

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits

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February 20, 2019

Interested Parties and Stakeholders

Re: Response to Public Comments on Application for Initial Water Withdrawal Permit
DECID #2-6304-00024/00056, Ravenswood Generating Station
38-54 Vernon Blvd, Queens County

To Interested Parties and Stakeholders:

On October 1, 2018, the New York State Department of Environmental Conservation (NYSDEC) published a Notice of Complete Application in the *Environmental Notice Bulletin* and opened a public comment period concerning the application by Helix Ravenswood LLC (Helix), for an initial water withdrawal permit for the Ravenswood Generating Station. NYSDEC extended the public comment period until November 19, 2018. In this letter, NYSDEC responds to comments it received on the application during the public comment period. A formal response to comments is not required for the application under the New York State Uniform Procedures Act (ECL Article 70, as implemented by 6 NYCRR Part 621). However, NYSDEC offers these responses to comments in light of the public interest that was expressed.

NYSDEC received comments on the application from the Sierra Club Atlantic Chapter as well as approximately 2,000 comment form letters. The comments are available from NYSDEC on request. The public comments have been compiled and are presented below along with NYSDEC's responses.

Comment 1

DEC Must Make the Determinations Required Under ECL § 15-1503.2 and 6 NYCRR 601.11(c)(1)-(8). NYSDEC took the position in the court proceeding that the making of determinations under ECL § 15-1503.2 and 6 NYCRR 601.11(c)(1)-(8) is not required for issuance of an initial permit to an existing water user. The court decided that such determinations are required for this permit application, so reissuance of the 2014 water withdrawal permit would not be in compliance with law. DEC must instead make the determinations required by ECL § 15-1503.2 and 6 NYCRR 601.11(c)(1)-(8) and use those determinations to set appropriate terms and conditions in a new initial water withdrawal permit.

Response

Initial water withdrawal permits are not issued under 6 NYCRR 601.11. However, the Court in *Sierra Club. v. Martens* ruled that the clause, "subject to appropriate terms and



Department of
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Conservation

conditions,” as found in ECL § 15-1501.9, requires NYSDEC to make all of the findings or determinations required under ECL §15-1503.2, even when issuing this initial water withdrawal permit to Helix for the continued and unchanged operation of an existing facility. The court also decided that ECL § 15-1501.9 provides NYSDEC with enough discretion such that the issuance of an initial water withdrawal permit for the Ravenswood Generating Station was not a ministerial action within the meaning of SEQR. Therefore, upon the court’s annulment of the 2013 initial water withdrawal permit, and remittance of the permit to NYSDEC for further processing, NYSDEC subsequently made the determinations that appear in ECL §15-1503.2, as follows:

1. No other suitable source of water supply exists or will foreseeably become available.
2. The quantity of supply is adequate for the use.
3. The existing water use regime has no impact on future or present needs for potable water.
4. The existing water withdrawal regime cannot be reasonably avoided through more efficient use and conservation of existing water supplies.
5. The existing water withdrawal is being implemented with required operational controls that limit the withdrawal to quantities that are reasonable for purpose for which the water is used.
6. Substantially all withdrawn water is returned to its source. The existing water withdrawal is being implemented with required operational controls and technologies that reduce environmental impacts to aquatic life. The existing withdrawal is unchanged as a result of the application. It will therefore be implemented in a manner that ensures that it will result in no significant individual or cumulative adverse impacts on the quantity or quality of the water source or water dependent natural resources.
7. The water withdrawal incorporates environmentally sound and economically feasible water conservation measures.
8. The water withdrawal is attested to be consistent with applicable municipal, state and federal laws and regional, interstate and international agreements.

Comment 2

NYSDEC Must Determine Cumulative Adverse Effects

Among the determinations DEC is required to make before issuing a water withdrawal permit to Helix, but has not made, is the determination required by ECL §15-1503.2(f) regarding cumulative adverse effects of the withdrawal together with other large withdrawals on water dependent natural resources in the Hudson River estuary. To make this determination, DEC must examine the cumulative impacts of all the power plants and other large water users operating in the Hudson River estuary.

