

Final Environmental Assessment

Reevaluation of Recreational Shellfishing at Congressman Lester Wolff Oyster Bay National Wildlife Refuge

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Prepared by:

Congressman Lester Wolff Oyster Bay National Wildlife Refuge

Oyster Bay, NY

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Executive Summary

This environmental assessment (EA) evaluates two action alternatives and a no action alternative. The proposed action would allow recreational shellfishing with U.S. Fish and Wildlife Service (FWS) oversight and stipulations at the Congressman Lester Wolff Oyster Bay National Wildlife Refuge (refuge) based on a finding that it is compatible with refuge purposes and the mission of the National Wildlife Refuge System (Refuge System). Shellfishing has occurred at the refuge for decades through the reserved rights of the Town of Oyster Bay (Town) on Long Island, New York. Under the no action alternative, recreational shellfishing would continue to occur within the refuge but without FWS oversight or stipulations ensuring compatibility.

This EA examines the potential environmental impacts associated with the proposed action and complies with the National Environmental Policy Act (NEPA)¹ in accordance with the Department of the Interior NEPA regulations (43 CFR 46; 516 Department Manual, or DM, 8), Department of Interior Handbook of National Environmental Policy Act Implementing Procedures (516 DM 1), FWS policy (550 Service manual, or FW, 3), and other relevant regulations and requirements. NEPA requires examining the proposed action's effects on the natural and human environment.

The following resources were analyzed in the EA: wetland habitat and vegetation; fish and wildlife species; candidate, threatened, and endangered species; special status species; water quality; cultural and historic properties; socioeconomic; public health and safety; visitor use and experience; and refuge management, operation, and administration (see Chapter 3 for more information). The FWS initially considered several other resources (floodplains, air quality, geology and soils, soundscapes, climate, and land use), which were ultimately dismissed from further analysis because neither the proposed action nor its alternative would have the potential to result in impacts on these resources.

¹ Executive Order 14154, Unleashing American Energy (Jan. 20, 2025), and a Presidential Memorandum, Ending Illegal Discrimination and Restoring Merit-Based Opportunity (Jan. 21, 2025), require the Department to strictly adhere to the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 et seq. Further, such Order and Memorandum repeal Executive Orders 12898 (Feb. 11, 1994) and 14096 (Apr. 21, 2023). Because Executive Orders 12898 and 14096 have been repealed, complying with such Orders is a legal impossibility. The FWS verifies that it has complied with the requirements of NEPA, including the Department's regulations and procedures implementing NEPA at 43 C.F.R. Part 46 and Part 516 of the Departmental Manual, consistent with the President's January 2025 Order and Memorandum. The FWS has also voluntarily considered the Council on Environmental Quality's rescinded regulations implementing NEPA, previously found at 40 C.F.R. Parts 1500–1508, as guidance to the extent appropriate and consistent with the requirements of NEPA and Executive Order 14154.

Based on the analysis presented in the EA and coordination and consultation with all appropriate federal, State, and local agencies, as well as federally recognized Native American tribes, the FWS has determined that the impacts associated with the proposed action and its alternative would not individually or cumulatively have a significant impact on the quality of the natural and human environment.

The draft EA was made available for public comment for 30 days from April 20, 2026, as part of a package that included a commercial shellfishing EA. No public comments were received on the recreational shellfishing EA. Intra-service Endangered Species Act section 7, Essential Fish Habitat, and National Historic Preservation Act section 106 consultations were completed between May and June 2026.

Chapter 1: Introduction

1.1 Background

National Wildlife Refuges (NWR) are guided by the mission and goals of the Refuge System, the purposes of an individual refuge, federal laws and executive orders, FWS policy, and international treaties. Relevant guidance includes but is not limited to the National Wildlife Refuge Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (16 United States Code [U.S.C.] 668dd et seq.) (Refuge Improvement Act); the Refuge Recreation Act of 1962; and selected portions of the CFR and the FWS manual.

See Appendix A for a list of relevant laws and regulations.

The mission of the Refuge System, as outlined by the Refuge Improvement Act, is:

“to administer a national network of lands and waters for the conservation, management and, where appropriate, restoration of the fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”

The Refuge Improvement Act directs the Secretary of the Department of the Interior to ensure that refuges are fulfilling the intended mission of the refuge system and the purposes of individual refuges (16 U.S.C. 668dd(5)(a)(3)(A-M)).

Congressman Lester Wolff Oyster Bay National Wildlife Refuge (renamed from Oyster Bay NWR in 2020) was established in 1968 “...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds...” (Migratory Bird Conservation Act, as amended [16 U.S.C. 715-715d, 715e, 715f-715r]). The refuge includes more than 3,000 marine acres composed of bay bottom in portions of Oyster Bay and Cold Spring estuary complex (estuary), donated to the FWS by the Town. The refuge is part of the Long Island NWR Complex (Complex) with headquarters located in Shirley, New York.

Goals from the 2006 Long Island NWR Complex Comprehensive Conservation Plan (CCP) relevant to this EA's proposed action include:

- Restore the biological health of aquatic habitats to high quality conditions on the Complex salt marshes, bays, tidal tributaries, and impoundments to benefit waterfowl and shorebirds dependent on these systems, while also supporting other native, wetland-dependent species.
- Provide priority wildlife-dependent recreational and educational opportunities when compatible with the resources and available funding.
- Communicate and collaborate with local communities and partners throughout Long Island to promote the Refuge System and the Complex.

Per the 1968 deed that established the refuge by donation from the Town, the right to issue leases, agreements and permits for shellfishing was reserved by the Town. The deed states that "the conveyance of such lands shall be subject to existing leases and agreements including without limiting leases for piers and shell fish, renewals of leases and agreements covering same, permits for taking shellfish or other products therefrom... provided that...such leases, agreements, renewals, and permits are not incompatible with the use of such lands for a migratory bird refuge, and fish and wildlife purposes."

1.2 Purpose and Need for Action

The purpose of the proposed action is to fulfill the agency's responsibilities under the Refuge Improvement Act regarding appropriate and compatible uses of the refuge, and thus ensure that recreational shellfishing, when administered by the Town in collaboration with FWS, would not detract from the refuge purpose or the Refuge System mission.

The need for the proposed action is to comply with the Refuge Improvement Act's requirement that FWS reevaluate each existing wildlife-dependent recreational use at least every 15 years, and to meet terms of a legal settlement in *North Oyster Bay Baymen's Ass'n v. U.S. Fish and Wildlife Service, et al.*, C.A. No. CV-23-3155 (E.D.N.Y.) See 16 U.S.C. § 668dd(d)(3)(B)(vii); 50 C.F.R. § 26.41(a)(15). The legal settlement involved a lawsuit by the North Oyster Bay Baymen's Association and Center for Food Safety on April 26, 2023, which alleged that FWS violated the Refuge Improvement Act by failing to reevaluate the compatibility of shellfishing and failing to issue special use permits for commercial activities in the refuge. The lawsuit was settled on April 29, 2024, requiring that FWS issue a compatibility determination (CD) evaluating whether shellfish harvesting, including via hydraulic and mechanical dredging, is compatible with the refuge's purposes or Refuge System mission.

This EA serves as the NEPA compliance that analyzes the anticipated impacts on environmental, cultural, and historic resources if recreational shellfishing on the refuge is allowed. A separate EA and CD analyze the impacts of aquaculture and commercial shellfishing on the refuge. FWS is distinguishing recreational shellfishing from commercial shellfishing due to differences in

harvest methods, tools, environmental impacts, locations, and seasonal timing. In addition, recreational shellfishing is considered a wildlife-dependent, priority public use of the refuge, whereas commercial shellfishing is not. As a result, each use is subject to a different standard when evaluating compatibility under FWS regulations (50 C.F.R. § 29.1).

1.3 Proposed Action

The FWS proposes to find that recreational shellfishing within the refuge boundary is compatible with refuge purposes or the mission of the Refuge System. The finding is based on a reevaluation of the impacts of recreational shellfishing use in the refuge.

Recreational shellfish harvesting consists of hand and hand tool harvesting of shellfish, as defined by New York State (6 CRR-NY 47.1) comprised of bivalves regulated by the Town and New York State (State) that may occur in the refuge: hard clams or quahogs (*Mercenaria mercenaria*), soft shell clams or steamers (*Mya arenaria*), Eastern oysters (*Crassostrea virginica*), blue mussels (*Mytilus edulis*), bank or ribbed mussels (*Geukensia demissa*), and bay scallops (*Argopecten irradians*) harvested for personal use. All shellfishing activities must comply with Town's shellfish permit requirements and the Town Code, all applicable New York State Department of Environmental Conservation (NYDEC) regulations, and with any additional requirements of FWS.

Pursuant to its reserved rights, the Town permits recreational shellfishing within the estuary, including areas located within the refuge. Per Town Code, permitted users are residents of the Town who have secured a personal shellfish harvest permit from the Town Clerk. Methods of harvest vary based on target species and may be influenced by depth of water and bottom substrates. Shellfish permits are valid from July 1 of the year of issuance to the last day of June of the following year. The Town Code does not establish a limit on the number of personal permits that can be issued annually; the Town issued 313 permits for 2023-2024, 337 permits for 2024-2025, and, as of October 2025, 302 permits for 2025-2026. These permits are for the entirety of Town waters including north and south shore embayments along with refuge waters. While all permittees would have access to harvest on the refuge, the anticipated number of harvesters on the refuge would likely be less, as there are more opportunities for harvest areas within the Town than only those found on the refuge.

Personal permits currently allow a maximum of ¼ bushel per day of combined shellfish species. Bushels are a unit of volume and could contain variable numbers of shellfish based on the size of each individual shellfish. For example, ¼ bushel of littleneck sized hard clams (~2" wide) is approximately 100 clams, while chowder sized hard clams (~4") would be approximately 50 clams. Harvest limits apply to the totality of Town waters for all species of shellfish, not just those waters within the refuge.

As of January 2026, the Town allows harvest of shellfish year-round between sunrise and sunset only. The Town maintains seasonal restrictions on harvesting bay scallops. Harvest seasons for

all shellfish may vary from year to year and current information is found on the Town's website and within Town Code. The refuge will allow the use in alignment with the Town seasons and daily hours. The Town has informed FWS that virtually all recreational shellfishing takes place in warmer weather from spring to fall.

The Town stipulates gear restrictions according to species and restrictions can be reviewed in the Town Code, § 196-19. The code restricts harvest gear to use of bare hands and hand tool harvest techniques without the use of power.

A proposed action is an initial proposal and may evolve during the development of alternatives, the impact analysis, and public involvement. The lead federal agency may determine that there are other, better, or less impactful ways to address the purpose and need, resulting in a different preferred alternative. The proposed action and alternatives may change during the NEPA process as the agency refines its proposal and gathers feedback from the public, federally recognized tribes and tribal entities, and other agencies or organizations. Therefore, the final preferred alternative may differ from the initial proposed action and will be finalized at the conclusion of the public comment period after the incorporation of substantive comments. A decision to implement a proposed action will not be made until the environmental review process is complete.

Chapter 2: Alternatives

2.1 Decision Framework

Following completion of the EA, the Assistant Regional Director for Refuges in the Northeast Region of the FWS will determine if the selected alternative is a major federal action that would significantly affect the quality of the human environment and, require preparation of an environmental impact statement or, alternatively, determine there would be no significant effects to the human environment and complete a Finding of No Significant Impact (FONSI).

The manager of Congressman Lester Wolff Oyster Bay NWR recommends Alternative B: Allow Recreational Shellfishing to the Assistant Regional Director for Refuges. This alternative continues to provide recreational opportunities for priority public use on the refuge and was determined to be compatible with stipulations based on the analysis documented in the draft CD.

2.2 Alternatives

Alternative A – Allow recreational shellfishing without FWS oversight and use stipulations –No Action Alternative

This alternative represents the status quo, which is to allow the Town to administer recreational shellfishing on the refuge without FWS oversight or use stipulations. This alternative would allow the continued recreational harvest of hard clams, soft shell clams,

oysters, blue and ribbed mussels and bay scallops in accordance with Town and State regulations.

In the draft CD, FWS finds that recreational shellfishing is compatible with refuge purposes only with the implementation of a set of stipulations that govern the methods and that require coordination with FWS on issues such as monitoring of populations and impacts. This alternative would not provide a mechanism for temporal, spatial, or harvest methodology limits based on impacts discerned through monitoring. This alternative would not achieve the need as described in Chapter 1 and therefore is not identified as the preferred alternative.

Alternative B – Allow recreational shellfishing with FWS oversight and use stipulations – Preferred Alternative

Under the preferred alternative B, the refuge would allow recreational shellfishing through close coordination between the Town and FWS implementing adaptive management to ensure the use remains compatible. The Town of Oyster Bay issues permits for shellfishing in the estuary.

Recreational shellfishing is subject to limits by Town of Oyster Bay regulation, such as time of day, quantity of harvest, and methods of harvest. The species to be harvested include hard clams, soft shell clams, oysters, bay scallops, and blue mussels. Harvesting of ribbed or bank mussels will not be allowed due to a stipulation in the CD that limits harvesting shellfish from salt marsh habitats. The Town will coordinate with FWS in establishing and adjusting these harvest limits within the refuge to ensure the use remains compatible. These limits will prevent adverse impacts to refuge resources from recreational shellfishing.

Recreational shellfishing takes place on tidal flats or in shallow water outside of salt marsh habitats. The Town does not allow recreational shellfishing by boat. Harvest of shellfish can occur in certified waters that are not otherwise restricted within protected Marine Management Area (MMA) or Shellfish Sanctuary Area (SSA) designation.

As noted previously, recreational fishing is a priority wildlife-dependent use on refuges. Furthermore, this alternative aligns with the Department of the Interior Secretarial Order (S.O.) 3347 Conservation Stewardship and Outdoor Recreation, S.O. 3447, Expanding Hunting and Fishing Access, Removing Unnecessary Barriers, and Ensuring Consistency Across the Department of Interior Lands and Waters, and S.O. 3356 Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories.

This alternative best accomplishes the purpose and need of this Environmental Assessment, as described in Chapter 1.

