

MEMORANDUM FOR RECORD

SUBJECT: Department of the Army Memorandum Documenting General Permit Verification

- 1.0 Introduction and overview: Information about the proposal subject to one or more of the Corps regulatory authorities is provided in Section 1, detailed evaluation of the activity is found in Sections 2 through 4 and findings are documented in Section 5 of this memorandum.
- 1.1 Applicant name: Frank M. Flower and Sons, Inc. (Flower)
- 1.2 Activity location: Underwater lands leased from the Town of Oyster Bay within the Oyster Bay-Cold Spring Harbor Estuary in the Town of Oyster Bay, Nassau County, New York
- 1.3 Description of activity requiring verification:

On April 19, 2021, the New York District of the U.S. Army Corps of Engineers received a request for Department of the Army authorization to conduct ongoing commercial shellfish aquaculture activities involving seeding, cultivation, and the mechanized harvesting of shellfish continuously throughout the calendar year.

The proposed activities include conducting ongoing commercial shellfish aquaculture activities involving seeding, cultivation, and the mechanized harvesting of shellfish continuously throughout the calendar year. These aquaculture operations include activities associated with the mechanized harvesting of hard clams (*Mercenaria mercenaria*) and oysters (*Crassostrea virginica*) from leased underwater land areas totaling approximately 200-acres per year. The harvested areas will be re-planted with seedlings and left undisturbed for a period ranging between two (2) to four (4) years to allow grow-out of the shellfish to market size. Specifically, hard clams will be harvested from soft-bottom substrate areas using a vessel towed harvesting sled equipped with a hydraulically assisted (water jets) harvesting scrape and basket. Oysters will be harvested from hard-bottom substrates areas using a Venturi suction dredge.

1.3.1 Background information:

This office reviewed the applicant's permit application submittals received on April 19, 2021, June 30, 2021 and September 16, 2021. Additionally, this office reviewed the applicant's April 23, 2021 letter to New York State Department of State as part of this Nationwide Permit verification review. Further, this office completed three (3) compliance evaluation inspections of the applicant's ongoing mechanized harvesting operations, authorized via the 2017 Nationwide Permit 48, under USACE file number NAN-2017-00710-EMI on December 12, 2018, November 17, 2020, and August 18, 2021. All three (3) inspections resulted in

findings that the mechanized harvesting operations in compliance with the Nationwide Permit, NAN-2017-00710-EMI.

Flower formerly operated a hatchery (previously authorized by DA Permit Number NAN-1981-00031) located on a 25-acre portion of the leased lands located in Mill Neck Creek at 34 Ludlam Avenue, Bayville, New York. Since early 2021 Flower has consolidated their hatchery operations to their Oyster Bay, New York facility. The shellfish seedlings are dispersed in designated areas within the leased lands for grow out to market size.

Flower operates a total of six (6) vessels, five (5) dedicated to the harvesting of hard clams and one (1) to the harvesting of oysters. The harvested areas are replanted with seedlings and left undisturbed for a period ranging between two (2) to four (4) years to allow grow-out of the shellfish to market size.

For hard clam harvesting in soft-bottom substrate areas, a vessel drags a harvesting sled equipped with hydraulically assisted (water jets) harvesting gear. The towed sled has a blade which cuts into the bottom sediment to a depth of approximately 3.5-inches. The sled's skids, riding on the bay bottom, maintain the elevation of the blade relative to the bottom sediment. The sled is equipped with upward-angled water jets which push water to the cutting edge of the blade to push clams into the basket and break up sediment clumps to keep the basket from collecting sediment. Applicant submittals and observations of the harvesting equipment indicate the water jets are positioned at a 15-degree angle which results in the water being forced through the back of the basket rather than directly into the bottom sediment. Extraneous material including any shell fragments, stone, and other non-target species, are immediately returned to the recently harvested leased area. The deposit of extraneous shell or stone material and immature shellfish collected as part of the harvest and immediately returned to the harvested area were previously determined by this office not to meet the definition of discharge within 33 CFR 323.3 and therefore does not require authorization under Section 404 of the Clean Water Act (see CENAN-OP-R MFR dated July 11, 2017).

