AECOM
125 Broad Street, 16th floor
New York, NY 10004
www.aecom.com

212.377.8400 tel
212.377.8410 fax

July 19, 2019

U.S. Army Corps of Engineers, New York District
Attn: Regulatory Branch – Mr. Brendan Newell
26 Federal Plaza
New York, NY 10278-0090

RE: Permit Number NAN-2017-00912
Modification of Authorization under Nationwide Permit #38
Former North Water Street MGP Site
Central Hudson Gas & Electric Corp.
2 Dutchess Avenue
Poughkeepsie, New York12601

Dear Mr. Newell:

On behalf of Central Hudson Gas & Electric Corporation (CHGE), AECOM USA, Inc. (AECOM) submits the attached request for modification of the United States Army Corps of Engineers (USACE) Permit (Number NAN-2017-00912 authorized under the Nationwide Permit #38) dated November 16, 2018 (USACE permit) for the activities associated with CHGE's North Water Street former Manufactured Gas Plant (MGP) site (Site) located in the city of Poughkeepsie, Dutchess County, New York.

Requirement for Permit Modification

The in-river remedial activities are scheduled for completion in multiple seasons within the USACE permit-established work window (September 1 through January 31). In-river remedial activities completed from November 2018 through January 2019 (Remedial Action Season 1) are shown in Figure 1-A and included installation of a portion of the subsurface barrier/bulkhead wall. Specifically, pre-trenching activities and installation of 507 linear feet of barrier/bulkhead wall along the Site shoreline were completed.

Season 1 work activities provided valuable insights regarding Site conditions as well as regulatory and third-party stakeholder expectations as discussed below:

- Impacts from MGP residuals were encountered at shallow depth during sheet pile preclearing and installation. The extent of these impacts was not observed during previous remedial investigations.
- These impacts generated more sheen than would typically be expected during obstruction removal and sheet pile installation.
- Additional sheen control measures (support boats, absorbent booms and pads, and curtains) were required to contain sheen that escaped the work zone perimeter controls.

Based on the observations recorded during the installation of the subsurface barrier/bulkhead wall, it is anticipated that the permitted activities in subsequent seasons will result in exposure of impacted material which may result in the generation of large quantities of sheen. As a result, additional sheen mitigation and control measures beyond those included in the New York State Department of Environmental Conservation (NYSDEC)-approved Remedial Design/Remedial Action (RD/RA) Work Plan (AECOM, 2018), incorporating lessons learned from the first season, are necessary prior to implementation of the remainder of the remedial action.

CHGE is proposing a minor modification to USACE permit (NAN-2017-00912) that is intended to allow installation of the sheen control measures outside the USACE permit-established work window. The extent of the remedial action, as described in the USACE permit application (AECOM, 2018) and the NYSDEC issued Decision Document (NYSDEC, 2016), remains the same. Similarly, the cap remedy in the utility corridors and river bank slope as described in the Decision Document remains the same.

Permit Modification Request

The requested minor modification to the USACE permit is to extend the approved work window to include the month of August to allow for mobilization and installation of additional sheen mitigation and control measures each season. Currently, in accordance with the NYSDEC Water Quality Certificate (WQC) and the USACE permit authorization, the remedial work is to be completed in the established work window of September 1 through January 31.

Proposed Modification: CHGE is requesting an extension of this approved in-river work window to allow installation of additional sheen mitigation and control measures to commence on August 1st of this season and all future seasons until the project is complete. This request is being made to: (1) account for the presence of ice conditions in January, or earlier, which may result in an actual in-river work window of only four months; (2) allow completion of heavy disturbance remedial activities with greater potential of sheen generation within one season (to the extent feasible) to limit exposure duration and impacted material disturbance; (3) allow remedial activities (barrier/bulkhead wall installation, grading and capping, and dredging) to be completed with minimal overlap as recommended by the NYSDEC; and (4) allow the mobilization and timely deployment of turbidity/sheen control measures including the installation of the perimeter curtain. As discussed in the National Marine Fisheries Service (NMFS) letter dated November 15, 2018 (Attachment A) to the USACE, there are not expected to be any adverse impacts to any life stage of Atlantic or shortnose sturgeon if work is authorized to be conducted by CHGE in the Hudson River during the month of August.

If the proposed extended in-river work window is approved, the following mobilization activities are anticipated in August of each season:

- Mobilization and setup of remedial action equipment,
- Mobilization, installation and/or maintenance of a double-row perimeter oil boom and curtain around the entire northern and central dredge area, including associated anchoring mechanism,
- Mobilization and installation of a localized double-row perimeter oil boom and curtain around southern dredge areas including associated anchoring mechanism,
- Mobilization of containment cell (moon pool),
- Mobilization of support boats,
- Mobilization and installation of water quality equipment, and
- Miscellaneous turbidity and sheen control equipment.

NYSDEC, via email dated June 25, 2019 to Jesse Gallo of CHGE, has approved the installation and maintenance of the double-row perimeter curtain in August (Attachment B).

Stabilization of Turbidity Curtain – Northern and Central Dredge Areas

The main activity proposed for each August is the mobilization and installation of a double row perimeter curtain that will encase the northern and central dredge areas and all activities on the Hudson River slope adjacent to the Site. To prevent the double row perimeter oil boom and turbidity curtain from movement due to the river currents, prior to the first season of curtain deployment precast concrete anchors will be placed and attached to the turbidity curtain approximately every 100 feet (ft) along its length. The removable double-row perimeter curtain will then be moored to the anchors during remedial work and removed at the end of each season. The anchors will be approximately 12.5 ft by 8 ft by 6 ft in

size, weigh approximately 45 tons each and will be placed on alternating sides of the curtain alignment. The anchors will be removed after remedial activities have been completed. Figure 1-B provides a plan layout of the perimeter curtain and the associated blocks. It is anticipated that the mobilization and installation of the double row perimeter curtain will take between 3 to 6 weeks during the first season in 2019 (when the anchors are installed) and 2 to 4 weeks in subsequent seasons (when only the double row perimeter curtain itself is reinstalled prior to beginning work).