Alternatives Considered, But Dismissed from Further Consideration

Alternative C – Prohibit recreational shellfishing

Under this alternative, FWS would prohibit recreational shellfishing on the refuge, reversing decades of historical precedent and denying the Town its reserved rights specified in the deed that established the refuge. Such an action would require FWS to find that these uses were not compatible with refuge purposes or the mission of the Refuge System. However, FWS concludes that recreational shellfishing is a form of fishing that is compatible with refuge purposes in the draft CD. Fishing is recognized as a traditional recreational use of renewable natural resources deeply rooted in America's heritage and can be an important wildlife management tool. National Wildlife Refuges conduct fishing programs within the framework of federal, State, and refuge specific regulations. The Refuge System Improvement Act and FWS policy permit fishing on a refuge as a priority wildlife-dependent recreational opportunity when it is compatible with the purposes for which the refuge was established and acquired. Those fishing on refuges are expected to be ethical and respectful of other users, wildlife species, and the environment while on refuge lands. Given the result of the draft CD, this alternative was not carried forward for further consideration by FWS.

Chapter 3: Affected Environment and Environmental Consequences

This section is organized by affected resource categories. Each affected resource section discusses the existing environmental baseline in the impact zone (potential area of impact of any of the alternatives) and the effects of the alternatives on each resource. Effects from the proposed action or alternatives are reasonably foreseeable changes to the human environment, whether adverse or beneficial as compared to the environmental baseline for the no action alternative. The impact analysis directly follows the description of the affected environment for a resource and is organized by alternative.

3.1 General Description of Affected Environmental Applicable to All Affected Resources

The refuge consists of more than 3,000 acres located in the Town of Oyster Bay in Nassau County, New York. The refuge consists primarily of open water bay (92%) with interspersed shoreline habitat (8%). There are approximately 210 acres of intertidal and subtidal habitat on the refuge where recreational shellfishing could occur, with an additional 20 acres that are seasonally open to harvesting (for a total of 230 acres).

Although the Town of Oyster Bay issues around 300 recreational permits annually, the number of individuals who would potentially engage in recreational shellfishing within the refuge is anticipated to be much lower as those permits issued provide access to significantly more harvest areas owned by the Town outside of the refuge. The tidal areas available within the refuge are less than half of the total area within the estuary where recreational shellfishing could occur based on the available habitat and State and local regulations. The FWS has

identified several limitations to access for recreational shellfishing within the refuge that are beyond FWS authority; these include limited public access points where private land abuts the refuge, limited habitat appropriate for shellfish harvesting, and areas located within uncertified waters (i.e., areas where the State prohibits shellfish harvest). As a result of these limits on public access within the refuge, FWS anticipates that the number of individuals who engage in recreational shellfishing on the refuge is relatively low.

3.2 Natural Resources

Wetland Habitat and Vegetation: Affected Environment

The refuge has approximately 3,000 acres of tidally influenced open bay 2 to 9 meters in depth. The refuge also includes a variety of wetland types, including salt marsh, strand or beach habitat, and unvegetated intertidal mudflats. The vegetative community of salt marsh comprises salt hay (*Spartina patens*), cordgrass (*Spartina alterniflora*), saltgrass (*Distichlis spicata*), blackgrass (*Juncus gerardii*), and saltmarsh bulrush (*Bolboschoenus maritimus*) (USFWS 2006). Salt marshes are crucial habitats for fish, birds, aquatic species, and small mammals, providing shelter, food, and nursery grounds (Morgan et al. 2009). Several species of marsh-obligate birds are dependent on salt marshes during the breeding season (Hartley and Weldon 2020). The salt marshes around the estuary are primarily narrow fringing marshes that benefit the estuary by trapping sediment, reducing the height of waves and other ecological functions (Morgan et al 2009).

Meadows of eelgrass (*Zostera marina*) were historically the most abundant submerged aquatic vegetation (SAV) in Long Island Sound and are an important component of estuarine systems. There are two historically mapped locations of eelgrass meadows within the estuary but they are no longer present (Long Island Sound Partnership, 2003). Eelgrass meadows create structure, act as a nursery and settlement site for fish and shellfish, and are a food source to numerous estuarine and marine species including waterfowl (Carroll et al., 2008) and green sea turtles (*Chelonia mydas*). Eelgrass is especially important in the diets of American wigeon (*Mareca americana*) and brant (*Branta bernicla*), and many other dabbling ducks, diving ducks, and geese (Kollars et al., 2017).

Benthic (bay bottom) communities perform important ecological functions including cycling of nutrients, providing structure and habitat for other organisms, supporting planktonic food web interactions, and supplying prey to birds and bottom-dwelling fishes (Flanagan et al., 2019). Among the benthic organisms, oysters, clams and other bivalves are noteworthy in their ecological contributions. As reviewed in Coen et al. (2007), Gobler et al. (2022), and the Long Island Sound Partnership (2018), bivalves serve as “ecosystem engineers” that provide several important ecosystem services. First, oyster reefs and clam beds serve as habitat (Coen et al., 2007), foraging grounds, and food for crabs and other invertebrates, fish, and birds (Long Island Sound Partnership, 2018). Second, they perform substantial filtering of bay waters, removing suspended solids, nutrients, and phytoplankton from the water column (Gobler et al., 2022,

Coen et al., 2007, Long Island Sound Partnership, 2018). When present in sufficient numbers, they can thereby improve water quality and clarity. This can help in controlling harmful algal blooms and facilitate the growth of submerged aquatic vegetation (SAV) (Gobler et al., 2022). Third, oyster reefs can protect shorelines from storms, supporting the growth of tidal marsh and SAV (Long Island Sound Partnership, 2018). Finally, they support substantial commercial and recreational fisheries (Long Island Sound Partnership, 2018). Over the past 150 years, bivalve populations have declined across the eastern seaboard including Long Island, and efforts have been underway to restore their populations. The Town is implementing an aquaculture and ecological restoration program to increase shellfish populations within the estuary.

The tidal areas where the recreational shellfishing activities would occur on the refuge are approximately 230 acres, 20 acres of which are subject to seasonal State closures. However, the actual area would be much smaller given challenges of access to the refuge shoreline where private land abuts it.

Wetland Habitat and Vegetation: Environmental Consequences

Alternative A

There are few studies (Cerrato & Holt, 2008; Cashin Associates P.C., 2023; Mueller, 2023; Cashin Associates P.C., 2025) available on the impacts of shellfish harvesting within the refuge, so we use the best available information on impacts of shellfish harvesting studied and documented in similar habitat and ecosystem types to draw inferences on potential impacts within the refuge. The physical actions of shellfishing may loosen and turn over bottom sediment, causing turbidity. Suspended sediments and accompanying sedimentation may smother or otherwise inhibit bottom-dwelling organisms, especially sensitive eggs and larvae (Nightingale and Simenstad, 2001; Wilber and Clarke, 2001) and stationary species.

Abrasion and excavation of the seabed (including oyster beds, where present) may change the physical structure of the substrate, which constitutes habitat for a variety of organisms (Mercaldo-Allen and Goldberg, 2011). Alteration of sediment and vertical structure may negatively impact organisms through the loss of suitable habitat for larval settlement, foraging habitat, and removal of fauna (Dernie et al., 2003). Raking for shellfish could also uproot eelgrass and other SAV. Trampling of the substrate by recreational harvesters may compact the sediment, altering its porosity and penetrability. Walking on intertidal mudflats can negatively impact organisms by crushing or displacing them, resulting in competition and predation, and by destroying burrows and disrupting benthic biofilm (Rossi et al., 2007). On the other hand, harvesting activities on otherwise relatively homogenous tidal flats might create a more complex microtopography by providing structural diversity.

The degree to which such impacts will occur is highly dependent on factors such as the frequency, duration, intensity (number of harvesters, areal extent and depth of harvesting activities), and efficiency of harvest effort; the physical nature of the substrate (bottom); and

the types of tools used by the harvesters. During a 2023 field investigation (September-October) recreational harvesters were not observed using the refuge (Town of Oyster Bay, “Personal Communication” October 2, 2025, Email). This information, coupled with limited public access areas and the historically limited number of individuals interested in obtaining a permit, leads the FWS to conclude that recreational shellfishing at Oyster Bay is currently minimal and will likely have minimal impacts on the refuge’s habitats and vegetation, including shoreline vegetation and essential fish habitat.

Ribbed mussels live in salt marshes, partially embedded in peat and sediment, alongside salt marsh plants. A study in South Carolina examined the impact of commercial harvest of ribbed mussel on salt marsh health. Anticipated impacts to the salt marsh from harvest included sediment disturbance and damage to the stems, roots and rhizomes of vegetation, specifically saltmarsh cordgrass (Julien et al., 2020). The results of the study indicated decreased aboveground biomass and percent of flowering stems in areas where ribbed mussels had been removed (Julien et al., 2020). Although stem density did not differ significantly, the small plot size might have enabled plants to regrow from nearby rhizomes (Julien et al., 2020). Juvenile mussel recruitment was low in both partially and fully harvested plots (Julien et al., 2020). The removal of mussels, and the reduction of plant biomass have significant impacts on the health of salt marshes, leading to a decrease in water quality, and reduced sediment retention. The loss of vegetation also impacts the marsh's role in providing essential habitats and breeding grounds for various species.

Under the no action alternative, recreational shellfishing by Town residents would continue on the refuge without FWS oversight or use stipulations. Although the Town of Oyster Bay issues approximately 300 shellfishing permits yearly, substantially fewer individuals would undertake recreational shellfishing activities on the refuge due to limitations outside FWS authority (refuge lands are primarily accessible via water or through private land) and more acres of suitable shellfishing areas in other areas of the estuary.

However, if the use increases to the point where negative impacts become more substantial—such as significant sediment compaction or vegetation loss due to repeated trampling—and those impacts exceed what is considered minor and temporary, FWS would lack a mechanism to modify or manage the activity to ensure it remains compatible with refuge purposes or the Refuge System mission.

Alternative B

The impacts under the preferred alternative would be the same as those under Alternative A, except that, if negative impacts increase, FWS would collaborate with the Town to modify the use to ensure the impacts remain minor and the use remains compatible with refuge purposes or Refuge System mission.

Fish and Wildlife Species: Affected Environment

Congressman Lester Wolff Oyster Bay NWR, despite its dense neighboring human population, supports a wide variety of species, including marine mammals, birds, fish, and aquatic invertebrates. Several designations highlight the importance of the estuary for fish, birds and wildlife. The State of New York considers Oyster Bay and Cold Spring Harbor and associated tributaries to be Significant Coastal Fish and Wildlife Habitats (NYSDOS, 2005a, 2005b). Oyster Bay is also identified as a State Priority Important Bird Area (IBA) by the National Audubon Society. Important Bird Areas are discrete sites that support a large concentration of birds or provide habitat for a threatened or rare species or provide habitat for a bird with a limited range. The Oyster Bay IBA is described as having a developed shoreline but still offering significant wetland, shrub/scrub and forest habitats that benefit waterfowl, waterbirds and migratory songbirds (National Audubon Society, 2025).

The estuary is located within the Long Island Sound watershed, a designated “Estuary of National Significance.” National estuaries are established to protect and restore water quality and ecological integrity. Conservation issues identified in the estuary include water pollution and water quality, contaminants and nutrient loading, sedimentation, and potential future development leading to increased pollution and disturbance problems within the watershed (National Audubon Society, 2025). Additional concerns include the need to avoid or reduce activities that lead to degraded water quality, impacts to vegetated upland buffer zones, alterations of tidal patterns and impacts from navigational dredging (Fuss & O’Neill, 2009; Long Island Sound Partnership, 2025; NYSDOS 2005a, 2005b). The Long Island Sound Partnership, Friends of the Bay and other organizations have identified a number of strategies to address conservation issues, improve habitats, and increase the abundance of wildlife in the estuary and broader Long Island Sound watershed published in the Comprehensive Conservation Management Plan (Long Island Sound Partnership, 2025) and the State of the Watershed (Fuss & O’Neill, 2009). In coordination with the Town and other stakeholders and partners, management of the refuge includes current understanding of the surface, subtidal, and benthic resources, combined with broad focus for a variety of migratory birds, shorebirds, and a host of additional species and habitat types discussed in this assessment resulting in an ecosystem-based management approach.

In the following review, species that the State of New York has identified as being of Special Status (such as being listed as endangered or threatened by the State) are marked with an asterisk (*). Federally threatened and endangered species (which typically are also of State concern) are reviewed in a separate section.

Birds

More than 125 bird species have been documented at the refuge, including 23 species of waterfowl (USFWS, 20006). Numerous waterfowl species overwinter in the estuary, with more than 20,000 ducks reported for one survey conducted during peak use. Other waterbirds found

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on the refuge in large numbers include double-crested cormorants (*Nannopterum auritum*), Forster's (*Sterna forsteri*) and common* terns (*Sterna hirundo*), wading birds, and shorebirds. Certain areas of Oyster Bay, like Mill Neck Creek and Frost Creek, provide breeding habitat for American black duck* (*Anas rubripes*), clapper rail (*Rallus crepitans*), and osprey* (*Pandion haliaetus*), among others.

Raptors—Raptor species observed at Oyster Bay include osprey, northern harrier* (*Circus hudsonius*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), merlin (*Falco columbarius*), sharp-shinned hawk* (*Accipiter striatus*), and bald eagle* (*Haliaeetus leucocephalus*).

Waterfowl—Oyster Bay has the greatest winter waterfowl use of any of the refuges in the Complex. The numbers of waterfowl using Oyster Bay are lowest from May through August and start to increase in September and October. Dabbling ducks such as American black duck, gadwall (*Mareca strepera*), and mallard (*Anas platyrhynchos*) start migrating to the refuge in early autumn, and their diversity begins to increase in November. Waterfowl numbers peak and remain high from December through March, then decline in April. The New York State Department of State's Coastal Management Program (NYSDOS, 2005) has singled out Oyster Bay as having the greatest concentration of waterfowl on Long Island's north shore. The three waterfowl species that most commonly use the refuge in winter, comprising approximately 85 percent of ducks, are greater scaup (*Aythya marila*), bufflehead (*Bucephala albeola*), and American black duck. The Bayville, Cold Spring Harbor, and Mill Neck Creek areas support waterfowl use during the same timeframes identified for Oyster Bay.