Oyster harvesting occurs in areas of hard-bottom substrates using a Venturi suction dredge. The suction dredge pulls material from the bay bottom upwards onto the vessel's deck. Material recovered with the upward flow of water is deposited onto a chain mesh conveyor where materials less than approximately one (1) inch in diameter are sieved out and immediately returned to the leased area by an additional conveyor. The remaining material is then sorted manually. Extraneous material is immediately returned to the recently harvested leased area. Sub-market sized oysters are retained and placed into different seeded areas within the leased underwater lands for grow out and future harvest. The deposit of extraneous shell or stone material and immature shellfish collected as part of the harvest and immediately returned to the harvested area were determined by this office not to meet the definition of discharge within 33 CFR

323.3 and therefore does not require authorization under Section 404 of the Clean Water Act (see CENAN-OP-R MFR dated July 11, 2017).

1.4 Permit authority: Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403)

1.5 Applicable Permit: Nationwide Permit (NWP) 48

1.6 Activity requires written waiver? No

2.0 Evaluation of the Pre-Construction Notification

2.1 Direct and indirect effects caused by the GP activity: Direct and indirect effects comprise of temporary increases in turbidity in the water column and temporary disturbances to the bay bottom when conducting mechanized harvesting.

2.2 Site specific factors: The project site is in Oyster Bay-Cold Spring Harbor Estuary which is a busy thoroughfare for recreational and commercial vessels. The location is in a residentially and commercially developed area with modified shoreline structures. Additionally, there is no mapped Submerged Aquatic Vegetation (SAV) located at, or near the leased area.

2.3 Coordination

2.3.1 Was the PCN coordinated with other agencies? Yes, an inter-agency Pre-Construction Notification (PCN) with an Essential Fish Habitat (EFH) Assessment Worksheet prepared by Flower and endorsed by this office was sent to National Marine Fisheries Service – Habitat Conservation Division (NMFS-HCD) on September 28, 2021.

A NLAA Program Verification Form was provided to National Marine Fisheries Service – Protected Resources Division (NMFS-PRD), regarding informal consultation on the project's potential effects to Endangered Species Act (ESA) listed species on September 30, 2021.

2.3.2 Was the PCN coordinated with other business lines of the Corps? No

2.4 Mitigation

2.4.1 Provide brief description of how the activity has been designed on-site to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site:

The applicant utilizes a rotational harvesting method which effectively minimizes the direct and indirect impacts from the harvesting operations on an annual basis. Approximately 200 acres of the entire 1,800 acre lease site are harvested annually. Additionally, Flower states that they do not harvest within 75-100 feet

of any outside boundary of any leased lot and has no plans to harvest approximately 74.6 acres within Lot 2 and the entirety of Lot 5 which is 872 acres.

- 2.4.2 Is compensatory mitigation required for unavoidable impacts to jurisdictional aquatic resources to reduce the individual and cumulative adverse environmental effects to a minimal level? No.

Provide rationale: No mitigation is required because the activity will not result in any permanent impacts to waters of the United States.

3.0 Compliance with Other Laws, Policies and Requirements

3.1 Section 7(a)(2) of the Endangered Species Act (ESA)

- 3.1.1 ESA action area: The footprint of work in waters of the U.S. and the immediate adjacent area.
- 3.1.2 Has another federal agency been identified as the lead agency for complying with Section 7 of the ESA with the Corps designated as a cooperating agency and has that consultation been completed? No
- 3.1.3 Are there listed species or designated critical habitat that may be present or in the vicinity of the Corps' action area? Yes

Effect determination(s), including no effect, for all known species/habitat, and basis for determination(s): Not Likely to Adversely Affect

Species Present: Atlantic sturgeon, Green sea turtle, Kemp's ridley sea turtle, Loggerhead sea turtle and leatherback sea turtle

Pursuant to Section 7 of the ESA of 1973, on September 30, 2021, a NLAA Program Verification Form was provided to NMFS-PRD, regarding informal consultation on the project's potential effects to ESA-listed species. The Corps determined that the proposed permit action is not likely to adversely affect listed species (sturgeon and sea turtles) per the justification and/or special conditions provided in Section 4 of the NLAA form. Total Suspended Solids (TSS) are expected to be below those shown to have adverse effect on fish. Sea turtles and sturgeon are expected to swim through the plume with no adverse effects or to avoid the area. The approximately 200 acres of harvested area per year represents a small percentage of overall forage habitat for Atlantic sturgeon and sea turtles. Additionally, the conversion of soft bottom to hard bottom habitat is relatively small compared to the overall availability of soft bottom area.

