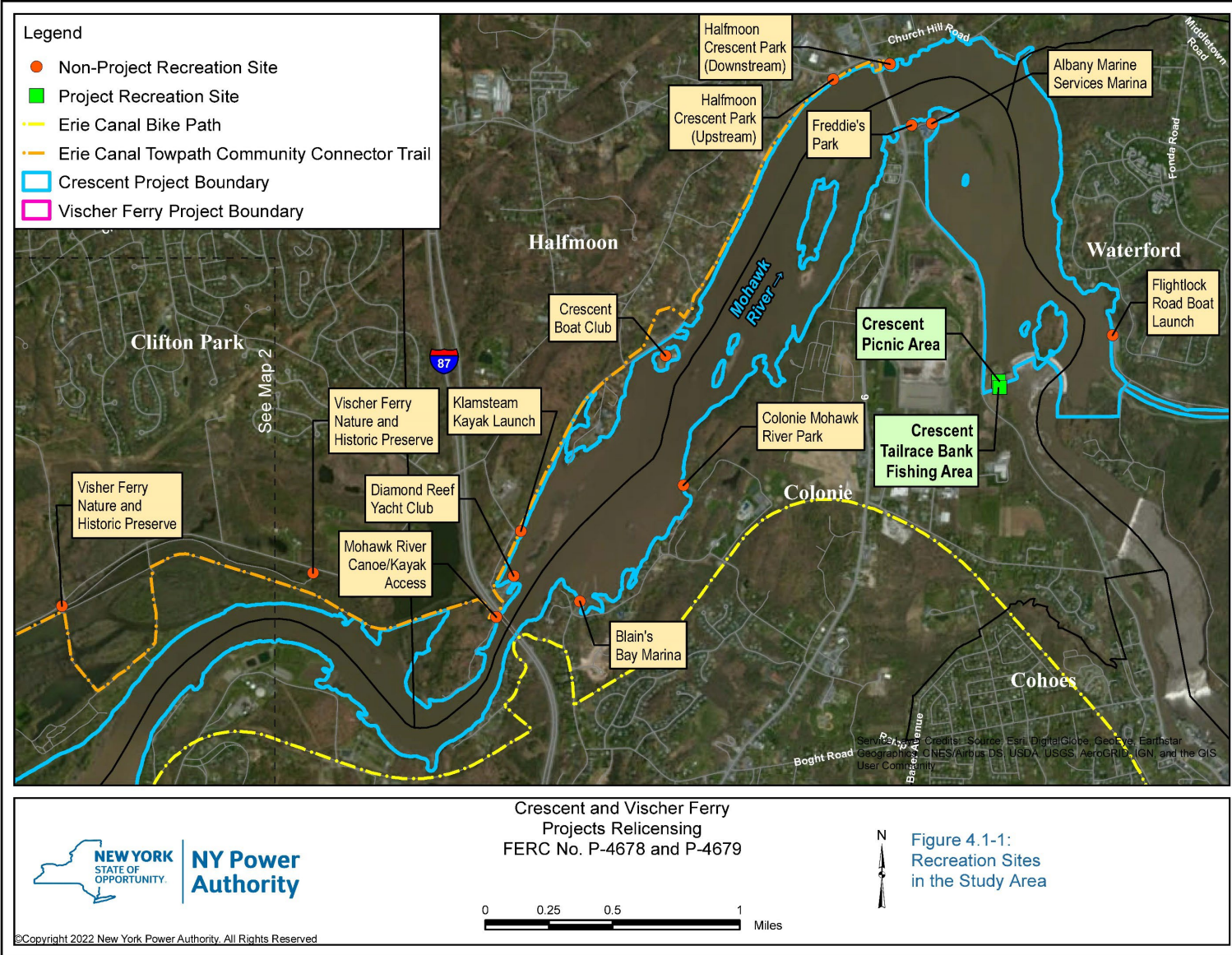
Results – Recreation Sites in the Crescent Project Study Area