Shorebirds, Gulls, Terns and Allied Species—The most common waterbird on the refuge is the double-crested cormorant, which is seen year-round. Its numbers are highest from April through October. Great cormorants (*Phalacrocorax carbo*) appear at low numbers in the winter. Other waterbirds that use the refuge include loons (*Gavia* spp.), grebes (*Podilymbus podiceps* and *Podiceps grisegena*), herons and egrets (*Ardeidae* spp.). Gulls are common in the refuge and normally reach a maximum of about 1,500 birds in the winter. Herring gulls (*Larus smithsonianus*) are more numerous in winter than in the warmer months. Great black-backed gulls (*Larus marinus*) are present year-round but are less numerous than herring gulls. Ring-billed gulls (*Larus delawarensis*) also are common in the winter months but they, too, are fewer than herring gulls. Laughing gulls (*Leucophaeus atricilla*) use the refuge in the summer, and Bonaparte's gulls (*Chroicocephalus philadelphia*) in the winter. Terns use Oyster Bay from May through October. The habitat is valued as a tern forage site; common and least* tern (*Sternula antillarum*) use is heaviest from May through August. Forster's terns are present on the refuge in September and October. Seven species of shorebirds are commonly observed on the refuge. The most common include black-bellied plovers (*Pluvialis squatarola*), dunlins (*Calidris alpina*), greater yellowlegs (*Tringa melanoleuca*), and least (*Calidris minutilla*) and spotted sandpipers (*Actitis macularius*) (USFWS, 2006). Semipalmated sandpiper* (*Calidris pusilla*), short-billed dowitcher* (*Limnodromus griseus*), and Hudsonian whimbrel* (*Numenius phaeopus*) are all

listed as special status species by NYDEC and could have suitable habitat in areas of the refuge and adjacent areas.

Mammals

Harbor seals (*Phoca vitulina*) are observed within the estuary, primarily in March. Several species of bats are also known to occur around the estuary, but no impacts from recreational shellfishing are anticipated and they are not assessed further.

Reptiles and Amphibians

The northern diamondback terrapin (*Malaclemys terrapin*) is common within the estuary, particularly in the Frost Creek and Mill Neck Creek areas.

Aquatic Invertebrates

Bivalves and other mollusks—The estuary is home to populations of eastern oyster* and hard clam*, along with soft shell clams, blue mussels, bank or ribbed mussels, and bay scallops*. Other mollusk species may include shortfin squid (*Illex illecebrosus*), longfin squid (*Doryteuthis (Amerigo) pealeii*), and a variety of snail species (NOAA, 2025).

Crustaceans—Common crustaceans and other marine invertebrates that inhabit Long Island Sound and may be found in the estuary include American lobster (*Homarus americanus*), blue crab (*Callinectes sapidus*), and Atlantic northern shrimp (*Pandalus borealis*).

Arthropods—Horseshoe crabs (*Limulus polyphemus*), are residents of Long Island Sound utilizing the waters of the estuary and the surrounding beaches.

Fish

A variety of fish species are known to exist, forage, and migrate through the bay and refuge waters. The National Oceanic and Atmospheric Administration (NOAA) has designated areas of the estuary as “Essential Fish Habitat” for a number of species, including all of those listed in the remainder of this section. Species include Atlantic herring (*Clupea harengus*), Atlantic mackerel (*Scomber scombrus*), bluefish (*Pomatomus saltatrix*), black sea bass (*Centropristis striata*), pollock (*Pollachius virens*), scup (*Stenotomus chrysops*), and red hake (*Urophycis chuss*), among many others. Demersal/benthic fish species include summer flounder (*Paralichthys dentatus*), winter flounder* (*Pseudopleuronectes americanus*), windowpane flounder (*Scophthalmus aquosus*), winter skate (*Leucoraja ocellata*), and little skate (*Leucoraja erinacea*) (NOAA, 2025). Some of these fish are important prey for birds, marine mammals, turtles, and other fish.

Fish and Wildlife Species: Environmental Consequences

Alternative A

Recreational shellfishing, which would continue to occur under this alternative, has the potential for both direct and indirect impacts on wildlife. Direct effects to shellfish include the removal of individuals from the shellfish populations that occur on the refuge. Additionally,

shellfish harvesting can lead to the crushing, burial, trampling and exposure of both target and non-target shellfish as well as benthic worms, invertebrates and undersized shellfish. The significance and duration of these impacts are complicated to assess and depend on several important factors. One factor to consider is the intensity of shellfishing pressure. In situations where local shellfish density is high such that individuals are competing with each other for space and resources, then removal of large shellfish could benefit remaining shellfish and future settling shellfish can take advantage of the newly available resources (Mercaldo-Allen and Goldberg, 2011) . The ability of larval shellfish to recolonize an area also depends on factors such as predation pressure by crabs and other predators. Based on the low daily harvest limits ($\frac{1}{4}$ bushel per day per license holder) and relatively modest number of recreational harvesters anticipated on the refuge, shellfishing pressure is expected to be low and negative impacts on the refuge as a whole are expected to be minor.

Another potential direct impact is disturbance of shorebirds and other fish and wildlife species that occur on or adjacent to mudflats. Human disturbance has been identified as a major threat and a key mortality source for shorebirds, especially in the Northeastern U.S. (AFSI, 2015; NABCI, 2022). Disturbance can be defined as “a human activity that causes an individual or group of shorebirds to alter their normal behavior, leading to an additional energy expenditure by the birds. It disrupts or prevents shorebirds from effectively using important habitats and from conducting the activities of their annual cycle that would occur in the absence of humans. Productivity and survival rates may also be reduced” (Mengak & Dayer, 2020). Human disturbance can be caused by both intentional and unintentional actions, including recreational shellfishing activities, and can impact shorebirds throughout the entire annual cycle. During the breeding season, disturbance can affect how shorebirds use habitat, as well as their reproductive success and survival. Human disturbance has been found to exclude shorebirds from habitat they would otherwise use for nesting and to cause adults to incubate or attend their nests less frequently, which can result in reproductive failure when nests are left unprotected from temperature fluctuations or predators (Lafferty et al., 2006; Sabine et al., 2008). Additionally, human activity can cause direct mortality of adults, chicks and eggs, such as trampling (Melvin et al., 1994; Ruhlen et al., 2003; Schulte & Simons, 2015). Shorebirds have not been detected at breeding sites adjacent to the refuge in recent decades. New York Department of Environmental Conservation has identified four sites along the shoreline of the estuary that have supported nesting shorebirds or that have habitat characteristics that would support nesting shorebirds. The organization that monitors the site has indicated that flooding and vegetation encroachment may be contributing factors to the lack of recent shorebird nesting.

Disturbance during the non-breeding season, which involves a period of migration, can also have significant impacts on the survival and fitness of shorebirds. Migration is an energetically demanding activity that requires sufficient food resources and stopover sites where birds can rest and forage, and many such stopover sites occur in the Northeastern U.S. (Colwell, 2010;

Linscott & Senner, 2021). Disturbance can cause shorebirds to fly away, displace them from important habitats, and reduce their foraging time and feeding rates (Burger et al., 2004; Burger & Gochfeld, 1991; Burger & Niles, 2014; Navedo et al., 2019; Pfister et al., 1992). The cumulative result of these impacts can be a severe energetic cost for individual birds, such as reduced body mass, and can lead to lower annual survival rates of individuals at disturbed sites (Gibson et al., 2018; Rogers et al., 2006). When extrinsic factors, such as disturbance, are experienced by shorebirds during the non-breeding season, their ability to reproduce during the breeding season can be influenced (Weithman et al., 2017). Current recreational shellfishing disturbance is likely negligible given the low numbers of recreational harvesters who access the shoreline and the apparent relatively low level of shorebird use of the refuge.

Waterfowl and gulls are present year-round within the estuary, but numbers peak from December to March (USFWS, 2006). Since the majority of recreational shellfishing takes place during warmer weather from spring to fall, disturbance to wintering waterfowl and gulls is likely to be negligible. Additionally, with the low anticipated number of users at one time during warmer weather, the distributed nature of those users on the refuge, the use occurring on the near shore only, and the lesser number of these avian species resident during warmer months, overall year-round impact and disturbance will likely be minimal and negligible.

The direct impacts of recreational harvesting – such as abrasion of sediments and removal, injury and disturbance of organisms and habitat modification – can lead to a complex cascade of indirect biological effects that may be adverse, neutral, or beneficial, depending on the species or ecological function considered. Hard clams reside on or close to the sediment surface and require only shallow digging with hand tools to capture them. Turbidity, sedimentation, and alteration of vertical structure caused by recreational shellfish harvesting could render areas less hospitable for some benthic organisms including shellfish, crustaceans and other invertebrates, and bottom-dwelling fish. For example, Kaiser et al. (2001) found that, over the short-term, hand raking for the cockle (a European bivalve) increased damage rates to small cockles and adversely affected the benthic community. Communities recovered within a year, and the authors noted that recovery rates are highly variable depending on the sediment type and harvest practices evaluated. Logan (2005) found that the abundance of an amphipod (a type of benthic invertebrate) was lower in plots subjected to clam digging than in undisturbed plots. However, hand-raking studies have not always identified significant biological effects. MacKenzie & Pikanowski (2004) did not find appreciable differences among five different invertebrate taxa between plots raked by hand for hard clams and unraked control plots in the shallow sandy substrate they studied. The modest level of turbidity, sedimentation and habitat alteration from clam digging and raking on the refuge is expected to have minimal impacts to marine invertebrates, fish, turtles, birds, and other wildlife in the context of dynamic intertidal ecosystems that are flooded twice daily by the tides.

Predators, including fish with essential habitat in the refuge, may be adversely or positively affected by shellfishing depending on the prey species, harvest methods, and timescale

considered. Shellfishing activities that disturb the sediment and injure or expose benthic organisms in the short-term may increase efficiency of predators such as fish, therefore having a positive effect on the predators. On the other hand, turbidity may have an adverse impact by impairing hunting efficiency of predators in addition to impeding respiration. If collective physical, chemical, and biological effects were significant enough to alter plant and prey populations over a wide area over the long term, herbivore and predator populations and dynamics could be expected to be affected as well. Affected species could include waterfowl that feed on aquatic vegetation or shellfish, shorebirds that feed on invertebrates in the intertidal zone, fish-eating waterbirds, sea turtles, and predatory fish. In Europe, for example, overharvesting of shellfish has been associated with a decline in populations of the Eurasian oystercatcher, a species of shorebird (Verhulst et al., 2004). All of these changes might result in reduced biodiversity, altered community structure, and other ecosystem effects (Alves et al., 2003). However, because the overall harvest within the refuge is anticipated to be modest, indirect effects on predators, including birds, that consume shellfish are expected to be minor.

Harbor seals can be found from November through May in the Long Island Sound and adjacent waters. Threats to harbor seals include entanglement, illegal feeding, harassment, habitat degradation, vessel collisions and chemical/microplastic contaminations (NOAA, 2025). Recreational shellfishing could lead to an increase in harassment or disturbance if harvesters are accessing sites where seals are hauled out (resting on land). The Marine Mammal Protection Act (MMPA) requires that a minimum of 50 yards buffer be maintained around seals to avoid harassment. Based on the timing of the harbor seal presence and recreational shellfishing, disturbance to harbor seals is likely to be negligible, especially if harvesters maintain the minimum distance from the seals. Harbor seals are generalist species who forage primarily on fish. Although they may also feed on shellfish, based on their preference for fish and the limited level of recreational shellfishing the impact of reduced forage availability from recreational shellfishing is anticipated to be minor.

Under the no action alternative, recreational shellfishing by Town residents would continue on the refuge without FWS oversight or use stipulations. If FWS observed adverse impacts to fish and wildlife, FWS would have no mechanism to modify the use to ensure it remains compatible with refuge purposes or Refuge System mission.

Alternative B

The anticipated impacts under the preferred alternative are the same as those under Alternative A, with the exception that FWS would collaborate with the Town through monitoring to ensure the impacts remain minor and the use remains compatible with refuge purposes or Refuge System mission. This may involve shellfish monitoring; monitoring of migratory birds; and monitoring of potential impacts to habitats and other resources. Monitoring will provide data on impacts and inform potential mitigation measures or

modifications that FWS and the Town could need to coordinate on to maintain compatibility of the use if unanticipated impacts arise or increase.

Candidate, Threatened and Endangered Species and Critical Habitat: Affected Environment

Federally endangered or threatened birds known to occur within the estuary are the federally threatened piping plover (*Charadrius melodus*), the federally endangered roseate tern (*Sterna dougallii*), and the federally threatened red knot (*rufa* subspecies, *Calidris canutus rufa*). Piping plovers are occasionally observed along the shore of the estuary but have not been documented nesting since 2008. Red knot and roseate tern appear to be rare visitors. Among federally threatened sea turtles, Atlantic green (*Chelonia mydas*) and loggerhead (*Caretta caretta*) are known to forage in the estuary. The federally endangered Kemp's ridley (*Lepidochelys kempii*) and leatherback (*Dermochelys coriacea*) sea turtles could occur occasionally. In general, sightings of sea turtles are rare in the estuary, typically as victims of an injury or cold stunning. We are not aware of confirmed records of Atlantic sturgeon (*Acipenser oxyrinchus*) in the estuary, but this endangered fish species is documented in Long Island Sound.

Candidate, Threatened and Endangered Species and Critical Habitat: Environmental Consequences

Alternative A

Under the no action alternative, recreational shellfishing by Town residents would continue on the refuge without FWS oversight or use stipulations. Access areas for recreational shellfishing activities may overlap with potential nesting habitat for piping plover. Areas where recreational shellfishing activities take place may overlap with foraging habitat for piping plover, roseate tern, and red knot. However, no piping plover nests have been documented near the estuary since 2008, and these were not on, but adjacent to, the refuge. Much of the estuary shoreline is narrow, hardened by bulkhead or revetments in many areas, and provides little habitat for foraging, nesting, and resting. Roseate terns and red knots are infrequent visitors to the refuge. Roseate terns may forage in the estuary while red knots may forage along the intertidal habitat during migration. As such, the level of impact to foraging, nesting and resting would be minimal and not significant. If shorebirds were to use the habitat for nesting, there is potential for disturbance impacts from recreational shellfishing.

Impacts to sea turtles are not expected from recreational shellfishing because they are unlikely to be in areas where recreational shellfishing is likely to occur.

Under this alternative, if nesting occurred or use increased such that the potential for more substantial impacts to threatened and endangered species would be realized and exceed those that are minor and temporary, FWS would have no mechanism to modify the use to ensure it remains compatible with refuge purposes or Refuge System mission.

Alternative B

Impacts under Alternative B are largely expected to be the same as those under Alternative A. However, under this alternative, coordinated monitoring will take place and will provide data on impacts and inform potential mitigation measures or modifications that FWS and the Town could need to collaborate on to maintain compatibility of the use if impacts arise or increase.

Water Quality: Affected Environment

The estuary habitat includes subtidal open bays with water depths ranging from 2 to 9 meters. The main threats and concerns related to water quality are commercial shipping traffic, municipal sewage treatment facility outfalls, aging septic systems near the shoreline, and run-off from impervious surfaces associated with developed areas (Turner & Wurster 2018). Overall water quality is generally considered good or healthy (USFWS, 2006). Although recent nitrogen sampling is not available, the advanced wastewater treatment facility serving the Oyster Bay Sewer District since 2006 has reduced daily nitrogen discharges by as much as 75% (Fuss & O'Neill, 2023). Seasonal fecal coliform levels have generally been declining over the past two decades, but fecal coliform levels periodically exceed the shellfish standard at some sites (Fuss & O'Neill, 2023).