NMFS-PRD concurred with the Corps determination via the NLAA form on November 5, 2021.

3.1.4 Consultation with either the National Marine Fisheries Service and/or the U.S. Fish and Wildlife Service was initiated and completed as required, for any determinations other than “no effect”. Based on a review of the information above, the Corps has determined that it has fulfilled its responsibilities under Section 7(a) (2) of the ESA. The documentation of the consultation is incorporated by reference.

3.2 Magnuson-Stevens Fishery Conservation and Management Act (Magnuson Stevens Act), Essential Fish Habitat (EFH)

3.2.1 Has another federal agency been identified as the lead agency for complying with the EFH provisions of the Magnuson-Stevens Act with the Corps designated as a cooperating agency and has that consultation been completed? No

3.2.2 Did the proposed project require review under the Magnuson-Stevens Act? Yes

3.2.3 If yes, EFH species or complexes considered: Winter Flounder, Atlantic Herring, Scup, Bluefish, Summer Flounder and Black Sea Bass.

Effect determination and basis for that determination: May adversely affect, but the effects are not likely to be substantial

Additional information:

On September 24, 2021, the Corps and NMFS-HCD held a teleconference to discuss the project and the required PCN pursuant to NWP 48, Permit-specific Regional Condition (h). An inter-agency PCN with an EFH Assessment Worksheet prepared by Flower and endorsed by this office was sent to NMFS-HCD on September 28, 2021.

On October 15, 2021, NMFS-HCD provided the following EFH conservation recommendation (CR) for this project:

“1. No mechanical harvesting from 11/1 to 5/31 within waters less than 20-feet, to minimize impacts to winter flounder early life stage EFH.”

In accordance with Title 33 of the Code of Federal Regulations Part 325.2(a)(3), on October 18, 2021, this office sent a letter to Flower requesting a written response regarding the NMFS-HCD CR.

In a letter dated, November 24, 2021, the applicant rebutted NMFS-HCD’s CR. The rebuttal letter included a rotational harvesting schedule which identified the sections of leased underwater lands for annual harvesting.

In an email dated, November 24, 2021, the Corps provided Flower’s rebuttal letter to NMFS-HCD.

In an email dated, December 17, 2021, NMFS-HCD provided a response stating the following:

“The response did not provide sufficient information or justification to warrant a change to our EFH conservation recommendations. As a result, our recommendation that hydraulic clam dredging not occur in depths less than 20 feet at mean low water from Jan 1 to May 31 to protect EFH for winter flounder early life stages and winter flounder eggs and larvae, remains unchanged. As indicated in our past correspondence, activities such as those proposed not only cause adverse effects to the habitat by disturbing the sediments and benthic community, but temporary water quality declines also occur. Because winter flounder eggs are demersal and adhesive, they will be present on the bottom should the proposed action occur in the winter and spring. These life stages are not mobile and will be damaged or destroyed by the action of the dredge itself or smothered and killed as the suspended sediment in the water column resettles back down. During the last time we reviewed the applicant's application, we spelled these concerns out in our letters and no information has been provided to demonstrate that these effects will not occur. We also reached out to our Northeast Fisheries Science Center, and their review of the existing literature indicated that winter flounder eggs and larvae are susceptible to adverse impacts from dredges and sedimentation. If the Corps or the applicant has research or literature that proves otherwise, then we would be happy to review the information. We are also willing to continue discussions on areas of high current velocities, scour, and sedimentation if the applicant has data on these issues. Otherwise, if the Corps decides to approve the authorization without including our EFH conservation recommendations, you must provide us with a written justification, including a scientific justification, as to why our conservation recommendations are not incorporated.”

In an email to Flower dated, December 20, 2021, the Corps requested an updated rotational harvesting schedule and an expanded narrative on best management practices that would be implemented when conducting harvesting activities.

In an email dated, February 9, 2022, Flower provided the Corps an updated rotational harvesting schedule through the year 2027 and an expanded narrative on best management practices.

On March 1, 2022, the Corps issued a response to the NMFS-HCD EFH CR pursuant to 50 CFR 600.920(k) informing NMFS-HCD that the CR to avoid mechanical harvesting between January 1 and May 31 of each year would not be incorporated as a special condition to any permit decision issued.