Site Name	Facilities/Amenities	Estimated Parking Capacity
Project Recreation Sites		
Crescent Tailrace Bank Fishing Area	Parking area, informal shoreline access	10 vehicles
Crescent Picnic Area	Parking area, picnic tables, historical and informational signage	10 vehicles
Non-Project Recreation Sites		
Flightlock Road Boat Launch	Parking area, two concrete boat ramps, floating dock, picnic area, grills, informal shoreline access	20 vehicles with trailers
Freddie's Park	Parking area, picnic table, kiosk, trail, informal shoreline access, trash bin, historical and informational signage	10 vehicles
Halfmoon Crescent Park	Parking area, cartop boat launch, floating dock with gangway, picnic area, pier, informal shoreline access, trails, informal shoreline access, trash bin, kayak rental kiosk	30-40 vehicles
Vischer Ferry Nature and Historic Preserve	Parking area, trails, picnic area, historical and informational signage, kayak rental kiosk, informal shoreline access	24 vehicles
Colonie Mohawk River Park	Parking area, swimming pool, tennis courts, ball fields, concrete boat ramp, kiosk, picnic tables, pavilions, trash bins, grills, restrooms	14 vehicles (at boat ramp; additional parking provided at main park)
Klamsteam Kayak Launch	Parking area, trail, cartop boat launch, historical and informational signage, kayak rental kiosk	12 vehicles
Niskayuna Lions Park	Parking area, trails, restrooms, cartop boat launch, picnic tables, benches, informal shoreline access, historic structure	72 vehicles
Mohawk River Kayak/Canoe Access	Parking area, informal cartop boat launch	4-6 vehicles
Commercial Recreation Sites		
Crescent Boat Club	Commercial marina	Parking for marina customers only
Blain's Bay Marina	Commercial marina	Parking for marina customers only
Diamond Reef Yacht Club	Commercial marina	Parking for marina customers only
Albany Marine Services Marina	Commercial marina	Parking for marina customers only

Results – Recreation Sites in the Vischer Ferry Project Study Area