The State of New York has permanent and seasonal shellfish closure areas based on proximity to known pollution sources, pathogen outbreaks, and other risk factors (NYDEC, 2025). Oyster Bay has both permanent and seasonally closed areas, whereas Cold Spring Harbor has just seasonally closed areas currently. However, these closures account for less than 20% of available tidal areas where recreational shellfishing is likely to occur.

Water Quality: Environmental Consequences

Alternative A

Under the no action alternative, recreational shellfishing by Town residents would continue on the refuge without FWS oversight or use stipulations. Intensive shellfishing in estuarine environments can be associated with effects to water quality, including remobilization of nutrients from the bay bottom to the water column, increased local hypoxia (oxygen depletion) resulting from increased oxygen demand from algae utilizing elevated nutrients, and resuspension of contaminated sediments (Coen, 1995; LaSalle, 1990; Roberts, 2012). Given the limited areas for shellfishing access, no associated boat use, and expected low numbers of harvesters, disturbance in the intertidal zone is not anticipated to approach the level of impact associated with intensive shellfish harvesting. Shellfishing is only permitted to occur within certified waters where few hydrocarbons, heavy metals or industrial chemicals are expected to be present. Any increase in water turbidity from disturbing mudflat areas during low tide while searching for shellfish would be of short duration and low intensity. Recreational harvesting of shellfish would remove only a very small proportion of shellfish on the refuge, so no measurable reductions in nutrient filtering and water clarity (functions performed by shellfish) are anticipated.

Under this alternative if use increased such that the potential for more substantial and unanticipated impacts to water quality would be realized and exceed those that are minor and temporary, FWS would have no mechanism to modify the use to ensure it remains compatible with refuge purposes or Refuge System mission.

Alternative B

The impacts under Alternative B would be the same as those under Alternative A with the exception that FWS would collaborate with the Town to ensure the impacts remain minor and the use remains compatible with refuge purposes or the National Wildlife Refuge System mission. Monitoring will provide data on impacts and inform potential mitigation measures or modifications that FWS and the Town could need to coordinate on to maintain compatibility of the use if impacts arise or increase.

3.3 Cultural Resources

Cultural and Historic Resources: Affected Environment

There are no known underwater archaeological or historic sites within the boundaries of the proposed refuge recreational shellfishing area. Based on the New York State Historic Preservation Office (SHPO) cultural resource database, some buffer areas for terrestrial archaeological sites extend into the recreational shellfishing boundary area. This buffer comprises areas that are a specified distance around archaeological sites that the SHPO has inventoried and is only based on proximity to sites and does not indicate known historic properties.

Recreational shellfishing occurs along the intertidal shoreline where dynamic conditions from tides, waves, and wind can uncover artifacts that may be buried in the intertidal zone. Due to the nature of these activities, any cultural resources that potentially exist in the intertidal have likely already been disturbed and have consequently lost their archaeological integrity.

There are no known architectural resources within the boundaries of the refuge recreational shellfishing area. The viewshed includes multiple historic properties listed or eligible to be listed on the National Register of Historic Places (NRHP) as well as many other properties over 50 years old whose eligibility has yet to be determined. Some examples of the historic properties within the viewshed include Sagamore Hill National Historic Site, the Seawanhaka Corinthian Yacht Club, the James William Beekman House, the James Alfred Roosevelt Estate, and the Bayville Bridge.

Cultural and Historic Resources: Environmental Consequences

Alternative A

Section 106 of the National Historic Preservation Act (NHPA), as amended, requires FWS to evaluate the effects of any of its actions on historic properties (historic, architectural, and archeological properties). The no action alternative will not be reviewed and concurred upon by the FWS's regional historical preservation officer and cultural resource staff. There are no

anticipated effects to any historic properties by the proposed undertaking since it is likely that any potential cultural resources have already been disturbed by activities occurring within the recreational shellfishing area. While viewshed impacts on historic properties are an effect under consideration of the NHPA, the activities involved in recreational shellfishing will have no impact on the viewshed since the activities occur under water, and any intrusion into the viewshed is temporary during the collection process.

Alternative B

The impacts under Alternative B would be the same as those under Alternative A.

3.4 Socioeconomics

Local and Regional Economies: Affected Environment

Within Nassau County, New York, 60.7% of the population over the age of 16 years old is employed, 37.2% is not in the labor force, and the unemployment rate is 3.2%. The mean income for Nassau County, New York, is \$236,623.

The Town of Oyster Bay has a population of 6,900 individuals (U.S. Census Bureau, 2023) with a median income of \$102,540 annually. Median property value is \$634,600 with a home ownership rate of 51.3%.

Historically, the estuary was one of the most productive areas for shellfish in New York, with 90% of the State's oysters harvested there (Fuss & O'Neill, 2009). At their peaks, oysters and hard clams harvesting had a significant economic impact on the community. Shellfish harvesting has dropped dramatically in the past 20 years, however, particularly with the cessation of commercial leases. In recent years, the Town has issued about 20 permits annually for commercial, non-mechanical harvesting, as well as about 300 permits for recreational shellfishing. To receive a permit, a harvester must be a Town resident. There does not appear to be significant sales of shellfishing equipment in the Town.

Local and Regional Economies: Environmental Consequences

Alternative A

Under the no action alternative, recreational shellfishing would continue to occur and no socioeconomic impacts would be expected.

Alternative B

The impacts under Alternative B would be the same as those under Alternative A.

Public Health and Safety: Affected Environment

Regardless of the actions taken by FWS, we anticipate that the NYDEC and the Town will continue their efforts to protect public health by preventing consumption of unsafe shellfish, such as through closure of contaminated shellfish beds to harvesting. We therefore do not further analyze risks to public health and safety.

3.5 Refuge Resources

Visitor Use and Experience: Affected Environment

Congressman Lester Wolff Oyster Bay NWR allows numerous recreational opportunities for visitors including canoeing, kayaking, boating, and fin fishing, and recreational shellfishing. Per Town Code, recreational shellfishing is restricted to Town residents. It has been estimated that 50,000 visitors utilize the refuge annually (USFWS, 2006).

Visitor Use and Experience: Environmental Consequences

Alternative A

Under the no action alternative, recreational shellfishing would continue to occur on the refuge. Although the Town issues approximately 300 shellfishing permits yearly, substantially fewer individuals would undertake recreational shellfishing activities on the refuge due to limitations outside FWS authority (access through private land) and more acres of suitable shellfishing areas in other areas of the estuary. Given the previous history of shellfishing on the refuge, and the low number of anticipated users, impacts to other visitor use in the area is expected to remain unchanged under this alternative.

Alternative B

The impacts under Alternative B would be the same as those under Alternative A.

Management, Operations, and Administration: Affected Environment

The refuge is part of the Long Island NWR Complex and is administered out of the Complex headquarters located at Wertheim NWR. There is no visitor infrastructure other than boundary signage at the refuge. No staff are exclusively located at the refuge; rather, staff of the Complex are responsible for the management, operation, and administration of the refuge.

Management, Operations, and Administration: Environmental Consequences

Alternative A

Under the no action alternative, impacts to management, operations, and administration would remain relatively unchanged, as FWS would not coordinate and collaborate with the Town. Currently, recreational shellfishing within the refuge boundary is carried out by the Town. The impact to management, operations, and administration from FWS would be unchanged under this alternative.

Alternative B

Under the preferred alternative, recreational shellfishing would be allowed on the refuge, and permits would be issued and administered by the Town as done previously. The FWS would collaborate with the Town and other partners to conduct monitoring. FWS will work in close coordination with the Town to adaptively manage recreational shellfishing. Due to estimated low numbers of recreational shellfishing permittees, FWS does not anticipate significant changes to management, operations, and administration of the refuge.

3.6 Summary of Analysis

Alternative A – Refuge is open to recreational shellfishing without FWS oversight or use stipulations – No Action Alternative

Under the no action alternative, recreational shellfishing would continue on the refuge for residents of the Town that have been issued shellfishing permits. Although the Town issues approximately 300 shellfishing permits yearly, substantially fewer individuals would undertake recreational shellfishing activities on the refuge due to limitations outside FWS authority (access through private land) and other suitable shellfishing areas within the estuary.

Direct and indirect impacts to shellfish populations, and other fish and wildlife, are expected to be minimal given the low level of recreational shellfishing on the refuge and limits on harvest quantity and methods. Similarly, no significant adverse effects are anticipated to habitat and vegetation, wetlands, and water quality.

The socioeconomic impact of allowing recreational shellfishing on the refuge would be expected to be minimal. Given that up until now residents have been able to recreationally shellfish in numerous areas including the refuge (due to the previous determination that the refuge lacked jurisdiction over the use), allowing recreational shellfishing would not have any additional socioeconomic impacts beyond what is currently being experienced.

The level of impact to other visitors using the refuge would be minimal and not significant due to low number of individuals anticipated to engage in the use. Similarly, the level of impact to management, operations, and administration of the refuge would not increase as FWS would not be actively engaged by providing oversight or collaboration with the Town. Under this alternative, FWS would lack a mechanism to modify the use to ensure the use remains compatible with the refuge purpose or Refuge System mission.

Alternative B – Refuge is open to recreational shellfishing with FWS oversight and use stipulations – Preferred Alternative

The impacts under the preferred alternative would be the same as those under Alternative A, except for additional coordination with FWS to ensure that the shellfishing program remains compatible with the refuge purpose or Refuge System mission. This coordination will help prevent adverse impacts to refuge resources and ensure FWS carries out refuge management as outlined in the Refuge Improvement Act and FWS policy.

Chapter 4: Consultation and Coordination

4.1 Public Involvement

The draft of this environmental assessment was made available for public review and comment for 30 days, from [April 20, 2026] to [May 20, 2026]. Members of the public were notified of the availability of the draft documents through the refuge website, refuge social media, and the

refuge visitor center. The draft document were made available at the Wertheim NWR visitor center [340 Smith Road, Shirley NY, 11967], via email [longislandrefuges@fws.gov] and were downloadable from the refuge website [<https://www.fws.gov/refuge/congressman-lester-wolff-oyster-bay>]. Alternative format accommodations were available by contacting the refuge. Comments were accepted in writing via email or by mail to the refuge. No comments were received.

4.2 State, Federal, and Local Agency Coordination

As part of the environmental assessment and compatibility determination for recreational shellfishing, FWS coordinated with State, federal, and local government and agencies. Several conversations, email exchanges, and in-person meetings were conducted with the NYDEC Divisions of Fish and Wildlife and Marine Resources. FWS consulted with New York State Parks, Recreation, and Historic Preservation to identify important related cultural and historically significant areas of concern and consideration.

Initial informal consultations, and later formal consultations, were undertaken with FWS Ecological Services and National Oceanic and Atmospheric Administration National Marine Fisheries Service relating to Endangered Species Act Section 7 and Essential Fish Habitat concerns.

Close coordination and consultation with the Town's Department of Environmental Resources took place through email, calls and in-person meetings to discuss important considerations of the assessment and related determinations.

4.3 Tribal Consultation

One federally recognized Tribe is located on Long Island, New York: the Shinnecock Nation. The Shinnecock Nation primarily holds jurisdiction over tribal territory at Shinnecock Neck, a peninsula that juts into the Shinnecock Bay encompassing approximately 900 acres, as well as land at Westwoods in Hampton Bays encompassing approximately 100 acres along the Peconic Bay. The Shinnecock Nation have been contacted as part of the Tribal consultation process for this EA. No comments were received.

Chapter 5: List of Preparers and Sources

5.1 List of Preparers

Laurence Levesque, Refuges Planning Chief, U.S. Fish and Wildlife Service Northeast Region
Patrick Moffett, Superintendent Northeast Canyons and Seamounts Marine National

Monument, U.S. Fish and Wildlife Service Northeast Region

Meagan Racey, Chief of Staff, U.S. Fish and Wildlife Service Northeast Region

Scott Schwenk, Chief, Division of Natural Resources and Conservation Planning, U.S. Fish and Wildlife Service Northeast Region

Terra Willi, Wildlife Biologist Long Island National Wildlife Refuge Complex, U.S. Fish and Wildlife Service Northeast Region

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Oyster Bay NWR*

Henry Woolley, Biologist, U.S. Fish and Wildlife Service Northeast Region
Shaun Ziegler, Project Leader Long Island National Wildlife Refuge Complex, U.S. Fish and
Wildlife Service Northeast Region

5.2 List of Sources Consulted

The Shinnecock Nation

National Oceanic and Atmospheric Administration Fisheries (National Marine Fisheries Service)

U.S. Fish and Wildlife Service Ecological Services

New York State Department of Environmental Conservation Division of Fish and Wildlife

New York State Department of Environmental Conservation Division of Marine Resources

New York State Parks, Recreation, and Historic Preservation

The Town of Oyster Bay Department of Environmental Resources

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Appendix A: Applicable Statutes and Executive Orders

Applicable Statutes

American Indian Religious Freedom Act (AIRFA) of 1978: Applicable. The proposed action requires tribal consultation, including considerations covered under the American Indian Religious Freedom Act (AIRFA) of 1978. Consultation details are provided in section 4.3 of this EA.

Americans with Disabilities Act (ADA) of 1990: Not applicable. The proposed action does not include any aspects of which would require ADA considerations beyond those already covered in other existing refuge compliance documents.

Anadromous Fish Conservation Act of 1965: Not applicable. Oyster Bay NWR is located along the Long Island Sound and is hydrologically connected to the Atlantic Ocean, but not to any freshwater riverine systems or lower classes of freshwater inputs associated with anadromous fish habitat.

Antiquities Act of 1906: Not applicable. Oyster Bay NWR neither contains nor is in proximity of lands designated under the Antiquities Act.

Archaeological and Historic Preservation Act (AHPA) of 1974: Applicable. The proposed action included required consultation with State and federal agencies regarding the preservation of historic and archaeological resources on refuge lands. Consultation details are provided in section 3.3 of this EA. No significant impacts to cultural resources are anticipated as a result of the proposed action.

Archaeological Resources Protection Act (ARPA) of 1979, as amended: Applicable. The proposed action included required consultation with State and federal agencies regarding the preservation of historic and archaeological resources on refuge lands. Consultation details are provided in section 3.3 of this EA. No significant impacts to archaeological resources are anticipated as a result of the proposed action.