In an email dated March 2, 2022, NMFS-HCD provided a response stating,

“We will not be seeking a higher level review of the permit decision.”

USACE Determination: Based on the applicant’s PCN for the subject permit verification and additional information received from the applicant on February 9, 2022, the Corps has determined that the applicant has demonstrated that effects to EFH have been avoided and minimized to the greatest extent practicable. The applicant provided an updated rotational harvesting schedule in their February 9, 2022 submittal which identifies the sections of leased underwater lands for annual harvesting through the year 2027. The Corps determined that the impacts to winter flounder EFH are substantially avoided due to the majority of the shallow areas in the estuary characteristic of winter flounder EFH not being subject to the applicant’s harvesting operations. The potential adverse impacts to winter flounder are not likely to be substantial due to the nature of the work which is limited in scope and frequency within areas characteristic of winter flounder EFH (characterized by appropriate depth, salinity and substrate). The applicant’s rotational harvesting method effectively minimizes the direct and indirect impacts to EFH from the harvesting operations on an annual basis. Based on information provided, it is estimated approximately 205 acres (approximately 11%) of the 1,800 acre lease site is of the appropriate depth for winter flounder spawning. It is also estimated that approximately 200 acres of the entire 1,800 acre lease site are harvested each year.

Additionally, this office coordinated with New York State Department of Environmental Conservation (NYSDEC) on the review of the applicant’s submittals and received confirmation from NYSDEC that mechanized harvesting activities do not involve unacceptable turbidity levels and do not result in any overall long term negative impacts in the Oyster Bay-Cold Spring Harbor Estuary. NYSDEC also commented that annual shellfish landings data recorded by NYSDEC indicate that the Oyster Bay-Cold Spring Harbor Estuary is the most productive area in New York State. Additionally, the applicant states that they do not harvest within 75-100 feet of any outside boundary of any leased lot and has no plans to harvest approximately 74.6 acres within Lot 2 and the entirety of Lot 5 which is 872 acres. In review of permit application and the additional information submitted on February 9, 2022, it has been determined that the time restrictive window would not be included as a special condition to any permit decision for the subject permit application.

Based upon 50 CFR 600.920(k)(1), the discussion above, and that NYSDEC continues to permit the Flower aquaculture activities, the Corps has determined that the impacts to winter flounder EFH are temporary and minor in nature. This is because regular operations involve seeding a bed in year 1 of the cycle and harvesting of the bed starting between years 2 to 4 of a typical cycle. In accordance with this decision, re-seeding of the bed would be in the same year it has been harvested. Therefore, each area or bed is only disturbed three (3) times in a typical cycle. Given the above and because it would effectively reduce

food supply, the inclusion of the five-month no-work window (1 JAN to 31 MAY) as a Special Condition of this decision is not justified. There is no documentation that winter flounder have been harmed by this harvesting operation over the last few decades.

3.2.4 Based on review of the above information, the Corps has concluded that it has fulfilled its responsibilities under the EFH provisions of the Magnuson-Stevens Act.

3.3 **Section 106 of the National Historic Preservation Act (Section 106)**

3.3.1 Section 106 permit area: The permit area includes those areas comprising waters of the United States that will be directly affected by the proposed work or structures. Activities outside of waters of the U.S. are not included because all three tests identified in 33 CFR 325, Appendix C(g)(1) have not been met.

Final description of the permit area: Underwater lands leased from the Town of Oyster Bay within the Oyster Bay-Cold Spring Harbor Estuary in the Town of Oyster Bay, Nassau County, New York.

3.3.2 Has another federal agency been identified as the lead federal agency for complying with Section 106 of the National Historic Preservation Act with the Corps designated as a cooperating agency and has that consultation been completed? No

3.3.3 Known historic properties? No

Effect determination and basis for that determination: No resources present/No Adverse Effect

3.3.4 Consultation was initiated and completed with the appropriate agencies, tribes and/or other parties for any determinations other than “no potential to cause effects.”

Based on a review of the information above, the Corps has determined that it has fulfilled its responsibilities under Section 106 of the NHPA. Compliance documentation incorporated by reference.

3.4 **Tribal Trust Responsibilities**

3.4.1 Was government-to-government consultation conducted with Federally-recognized Tribe(s)? No

The Corps has determined that it has fulfilled its tribal trust responsibilities.