Response

See Responses to Comments 1 and 8.

NYSDEC has made that determination. Under ECL § 15-1503.2(f), NYSDEC has determined that there are no significant cumulative adverse effects from issuance of the initial water withdrawal permit to Helix for its continued, unchanged operation. The baseline against which to evaluate changes for the purposes of determining environmental impact is the current operations as authorized by the existing environmental controls of the facility. There is no change from the previously authorized operations. The water withdrawal permit allows Helix to withdraw the same volume of water it has historically been withdrawing and incorporates operational controls and technologies previously determined by NYSDEC to be protective of the environment.

The impacts from the continued water withdrawals of the Ravenswood Generating Station have previously been fully reviewed under SEQRA during the 2006 SPDES permit renewal and were determined to not have a significant negative impact on the environment. There is no new factual change or basis for now considering those same impacts to be significant either individually or cumulatively in the current application for Helix's initial water withdrawal permit.

For an impact to be cumulatively significant it must meaningfully add to the impact from all the water withdrawals on the resource. Pre-2007 studies, as referenced in your comment, demonstrated that the Ravenswood Generating Station only accounted for approximately 2 to 3 percent of entrainment / impingement resulting from five New York Harbor power plants prior to the installation of any operational controls or technologies. Since 2012, the facility's SPDES permit required the facility to run with operational controls and technologies that reduce impingement by an additional 90 percent and entrainment by 65 percent from previous baseline levels. Given the comparatively small percentage of the facility's contribution to the overall levels of impacts to the river, and the further reduction of such impacts resulting from the SPDES permit BTA provisions, the environmental impacts on aquatic organisms from the permitting of existing operations at the facility are not individually or cumulatively significant under ECL § 15-1503.2(f) or 6 NYCRR 617.7.

Comment 3

NYSDEC Must Determine Environmentally Sound and Economically Feasible Water Conservation Measures. Another determination NYSDEC is required to make and has not made for the Ravenswood water withdrawal is the determination required by ECL §15-1503.2(g) as to whether the withdrawal "will be implemented in a manner that incorporates environmentally sound and economically feasible water conservation measures."

Response

See Response to Comment 1. NYSDEC has made that determination. For this facility, the water conservation determination was made in the context of a withdrawal that involves almost no consumptive use. Environmentally sound and economically feasible water conservation measures for the Ravenswood Generating Station include the use of

variable speed pumps which reduce the amount of water withdrawn during operation at less than maximum capacity and scheduled outage procedures that require that the withdrawal of water stop during periods of non-power generation. In addition to the conditions in the draft initial water withdrawal permit that was made available during the public comment period, the final initial water withdrawal permit will include conditions requiring annual water audits and the maintenance of water withdrawal records.

Comment 4

Closed Cycle Cooling Must be Considered. Closed Cycle Cooling is an obvious water conservation measure that must be evaluated for the Ravenswood facility pursuant to ECL § 15-1503.2(g).

Response

ECL §15-1503.2(g) does not require the evaluation of any specific water conservation measure. It requires NYSDEC to determine whether a new or “proposed” water withdrawal will be implemented in a way that incorporates environmentally sound and economically feasible water conservation measures. Previously, in developing the best technology available (BTA) for the facility’s 2006 SPDES permit, NYSDEC evaluated closed cycle cooling for the Ravenswood facility. The limited physical area of the facility property, the intensity of the immediately neighboring development, and other site constraints preclude the construction of a new closed cycle cooling system that uses “dry” cooling towers. A closed cycle cooling system that uses “wet” cooling methods would cause exhaust plumes of cooling vapor and suspended salt, followed by the salt solids falling to the ground (aerial salt deposition) in the most densely-populated city in the state. The cost of either dry or wet closed-cycle cooling systems were determined to be “wholly disproportionate” to the gains to be obtained from alternative operational controls and technologies that were evaluated. For these reasons NYSDEC previously determined in its selection of BTA for the facility’s SPDES permit, consistent with CP-52, and sections 704.5 of 6 NYCRR and 316(b) of the federal Clean Water Act, that a closed cycle cooling system is not an ‘available’ technology for Ravenswood. The factors that led to the SPDES permit BTA determination remain unchanged and that determination has been reaffirmed. Based upon the same information and reasons cited for its BTA selection, closed cycle cooling is not an economically feasible and environmentally sound water conservation measure for the Ravenswood Generating Station. As stated in the Response to Comment 3, the withdrawal will be implemented in a manner that incorporates environmentally sound and economically feasible water conservation measures.