Please note that the NYSDEC currently requires the presence of a perimeter curtain around the southern dredge area; however, the layout and design of the perimeter curtain is expected to be initiated following completion of Season 2. A perimeter curtain encompassing all the individual dredge areas that comprise the southern dredge area is complicated by the following:

- Installing a perimeter curtain around the entire southern dredge area will result in inclusion of the area where the Fall Kill enters the Hudson River,
- A perimeter curtain around the southern area will include and therefore impact the boat launch area within the Victor C. Waryas Park and the boat slips adjacent to the Poughkeepsie Ice House restaurant. Both would require leaving a portion of the curtain open to allow boat traffic in and out of the perimeter curtain creating an ineffective mitigative control, and
- The southern dredge area comprises multiple distinct dredge areas with large non-dredge areas in between requiring a perimeter curtain that will need to cover a very large area.

As per the NYSDEC, if the containment cell “moon pool” technique proves effective in prior seasons the NYSDEC may reconsider the use of the perimeter turbidity curtain around the southern dredge areas (Attachment B).

Construction Schedule and Sequence

While the remedial construction schedule itself is unchanged, the proposed permit modification to permit mobilization activities in August of each season will provide greater reliability in the schedule for the remainder of the work. The following construction schedule is anticipated for implementation of the remainder of in-river remedial activities:

- Season 2 (planned between September 1, 2019 – January 31, 2020): Subsurface bulkhead/barrier wall completion and dredging of impacted sediments, with the primary focus of completing dredging in the deeper central areas.
- Seasons 3 and 4 (planned between September 1, 2020 – January 31, 2022): Hudson River slope fill placement, installation of the caps, dredging of impacted sediments (as necessary), and restoration.

Table 1 presents the anticipated construction schedule.

Construction Sequence

In accordance with the anticipated construction schedule presented above, the sequence of remedial activities for each season is presented in Figures 1-B through 1-D and summarized below:

- **Season 2 – August 1, 2019 to January 31, 2020 (Figure 1-B):**
    1. Mobilization activities (as proposed above) will be performed in August.
    2. Following mobilization, but not prior to September 1, 2019, installation of barrier/bulkhead wall installation will be completed and dredging of the central area will be initiated.
    3. Following dredging of the entire central area, limited fill placement will be conducted in overlap between the River Slope cap placement and central dredge area.
    4. Commencement of dredging in the northern area, if time permits.
    5. Demobilization activities, including removal of oil boom and turbidity curtain.

- **Season 3 – August 1, 2020 to January 31, 2021 (Figure 1-C):**
    1. Mobilization activities (as proposed above) will be performed in August.
    2. Following mobilization activities, but not prior to September 1, 2020, dredging of the northern area will be initiated (if not accomplished in Season 2).
    3. Concurrent with the dredging activities above and within the limits of the perimeter curtain, River Slope regrading activities and fill placement in Utility Cap will be initiated in September.
    4. Following completion of the River Slope regrading activities and fill placement in Utility Cap area, cap placement (concurrently with the dredging in the northern area) on the River Slope and Utility Cap areas.
    5. Commencement of dredging in the southern area, if time permits.
    6. Demobilization activities, including removal of double row perimeter curtain.
- **Season 4 – August 1, 2021 to January 31, 2022 (Figure 1-D**)
    1. Mobilization activities (as proposed above) will be performed in August.
    2. Following mobilization, but not prior to September 1, 2021, dredging of the southern area will be initiated (if not accomplished in Season 3).
    3. Placement of fill over all the dredge areas (north, central, and south).
    4. Restoration activities, including placement of riprap over the River Slope.
    5. Demobilization.

Please let me know if you have any questions regarding this request for permit modification or require any additional information. Please do not hesitate to contact me at (212) 377-8708 or shail.pandya@aecom.com. We appreciate your timely review of this request.

Sincerely,

Shail Pandya
Sr. Project Manager
AECOM

cc: Brian Orzel – USACE
Doug MacNeal – NYSDEC
Dan Eaton – NYSDEC
Heather Gierloff – NYSDEC
Tracey O'Malley – NYSDEC
Mary Jo Crance – NYSDEC
Mark McLean – CHGE
Wayne Mancroni – CHGE
Jesse Gallo – CHGE
Michael Spera, PE – AECOM

Enclosures: Table
Figures
Attachments

AECOM Imagine it Delivered

Table

Table 1 - Remediation and Construction Schedule
CH-Water Street MGP Street
Poughkeepsie, New York

AECOM

2019 (Season 2)												
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
NW#38 Permit/WQC Modification												
Mobilization												
Barrier Wall Construction												
Dredge Activity									CENTRAL AREA			
River Slope Grading												
Utility and River Slope Capping												
Shoreline Restoration and River Backfill												