3.4.2 Other Tribal including any discussion of Tribal Treaty rights? N/A

3.5 Section 401 of the Clean Water Act – Water Quality Certification (WQC)

- 3.5.1 Is a Section 401 WQC required, and if so, has the certification been issued, waived or presumed? N/A, a WQC is not required.

The deposit of extraneous shell or stone material, and immature shellfish collected as part of the harvest and immediately returned back to the harvested area were determined by this office not to meet the definition of discharge within 33 CFR 323.3 and therefore does not require authorization under Section 404 of the Clean Water Act (see CENAN-OP-R MFR dated July 11, 2017).

No further action is required by USACE.

3.6 Coastal Zone Management Act (CZMA)

- 3.6.1 Is a CZMA consistency concurrence required, and if so, has the concurrence been issued, waived or presumed? An individual CZMA consistency concurrence is required and has been issued by the appropriate agency.

New York State Department of State issued Concurrence with Consistency Certification in a letter, F-2021-0241, dated December 7, 2021.

3.7 Wild and Scenic Rivers Act

- 3.7.1 Is the project located in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system? No

3.8 Effects on Corps Civil Works Projects (33 USC 408)

- 3.8.1 Does the applicant also require permission under Section 14 of the Rivers and Harbors Act (33 USC 408) because the activity, in whole or in part, would alter, occupy, or use a Corps Civil Works project? No, there are no Corps Civil Works project(s) in or near the vicinity of the proposal.

3.9 Other (as needed):

- 3.9.1 Substantive Issues Raised and Corps Resolution (Consideration of Comments):

This office reviewed concerns related to the impacts of Flower’s operations on waters outside of the leased areas. On June 30, 2021 and September 7, 2021, the USACE discussed potential environmental impacts associated with Flower’s mechanized harvesting activities in Oyster Bay with the NYSDEC, representatives from the North Oyster Bay Baymen’s Association and Congressman Thomas R. Suozzi. During the discussions, NYSDEC indicated

that Flower's harvesting activities do not involve unacceptable turbidity levels and do not result in any long-term negative impacts and that Flower's operation does not negatively impact oyster and clam populations in Oyster Bay based on shellfish landings reported in Long Island. New York State Hard Clam Landings Data taken from 2001 through 2019, collected by NYSDEC state that the total number of bushels of clams harvested by Flower, particularly since 2003 have represented a large percentage, around approximately one-third of the total number of bushels of clams harvested per year throughout New York State.

Further the 2018 Clam Density Study completed by the Town of Oyster Bay concluded that the overall population of clams has decreased and that current shellfish stocks in Oyster Bay are largely dependent on hatcher/seeding operations. The 2018 Clam Density Study also found that an increase in the abundance of shellfish predator species.

As required by NYSDOS and included in the NWP 48 verification letter, NAN-2017-00710-EMI Special Condition (B) Flower had completed a "Site Specific Report" dated August 23, 2018 which measured dissolved oxygen, pH, biochemical oxygen demand, total suspended solids and turbidity to assess potential siltation changes attributed to Flower's harvesting activity. The "Site Specific Report" concluded that:

"elevated levels of total suspended solids as well as increased turbidity immediately adjacent and within 50 ft of the active harvesting operations, such conditions were observed as temporary, remained within the normal range specified under NYSDEC Water Quality Standards, and dissipated within 100 ft to background levels. Supporting these conclusions is the overall health of the Harbor indicated by appropriate observations for biochemical oxygen demand, pH, and dissolved oxygen throughout the background sample locations and in each sample collected immediately in the vicinity of hydraulically assisted clam harvesting operations and suction assisted oyster harvesting operations."

During mechanical harvesting events extraneous material including any shell fragments, stone, and other non-target species, are immediately returned to the recently harvested leased area. The following Special Condition will be incorporated to minimize and limit impacts to the immediately harvested area and to avoid potential associated discharges to other jurisdictional areas.

Material other than hard clams and oysters collected during the mechanized harvesting operations shall be instantaneously returned to the immediate harvested area.

Based upon the above, no long term adverse impacts are anticipated from the applicant's mechanical harvesting activities.

4.0 Special Conditions

- 4.1 Are special conditions required to ensure minimal effects, protect the public interest and/or ensure compliance of the activity with any of the laws above?
Yes

Material other than hard clams and oysters collected during the mechanized harvesting operations shall be instantaneously returned to the immediate harvested area.