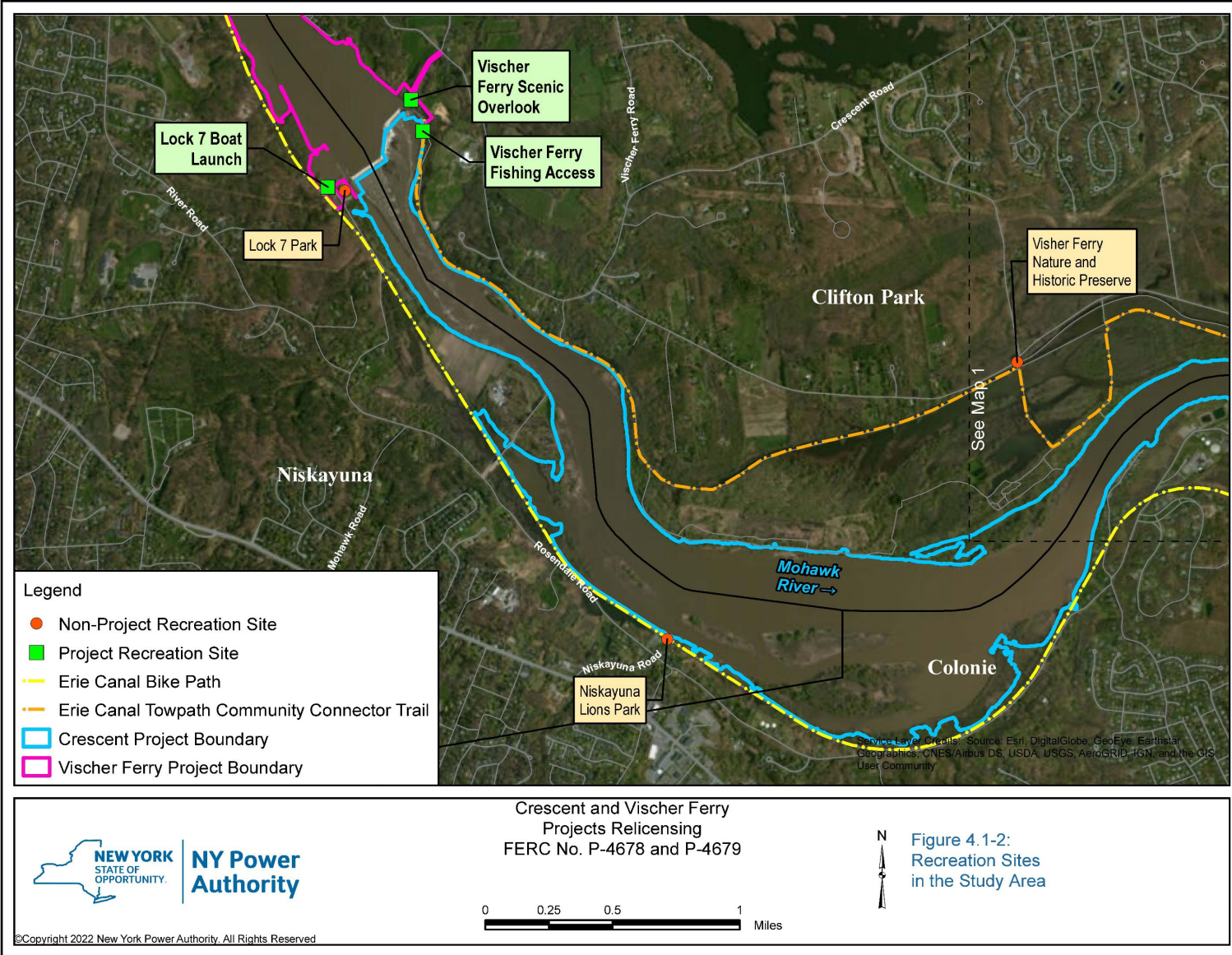
Site Name	Facilities/Amenities	Estimated Parking Capacity
Project Recreation Sites		
Vischer Ferry Scenic Overlook	Parking area, scenic overlook, trash bin, historical and informational signage	12 vehicles
Vischer Ferry Fishing Access	Trail access, informal shoreline access	Shared with Vischer Ferry Scenic Overlook
Lock 7 Boat Launch	Parking area, concrete boat ramp, floating dock, trail access	20 vehicles and 5 vehicles with trailers
Non-Project Recreation Sites		
Lock 7 Park	Parking area, picnic tables, grill, informal shoreline access, portable toilet, trail access	5 vehicles
Mohawk Landing Kayak Launch	Parking area, trails, cartop boat launch, historical and informational signage, picnic tables, dispersed shoreline access	9 vehicles
Aqueduct Park	Parking area, scenic overlook, trails, cartop boat launch, floating docks, benches, picnic tables	9 vehicles
Freedom Park and Scotia Landing	Parking area, picnic tables, grills, trash bins, concert venue, restrooms, boat slips	140 vehicles
Freemans Bridge Fishing Access Site	Parking area, cartop boat launch, concrete boat launch, floating docks, portable toilet, information kiosk, invasive species disposal station, benches, trash bin	17+ vehicles
Gateway Landing Park	Parking area, trails, gazebo, floating docks, historical signage, shoreline access	12 vehicles
Lock 8 Kayak Launch	Pier, trails, cartop boat launch	Shared with Lock 8 Park
Lock 8 Park	Parking area, picnic tables, grills, trash bins, scenic overlook, portable toilet, trails	20 vehicles
Maalwyck Park Road River Access	Parking area, informal shoreline access	8-10 vehicles
Commercial Recreation Sites		
Schenectady Yacht Club	Commercial marina	Parking for marina customers only
Waters Edge Lighthouse	Restaurant and marina	Parking for customers only
Mohawk Valley Marine	Commercial marina	Parking for marina customers only
Mohawk Harbor	Commercial marina	Parking for marina customers only