Comment 5

The Inclusion of Conditions from the Ravenswood SPDES Permit Is Not a Substitute for Making the Required Determinations
NYSDEC’s inclusion of a condition in the 2014 initial water withdrawal permit incorporating the biological monitoring requirements of Ravenswood Generating

Station's SPDES permit is not a substitute for making the determinations required by ECL § 15-1503.2. Although 6 NYCRR 601.7(f) provides that DEC will review an initial water withdrawal permit application "in coordination with the SPDES or other permit program, particularly with respect to any pending permit renewals," neither this section nor any other provision authorizes incorporating provisions from a SPDES permit as a means of fulfilling DEC's obligations to make the determinations required in ECL §15-1503.2.

The New York legislature enacted the new water withdrawal permitting law requiring extensive water conservation measures in 2011 because it perceived that DEC did not have adequate authority under existing laws, such as the SPDES law, to protect New York's water resources. Almost every major water user in the state already has a SPDES permit. If water withdrawals could be adequately regulated under the SPDES program, the legislature would not have seen a need for a new permitting program imposing significant water conservation requirements. The water withdrawal law and the SPDES law have different objectives and different requirements. The standards to be applied in issuing a SPDES permit are not the same as the standards that apply under the water withdrawal law and regulations, and DEC must make a separate *de novo* determination regarding the benefits of closed-cycle cooling pursuant to the requirements of the water withdrawal law. The vast majority of persons subject to the new law are existing users. DEC's continued refusal to effectively apply the requirements of the water withdrawal law to existing users effectively nullifies the purposes for which the law was enacted.

Response

NYSDEC has broad discretion over the form and format of its permits. In this instance, data, material, and information previously submitted to NYSDEC by the applicant supported NYSDEC's determination under ECL § 15-1503.2 to include some of the same permit conditions that appear in the facility's SPDES permit. NYSDEC has authority to incorporate the SPDES permit provisions by reference as the most appropriate way to coordinate the language of the two permits under 6 NYCRR 601.7.

NYSDEC's jurisdiction to address environmental impacts from Cooling Water Intake Structures (CWISs) through the SPDES permit program is well established. Both 6 NYCRR 704.5 and Section 316(b) of the federal Clean Water Act require that the location, design, construction and capacity of CWISs shall reflect the best technology available (BTA) for minimizing adverse environmental impact. These requirements are further developed in NYSDEC's Commissioner's Policy 52 (CP-52).

While ECL § 15-1503.2(f) and CP-52 have similar objectives in the reduction of impacts to aquatic life, CP-52 has stricter standards and is directly focused on reducing impacts from impingement and entrainment, as well as impacts from the discharge of heated water (*i.e.* thermal pollution). In comparison, the language in ECL § 15-1503(2)(f) is more general and was intended to address consumptive withdrawals that lower source water levels and result in significant impacts to aquatic life and water quality.

See also the discussion of closed cycle cooling in the response to Comment 4.

Comment 6

The Application Materials Must Include Sufficient Information to Make the Required Determinations.

Insufficient information is contained in the Helix permit application to enable DEC to make the determinations required ECL § 15-1503.2.

Response

As is appropriate when reviewing an application for a facility with a long permitting history, the unchanged continuation of the existing withdrawal at the Ravenswood Generating Station was considered within the context of the currently permitted activities for the facility under the existing regulatory framework. The Engineering Report submitted by TC Ravenswood as part of its original water withdrawal permit application and resubmitted by Helix contained the information required under 6 NYCRR Part 601.10 applicable to the withdrawal, indicated no change from existing operations and enabled NYSDEC to make the determinations in ECL §15-1503.2.