Rationale: This Special Condition is included to minimize and limit impacts to the immediately harvested area and to avoid potential associated discharges to other jurisdictional areas.

5.0 Determination

- 5.1 Waiver request conclusion, if required or select N/A: N/A
- 5.2 The activity will result in no more than minimal individual and cumulative adverse effects on the aquatic environment and will not be contrary to the public interest, provided the permittee complies with the special conditions identified above.
- 5.3 This activity, as described, complies with all terms and conditions of the permit identified in Section 1.5.

PREPARED BY:

William T. Bruno
Project Manager, Eastern Section

Date: _____

REVIEWED AND APPROVED BY:

Stephan A. Ryba
Chief, Regulatory Branch

Date: _____

MEMORANDUM FOR THE RECORD

SUBJECT: Compliance Review of Frank M Flower & Sons Shellfish Current Harvesting Operations in Regard to New York State Regional Conditions for Nationwide Permits.

1. Reference is made to

a. CENAN-OP-R letter dated 11 May 2017, SUBJECT: Frank M. Flower and Sons, Inc.; Town of Oyster bay, Nassau County, New York.

b. CENAN-OP-RE Memorandum dated 19 June 2017, SUBJECT: USACE meeting with Frank M. Flower and Sons, Inc. regarding mechanized shellfish harvesting activities.

c. CENAN-OP-R Memorandum dated 03 July 2017, SUBJECT: Discussions of 2017 Nationwide Permits Decision Documents with CECW-CO-R in regards to Mechanized Shellfish Harvesting Activities and Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899.

d. Title 33 Code of Federal Regulations Parts 320 - 330

e. Frank M. Flower and Sons, Inc. submittals dated 14 June 2017 and 6 July 2017 in response to reference 1 (a)

f. 33 CFR 323 Revisions to the Clean Water Act Regulatory Definition of "Discharge of Dredged Material": Final Rule, dated 23 December 2008.

g. Final New York Regional Conditions for 2012 Nationwide General Permit Number 48 Commercial Shellfish Aquaculture Activities

h. Final New York Regional Conditions for 2017 Nationwide General Permit Number 48 Commercial Shellfish Aquaculture Activities

2. The purpose of this memorandum is to review Frank M Flower and Sons' (Flower) operations in Oyster Bay, New York based on complaints from Mr. William Painter and Mr. Robert Wemyss raised to CENAN during a meeting on 02 May 2017. The complaint was that Flower's operations are not in compliance with the Corps' regulatory program and that these operations result in increased turbidity and sediment transport to adjacent waters in Oyster Bay which results in negative environmental impacts to Oyster Bay.

3. This review will determine whether or not Flower's harvest activities in question are subject to Section 10 of the Rivers and Harbor Act of 1899 (33 U.S.C. 403) and subject to Section 404 of the Clean Water Act (33 U.S.C. 1344). If Flower's operations are determined

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to be within the regulatory jurisdiction of the Corps of Engineers, this memorandum will also determine whether or not the Flower's activities are authorized by, and in compliance with, the Final New York Regional Conditions for 2017 Nationwide Permit No. 48 COMMERCIAL SHELLFISH AQUACULTURE ACTIVITIES. In order to initiate this review CENAN-OP-R letter dated 11 May 2017 was sent to Flower requesting information and informing them of our investigation of allegations received regarding their on-going shellfish harvesting activities.

4. In response to CENAN-OP-R letter dated 11 May 2017 ((reference 1(a)), this office met with Flower on 30 May 2017 (reference 1(b)) to understand their current and ongoing mechanized shellfish harvesting activities in the Oyster Bay regarding the Corps Regulatory program requirements. During the meeting, Flower agreed to submit a report to this office regarding their mechanized shellfish harvesting operation activities as well as information on their avoidance of potential endangered species impacts.

5. In a letter dated 14 June 2017, Flower provided this office with a description of their harvesting operations and a report on potential turbidity impacts to threatened, endangered or candidate species or designated critical habitat that may be affected in the vicinity of the project in response to reference 1 (a). Additionally, Flower provided copies of scientific references for the impact analyses contained within their submittal. On 26 June 2017 CENAN-OP-R requested additional information on whether their shellfish harvesting activities would result in the destruction or degradation of waters of the United States within Oyster Bay.