Results – Existing Recreation Sites

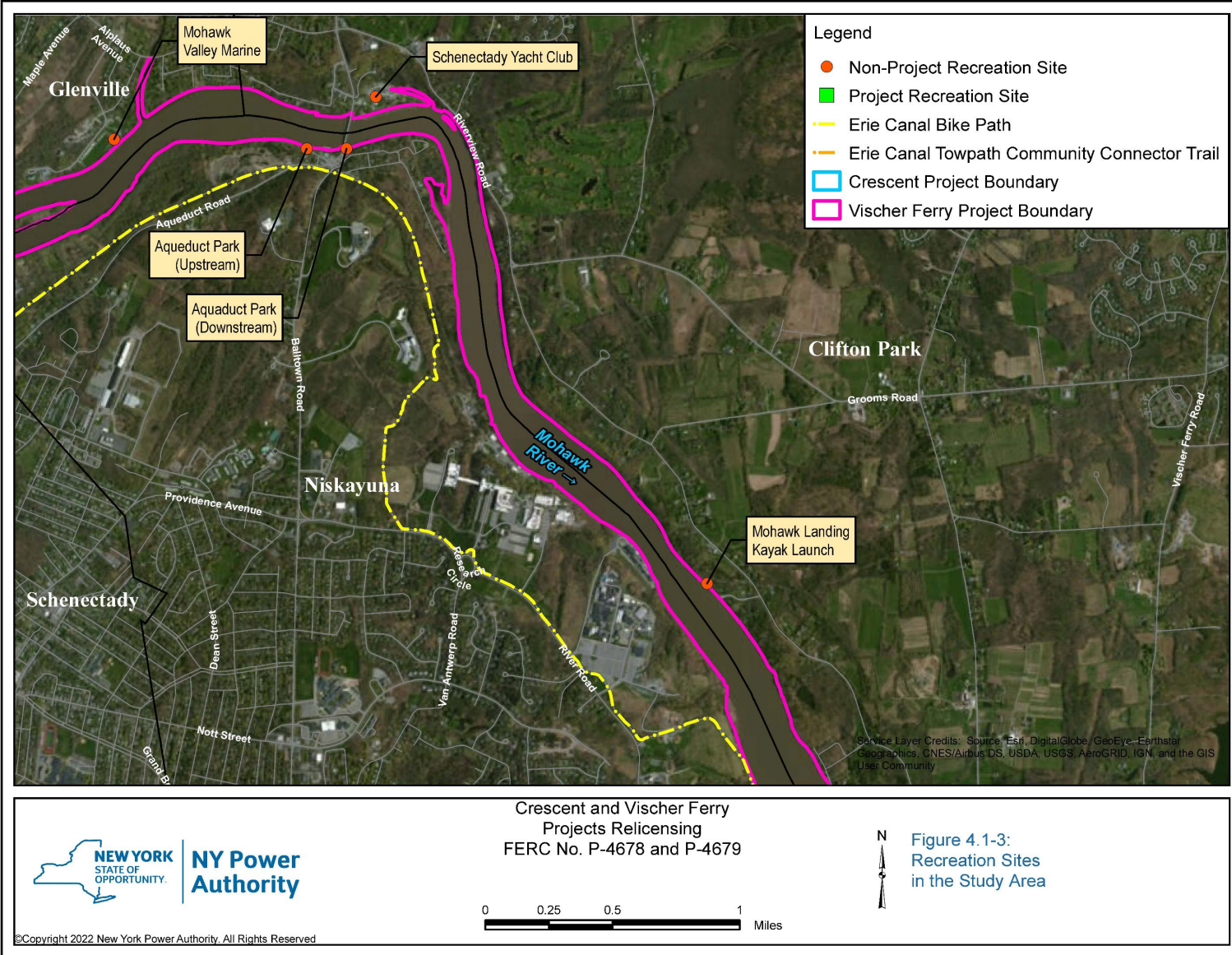