Bald and Golden Eagle Protection Act of 1940, as amended: Applicable. Potential impacts to species, including those associated with this Act are analyzed in section 3.2 of this EA. Though bald eagles, and on rare occasions, golden eagles may occur on the refuge, the proposed action would not significantly impact these species in a manner associated with the defined protections in the Act.

Clean Air Act of 1970: Not applicable. The proposed action would not materially change, introduce, or add to potential sources of air pollution on the refuge, or in the surrounding area.

Clean Water Act of 1972, as amended: Applicable. The proposed action would not materially change, introduce, or add to potential sources of water pollution on the refuge, or in the

surrounding area. In fact, the elimination of hydraulic dredging and harvesting on refuge lands may result in decreased water pollutants, as only non-motorized vessels may participate in commercial harvest activities. However, the addition of the aquaculture program requires additional analysis of potential impacts. Those analyses are provided in section 3.2 of this EA. No significant impacts to water resources are expected as a result of the proposed action and water quality would improve with the successful implementation of the aquaculture program.

Coastal Barriers Resources Act of 1982. Not applicable. The proposed project does not include any new development in undeveloped areas, nor any proposed actions that would relate to the National Flood insurance components of the Act.

Coastal Zone Management Act (CZMA) of 1972, as amended: Applicable. The proposed project, with the inclusion of the aquaculture program, directly aligns with Act's goal to "preserve, protect, develop and where possible, to restore or enhance the resources of the nation's coastal zone."

Emergency Wetlands Resources Act of 1986: Applicable. The refuge consists of 3,204 acres of bay bottom, tidal and subtidal habitat, along with small pockets of salt marsh and freshwater wetlands. Analyses of potential impacts to these resources are included in section 3.2 of this EA. Adequate mitigation measures will be established and no significant impacts to wetland resources are anticipated as a result of the proposed action.

Endangered Species Act (ESA) of 1973, as amended: Applicable. The proposed action requires consultation with NOAA and FWS to analyze potential impacts to listed species. Listed species were identified and either removed from consideration after consultation, or appropriate mitigation measures were established (e.g., the requirement of monitoring conducted by refuge staff and the Town). These analyses, mitigation measures, and details of ESA consultations are provided in section 3.2 of this EA.

Farmland Protection Act of 1981, as amended: Not applicable. No designated farmland occurs in the area of the proposed action.

Federal Cave Protection Act (FCRPA) of 1988: Not applicable. No caves occur in the area of the proposed action.

Federal Noxious Weed Act of 1990: Not applicable. The proposed action falls under the overall management of the refuge, and includes no activities related to, or requiring the need for control of noxious weeds. Noxious weed control, and associated analyses and management strategies are covered under the refuge's various management plans (e.g., CCP, HMP, etc.).

Fish and Wildlife Act of 1956: Applicable. The proposed action includes potential impacts to fish and wildlife species. Analyses of potential impacts are provided in section 3.2 of this EA.

Fish and Wildlife Coordination Act (FWCA) of 1958: Not applicable. No water resource development projects are associated with the proposed action. Additionally, potential impacts to wildlife resources are already included in the analyses associated with other NEPA (and other applicable statutes/EOs) compliance requirements. Those analyses are included in section 3.2 of this EA.

Fishery (Magnuson) Conservation and Management Act of 1976: Applicable. The proposed action required consultation with NOAA on resources covered by this Act. Potential impacts to species were analyzed and no significant impacts are expected for associated species. Analyses of the potential impacts are included in section 3.2 of this EA.

Lacey Act of 1900: Not applicable. No aspects of the proposed action would require analysis or considerations related to the Lacey Act. The shellfish harvest component of the program will be run by the Town and the NYDEC is responsible for regulatory oversight.

Marine Mammal Protection Act of 1972, as amended: Applicable. The proposed action would occur in an area where marine mammals may be present during portions of the year. Refuge staff consulted with NOAA and FWS to analyze potential impacts to marine mammal species. No significant impacts are expected from the proposed action. Analyses of the potential impacts are included in section 3.2 of this EA.

Magnuson Stevens Fishery and Conservation Management Act of 1976, as amended: Applicable. The proposed action required consultation with NOAA on resources covered by this Act. Potential impacts to species were analyzed and no significant impacts are expected for associated species. Analyses of the potential impacts are included in section 3.2 of this EA.

Migratory Bird Conservation Act of 1929: Not applicable. The proposed action does not include land/property acquisitions or components related to this Act.

Migratory Bird Hunting and Conservation Stamp Act of 1934: Not applicable. The proposed action does not include any land/property acquisitions or components related to this Act.

Migratory Bird Treaty Act of 1918, as amended: Applicable. Oyster Bay NWR has documented more than 126 bird species. However, the proposed action does not include activities that substantively change normal impacts and disturbance levels on the refuge or in the surrounding area. Additionally, the addition of the aquaculture program would actively restore depleted resources and habitat. No significant impacts are expected for migratory birds as a result of the proposed action. Analyses of the potential impacts to migratory birds are provided in section 3.2 of this EA.

National Environmental Policy Act (NEPA) of 1969: Applicable. This EA serves as recognition of the applicability of NEPA to the proposed action. The analyses and findings within this

document, along with the associated FONSI, and consultations, constitute the required documentation for NEPA.

National Historic Preservation Act of 1966, as amended: Applicable. The proposed action included required consultation with State and federal agencies regarding the preservation of historic and archaeological resources on refuge lands. Consultation details are provided in section 3.3 of this EA. No significant impacts to historic resources are expected.

National Wildlife Refuge System Administration Act of 1966, as amended: Applicable. The proposed action directly addresses statutes in this Act by analyzing impacts associated with, and determining the compatibility of, commercial fishing and aquaculture on the refuge.

National Wildlife Refuge System Improvement Act of 1997: Applicable. The proposed action directly addresses statutes in this Act, and the National Wildlife Refuge System Administration Act of 1966 by analyzing impacts associated with, and determining the compatibility of, commercial fishing and aquaculture on the refuge.

Native American Graves Protection and Repatriation Act (NAGPRA) of 1990. Not applicable. The proposed action does not occur in an area known to have human remains, or sites with funerary objects, sacred objects and objects of cultural patrimony to lineal descendants of Indian tribes, Alaska Native Corporations and Native Hawaiian organizations.

Noise Control Act of 1972: Not applicable. Recreational shellfishing is conducted using only non-motorized vessels and would not produce substantive noise beyond other activities already occurring in the area. The area is densely populated, and vessels are active throughout the year.

Paleontological Resources Protection Act of 2009: Not applicable. The proposed action does not occur in an area known to have paleontological resources.

Refuge Recreation Act of 1962, as amended: Applicable. The proposed action is associated with a recreational activity.

Resource Conservation and Recovery Act of 1976: Not applicable. The proposed action is not associated with any solid or hazardous waste.

Rivers and Harbors Act of 1899: Not applicable. The proposed action does not include any construction-related activities, nor modifications to navigable waters.

Safe Drinking Water Act of 1974: Not applicable. The proposed action does not have any association with or impact on safe drinking water.

Water Resources Planning Act of 1965 (sole-source aquifers): Not applicable. The proposed action does not have any association with or impacts on safe drinking water, nor any association with drinking water aquifers.

Wild and Scenic Rivers Act of 1968, as amended: Not applicable. The proposed action does not occur in an area with designated Wild and Scenic Rivers.

Wilderness Act of 1964, as amended: Not applicable. The proposed action does not occur in an area with designated wilderness.

Executive Orders

EO 11593, Protection and Enhancement of the Cultural Environment: Not applicable.

EO 11644, Use of Off-Road Vehicles on Public Land: Not applicable. Off-road vehicle use is prohibited on the refuge, and the proposed action does not include any change to that prohibition.

EO 11987, Exotic Organisms: Applicable. Introductions of exotic species are a concern for aquatic habitats in any setting. Adequate monitoring measures will be established in the and conducted in close coordination with the Town. Response actions are species-dependent and will be covered in detail in the monitoring plan.

EO 11988, Floodplain Management: Not applicable. The proposed action occurs in a coastal, tidally influenced area along Long Island Sound. While flooding is a possibility due to storm related events and tidal surges, the area falls within the 0.2 percent chance of flooding annually on the Federal Emergency Management Agency (FEMA) Flood Map Service.

EO 11990, Protection of Wetlands: Applicable. The refuge consists of 3,204 acres of bay bottom, tidal and subtidal habitat, along with small pockets of salt marsh and freshwater wetlands. Analyses of potential impacts to these resources are included in section 3.2 of this EA. Adequate mitigation measures will be established and no significant impacts to wetland resources are anticipated as a result of the proposed action.

EO 12866, Regulatory Planning and Review: Applicable. While no new regulation is associated with the proposed action, existing regulations in relation to this EO have been considered in this EA. Additionally, the monitoring will be conducted to also account for requirements included in this EO.

EO 12962, Recreational Fisheries: Applicable. The proposed action, specifically the introduction of the aquaculture program, would benefit recreational fishing and shellfishing with anticipated benefits to water quality and habitat on the refuge and in surrounding waters.

EO 12996, Management and General Public Use of the National Wildlife Refuge System: Applicable. The proposed action will undergo required public review and directly contributes to the refuge-specific mission, along with the overall Refuge System mission. Additionally, the aquaculture program would enhance the existing recreational fishing and shellfishing programs through improved water quality and habitat, along with the re-establishment of healthy shellfish beds.

EO 13007, Indian Sacred Sites: Not applicable. The proposed action has been reviewed by the FWS Regional Archaeologist along with required consultations. Consultation details are provided in section 4.3 of this EA.

EO 13084, Consultation and Coordination with Indian Tribal Governments. Applicable. The proposed action included required consultation with State and federal agencies, and tribal governments regarding the preservation of cultural, historic, and archaeological resources on refuge lands. Consultation details are provided in section 3.3 of this EA. No significant impacts to archaeological resources are anticipated as a result of the proposed action.

EO 13175, Consultation and Coordination with Indian Tribal Governments: Applicable. The proposed action included required consultation with State and federal agencies, and tribal governments regarding the preservation of cultural, historic, and archaeological resources on refuge lands. Consultation details are provided in section 3.3 of this EA. No significant impacts to archaeological resources are anticipated as a result of the proposed action.

EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds: Applicable. Oyster Bay NWR has documented more than 126 bird species. However, the proposed action does not include activities that substantively change normal impacts and disturbance levels on the refuge or in the surrounding area. Additionally, the addition of the aquaculture program would actively restore depleted resources and habitat. No significant impacts are expected for migratory birds as a result of the proposed action. Analyses of the potential impacts to migratory birds are provided in section 3.2 of this EA.

Appendix B: Intra-Service Endangered Species Act Section 7 Consultation Documentation

I. INTRA-SERVICE SECTION 7 BIOLOGICAL EVALUATION FORM

Originating Person: Shaun Ziegler, Project Leader

Telephone No.: 631-286-0485

Date: June 2, 2026

Project Title: Recreational Shellfishing, Aquaculture and Commercial Shellfishing at Congressman Lester Wolff Oyster Bay National Wildlife Refuge

Project Code: 2026-0054043

II. **Proposed Activity:**

The Fish and Wildlife Service (FWS) is proposing to allow recreational shellfishing, aquaculture and commercial shellfishing on the Congressman Lester Wolff Oyster Bay National Wildlife Refuge (refuge). The FWS has developed a draft compatibility determination (CD) and environmental assessment (EA) evaluating the proposed action.

Per the 1968 deed that established the refuge by donation from the Town, the right to issue leases, agreements and permits for shellfishing was reserved by the Town. The deed states that “the conveyance of such lands shall be subject to existing leases and agreements including without limiting leases for piers and shellfish, renewals of leases and agreements covering same, permits for taking shellfish or other products therefrom... provided that...such leases, agreements, renewals, and permits are not incompatible with the use of such lands for a migratory bird refuge, and fish and wildlife purposes.

The FWS must fulfill its responsibilities under the Refuge Improvement Act regarding appropriate and compatible uses of the refuge, and thus ensure that recreational shellfishing when administered by the Town in collaboration with FWS, would not detract from the achievement of the refuge purpose or the Refuge System mission and furthermore that aquaculture and commercial shellfishing, when administered by the Town in collaboration with FWS, would contribute to the achievement of the refuge purpose or the Refuge System mission.

As of February 2026, the Town allows harvest of shellfish year-round between sunrise and sunset. Harvest season durations and extents are reevaluated periodically and year-round harvest may not be allowed every year across refuge waters. Current information on harvest season length and duration is found on the town’s website and within town code. The refuge will allow the use in coordination with the Town and in alignment with the town seasons and daily hours.

Recreational Shellfishing

The FWS will collaborate with the Town to inform management of shellfishing, including but not limited to coordination and sharing of information about harvest areas, landings, species targeted, enforcement and time of year. Per Town Code, recreational harvesters are residents of the Town who have secured a personal shellfish harvest permit from the Town Clerk. Shellfish permits are valid from July 1 of the

year of issuance to the last day of June of the following year. The Town Code does not establish a limit on the number of personal permits that can be issued annually; the Town issued 313 in the 2023-2024 permit year, 337 in the 2024-2025 permit year, and as of October 2025, 302 permits for the 2025-2026 permit year. These permits are for the entirety of Town waters and as such, the number of permittees harvesting within the refuge may be fewer.

Personal permits allow a maximum harvest of $\frac{1}{4}$ bushel per day of combined shellfish species. Bushels are a unit of volume and could contain variable numbers of shellfish based on the size of each individual shellfish. For example, $\frac{1}{4}$ bushel of littleneck sized hard clams (~2" wide) is approximately 100 clams, while chowder sized hard clams (~4") would be approximately 50 clams. Harvest limits apply to the totality of town waters for all species of shellfish, not just those waters within the refuge.

Recreational harvesting can be conducted through the use of hands, knives, tongs, rakes, forks, hoes and shovels. Methods of harvest vary based on target species and may be influenced by depth of water and bottom substrates. Harvest gear is restricted to use of hands and hand tool harvest techniques without the use of power. The Town stipulates gear restrictions according to species and the refuge will align with those restrictions. Gear restrictions can be reviewed in the town's code, § 196-19.

Aquaculture

Aquaculture may include seeding, transplanting, and rearing of shellfish, and oyster reef construction including placement of approved substrates. These activities are expected to focus on two bivalve species regulated by New York State (State) that occur in the refuge: hard clams or northern quahogs (*Mercenaria mercenaria*), and Eastern oysters (*Crassostrea virginica*) although these techniques could be employed in the restoration of other shellfish species.