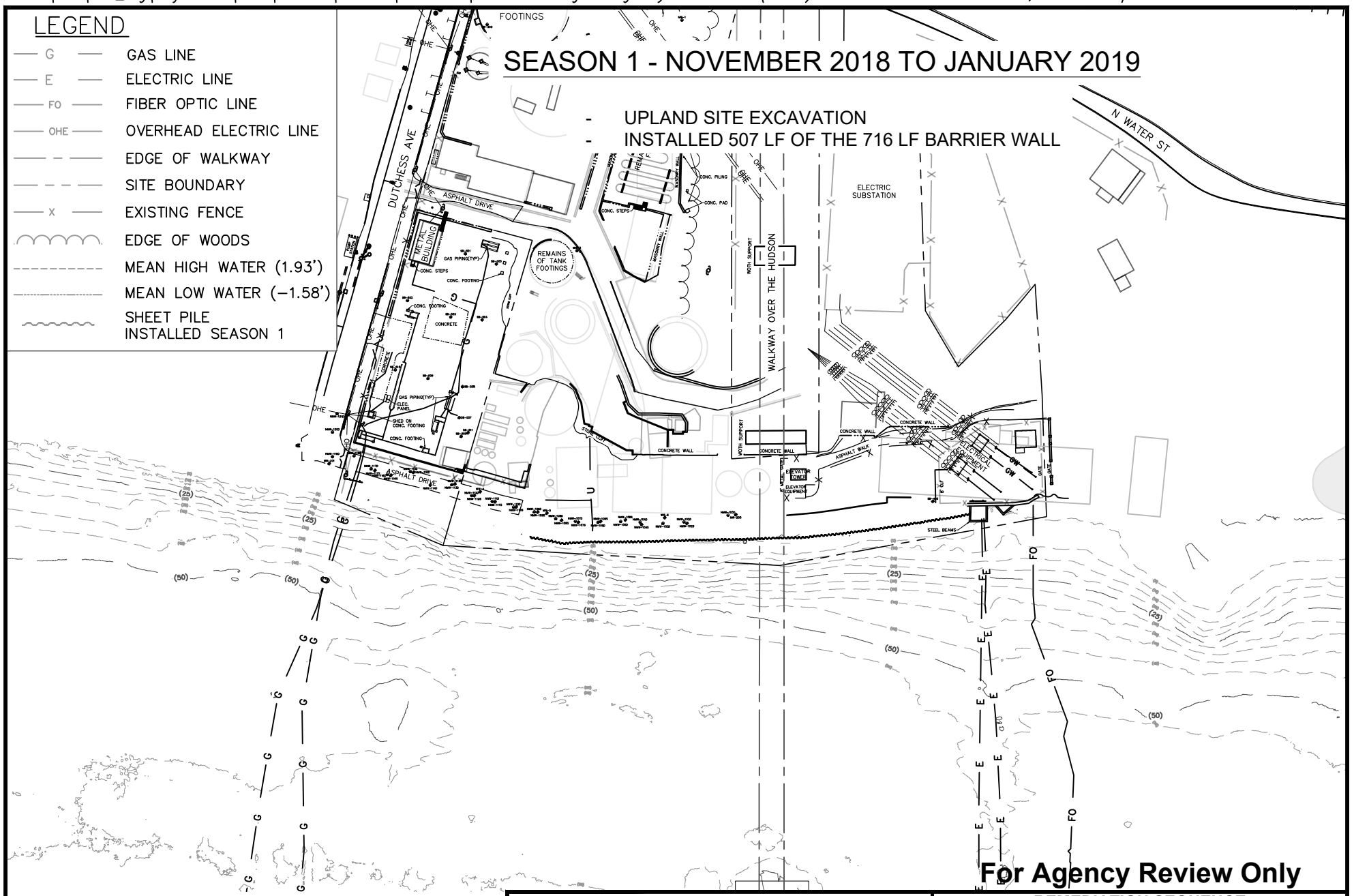
2020 (Season 3)												
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
NW#38 Permit/WQC Modification												
Mobilization												
Barrier Wall Construction												
Dredge Activity	NORTHERN AREA								NORTHERN AREA			
River Slope Grading												
Utility and River Slope Capping												
Shoreline Restoration and River Backfill												

2021 (Season 4)												
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
NW#38 Permit/WQC Modification												
Mobilization												
Barrier Wall Construction												
Dredge Activity	SOUTHERN AREA								SOUTHERN AREA			
River Slope Grading												
Utility and River Slope Capping												
Shoreline Restoration and River Backfill												

2022												
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
NW#38 Permit/WQC Modification												
Mobilization												
Barrier Wall Construction												
Dredge Activity												
River Slope Grading												
Utility and River Slope Capping												
Shoreline Restoration and River Backfill												

Figures

File: P:\Jobs\Rem_Eng\Project Files\CHGE\900 CAD\910 CAD\20 SHEETS\Seasons 1-4 Figures.dwg Layout: Season 1 (8.5x11) User: Erica.Hart Plotted: Jul 15, 2019 - 3:35pm Xref's:



AECOM

CENTRAL HUDSON GAS & ELECTRIC
HUDSON RIVER
DUTCHESS COUNTY, NY

REMEDIATION SEQUENCE AND CONTROLS
FORMER NORTH WATER STREET MGP
POUGHKEEPSIE, NY

DATE: 7/15/2019

FIGURE 1-A

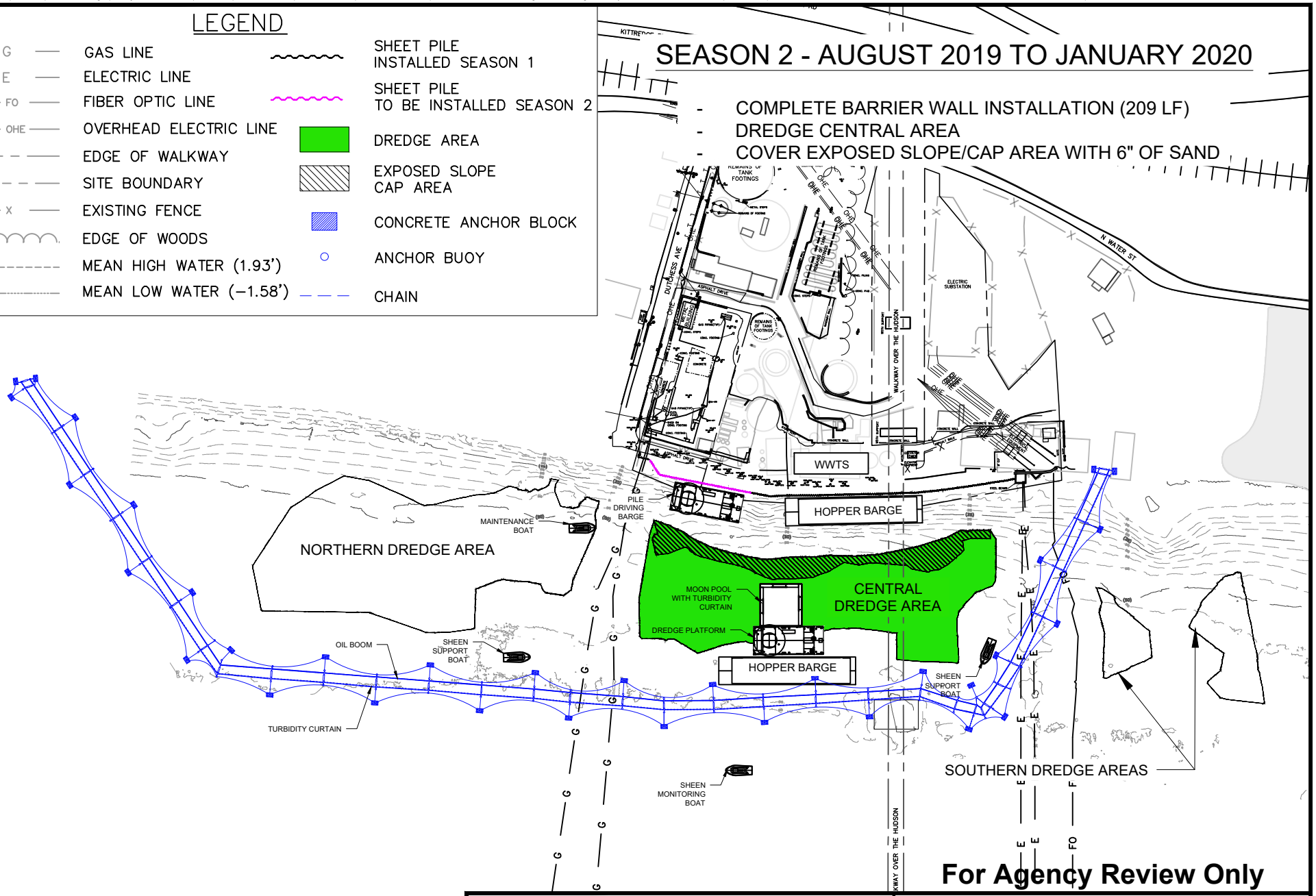
File: P:\Jobs\Rem_Eng\Project Files\CHGE\900 CAD\910 CAD\20 SHEETS\Seasons 1-4 Figures.dwg Layout: Season 2 (8.5X11) User: Erica.Hart Plotted: Jul 15, 2019 - 3:57pm Xref's:

SEASON 2 - AUGUST 2019 TO JANUARY 2020

- COMPLETE BARRIER WALL INSTALLATION (209 LF)
- DREDGE CENTRAL AREA
- COVER EXPOSED SLOPE/CAP AREA WITH 6" OF SAND

LEGEND

- GAS LINE
- ELECTRIC LINE
- FIBER OPTIC LINE
- OVERHEAD ELECTRIC LINE
- EDGE OF WALKWAY
- SITE BOUNDARY