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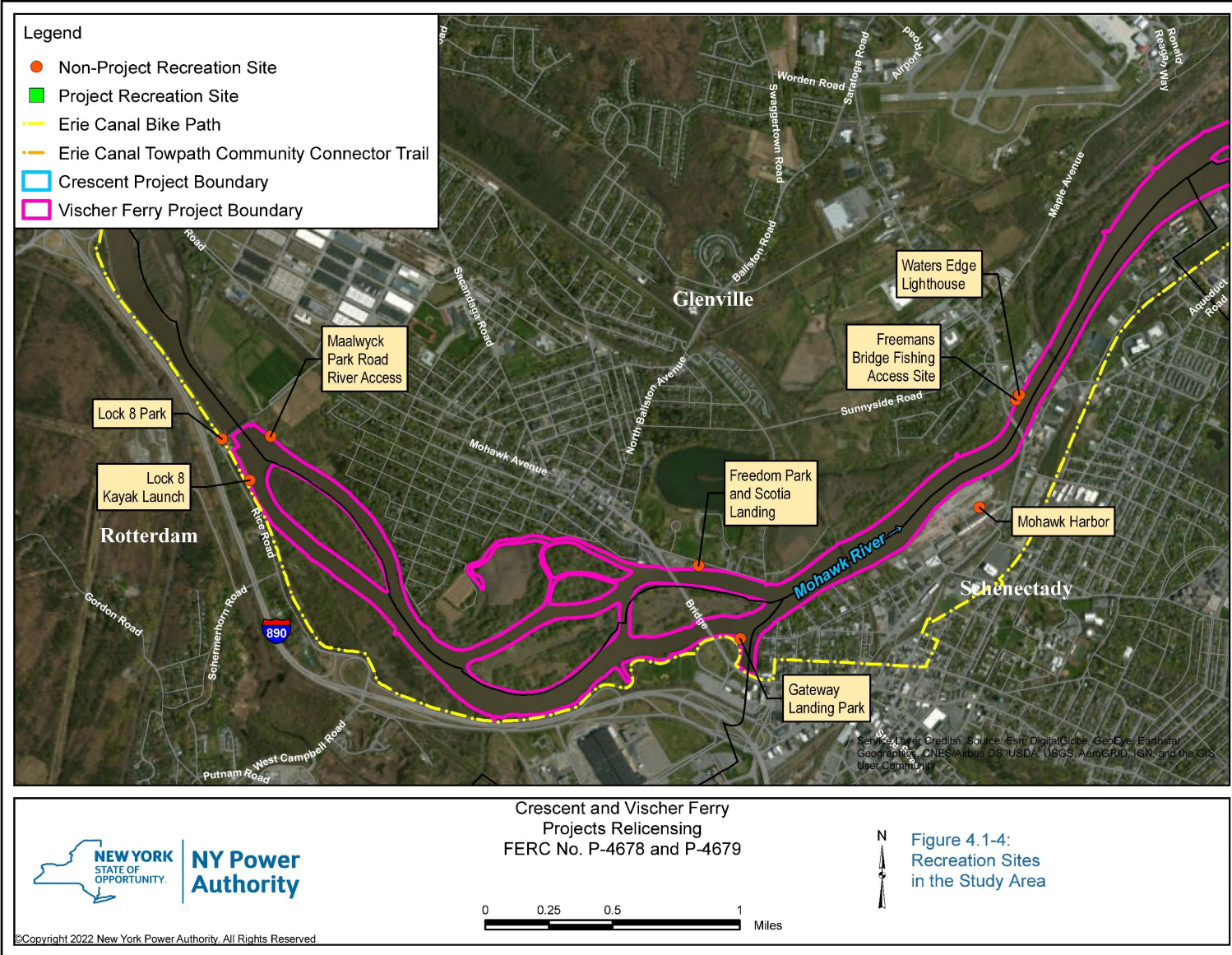
Results – Existing Recreation Sites