Seeding and transplantation of shellfish would typically occur when water temperatures are between 50 and 80 degrees Fahrenheit (this temperature range on average begins in April and extends into November). This temperature range helps to ensure the oysters and clams are active enough to dig into the sediments or attach to substrate, while avoiding the stresses that come with temperatures outside of that range (Gobler et al. 2022). Additionally, spawning activity typically falls within this temperature range for the two species, so this timing allows for both optimal establishment and initial reproduction (Cunningham et al. 2025). To protect winter flounder (*Pseudopleuronectes americanus*) eggs and larvae, the placement of shells or other bulk substrate will be avoided from January 15 to May 31, as determined through coordination with the National Oceanic and Atmospheric Administration (NOAA) Fisheries and the Town, which has confirmed that substrate placement takes place outside this time period.

Although the initial phases of aquaculture do not occur on the refuge, they are described here for context. Aquaculture of hard clams and oysters is ongoing on the refuge, so this section describes current and planned aquaculture practices. The Town procures or grows juvenile clams and oysters in tanks in their 950-square-foot nursery. The shellfish

further develop in off-refuge waters in Floating Upwelling Systems (FLUPSYS). During the 2025 season, the Town seeded 8,477,000 individual shellfish (5,133,000 oysters and 3,343,800 clams) in the estuary. Additional shellfish seeds has been and may continue to be sourced from the Cornell Cooperative Extension or other NYDEC-approved sources.

Once the cultured clams and oysters have matured through the nursery and FLUPSYS, they are seeded in the estuary, including within the refuge boundary, using Town or Town-authorized operator vessels. Vessels shuttle the clams and oysters to the seeding areas and disperse at low speed. Seeding may occur both within and outside of the refuge. The Town may also seed with spat-on-shell oysters to promote oyster reef development and adult clams to promote reproduction. The Town intends to continue placing oyster shells to restore shellfish habitat. Future restoration efforts may include the placement of other substrates to promote shellfish restoration. A variety of substrates have been used in restoration projects and can include stone, concrete, non-oyster shell, engineered reefs and more (Goelz et al. 2020).

Shellfish population monitoring is proposed as part of the town's program and will include periodic shellfish surveys by a qualified independent party every three years to determine stock abundance, density, and distribution across the estuary complex. Additional field monitoring of planted seeds will collect data on survival and growth rates in different substrates and areas to determine short-term survival rates.

Best management practices (BMPs) and recommendations for site selection and other habitat considerations have been developed by other entities (e.g., East Coast Shellfish Growers Association 2023; Gobler et al. 2022; Hargis and Haven 1999; Long Island Sound Partnership 2025; Marquardt et al. 2025). The Town has demonstrated a commitment to using the best available science, industry standards, and BMPs, such as by considering sediment quality and type in identifying locations for MMAs and SSAs that would best support recruitment and growth of shellfish. These locations offer habitat conditions with a wide range of sediment types suitable for clam growth and survival. Some of these areas also include locations with firmer substrate (e.g. sand, gravel, and shell) that are better suited for oyster growth and survival (Cashin Associates, P.C. 2025).

Entities performing aquaculture separate from the Town's program will be required to gain prior approval from the Town and FWS; the Town will be responsible for oversight in coordination with FWS. This methodology aligns with the NYDEC Long Island Shellfish Restoration Project and would utilize a similar cooperative partnership design among stakeholders (NYDEC 2025).

Commercial Shellfishing

Commercial shellfishing refers to the harvesting of shellfish within the refuge that could be sold for income or revenue or traded for goods or services. This includes the harvesting of hard clams and Eastern oysters. Based on the best available information and professional judgement, FWS aligns with the NYDEC's and the Town's

commercial shellfishing regulations regarding harvest methods, permits, and limits, but would annually determine in coordination with the Town if increased restrictions are needed based on the results of the Town and FWS monitoring efforts. The following aspects of commercial shellfishing reflect state and town requirements:

- Commercial harvesters are residents of the Town who have secured a commercial shellfish harvest permit from the Town Clerk and a digger permit from NYDEC.
- Commercial harvesters access harvest areas by motorized boat. The boats used by the commercial non-mechanical harvesters are 18–24 feet in length (North Oyster Bay Baymen’s Association 2017). They are open deck boats powered by motors. The harvesters are not allowed to use motorized power while actively harvesting.
- Methods of harvest vary based on target species and may be influenced by water depth and bottom substrates, but, per town code, harvest methods must be non-powered (not operated by power or propelled by a motor) and non-mechanical (gear that is not operated by machinery).
- The Town stipulates gear restrictions according to species. Gear restrictions can be reviewed in town code, § 196-19. The Town further restricts gear by only allowing one shellfish harvesting device (e.g. rake, tong) to be used per commercial permit endorsed to a vessel. Harvest generally occurs by manipulating shallow bottom sediments with rakes or tongs, extracting shellfish from the sediment and bringing them to the surface.
- Harvest limits are set by the Town and are different for each species. Harvest limits apply to the totality of town waters for all species of shellfish, not just those waters within the refuge.
- Town code establishes a limit on the number of commercial permits that can be issued annually and is set at 110 permits. Shellfish permits are valid from July 1 of the year of issuance to the last day of June of the following year. These permits are for the entirety of town waters and therefore the number of permittees harvesting within the refuge may be fewer.

A special use permit (SUP) from FWS is required for economic activities under Refuge System policy (50 CFR 29.1). Specifically, SUPs are required for harvesters approved and permitted by the Town and New York Department of Environmental Conservation (NYDEC) that are seeking to perform the commercial harvesting activities described in the CD. Activities must be conducted in accordance with state and local laws and regulations, the stipulations in Commercial Shellfishing and Aquaculture CD, and any additional stipulations or permits required by the Town or State of New York.

As the Town reserves the rights to shellfish and aquaculture activities, FWS will not require the Town or its authorized agents (contractor, nonprofit, nongovernmental organization) acting on the Town’s behalf to obtain a SUP. The Town is responsible for administering the permits program for authorized aquaculture operators and for commercial shellfishing (separate from FWS SUPs). Special use permits issued by FWS in close coordination with the Town may include specific allowable harvest volumes, and may place limitations on access to, or use of, specific locations of the refuge during specified times in efforts to achieve a sustainable population trend accounting for restoration and aquaculture inputs balanced with harvest extraction. Special use permits

will also involve reporting requirements including, but not limited to, areas targeted for operations and harvesting, dates and duration of effort expended, and harvest volumes to include size classes.

III. Pertinent Species and Habitat Within Action Area:

According to IPAC (Information for Planning and Conservation) species list generated on February 24, 2026, there is the potential for four listed species and two proposed species to occur within the Congressman Lester Wolff Oyster Bay National Wildlife Refuge.

A. Species:

- Northern long-eared bat (*Myotis septentrionalis*, endangered)
- Tri-colored bat (*Perimyotis subflavus*, proposed endangered)
- Roseate tern (*Sterna dougallii*, endangered)
- Piping plover (*Charadrius melodus*, threatened)
- Red knot (*Calidris canutus rufa*, threatened)
- Monarch butterfly (*Danaus Plexippus*, proposed threatened)

Federally endangered or threatened birds known to occur within the estuary include piping plover, roseate tern, and red knot. Piping plovers are occasionally observed along the shore of the estuary but have not been documented nesting since 2008. Red knot and roseate tern appear to be rare visitors.

B. Habitats:

The refuge encompasses approximately 3,200 acres from the bay bottom to mean high water. The refuge also includes a variety of wetland types, including salt marsh, strand or beach habitat, and unvegetated intertidal mudflats. The vegetative community of salt marsh comprises salt hay (*Spartina patens*), cordgrass (*Spartina alterniflora*), saltgrass (*Distichlis spicata*), blackgrass (*Juncus gerardii*), and saltmarsh bulrush (*Bolboschoenus maritimus*) (USFWS 2006). Salt marshes are important habitats for fish, birds, aquatic species, and small mammals, providing shelter, food, and nursery grounds (Morgan et al. 2009). Several species of marsh-obligate birds are dependent on salt marshes during the breeding season (Hartley and Weldon 2020). The salt marshes around the estuary are primarily narrow fringing marshes that benefit the estuary by trapping sediment, reducing the height of waves and other ecological functions (Morgan et al. 2009).

The refuge has approximately 3,000 acres of tidally influenced open bay 2 to 9 meters in depth. Benthic (bay bottom) communities perform important ecological functions including cycling of nutrients, providing structure and habitat for other organisms, supporting planktonic food web interactions, and supplying prey to birds and bottom-dwelling fishes (Flanagan et al., 2019). Among the benthic organisms, oysters, clams, and other bivalves are noteworthy in their ecological contributions. Several designations highlight the importance of the estuary for fish, birds and wildlife. Through its Coastal Management Program, the State of New York considers Oyster Bay to be a Significant Coastal Fish and Wildlife Habitat (New York State Department of State (NYSDOS) 2005a, 2005b). The estuary is considered an important waterfowl wintering area from November through March for greater (*Aythya marila*) and lesser

scaup (*Aythya affinis*), American black duck (*Anas rubripes*), canvasback (*Aythya valisineria*), common goldeneye (*Bucephala clangula*), and a number of other waterfowl species based on mid-winter aerial surveys conducted from 1986 to 1996 and 1998 to 1999 (NYSDOS 2005b). The estuary is an important area for marine finfish and shellfish, including several species that are identified by the National Oceanic and Atmospheric Administration (NOAA) Fisheries Essential Fish Habitat (EFH) Mapper. Oyster Bay, including Mill Neck Creek, is a recognized EFH that serves as a nursery and habitat for 29 species including scup (*Stenotomus chrysops*), bluefish (*Pomatomus saltatrix*), Atlantic silverside (*Menidia menidia*), Atlantic menhaden (*Brevoortia tyrannus*), winter flounder, and blackfish (*Tautoga onitis*) (EFH Mapper).

Oyster Bay is also identified as a State Priority Important Bird Area (IBA) by the National Audubon Society (National Audubon Society 2025). The estuary is located within the Long Island Sound watershed, a designated “Estuary of National Significance.” National estuaries are established to protect and restore water quality and ecological integrity.

Benthic (bay bottom) communities perform important ecological functions including cycling of nutrients, providing structure and habitat for other organisms, supporting planktonic food web interactions, and creating prey for predators such as birds and bottom-dwelling fishes (Flanagan et al. 2019). Among the benthic organisms, oysters, clams and other bivalves are noteworthy in their ecological contributions. As reviewed in Coen et al. (2007), Gobler et al. (2022), and Long Island Sound Partnership (2018), bivalves serve as “ecosystem engineers” that provide several important ecosystem services. First, oyster reefs and clam beds serve as habitat (Coen et al. 2007), foraging grounds, and food for crabs and other invertebrates, fish, and birds (Long Island Sound Partnership 2018). Second, they perform substantial filtering of bay waters, removing suspended solids, nutrients, and phytoplankton from the water column (Gobler et al. 2022, Coen et al. 2007, Long Island Sound Partnership 2018). When present in sufficient numbers, they can thereby improve water quality and clarity. This can help in controlling harmful algal blooms and facilitate the growth of submerged aquatic vegetation (SAV) (Gobler et al. 2022). Third, oyster reefs can protect shorelines from storms, supporting the growth of tidal marsh and SAV (Long Island Sound Partnership 2018). Finally, they support substantial commercial and recreational fisheries (Long Island Sound Partnership 2018). Over the past 150 years, bivalve populations have declined across the eastern seaboard including Long Island, and efforts have been underway to restore their populations.

Meadows of eelgrass (*Zostera marina*), historically the most abundant SAV in Long Island Sound, are also an important component of the estuarine systems that have undergone significant declines over the past century. The two historically mapped locations of eelgrass meadows within the estuary are no longer present (Long Island Sound Partnership 2003). Eelgrass meadows create structure, act as a nursery and settlement site for fish and shellfish, and are a food source to numerous estuarine and

marine species including waterfowl (Carroll et al. 2008) and green sea turtles (*Chelonia mydas*).

IV. Geographical area or station name and action:

Congressman Lester Wolff Oyster Bay National Wildlife Refuge

The activities are anticipated to occur within the estuary, but this consultation covers the shellfishing related activities within the refuge. Within the refuge, aquaculture activities may occur across the entirety of the underwater lands but, at least initially, are expected to focus within the Town designated Marine Management Areas (MMAs) and Shellfish Sanctuary Areas (SSAs). The Town has designated management areas that are defined in town code (196-4) as “an area designated or set aside by the Town Board for the conservation, preservation, protection, seeding, rehabilitation and/or growth of shellfish, or to promote the health, safety, and welfare of the residents...” The Town established 557 acres of management areas within the estuary, designated as either a SSA (185 acres) or MMA (372 acres). An estimated 151 acres of SSAs and 342 acres of MMAs overlay with the refuge. Marine Management Areas would allow for eventual harvest when stocks are deemed sufficient as prescribed in the management and monitoring program developed by the Town in collaboration with FWS, provided they are located within a certified water body, whereas the Town would prohibit harvest in SSAs.

Within the refuge, the shellfishing activities will be restricted by the NYDEC. Shellfishing shall only occur within areas classified as certified. Aquaculture will occur within certified and uncertified waters.

Recreational shellfishing takes place on tidal flats or in shallow water outside of salt marsh habitats. The Town does not allow recreational shellfishing by boat. Harvest of shellfish can occur in certified waters that are not otherwise restricted with an MMA or SSA designation. Accounting for the management areas and uncertified waters, FWS estimates that approximately 230 acres of the refuge's more than 3,000 acres could be available for recreational shellfish harvesting. Twenty of these acres are subject to seasonal closures as determined by the NYDEC. Per town code (§196-17), commercial shellfishing takes place in waters deeper than 3 feet at mean low tide, with the exception of soft shell clams which may be harvested in waters 3' or less. The Town Code (§196-15) specifies "commercial shellfishing of soft shell clams is permitted in less than three feet of water in areas specifically designated by the Commissioner of the Department of Environmental Resources of the Town of Oyster Bay, from time to time. Commercial harvesting in said specifically designated areas is permitted between the months of September and May, inclusive." The FWS estimates that based on current information, approximately 2,480 acres of the refuge's more than 3,000 acres could be available for commercial shellfish harvesting. An additional 40 acres are subject to seasonal closures as determined by NYDEC.

The areas open to harvest may change as the Town adjusts its MMAs and SSAs, or opens MMAs for harvest, or NYDEC adjusts closure areas. FWS will coordinate with the Town to determine if additional spatial and temporal restrictions are needed to protect shellfish and other species and to maintain shellfish populations at a level needed to ensure compatibility with refuge purposes or the Refuge System mission.