- EXISTING FENCE
- EDGE OF WOODS
- MEAN HIGH WATER (1.93')
- MEAN LOW WATER (-1.58')
- SHEET PILE INSTALLED SEASON 1
- SHEET PILE TO BE INSTALLED SEASON 2
- DREDGE AREA
- EXPOSED SLOPE CAP AREA
- CONCRETE ANCHOR BLOCK
- ANCHOR BUOY
- CHAIN



For Agency Review Only

AECOM

CENTRAL HUDSON GAS & ELECTRIC
HUDSON RIVER
DUTCHESS COUNTY, NY

REMEDIATION SEQUENCE AND CONTROLS
FORMER NORTH WATER STREET MGP
POUGHKEEPSIE, NY

DATE: 7/15/2019

FIGURE 1-B

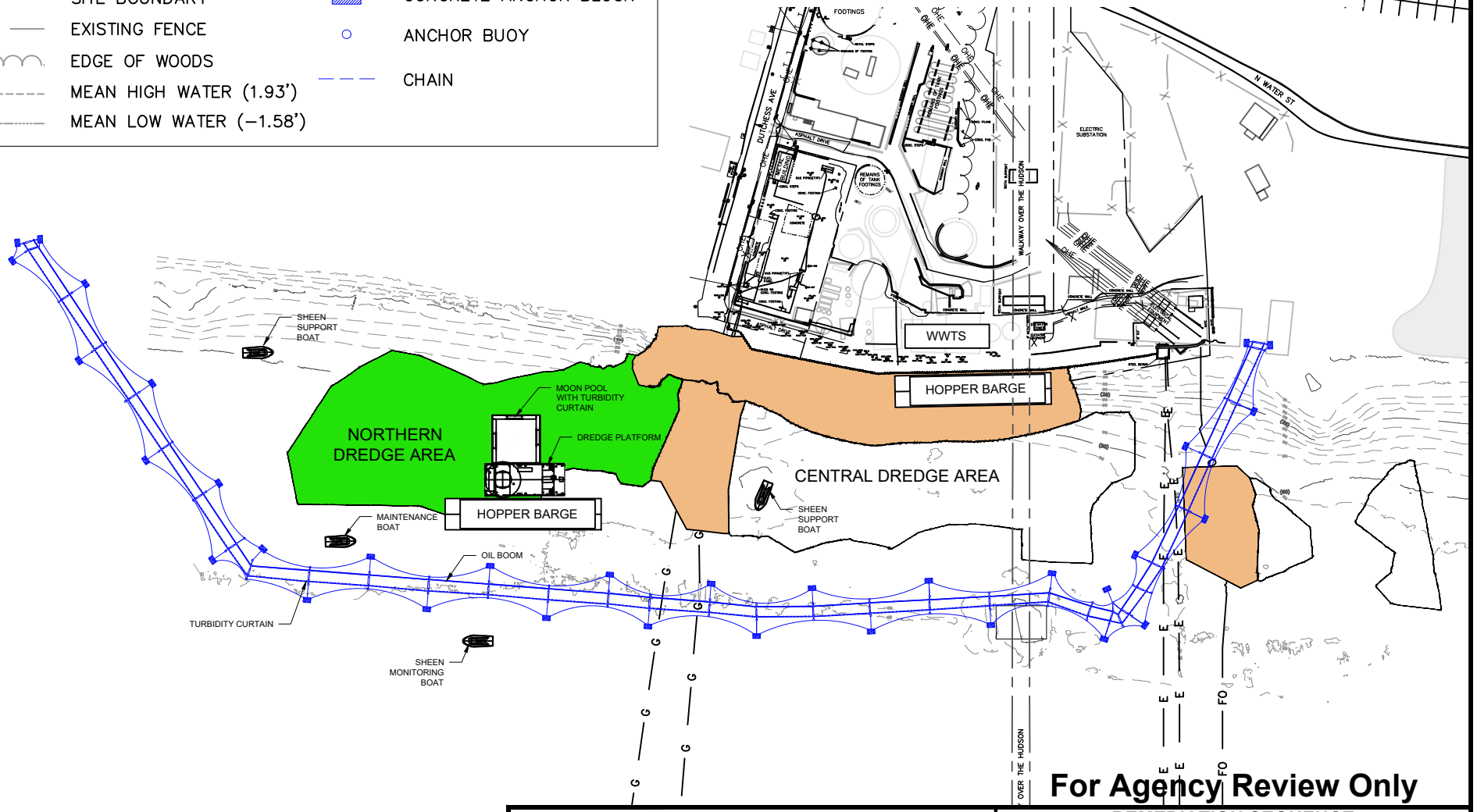
File: P:\Jobs\Rem_Eng\Project Files\CHGE\900 CAD\910 CAD\20 SHEETS\Seasons 1-4 Figures.dwg Layout: Season 3 (8.5X11) User: Erica.Hart Plotted: Jul 15, 2019 - 3:57pm Xref's:

SEASON 3 - AUGUST 2020 TO JANUARY 2021

- DREDGE NORTHERN AREA
- REGRADE SLOPE
- PLACE CAP ON SLOPE AND UTILITY CAPPING AREAS (RIP-RAP WILL NOT BE PLACED UNTIL SEASON 4)

LEGEND

- GAS LINE
- ELECTRIC LINE
- FIBER OPTIC LINE
- OVERHEAD ELECTRIC LINE
- EDGE OF WALKWAY
- SITE BOUNDARY
- EXISTING FENCE
- EDGE OF WOODS
- MEAN HIGH WATER (1.93')
- MEAN LOW WATER (-1.58')
- SHEET PILE
- DREDGE AREA
- CAPPING AREA
- CONCRETE ANCHOR BLOCK
- ANCHOR BUOY
- CHAIN



For Agency Review Only

AECOM

125 0 250

GRAPHIC SCALE IN FEET

CENTRAL HUDSON GAS & ELECTRIC
HUDSON RIVER
DUTCHESS COUNTY, NY

DATE: 7/15/2019

REMEDIATION SEQUENCE AND CONTROLS
FORMER NORTH WATER STREET MGP
POUGHKEEPSIE, NY

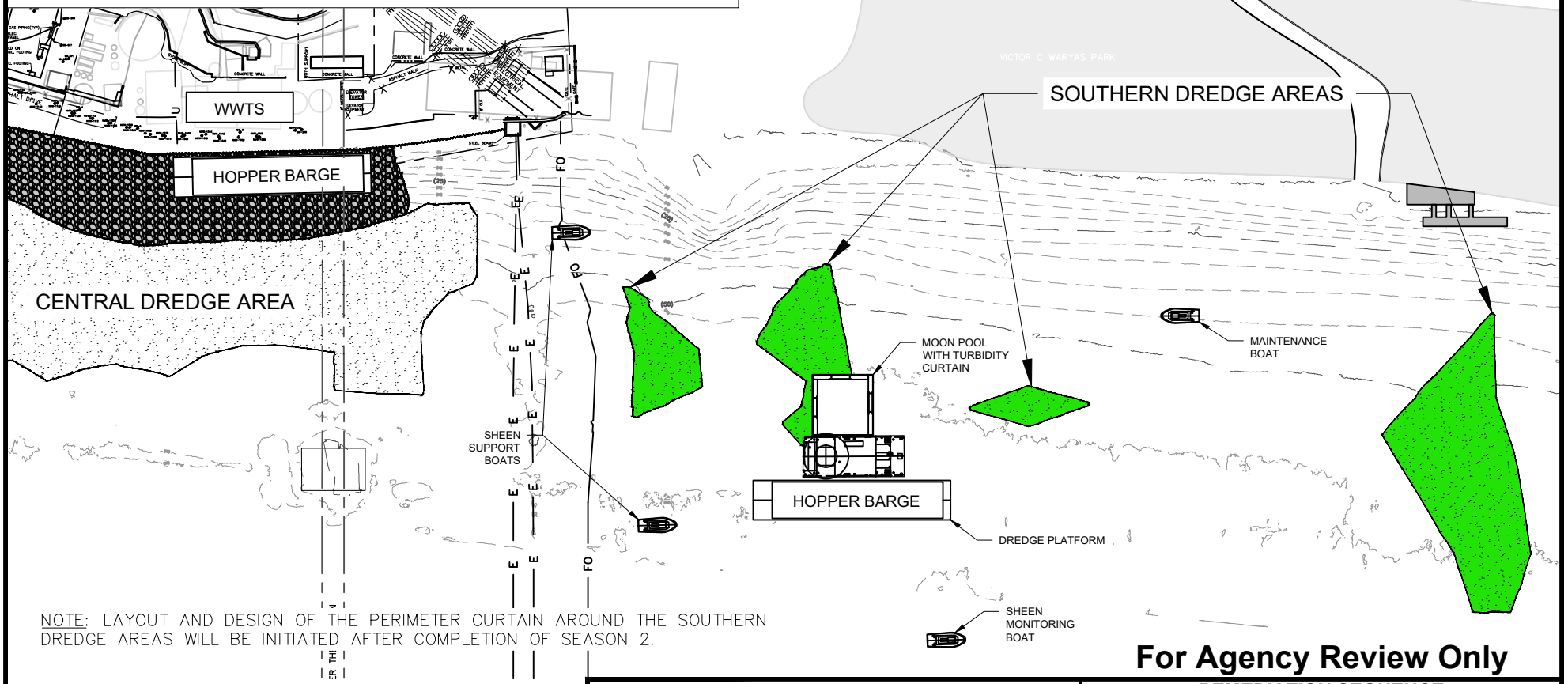
FIGURE 1-C

SEASON 4 - AUGUST 2021 TO JANUARY 2022

- DREDGE SOUTHERN AREAS
- PLACE 2-FT RIP-RAP LAYER ON REGRADED SLOPE
- BACKFILL ALL DREDGE AREAS

LEGEND

- GAS LINE
- ELECTRIC LINE
- FIBER OPTIC LINE
- OVERHEAD ELECTRIC LINE
- EDGE OF WALKWAY
- SITE BOUNDARY
- EXISTING FENCE
- EDGE OF WOODS
- MEAN HIGH WATER (1.93')
- MEAN LOW WATER (-1.58')
- SHEET PILE
- DREDGE AREA
- RIP-RAP
- BACKFILL



NOTE: LAYOUT AND DESIGN OF THE PERIMETER CURTAIN AROUND THE SOUTHERN DREDGE AREAS WILL BE INITIATED AFTER COMPLETION OF SEASON 2.

100 0 200

GRAPHIC SCALE IN FEET

For Agency Review Only

AECOM

CENTRAL HUDSON GAS & ELECTRIC
HUDSON RIVER
DUTCHESS COUNTY, NY

REMEDIATION SEQUENCE AND CONTROLS
FORMER NORTH WATER STREET MGP
POUGHKEEPSIE, NY

DATE: 7/15/2019

FIGURE 1-D

AECOM Imagine it Delivered

Attachment A

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
55 Great Republic Drive
Gloucester, MA 01930-2276

NOV 15 2018

Rosita Miranda
Department of the Army
New York District, Corps of Engineers
Jacob K. Javits Federal Building
26 Federal Plaza
New York, New York 10278-0090

Re: NAN-2017-00912-WNE Central Hudson Gas & Electric Corporation Environmental Remediation, Hudson River

Dear Ms. Miranda:

We have completed our consultation under section 7 of the Endangered Species Act (ESA) in response to your email received October 18, 2018, regarding the above-referenced proposed project. We reviewed your consultation request document and related materials. Based on our knowledge, expertise, and your materials, we concur with your conclusion that the proposed action is not likely to adversely affect any National Marine Fisheries Service ESA-listed species or designated critical habitat. Therefore, no further consultation pursuant to section 7 of the ESA is required.

While we agree with your rationale in making the not likely to adversely affect determination, clarifications are necessary as described here. You describe the project area as located near Hyde Park at river kilometer 134. This area is considered a likely Atlantic sturgeon spawning area based on scientific studies and historical records and could potentially support larvae. However, based on an email from you sent on November 5, 2018, the correct project site location is Hyde Park near Poughkeepsie at approximately RKM 120. Based on the information provided by you, the action area (predominantly silts) does not provide spawning habitat.

Further, in your ESA Listed Species section, you say that post yolk-sac Atlantic sturgeon will be present year-round. However, we expect Atlantic sturgeon spawning activity to begin in mid-April and extend into August. Since larvae will use a maximum of 60 days to develop into juveniles (development is temperature dependent), we mainly expect post yolk-sac Atlantic sturgeon to be present in the action area from April 15 through October 31. Similarly, shortnose sturgeon larval stages may only be present in the action area between March 15 and July 15. You are proposing to conduct in-water activities between September 1 and January 31 over the next three to four years. However, post yolk-sac larvae are typically found in the deepest water available and the proposed dredging will occur along the shores of the river outside of the navigation channel. Based on the project location and the time of year when activities will occur, we do not expect larvae to be present within the dredging footprint.

As you noted in your letter, juvenile and adult sturgeon are expected to avoid active disturbance that will occur during dredging. The placement of the containment cell will be gradual with the curtains/cells being lowered slowly, one side at a time, so any fish within the active work area will have time to avoid the disturbance and leave the area before work begins. Therefore, we do not expect sturgeon to be trapped within the enclosure and exposed to the dredging. Once in place, the curtain will prevent sturgeon from entering the active dredge head. Based on this, we agree that effects from dredging is extremely unlikely to occur. Therefore, effects are discountable. The deepest portion of the dredge area is about 60 feet deep and may support some sturgeon overwintering. However, additional overwintering habitat exists adjacent to the project area, and any sturgeon displaced from the work footprint are expected to relocate to alternative overwintering sites with minor movements. Therefore, effects from the displacement will be too small to be meaningfully measured, detected or evaluated, and effects are insignificant.

Reinitiation of consultation is required and shall be requested by the lead federal agency or by us, where discretionary federal involvement or control over the action has been retained or is authorized by law and: (a) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered in the consultation; (b) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this consultation; or, (c) If a new species is listed or critical habitat designated that may be affected by the identified action. No take is anticipated or exempted. If there is any incidental take of a listed species, reinitiation would be required. Should you have any questions about this correspondence please contact Edith Carson-Supino at (978) 282-8490 or by email (Edith.Carson-Supino@noaa.gov). For questions related to Essential Fish Habitat, please contact Ursula Howson with our Habitat Conservation Division at 732-872-3116 or Ursula.Howson@noaa.gov.