6. Review of the 14 June 2017 and 06 July 2017 submittals (reference 1(e)) from Flower indicate that they are currently using a total of six vessels for harvesting operations, two to three days a week within the leased/public lands at a distance of at least 75-100 feet from the boundary of the leased/public lands.

a. For clam harvesting in soft-bottom areas, Flower employs up to four boats each dragging a harvesting sled equipped with hydraulically assisted (water jets) harvesting gear. The towed sled cuts into the bottom sediment to a depth of 3.5-inches and is equipped with water jet pipes which pump water into the basket / cage to push clams into the basket and break up sediment clumps and keep the basket / cage from also collecting sediment. It is noted that the orientation of the water jet pipes employed by Flower are different than the jets described by Wemyss and Painter. Review of Flower's submittals and pictures of the harvesting equipment indicate the water jets are positioned at a 15-degree angle which results in the water being forced through the back of the basket cage rather than directly into the bottom sediment.

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b. For oyster harvesting in hard-bottom areas, Flower employs two boats equipped with a venturi suction dredge pump. The suction dredge pump pulls water upwards to the bay's surface. Material that is recovered with the upward flow of water is deposited onto a mesh conveyor wherein the collected material is sorted material by size with the immediate return of the collected non-oyster material back into the bay's harvest area waters. Oysters (and larger materials) retained by the inch-diameter mesh are sorted by market size. Sub-market-sized oysters are transported and transplanted for additional grow out in another hard-bottom area of the bay. Broken shell material (and other larger materials) are moved returned to back into the bay's harvest area waters.

7. Applicable Regulatory Authorities:

a. Rivers and Harbors Act of 1899, 33 U.S.C. 403. Section 10 of this law establishes authority to issue permits for structures and/or work in, or affecting navigable waters of the United States (33 CFR 322.3). The criterion for jurisdiction under Section 10 is that the activities consist of "structures or work" in navigable waters of the United States (33 CFR 322.1), and work is further described as: "The term work shall include, without limitation, any dredging or disposal of dredged material, excavation, filling, or other modification of a navigable water of the United States." (33 CFR 322.2(c)). As both types of vessels employed in the harvesting operations are excavating sediments and other materials, without removal from underwater location, the routine shellfish harvesting activities of each of these vessels would be within the jurisdiction of Section 10.

b. Clean Water Act, 33 U.S.C. 1344. Section 404 of this law establishes authority to issue permits for the discharge of dredged or fill material into waters of the United States. In a letter dated 06 July 2017, Flowers provided this office with justification that their above referenced shellfish harvesting activities would not result in the destruction or degradation of waters of Oyster Bay, in accordance with 33 CFR 323.2(d)(3),(4) and (5).

Review of the Flower's harvesting operations indicates that their stated operations appear to involve the disturbance and fallback of bottom sediment which takes place in substantially the same bottom location as the initial disturbance associated with the mechanized harvesting techniques utilized in the collection of shellfish. Flower's submittals present multiple references to scientific literature which note that shellfish harvesting activities in silty muddy bottom areas, such as within Oyster Bay, result in a mobilization of very fine sediment particles within the water column while a majority of the material (e.g. sand) falls back to the bottom within a few feet of the path of the harvesting equipment. The fallback of sediment is incidental because the material is not held or moved for any substantial length of time or

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distance prior to release. The scientific literature indicates that while the fine sediment particles may take hours to settle from the water column, the mass of these particles in the water column is insignificant and comparable to background levels once the particles are more than 75-feet from the harvesting location. Since Flower does not plant seed shellfish within 75 feet of the lease boundaries in order to lower potential for poaching activities and to concentrate the harvest area to improve productivity, Flower's harvesting activities are generally confined to those leased grounds 75-feet inside of the established leased area boundaries. As such the fine materials are at background levels outside of their leased underwater areas.