- V. **Location:**
Town of Oyster Bay
Nassau County
New York
40°52'54.36"N 73°31'39.24"W

VI. **Determination of effects:**

- A. Explanation of effects of the action on species and critical habitats:

The Fish and Wildlife Service used the DKey through IPaC to determine a no effect for Northern long-eared bat and tricolored bat. The Fish and Wildlife Service used the DKey through IPaC to determine a May Effect for piping plover, roseate tern and red knot. The letters generated from this process are attached.

Disturbance

Recreational shellfishing is expected to occur in shallow intertidal waters, including mudflats where public access is available by boat or from the upland. Commercial shellfishing for soft shell clams is expected to occur in shallow intertidal waters including mudflats where access is available by boat or from the upland. Upland access for shellfishing activities may overlap with potential nesting habitat for piping plover, however, shorebirds including piping plover have not been detected breeding on adjacent lands in recent decades (Sophia Brown, "Personal Communication on NYDEC Annual Piping Plover Nesting Data," August 20, 2025, Email). Of the four areas identified as shorebird breeding sites within the estuary, only one, Centre Island Tidal Creek, is adjacent to the refuge boundary. If shorebirds were to use the habitat for nesting, there is potential for disturbance impacts during the breeding season from recreational shellfishing should harvesters access from the upland.

Commercial harvesters and aquaculture practitioners access harvest areas by motorized boat. The boats used by the commercial non-mechanical harvesters are 18–24 feet in length (North Oyster Bay Baymen's Association 2017). They are open deck boats powered by motors. The harvesters may not use motorized power while actively harvesting. Boating can be a source of disturbance, with the degree depending on the species, time of year, behavioral activity, level of visitation, boat type, boat operator, and the juxtaposition of boaters and wildlife (DeLong 2002). Potential impacts from boating include general disturbance such as flushing of birds and behavioral changes as well as nest disturbance, direct and indirect mortality, nest abandonment, and habitat destruction (Bouffard 1982; DeLong 2002; Knight and Cole 1995; Knight and Gutzwiller 1995; Purdy et al. 1986). Passing boats may also decrease fish abundance or otherwise impact communication and behavior among fish (Becker et al. 2013; Whitfield and Becker 2014). These types of disturbance are temporary and generally localized and may vary depending on wildlife species or type of bird (Batten 1977). Disturbances to wildlife and other harvesters by non-motorized boats are generally less than motorized activities due to the quiet nature of non-motorized boating, and generally low volume of use in any given area.

Observations at Monomoy National Wildlife Refuge in Chatham, Massachusetts, indicated that clam harvesters caused less disturbance to shorebirds than others using the

area (Koch 2010; Leavitt et al. 2010). Roseate terns and red knots are infrequent visitors to the Congressman Lester Wolff Oyster Bay Refuge. Roseate terns may forage in the estuary while red knots and piping plover may forage along the intertidal habitat during migration. Based on the limited presence of piping plover, red knot and roseate tern, the level of impact to foraging, nesting and resting from disturbance is anticipated to be insignificant.

Forage

Areas where recreational shellfishing, aquaculture and commercial shellfishing activities take place may overlap or occur near foraging habitat for piping plover, roseate tern, and red knot. As with most impacts, the magnitude of disturbance can be expected to depend on the number of harvesters, the length of time they spend harvesting, and their proximity to shorebird habitat. The activities are anticipated to occur within the intertidal area and extend into the open bay. Piping plover feed on marine worms, insects, crustaceans, mollusks and other small marine animals (Elliott-Smith and Haig 2020) along the intertidal shoreline. Red knot feed on marine invertebrates including small mollusks including *Mytilus* spp., *Mulinia* spp., *Donax* spp., *Tellina* spp., *Gemma* spp., as well as amphipods and gastropods (Baker, et al. 2020) along the shoreline. During the spring migration, red knots forage on horseshoe crab eggs. It is anticipated that horseshoe crabs may benefit from ecological restoration of the estuary and the establishment of Marine Management Areas and Shellfish Sanctuary areas. Roseate terns feed almost exclusively on small marine fish but have been documented to occasionally, although rarely, feed on crustaceans, insects, and squid. In Long Island, roseate terns forage over shallow water, close to shore and in tidal inlets (Gochfield and Burger 2020). Aquaculture activities may cause roseate terns to move to another area to forage.

Horseshoe crabs, which are important components of coastal ecosystems, may be injured during mechanical shellfishing. These injuries can lead to mortality or diminished reproductive success (Smith et al., 2017). Impacts are of concern because horseshoe crab eggs and larvae are a critical component of the diet of shorebirds on their northward migration (Beekey et al., 2013; Bopp et al., 2019), especially the federally threatened red knot. Adult horseshoe crabs are also important prey for endangered sea turtles and are predators of benthic organisms. The Fish and Wildlife Service is not aware of information that would indicate that non-mechanical shellfishing has significant impacts on horseshoe crabs. However, they may be vulnerable to mechanical harvesting practices, if those practices were resumed. The Town does restrict the take, injury, or destruction of any horseshoe crab between May 15 and July 15 (Town of Oyster Bay Code §196-39), but spawning can occur after this period, into September.

Based on observations at Monomoy National Wildlife Refuge in Chatham, Massachusetts, shorebirds appeared to be attracted to areas where shellfish harvesting had recently occurred, potentially due to increased feeding opportunities on otherwise buried prey items (Koch 2010; Leavitt et al. 2010). (Note that these observations apply to harvesting of soft shell clams, a species typically buried deeper than hard clams).

Based on the other existing human related disturbance in the estuary which is likely a deterrent for foraging birds and how infrequently these species are observed within the

refuge, the short duration of the aquaculture activities and the anticipated benefits from aquaculture, the effects of aquaculture on piping plover, red knot and roseate tern would be insignificant.

Turbidity

Impacts resulting from non-mechanical harvesting can result in physical, chemical and biological impacts. Turbidity, may impair hunting efficiency of predators in addition to impeding respiration (Wilber & Clarke 2001) and may impact plunge diving feeders like the roseate tern. A study of twelve plunge diving species including several species of terns (royal tern (*Sterna maxima*), sandwich tern (*S. sandvicensis*), common tern (*S. hirundo*), Arctic tern (*S. paradisaea*), forster tern (*S. forsteri*), and least tern (*Sternula antillarum*)) observed a decrease in the number of species as the water clarity increased (Haney and Stone 1988). Impacts to roseate terns from turbidity are expected to be discountable based on the limited presence of the tern within the estuary and the lack of negative impact on foraging.

B. Explanation of actions to be implemented to reduce adverse effects:
FWS will coordinate with the Town to determine if additional spatial and temporal restrictions are needed to protect shellfish, listed species, and other species and to maintain shellfish populations at a level needed to ensure compatibility with refuge purposes or the Refuge System mission. The Town has demonstrated a commitment to using the best available science, industry standards, and BMPs.

Current recreational shellfishing disturbance is likely negligible given the low numbers of shellfish harvested but should be monitored if shellfishing and shorebird numbers increase in the future. Commercial harvesting of mussels and scallops is prohibited on the refuge until or unless the FWS and the Town determine that population numbers have recovered to an adequate level to support a commercial harvest program, sufficient restoration effort has been successfully implemented, and population and habitat impacts of commercial harvest can be adequately mitigated or offset.

Shellfishing will not occur within the vegetated salt marsh habitats.

The Town of Oyster Bay will continue its Town-led sanctuary program with areas within the refuge that prohibit harvesting and will also perform restoration activities that may include, but are not limited to, shellfish seeding and placement of substrates (such as oyster shells). These areas and practices will protect spawner populations and facilitate increased shellfish populations within the estuary leading to overall population restoration and offsetting harvest impacts.

If monitoring, evaluation, or observations indicate persistent negative trends, spatially or temporarily, for shellfish populations or negative impacts on wildlife, habitat, or environmental health, the Refuge Manager in close coordination with the Town, can modify the use to assist in adaptively managing the program to ensure compatibility. These modifications may include, but are not limited to, reducing allowable harvest volumes, adjusting number of permits issued, limitations on access to, or use of, specific locations during specified times, designating increases in sanctuary areas or restoration activities, or reductions in or discontinuation of the use.

VII. Effect determination and response requested:

A. Listed species/ critical habitats:

Determination

Response requested

No Effect:

Species: Northern Long-eared Bat, Tricolored

Concurrence_____

Bat, Monarch Butterfly_____

Is Not Likely to Adversely Effect:

Concurrence_____

Species: Red Knot, Roseate Tern, Piping Plover

Is Likely to Adversely Effect:_____

Concurrence_____

Species:

B. Proposed species/ critical habitats:

Determination

Response requested

No Effect

Species: Monarch Butterfly, Tricolored Bat Concurrence_____

Is Not Likely to Adversely Effect:

Species: _____ Concurrence_____

Is Likely to Adversely [jeopardize/modify habitat] Effect:

Species: _____ Concurrence_____

Signature (originating station)

Date

VIII. Reviewing ESO Evaluation:

A. Concurrence_____ Nonconcurrence_____

B. Formal Consultation Required_____

C. Conference Required_____

D. Remarks [Attach additional pages as needed]:

Signature [Title/Office of ESO Field Supervisor]

Date

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Appendix C: NOAA Fisheries Endangered Species Act Section 7
Consultation Documentation



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

June 2, 2026

Shaun Ziegler
United States Department of the Interior
Fish and Wildlife Service
Long Island National Wildlife Refuge Complex
340 Smith Road
Shirley, New York 11967

Re: Endangered Species Act Section 7 Consultation on the Congressman Lester Wolff Oyster
Bay National Wildlife Refuge Aquaculture and Shellfishing Compatibility
Determinations and Environmental Assessments

Dear Mr. Ziegler:

We have completed our consultation under section 7 of the Endangered Species Act of 1973 as amended, (ESA) in response to your letter received on May 15, 2026, and your revised letter received on May 20, 2026, regarding the above-referenced action. Based on our knowledge, expertise, and your materials, we concur with your conclusion that the proposed action is not likely to adversely affect any ESA-listed species or designated critical habitat under our jurisdiction. Therefore, no further consultation pursuant to section 7 of the ESA is required. We expect the U.S. Army Corps of Engineers (USACE) to request ESA consultation on individual harvesting projects within the Refuge if they require USACE permitting.

The following clarification complements your incoming request for consultation. We note that compared to the total acreage within the action area, which includes 3,200 acres inside the Refuge and up to 6,000 acres of vessel transit routes, the 2,480 acres designated for shellfish harvesting constitutes a limited portion of the available habitat. This supports your determination that the effects of habitat modification on sea turtles and Atlantic sturgeon will be too small to be meaningfully measured, detected, or evaluated, and are therefore, insignificant.

This response to your consultation request was prepared by NMFS pursuant to section 7(a)(2) of the ESA and implementing regulations at 50 CFR 402. On March 30, 2026, in *Center for Biological Diversity v. Burgum*, No. 24-cv-04651 (N.D. Cal.), the U.S. District Court for the Northern District of California vacated aspects of four provisions from the 50 CFR part 402 regulations governing interagency consultation under section 7 of the Endangered Species Act and reinstated the provisions that were previously in effect. Consistent with the Court's ruling, these are the governing provisions for this consultation:

- “Effects of the action refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline. The



environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration.”¹ 50 CFR 402.02 (2018).

- 50 CFR 402.16(a): “(a) Reinitiation of consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and . . .” (50 CFR 402.16(a) (2023)).

Some of the information and analyses considered in this consultation (i.e., the consultation request package submitted by USFWS) were prepared under the version of the 50 CFR part 402 regulations in effect prior to the Court’s order. We have reviewed the information and analyses and confirm that the content of that information and those analyses, including the identification and analyses of effects, would be the same under either version of the applicable regulations.

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 at Edith.Carson-Supino@noaa.gov. For questions related to Essential Fish Habitat and any consultation requirements, please contact Jessie Murray with our Habitat and Ecosystem Services Division (732) 872-3116 or by email at Jessie.Murray@noaa.gov.

¹ This definition includes the second sentence of the definition of “effects of the action.” That sentence provided the definition of “environmental baseline” in effect as of 2018. In the 2019 rule amending the 50 CFR part 402 regulations, the Services established “environmental baseline” as a stand alone definition. 84 Fed. Reg. 44976, 45016 (August 27, 2019). In the 2024 rule, the Services made minor revisions to the “environmental baseline” definition. 89 Fed. Reg. 24268, 24298 (April 5, 2024). The Court’s ruling did not touch upon that definition of “environmental baseline,” and it therefore remains valid. The definition is also fully consistent with the definition of “effects of the action” from 2018.

Sincerely,

A handwritten signature in black ink, appearing to read "Christine Vaccaro". The signature is fluid and cursive, with a long horizontal stroke at the end.

Christine Vaccaro
Acting Assistant Regional Administrator
for Protected Resources

EC: Murray, NMFS/HESD
Willi, USFWS

ECO: GARFO-2026-01025
File Code: G:\Shared drives\NMFS GAR PRD Section 7\Section 7 Team\Section 7\Non-Fisheries\FWS\Informal\2026\FWS
Recreational Commercial Shellfishing Aquaculture Wolff Oyster Bay NWR

Appendix D: NOAA Fisheries Essential Fish Habitat Consultation Documentation



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

June 10, 2026

Shaun Ziegler
Project Leader / Refuge Complex Manager
Fish and Wildlife Service
Long Island National Wildlife Refuge Complex
340 Smith Road
Shirley, New York 11967

RE: Congressman Lester Wolff Oyster Bay National Wildlife Refuge Aquaculture and Shellfishing Compatibility Determinations and Environmental Assessments

Dear Mr. Ziegler:

On April 21, 2026, the U.S. Fish and Wildlife Service (FWS) requested essential fish habitat (EFH) consultation related to two draft compatibility determinations (CDs) and two draft environmental assessments (EAs) allowing recreational shellfishing, commercial shellfishing, and aquaculture at Congressman Lester Wolff Oyster Bay National Wildlife Refuge (Refuge) on Long Island, New York. According to the CDs, the FWS must ensure recreational shellfishing, managed with the Town of Oyster Bay, does not hinder Refuge goals, while aquaculture and commercial harvesting must actively support the Refuge System mission. The proposed locations subject to aquaculture and shellfish harvesting include Oyster Bay-Cold Spring Harbor estuary and tributaries within the Refuge.