Sincerely,

Michael J. Asaro, PhD
Acting Assistant Regional Administrator
for Protected Resources

ec: Howson, NMFS/HCD; Orzel, USACE

PCTS: NER-2018-15057
File Code: H:\Section 7 Team\Section 7\Non-Fisheries\ACOE\Informal\2018\New York\ACOE NAN-2017-00912-WNE North Water Gas Dredge Cap Hudson

AECOM Imagine it Delivered

Attachment B

From:	MacNeal, Douglas (DEC)
To:	Gallo, Jesse
Cc:	Gierloff, Heather S (DEC); Brown, Janet E (DEC); Kulow, Kristin (HEALTH); Eaton, Daniel J (DEC); Schimizzi, Angela E (DEC); O"Malley, Tracey L (DEC); Heitzman, George (DEC); Pandya, Shail; Mancroni, Wayne; McLean, Mark
Subject:	RE: North Water Street Poughkeepsie upcoming Hudson river work
Date:	Tuesday, June 25, 2019 1:52:20 PM
Attachments:	image001.png image003.png image004.png image006.png image007.png

Jesse,

The Department has reviewed your responses. Central Hudson has not provided any additional information that would warrant further changes to the approved grading plan. Nor is the Department convinced that the sand placement will work as designed.

The Department does find the installation of the ten-foot turbidity curtain in August acceptable.

The Department, at this time, will still require the use of a perimeter turbidity curtain during the fourth season of dredging, or the southern area dredging. The curtain may need to be moved to accommodate the work. If the “moon pool” technique proves effective in the prior seasons, the Department may reconsider the use of the perimeter turbidity curtain.

If you have any further questions, you may reach me at this address.

Douglas MacNeal, P.E.
Senior Engineer, Division of Environmental Remediation

New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233-7014
P: (518) 402-9662 | F: (518) 402-9679 | douglas.macneal@dec.ny.gov
www.dec.ny.gov |

From: Gallo, Jesse <JGallo@cenhud.com>
Sent: Friday, June 07, 2019 12:46 PM
To: MacNeal, Douglas (DEC) <douglas.macneal@dec.ny.gov>
Cc: Gierloff, Heather S (DEC) <heather.gierloff@dec.ny.gov>; Brown, Janet E (DEC) <janet.brown@dec.ny.gov>; Kulow, Kristin (HEALTH) <kristin.kulow@health.ny.gov>; Eaton, Daniel J (DEC) <daniel.eaton@dec.ny.gov>; Schimizzi, Angela E (DEC) <Angela.Schimizzi@dec.ny.gov>; O'Malley, Tracey L (DEC) <Tracey.OMalley@dec.ny.gov>; Heitzman, George (DEC) <george.heitzman@dec.ny.gov>; 'Pandya, Shail' <Shail.Pandya@aecom.com>; Mancroni, Wayne <WMancroni@cenhud.com>; McLean, Mark <MMcLean@cenhud.com>
Subject: RE: North Water Street Poughkeepsie upcoming Hudson river work

Doug,

Please see the following responses to the comments from the Department's May 31st email:

1. **River Slope Grading Modification**

The updated slope grading increases the fill in the water column. From the beginning this has been a concern for Marine Habitat. There are some sections that the increase is minor but in sections such as 1+70.00 to 2+00.00 there is an increase of 10 feet. This has been proposed with no acknowledgement of the impact and no mention of mitigation to offset this impact. As such, the Department will not be able to further compromise from the already permitted slope.

Response:

The slope grading is being conducted in an approximate 2-acre area to establish an even grade since dredging of this area cannot be conducted due to riverbank stability concerns. The grading and placement of the certified clean sand cap material will limit the generation of sheen and prevent migration of the remaining contamination in this area of the riverbank into the Hudson River. The slope grading and associated top and bottom of slope elevations were determined based on the NYSDEC requirement to establish a rip-rap surface over the slope, as well as to cover any exposed barrier/bulkhead sheet pile wall. Additionally, the presence of the rip-rap surface over the slope presents a mitigative layer to account for the loss of River surface (permitted) resulting from the regrading and cap placement over the Hudson River slope.

The new river slope of 2H:1V is proposed to provide stability to the slope and to control sheen generation. While the new river slope would entail the placement of additional clean sand that would occupy water column, there would be a reduction of over 4,490 square feet of impacts to benthic habitat of the Hudson River shoreline as compared to the permitted area (see Table 1).

Table 1 Hudson River Slope Remedial Activity Permitted and Proposed Quantities

Activity		Permitted	Proposed	Increase (Decrease)
Regrade Fill Surface Area	Sq Ft	79,536	75,967	(3,569)
Regrade Fill Volume	CY	10,172	13,641	3,469
Remediation Cap (RCM+ABM) Surface Area	Sq Ft	76,888	75,967	(921)
Remediation Cap (RCM+ABM) Volume	CY	1,424	1,407	(17)
Riprap Surface Area	Sq Ft	76,888	75,967	(921)
Riprap Surface Volume	CY	5,795	5,727	(68)

Notes:

1. Both permitted and proposed quantities are below Mean High Water mark
2. Sq Ft = Square feet
3. CY = Cubic Yards
4. RCM+ABM = Reactive core mat and articulated block mattress
5. Approximately 2 feet of riprap layer will be placed over the RCM+ABM layer as required by NYSDEC

2. **Sand Installation**

Central Hudson is proposing to install sand along the shoreline below the water. This would seem to be a difficult task in the water conditions. They will need to include some methodology that will give us some assurances that the sand installation is going to function as intended.

Response:

A cable mounted clamshell bucket will offload sand from hopper barges and release the sand backfill into the water column discharging at the minimum practical height above the target areas. GPS readings from the bucket and subsequent post backfill bathymetric survey will confirm that the design limits and grades are achieved. During backfill placement, water column monitoring will measure turbidity levels at the work zone perimeter. The backfill placement rate will be adjusted to ensure that turbidity levels are within the established limits.

In the dredge areas, backfill will be placed within the moon pool enclosure to contain turbidity. During slope capping sand placement the moon pool cannot be utilized because of the variable and shallow water depths along the slope, but the perimeter curtain will be in-place and water quality monitoring will be conducted.