Flower has indicated that there has been no detectable decrease in ecosystem function on the leased beds and that Flower's shellfish beds remain highly productive, despite decades of repeated mechanical harvest activity. The public grounds adjacent to the leased areas have not shown any detectable decrease in ecosystem function as demonstrated by the 2012 Clam Density Study for Oyster Bay by Cashin Associates and data from NYSDEC's shellfish landings reports which continue to show an abundance of shellfish on the non-leased grounds. The Cashin study states that the density of shellfish has increased in abundance from 2007 to 2011 during time period which clam resources were subject of active commercial fishery. This office coordinated with NYSDEC on the review of Flower's submittals and received confirmation from the State that mechanized harvesting activities do not involve unacceptable turbidity levels and do not result in any overall long term negative impacts in Oyster Bay. The State also commented that annual shellfish landings data recorded by NYSDEC indicate that Oyster Bay is the most productive area in the New York. Further, the current activities do not have the effect of destruction or degradation of these waters because hydraulic dredge harvesting operations have been continuous on these leased/public lands since 1994. As the leased/public lands have been subjected to shellfish harvesting for many years, the two harvesting activities employed by Flower appear to have only a de minimis effect on the area into which the material is released. The fallback of this material is inconsequential as it does not have the effect of eliminating/destroying or degrading waters in the vicinity of the work area.

In a teleconference on 20 June 2017, CECW-CO-R stated Flower's hydraulic dredge harvesting operations could be considered as incidental fall back as the operations do not meet the definition of discharge within 33 CFR 323.3 (reference 1 (c)). Based on the above, it is the determination of this office that the Flower has sufficiently demonstrated that their mechanical harvesting techniques do not destroy/degrade waters of the United States; do not involve the discharge of dredged or fill material, and therefore do not require authorization under Section 404 of the Clean Water Act.

SUBJECT: Compliance Review of Frank M Flower & Sons Shellfish Current Harvesting Operations in Regard to New York State Regional Conditions for Nationwide Permits.

8. Compliance with Nationwide Permits:

a. The text of Nationwide Permit Number 48 Commercial Shellfish Aquaculture Activities (references 1(g) and (h)) state that shellfish seeding and mechanized harvesting activities are authorized by this Nationwide Permit (NWP).

b. Flower's mechanical harvesting operations did not require preconstruction notification in the 2007 NWPs and would have been considered as a no effect determination in regards to ESA under the 2012 NWP Regional Conditions. Upon expiration of the NWPs, the Corps review the prior NWPs and conditions to consider modifications to, reissuance of, or the need to revoke the permits (33 CFR Part 330.6(b)). Activities which were commenced or are under contract to commence in reliance upon an NWP remain authorized provided the activity is completed within twelve months of the date of an NWP's expiration, modification, or revocation, has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 330.4(e) and 33 CFR 330.5 (c) or (d). As the Flower shellfish harvesting operations have been continuous for many years they are considered by this office to have been commenced in reliance of the permit prior to the date that the current NWP was reissued on 19 March 2017.

c. The recent modification to the NWP Regional Conditions included the following permit-specific Regional Condition: "Within National Marine Fisheries Service (NMFS) Threatened, Endangered or Candidate (TE&C) habitat as discussed in Section G-E.8. below, any work that would generate turbidity or sedimentation shall be avoided from March 16 to October 31. A PCN is required if a variance of this seasonal work window is requested."

d. Based on the NMFS restrictive work window and the continuing harvesting operations being performed, Flowers is not in compliance with the 2017 NWP Regional Conditions as noted in our letter to their attention dated 11 May 2017.

9. The activities outside of the normal mechanized harvesting processes that involve discharge of sediment alleged by Mr. Robert Wemyss and Mr. William Painter have not been confirmed during the investigation completed by this office.

10. It is recommended that Flower be notified that they may proceed with the current mechanized harvesting processes described within the above referenced submittal in reliance of prior authorization under the 2012 NWP Regional Conditions for the State of New York. As Flower's current operations have commenced in reliance of prior NWP, these activities would be considered as authorized for one year from the issuance date of the 2017 NWP Regional Conditions for the State of New York, specifically 19 March 2018

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or until such time that Flower has received written verification that they are in compliance with the 2017 NWP Regional Conditions for the State of New York in accordance with 33 CFR 330.6(b) and as noted in Section J. INFORMATION ON NATIONWIDE PERMIT VERIFICATION of the Final Regional Conditions for NWP-48 for the State of New York dated 30 May 2012 (reference 1 (g)). This one year authorization will provide Flower with the opportunity to seek a waiver from the New District Only Permit-specific Regional Condition concerning avoidance of work activities involving turbidity or sedimentation during the time period of March 16 to October 31 and bring their work activities into compliance with the NWP Regional Conditions.



STEPHAN A. RYBA
Chief, Regulatory Branch

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