Comment 7

The Withdrawals have Significant Adverse Impact Under SEQR

The withdrawals substantially interfere with the movement of resident and migratory fish in the estuary. ... the withdrawal has substantial adverse impacts on Atlantic Sturgeon, which is an endangered species. Thus, it is clear that the destruction of aquatic life by the cooling water intakes has a significant adverse impact under the SEQR standards.

Response

For a discussion of significance of the impacts of the withdrawals see the response to Comment # 2. Entrainment and impingement studies for the Ravenswood Facility have not found any entrainment or impingement of either Atlantic or Short Nosed Sturgeon at the facility.

Comment 8

DEC Must Revoke the Negative Declaration. The Negative Declaration does not evaluate whether the projected reductions in fish impingement and entrainment beyond those documented in the facility's 2005-2006 impingement and entrainment studies have been achieved. The results of the verification monitoring required in the facility's most recent SPDES permit, its 2012 SPDES permit are not described in the Negative Declaration. The Negative Declaration does not offer any data on what the facility's actual fish entrainment and impingement amounts are estimated to be or consider

alternative technologies that might further minimize fish entrainment and impingement such as closed cycle cooling. Nor does the Negative Declaration consider the cumulative impacts of the Ravenswood cooling water intake system and the other water withdrawals from the estuary. In these circumstances, it is clear that DEC has not taken a “hard look” at the impacts of the Ravenswood facility as required by Section 6 NYCRR 617.7(b) of the SEQRA regulations and the many cases interpreting the “hard look” standard. For this reason, DEC must revoke the Negative Declaration and require that a full EIS be prepared.

Response

The negative declaration remains appropriate and NYSDEC has taken the “hard look” required under SEQRA. NYSDEC evaluated the Verification Monitoring Report required under the 2012 SPDES permit for the facility. Helix LLC submitted that report to NYSDEC in 2018. NYSDEC reviewed that report and requested additional information from Helix. As required under the BTA provisions of its SPDES permit, Helix LLC] must propose additional measures to NYSDEC for approval to meet the SPDES permit’s stated performance goals. The levels of reductions obtained by the facility to date are consistent with NYSDEC’s determination under ECL § 15-1503.2(f) and 6 NYCRR 617.7(b) that there are no significant individual or cumulative adverse effects from issuance of the initial water withdrawal permit for the existing, unchanged operation. To further address concerns raised during the public comment period NYSDEC is issuing an Amended Negative Declaration for this action.

As for cumulative impacts, see also the responses to Comment No. 2, 4 and 7.

Comment 9

A New Coastal Assessment Form Must Be Prepared

The Coastal Assessment Form (CAF) completed by DEC on September 13, 2018 for reissuance of the 2014 Permit contains incorrect responses to two important questions on the form. DEC incorrectly states that reissuance of the permit will have no significant impacts on “significant fish or wildlife habitats” in its response to question C.1 (a) of the form, and incorrectly states that reissuance of the permit will have no significant impacts on “commercial or recreational use of fish and wildlife resources” in response to question C.2 of the form. Had DEC answered these questions correctly, that would have resulted in the action being analyzed in more detail and possibly modified before a certification of consistency was issued pursuant to 19 NYCRR Part 600 or before DEC made its SEQRA determination.

Response

Question C1a and C2a were answered correctly. The East River is not listed as a Significant Coastal Fish and Wildlife Habitat and the facility is located approximately seven miles away from the nearest water connection with the Hudson River Significant

Coastal Fish and Wildlife Significant Habitat. The existing water withdrawal regime and the fisheries protection measures at the Ravenswood Generating Station, as governed under the BTA provisions of the current SPDES permit, have previously addressed impacts to the Hudson River Significant Coastal Fish and Wildlife Habitat and to commercial and recreational Fish and Wildlife users.

Thank you for taking the time to comment on this application. If you have any questions or need further information, please don't hesitate to contact me.

Sincerely,



Kent P. Sanders

Deputy Chief Permit Administrator

Division of Environmental Permit