Results – Existing Recreation Sites



Results – Existing Recreation Sites



Results – Existing and Projected Recreation Use

Site/Activity	2021 Estimated Recreation Use (Recreation Days)	2060 Projected Recreation Use (Recreation Days)	% Change, 2021-2060
Crescent Tailrace Bank Fishing Area			
Fishing	538	580	7.8%
Sightseeing	349	401	15.1%
Other	63	74	17.0%
Total	949	1,054	11.1%
Crescent Picnic Area			
Sightseeing	471	543	15.1%
Picnicking	17	19	12.2%
Other	19	23	17.0%
Total	508	585	15.1%

Results – Existing and Projected Recreation Use

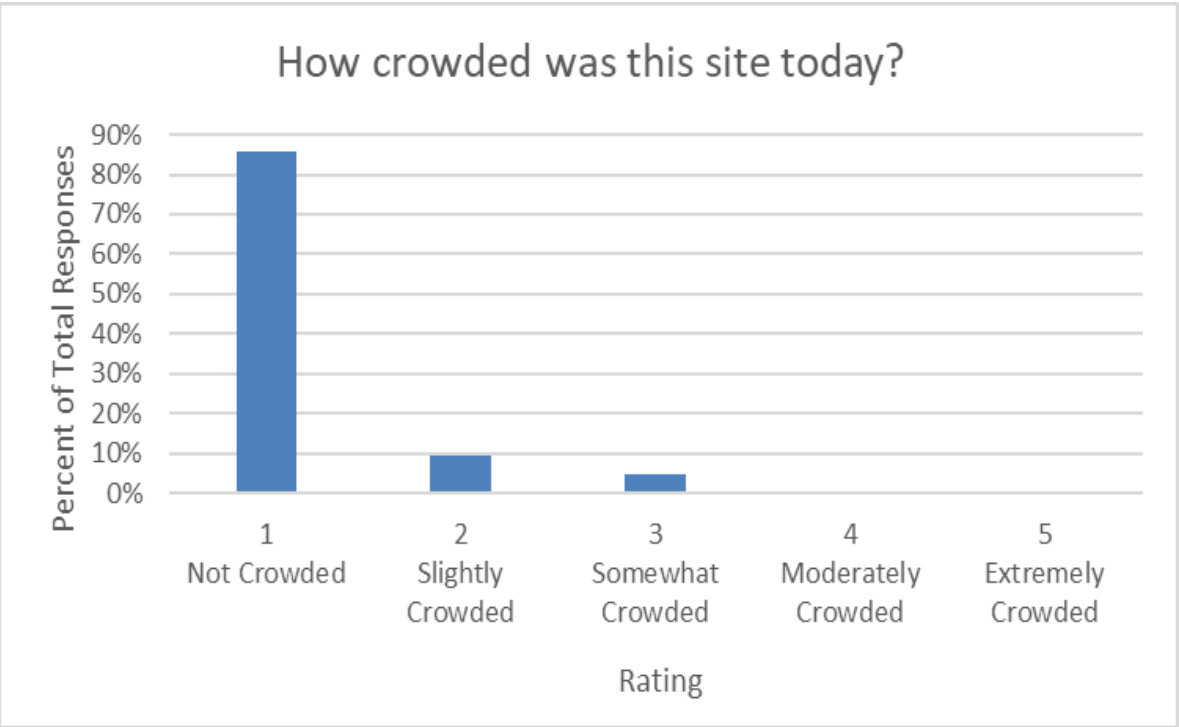
Site/Activity	2021 Estimated Recreation Use (Recreation Days)	2060 Projected Recreation Use (Recreation Days)	% Change, 2021- 2060
Vischer Ferry Fishing Access Area			
Biking	784	988	26.0%
Fishing	2,822	3,043	7.8%
Jogging	278	329	18.5%
Boating	99	114	15.3%
Sightseeing	183	210	15.1%
Walking	2,927	3,467	18.5%
Other	125	146	17.0%
Total	7,216	8,296	15.0%
Lock 7 Boat Launch			
Boating	1,150	1,360	18.3%
Fishing	869	936	7.8%
Sightseeing	1,092	1,257	15.1%
Other	11	12	17.0%
Total	3,121	3,553	13.9%