3. **Conceptual Construction Schedule and Sequence**

The Department cannot support in-river work to happen before September 1st. Site preparation can be done prior to September but the disturbance of the river bottom or slope

cannot happen before. As previously stated, this is an incredibly important area for fish migration, especially sturgeon, and the potential for contaminants and mechanical harm must be minimized. The work window is the only way to accomplish it on this site.

Response:

CHGE concurs. In-river activities including river-slope grading/capping, utility capping, dredging, and backfilling will not take place outside of the work window established by the WQC (September 1st to January 31st). However, consistent with discussions between the NYSDEC and Central Hudson during the April 23rd meeting, site preparation/mobilization (including establishing perimeter controls) and subsequent barrier/bulkhead wall installation activities (Season 2 only) are anticipated to commence in August. Sheen and turbidity controls installed prior to the start of the barrier/bulkhead wall installation activities will include the perimeter curtain, an inner localized turbidity curtain with oil booms around the work area, and support boats to monitor sheen (Figures 1, 3, and 3A).

4. **Bioremediation Agents**

The use of the proposed bioremediation agents for releases in the water column is approved.

Response:

No comment.

5. **Figures**

There is a line and note that states Perimeter Oil Boom and Turbidity Curtain. It is unclear what this is and how it will be anchored in this configuration. A detail should be added to explain the depth of curtain and method of anchoring. Season 4 dredging does not include the Perimeter Oil Boom and Turbidity Curtain; this should be added to the Season 4 dredging area.

Response:

Please find attached Figures 2, 3, and 3A which detail the perimeter oil boom and turbidity curtain that will be placed around the northern and central dredge areas In general, the perimeter curtain will be placed approximately 100-feet outboard of the dredge areas with an 18-inch oil boom as the inside row and a 10-foot NY Blue Book Type 3 turbidity curtain as the outside row.

Based on the current anticipated construction schedule, Season 4 dredging will take place in the southern dredge area only. Consistent with the approved Remedial Design/Remedial Action Work Plan, this dredging will take place within a containment cell “moon pool” that will be enclosed with a turbidity curtain. The containment cell is the primary control for turbidity and sheens. Localized oil booms will be installed outside of the moon pool and around each southern dredge area during the dredging activity. Additional controls will include the use of support boats to monitor sheen. A second turbidity curtain (in the form of a perimeter curtain)

is not feasible around the southern dredge area due to the following:

- Installing a perimeter curtain around the entire southern dredge area will result in inclusion of the area where the Fall Kill enters the Hudson River.
- A perimeter curtain around the southern area will include and therefore impact the boat launch area within the Victor C. Waryas Park and the boat slips adjacent to the Poughkeepsie Ice House restaurant. Both would require leaving a portion of the curtain open to allow boat traffic in and out of the perimeter curtain creating an ineffective mitigative control.
- The southern dredge area comprises multiple distinct dredge areas with large non-dredge areas in between requiring a perimeter curtain that will need to cover a very large area.

Please let us know if you require additional information or would like to discuss further.

Jesse N. Gallo
MGP Project Manager
Central Hudson Gas & Electric Corp.
284 South Avenue
Poughkeepsie, NY 12601
Office: (845) 486-5641
Fax: (845) 486-5984
Cell: (914) 980-4057
https://protect2.fireeye.com/url?k=d4f268ba-88d45ce1-d4f0918f-000babd905ee-550dbfdbd24ccfec&u=http://www.centralhudson.com/

From: MacNeal, Douglas (DEC) [mailto:douglas.macneal@dec.ny.gov]
Sent: Friday, May 31, 2019 1:53 PM
To: 'Pandya, Shail'; Mancroni, Wayne; Gallo, Jesse; McLean, Mark
Cc: Gierloff, Heather S (DEC); Brown, Janet E (DEC); Kulow, Kristin (HEALTH); Eaton, Daniel J (DEC); Schimizzi, Angela E (DEC); O'Malley, Tracey L (DEC); Heitzman, George (DEC)
Subject: North Water Street Poughkeepsie upcoming Hudson river work

The New York State Department of Environmental Conservation (The Department) has reviewed your initial submittals regarding the planned upcoming river work. The following items must be addressed in the Water Quality Certification revision submission:

1. **River Slope Grading Modification**

The updated slope grading increases the fill in the water column. From the beginning this has been a concern for Marine Habitat. There are some sections that the increase is minor but in sections such as 1+70.00 to 2+00.00 there is an increase of 10 feet. This has been proposed with no acknowledgement of the impact and no mention of mitigation to offset this impact. As such, the Department will not be able to further compromise from the already permitted slope.

2. **Sand Installation**

Central Hudson is proposing to install sand along the shoreline below the water. This would seem to be a difficult task in the water conditions. They will need to include some methodology that will give us some assurances that the sand installation is going to function as intended.

3. Conceptual Construction Schedule and Sequence

The Department cannot support in-river work to happen before September 1st. Site preparation can be done prior to September but the disturbance of the river bottom or slope cannot happen before. As previously stated, this is an incredibly important area for fish migration, especially sturgeon, and the potential for contaminants and mechanical harm must be minimized. The work window is the only way to accomplish it on this site.

4. **Bioremediation Agents**

The use of the proposed bioremediation agents for releases in the water column is approved.

5. Figures

There is a line and note that states *Perimeter Oil Boom and Turbidity Curtain*. It is unclear what this is and how it will be anchored in this configuration. A detail should be added to explain the depth of curtain and method of anchoring. Season 4 dredging does not include the *Perimeter Oil Boom and Turbidity Curtain*; this should be added to the Season 4 dredging area.

If you have any further questions, you may reach me at this email address.

Douglas MacNeal, P.E.
Senior Engineer, Division of Environmental Remediation

New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233-7014
P: (518) 402-9662 | F: (518) 402-9679 | douglas.macneal@dec.ny.gov
www.dec.ny.gov | | |