Results – Existing and Projected Capacity Utilization

Available Spaces	2021 Estimated Use		2060 Projected Use	
	Spaces in Use	Capacity Utilization	Spaces in Use	Capacity Utilization
Crescent Project				
Crescent Tailrace Bank Fishing Area				
10	1	10%	2	20%
Crescent Picnic Area				
10	1	10%	2	20%
Vischer Ferry Project				
Vischer Ferry Scenic Overlook				
12	3	25%	4	33%
Lock 7 Boat Launch				
25	2	8%	3	12%

Results – User Perceptions of Project Recreation Sites

Ratings for Crowding, Crescent Project Recreation Sites

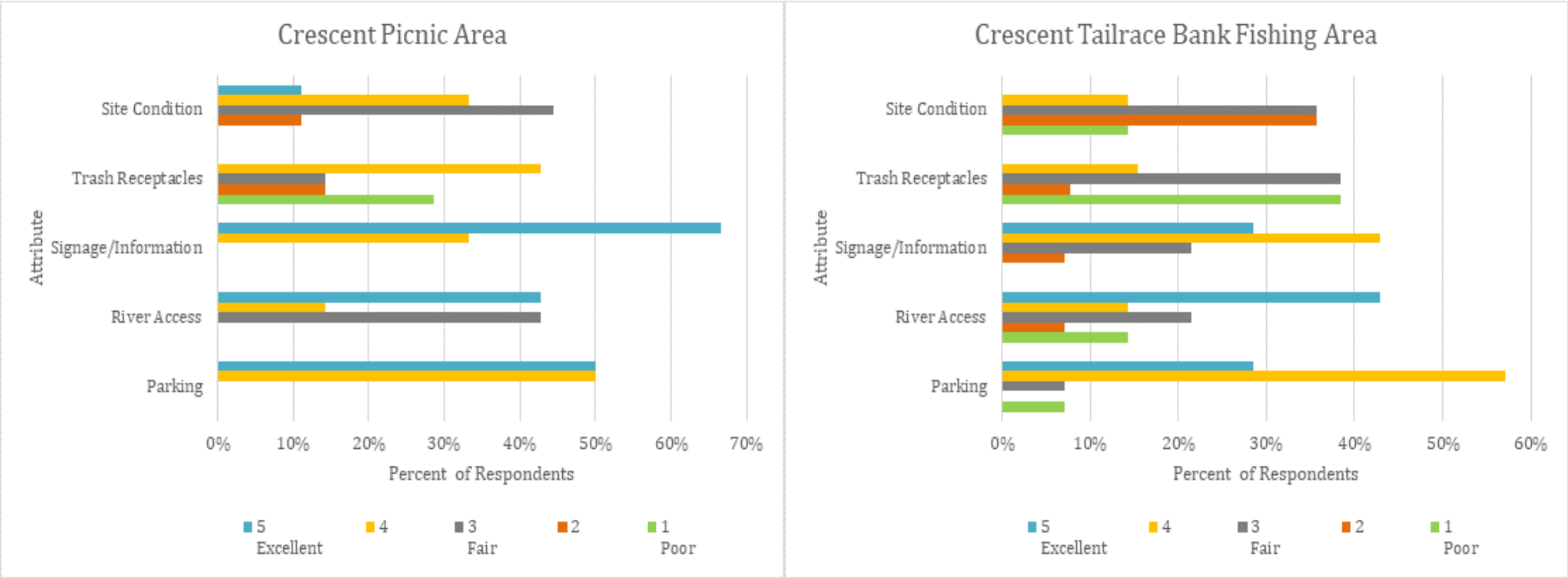


Ratings for Satisfaction, Crescent Project Recreation Sites



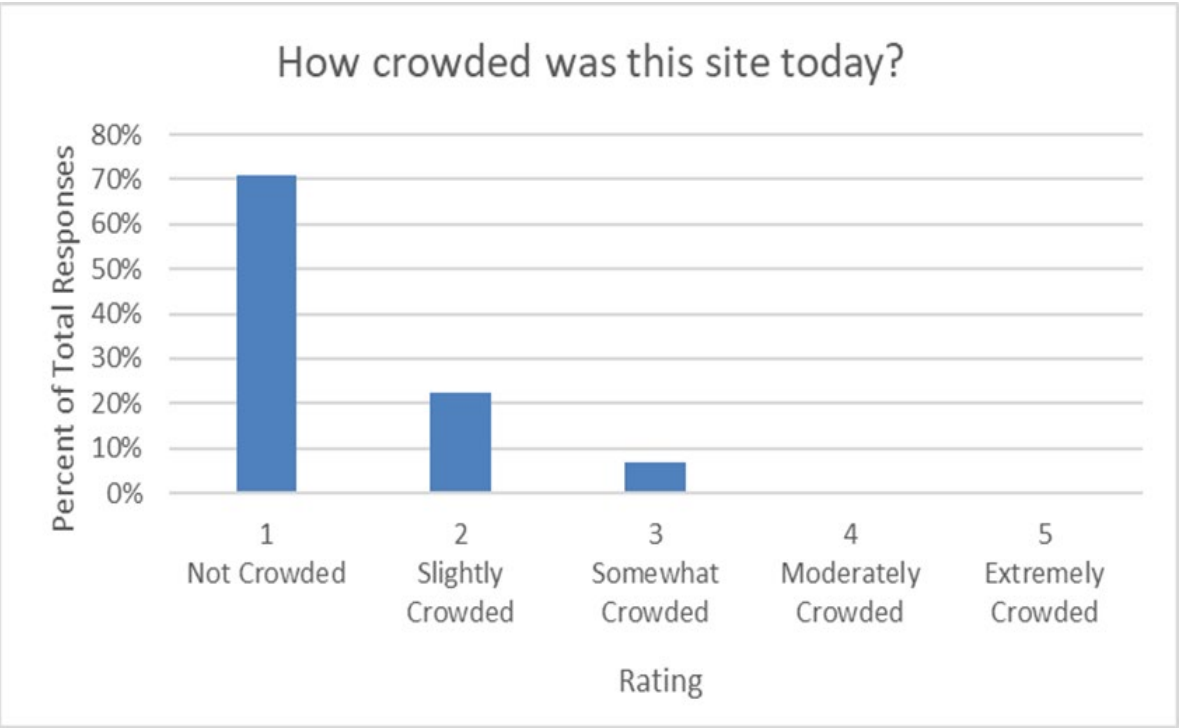
Results – User Perceptions of Project Recreation Sites

Ratings for Various Attributes, Crescent Project Recreation Sites



Results – User Perceptions of Project Recreation Sites

Ratings for Crowding, Vischer Ferry Project Recreation Sites

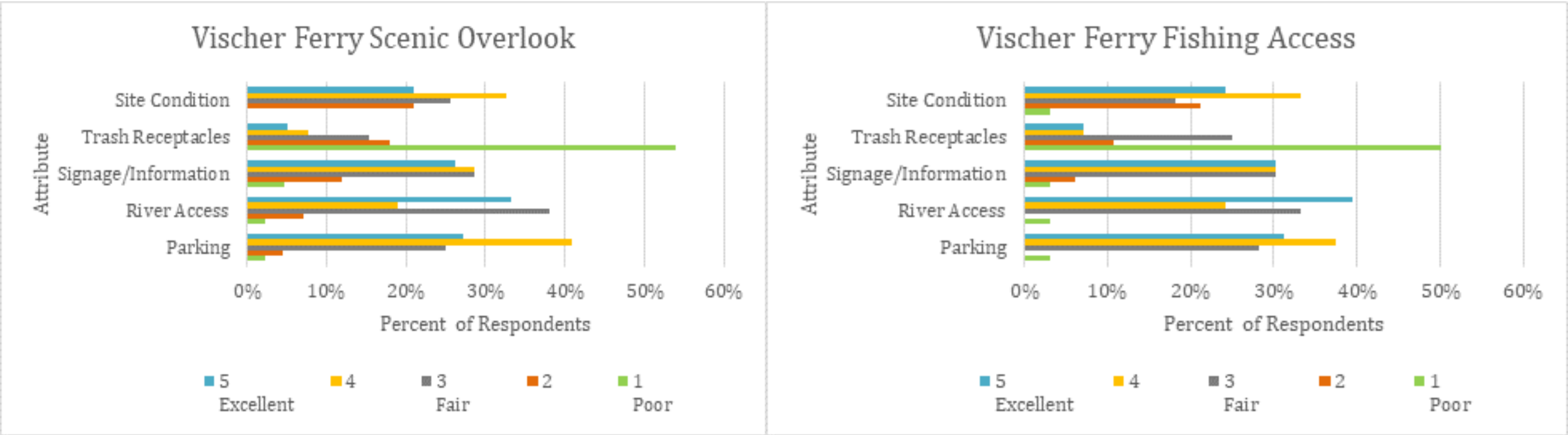


Ratings for Satisfaction, Vischer Ferry Project Recreation Sites



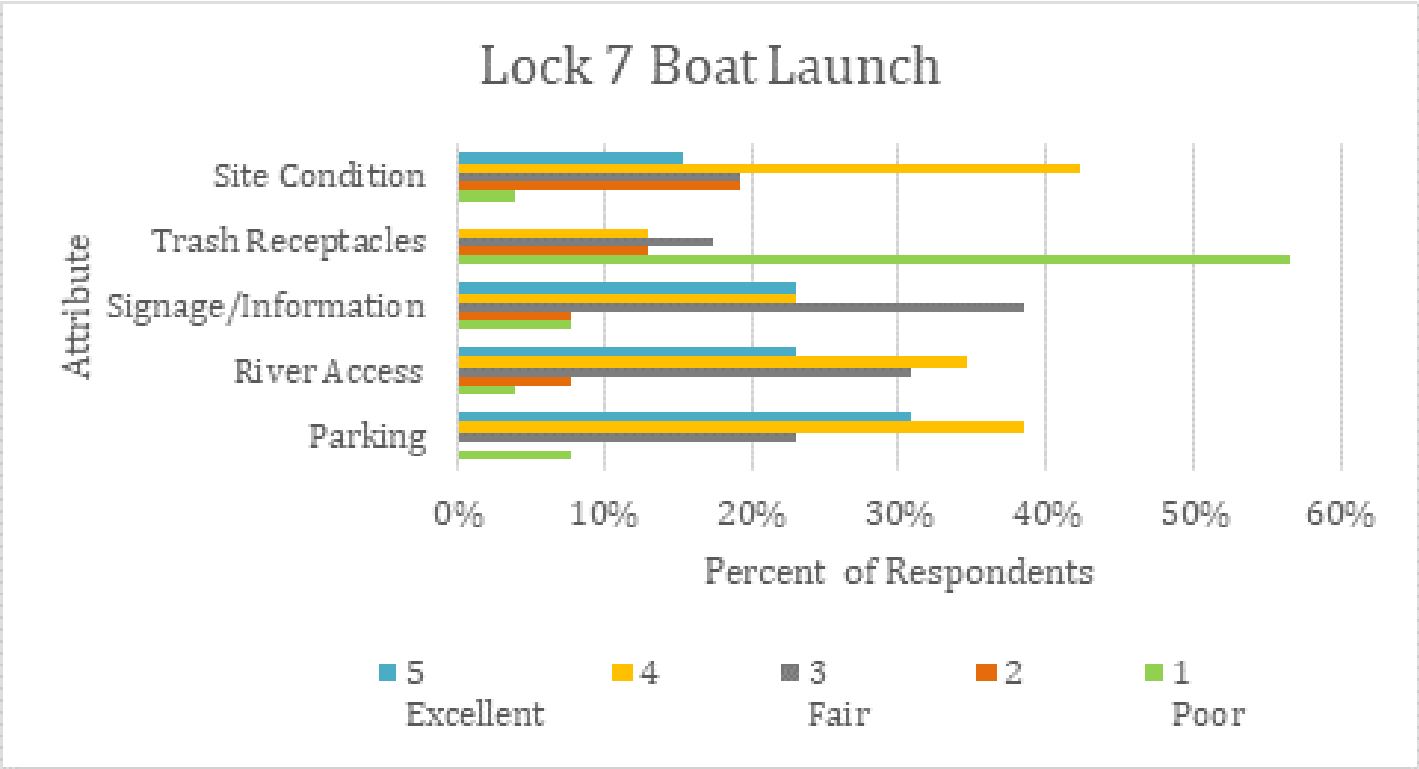
Results – User Perceptions of Project Recreation Sites

Ratings for Various Attributes, Vischer Ferry Project Recreation Sites



Results – User Perceptions of Project Recreation Sites

Ratings for Various Attributes, Vischer Ferry Project Recreation Sites



Study Conclusions

- The recreation site inventory showed that numerous recreation sites provide abundant recreational opportunities in the vicinity of the Projects.
- The condition assessment conducted at the Project recreation sites generally found the Project recreation sites, facilities, and amenities to be functioning well and meeting their intended use.
- The use assessment at the Project recreation sites demonstrated that each site has ample capacity to meet the existing and future recreational demand.
- Most respondents visiting the Project recreation sites indicated that they are satisfied with the available recreation facilities and rated most attributes of the sites favorably and the overall site value as above average.



Thank you
Questions?

Crescent and Vischer Ferry Projects Relicensing Next Steps

- **March 3, 2022 – Power Authority holds USR Meeting**
- March 18, 2022 – Power Authority files USR Meeting Summary with FERC
- April 20, 2022 – Stakeholders file disagreements on USR; modifications to ongoing studies; requests for new studies
- May 20, 2022 – Stakeholders file responses to disagreements and study modifications with FERC
- June 19, 2022 – FERC issues its Study Plan Determination



Thank you Questions?

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