The CDs require that permits be secured through the Town of Oyster Bay, New York State Department of Environmental Conservation (NYSDEC), and US Army Corps of Engineers (USACE) prior to initiating harvesting or aquaculture activities. This includes adherence to regional conditions for the USACE's Nationwide Permit (NWP) 4 for Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities and NWP 48 for Commercial Shellfish Mariculture Activities. Activities under this consultation are limited to acquiring clam and oyster seed, distributing seed in the refuge and more broadly in the estuary, and placing approved substrate in these areas to improve habitat conditions and support shellfish settlement. Shellfish harvesting consists of non-mechanical methods (i.e., hand and hand tool harvesting of shellfish, as defined by New York State (6 CRR-NY 47.1)) comprised of bivalves regulated by the Town and the State that may occur in the refuge: hard clams or quahogs (*Mercenaria mercenaria*), soft shell clams or steamers (*Mya arenaria*), Eastern oysters (*Crassostrea virginica*), blue mussels (*Mytilus edulis*), bank or ribbed mussels (*Geukensia demissa*), and bay scallops (*Argopecten irradians*). Mechanical, or powered methods (e.g. hydraulic dredging), is prohibited under the CDs.



The Magnuson Stevens Fishery Conservation and Management Act (MSA) requires federal agencies such as the FWS to consult with us on projects that may adversely affect essential fish habitat (EFH). This process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in the consultation process. In addition, the Fish and Wildlife Coordination Act (FWCA) requires all federal agencies to consult with us when proposed actions might result in modifications to a natural stream or body of water. It also requires that federal agencies consider the effects that these projects would have on fish and wildlife and provide for the improvement of these resources. Under this authority we seek to protect and conserve a wide variety of NOAA trust resources, but especially those that are not federally managed and do not have designated EFH, such as anadromous fish including alewife (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), and striped bass (*Morone saxatilis*) and shellfish including oysters, clam, and mussels. Because the activities proposed to be undertaken by FWS adversely impact EFH and other NOAA trust resources, consultation with us under these two authorities is required.

EFH General Concurrence

An EFH General Concurrence identifies specific types of federal actions that may adversely affect EFH, but for which no further consultation is required because we have determined, through an analysis of that type of action, that the action will likely result in no more than minimal adverse effects individually and cumulatively. For actions to qualify for general concurrence, we must determine that the actions meet all of the following criteria pursuant to 50 CFR 600.920(9): 1) The actions must be similar in nature and similar in their impact on EFH; 2) The actions must not cause greater than minimal adverse effects on EFH when implemented individually, and; 3) The actions must not cause greater than minimal cumulative adverse effects on EFH. We have determined that the activities described in FWS's CDs and EAs for recreational shellfishing, commercial shellfishing, and aquaculture activities meet this criteria and are suitable for General Concurrence.

Applicability

This EFH General Concurrence applies only to the FWS and for listed activities within the Refuge. This General Concurrence expires on June 30, 2036. Upon expiration, the FWS will need to reinitiate consultation with us if you intend to request an EFH General Concurrence for the listed activities for additional years.

Project Tracking

Our EFH regulations require that actions qualifying for General Concurrence must be tracked to ensure that their cumulative effects are no more than minimal. Tracking should include numbers of actions, the location of each action, and the amount and type of habitat adversely affected for each action. This information should be provided to us on an annual basis, generally at the end of each fiscal year and can be presented in a spreadsheet format.

Please also note that a distinct and further EFH consultation must be reinitiated pursuant to 50 CFR 600.920 (j) if new information becomes available, or if the project is revised in such a manner that affects the basis for our determination.

Should you have any questions or to discuss this matter further, please contact Jessie Murray at jessie.murray@noaa.gov or 732-872-3116.

Sincerely,



Louis A. Chiarella
Assistant Regional Administrator
for Habitat and Ecosystem Services

cc. NOAA PRD – E. Carson-Supino
NOAA HESD – K. Greene
USFWS – T. Willi
USACE – S. Ryba, R. Miranda
MAFMC - C. Moore
NEFMC - K. O’Keefe
ASMFC - R. Beal

Appendix E: National Historic Preservation Act Section 106
Documentation



**New York State
Parks, Recreation and
Historic Preservation**

KATHY HOCHUL
Governor

KATHY MOSER
Acting Commissioner

May 18, 2026

Amy Wood
Regional Historic Preservation Officer
USFWS
1101 Casey Road
Basom, NY 14013

Re: USFWS
Recreational Shellfishing and Aquaculture and Commercial Shellfishing within Congressman
Lester Wolff Oyster Bay National Wildlife Refuge, Nassau County, New York.
26PR04018

Dear Amy Wood:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project.

Based upon this review, it is the opinion of the New York SHPO that no historic properties, including archaeological and/or historic resources, will be affected by this undertaking.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above. If you have any questions, please contact Jessica Vavrsek at the following email address:

Jessica.Vavrsek@parks.ny.gov

Sincerely,

R. Daniel Mackay

Deputy State Historic Preservation Officer
Division for Historic Preservation

Appendix F: Finding of No Significant Impact

Finding of No Significant Impact and Decision to Determine Recreational Shellfishing Compatible at Congressman Lester Wolff Oyster Bay National Wildlife Refuge

Congressman Lester Wolff Oyster Bay National Wildlife Refuge

Oyster Bay, New York

NEPA Unique Identifier: 2025-0136203-NEPA-001

The U.S. Fish and Wildlife Service (FWS) evaluated the environmental impacts associated with reevaluating recreational shellfishing at Congressman Lester Wolff Oyster Bay National Wildlife Refuge pursuant to the National Wildlife Refuge System Administration Act of 1966 (NWRSA), as amended by the National Wildlife Refuge System Improvement Act of 1997, and in accordance with the National Environmental Policy Act (NEPA). The FWS considered whether recreational shellfishing conducted pursuant to the reserved rights of the Town of Oyster Bay and administered in coordination with the FWS is compatible with refuge purposes and the mission of the National Wildlife Refuge System.

Selected Action

Alternative B – Allow Recreational Shellfishing with FWS Oversight and Use Stipulations (Preferred Alternative)

Under the selected action, the FWS will allow recreational shellfishing within refuge boundaries subject to coordination between the Town and FWS and implementation of compatibility stipulations and adaptive management measures identified in the Compatibility Determination and Environmental Assessment. Recreational shellfishing consists of hand or hand-tool harvest of shellfish species regulated by the Town and New York State, including hard clams, soft shell clams, oysters, blue mussels, and bay scallops harvested for personal use.

The selected action authorizes only non-commercial recreational shellfishing activities using hand harvest methods without the use of powered or mechanical equipment. Harvest of ribbed or bank mussels from salt marsh habitats will not be allowed. The FWS and the Town will coordinate regarding harvest methods, timing, spatial restrictions, monitoring, and adaptive management measures necessary to ensure the use remains compatible over time.

The preferred alternative was selected over the other alternatives because:

1. This alternative best meets the purpose and need for action as described in the environmental assessment and the FWS' priorities and mandates as outlined by the NWRSA to “provide for the conservation for fish, wildlife, and plants, and their

habitats within the System” in addition to “ensuring the biological integrity, diversity, and environmental health of refuges is maintained” (16 U.S.C. 668dd(a) (4)).

2. The preferred alternative supports implementation of the purpose for which the refuge was established and the mission of the National Wildlife Refuge System.
3. This alternative incorporates FWS oversight, adaptive management, monitoring, and enforceable use stipulations designed to avoid or minimize adverse impacts to refuge resources.
4. The preferred alternative provides improved coordination and oversight compared to existing conditions while allowing continuation of historically established shellfish uses within Oyster Bay.
5. The preferred alternative allows FWS to work cooperatively with the Town of Oyster Bay to ensure shellfish management activities remain compatible with refuge purposes over time.
6. The selected action does not materially interfere or detract from the Town of Oyster Bay’s reserved rights as described in the deed of donation.
7. This proposal does not initiate widespread controversy or litigation.
8. There are no conflicts with local, state, regional, or federal, law, plans or policies.

Other Alternatives Considered and Analyzed

Alternative A – Allow Recreational Shellfishing Without FWS Oversight or Use Stipulations (No Action Alternative)

Under the No Action Alternative, the Town would continue administering recreational shellfishing activities within refuge boundaries without FWS oversight or compatibility stipulations. This alternative was not selected because it would not satisfy the FWS' obligations under the Refuge Improvement Act and would not provide a mechanism for adaptive management or refuge-specific oversight to ensure long-term compatibility.

This alternative was not selected because:

1. This alternative does not best meet the purpose and need as described in the environmental assessment and does not allow the FWS to meet its priorities and mandates as outlined by the NWRSA.
2. This alternative would not provide adequate mechanisms for FWS oversight, adaptive management, or refuge-specific coordination necessary to ensure compatibility with refuge purposes and the mission of the National Wildlife Refuge System.
3. This alternative would afford less assurance regarding monitoring or minimization of impacts to refuge fish, wildlife, and habitat resources.

Summary of Effects of the Selected Action

An Environmental Assessment (EA) was prepared in compliance with NEPA to provide decision-making framework that 1) explored a reasonable range of alternatives

to meet project objectives, 2) evaluated potential issues and impacts to the refuge, resources and values, and 3) identified mitigation measures to lessen the degree or extent of these impacts. The EA evaluated the effects associated with alternatives as outlined above. The EA and all other compliance documentation is incorporated as part of this finding.

Implementation of the agency's decision would be expected to result in the following environmental, social, and economic effects:

Implementation of the selected action is expected to result in generally minor and localized impacts associated with recreational shellfishing activities. Potential impacts may include temporary disturbance to intertidal and nearshore habitats, localized turbidity, and disturbance to organisms during shellfish harvest. Monitoring and adaptive management measures would allow impacts to be assessed and management strategies modified if needed.

The EA evaluated potential effects on fish and wildlife resources, migratory birds, threatened and endangered species, habitats and vegetation, water quality, wetlands, cultural resources, refuge operations, visitor use and experience, and local and regional socioeconomic conditions. No significant adverse impacts are anticipated for these resources.

Measures to mitigate and/or minimize adverse effects have been incorporated into the selected action. These measures include:

- Activities must comply with applicable Town, State, and Federal regulations and permitting requirements.
- Recreational shellfishing activities are subject to compatibility stipulations and FWS oversight.
- The FWS will continue coordination with the Town and New York State Department of Environmental Conservation regarding shellfish management and resource protection.
- Ongoing monitoring programs will assess impacts to wildlife, habitats, shellfish populations, and water quality. Refuge staff will regularly review monitoring information and consult with relevant agencies and partners regarding management actions.
- Recreational shellfishing is limited to hand harvest and hand-tool methods.
- Powered or mechanical harvesting equipment is prohibited.
- Harvest of ribbed or bank mussels from vegetated salt marsh habitats is prohibited.

Documentation of Significance

While refuges, by their nature, are unique areas protected for conservation of fish, wildlife and habitat, the proposed action will not have a significant impact on refuge resources and uses for several reasons above and those enumerated below. Significance is determined by examining the context of the action and the intensity of the effect. Based on the analysis in the EA, which is summarized in these sections, FWS has determined that the preferred alternative can be implemented without significant adverse effects.

The selected action:

1. The actions will not have a significant adverse effect on public health and safety [EA, page 21].
2. The project will not have significant adverse effects on any unique characteristics of the geographic area such as historic or cultural resources, Tribal sacred sites, wild and scenic rivers, or ecologically critical areas. [EA, page 20].
3. The project will not violate relevant Federal, State, Tribal, or local laws or other requirements and is not inconsistent with Federal, State, Tribal, or local policies designed for the protection of the environment.
4. The effects on the quality of the human environment are not likely to be highly controversial [EA, pages 2-5, 20-21].
5. The actions do not involve highly uncertain effects on the human environment [EA, pages 19-22].
6. The actions will not establish a precedent for future actions with significant effects nor does it represent a decision in principle about a future consideration [EA, pages 2-4].
7. There will be no cumulative significant impacts on the environment. Cumulative impacts have been analyzed with consideration of other similar activities on adjacent lands, in past action, and in foreseeable future actions [EA, pages 8-19].
8. The actions will not significantly affect any site listed in, or eligible for listing in, the National Register of Historic Places, nor will they cause loss or destruction of significant scientific, cultural, or historic resources [EA, pages 19-20].
9. Potential impacts to threatened or endangered species and Federally designated critical habitat have been addressed through an Intra-Service Consultation for Section 7 of the Endangered Species Act [EA, page 37].
10. The action area is not within or near the refuge designated wilderness area and as such will have no positive or negative impacts to wilderness. The refuge does not have additional special designations such as a Research and Natural Areas and this action does not impact that designation.
11. There is no scientific controversy over the impacts of this action and the impacts of the proposed action are relatively certain.
12. The project will have no significant adverse effects on the rights of Tribal Nationals that have been reserved through treaties, statutes, or Executive Orders.
13. The proposal is not expected to have any substantial short- or long-term adverse effects on wetlands and floodplains, pursuant to Executive Orders 11990 and 11988 [EA, pages 8-9, 34].

Public Involvement, Agency Coordination, and Tribal Consultation

The proposal has been thoroughly coordinated with all interested and/or affected parties. On April 20, 2026, FWS put the EA out for a 30-day public review and comment. The FWS did not receive public comments on the EA.

Town Coordination

The FWS met with the Town of Oyster Bay multiple times to solicit data and information for the EA/CD, and made minor edits to the final EA/CD to ensure clarity.

State Coordination

The FWS coordinated development of the EA with the New York State Department of Environmental Conservation.

Tribal Consultation

Tribal consultation was conducted with the Shinnecock Nation.

Additional parties contacted directly include:

- Town of Oyster Bay
- North Oyster Bay Baymen's Association and other commercial shellfish operators
- Long Island Sound Partnership
- Oyster Bay Cold Spring Harbor Protection Committee
- Friends of the Bay
- Congressional offices
- Army Corps of Engineers
- NOAA Fisheries

Finding of No Significant Impact

Based upon a review and evaluation of the information contained in the EA as well as other documents and actions of record affiliated with consideration of these activities, FWS has determined that the implementation of Alternative B — Allow Recreational Shellfishing with FWS Oversight and Use Stipulations — does not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of Section 102(2)(C) of NEPA. Therefore, preparation of an Environmental Impact Statement is not required.

Decision

The FWS has decided to implement Alternative B and find recreational shellfishing activities compatible within Congressman Lester Wolff Oyster Bay National Wildlife Refuge subject to FWS oversight, compatibility stipulations, monitoring requirements, and adaptive management measures identified in the Compatibility Determination and Environmental Assessment.

The FWS finds this action compatible with the purposes of the refuge and the mission of the National Wildlife Refuge System. The action is consistent with applicable laws and policies.

Signature

National Wildlife Refuge System Regional Chief Signature and Date

Supporting Documents:

- Environmental Assessment: Reevaluation of Recreational Shellfishing Reevaluation at Congressman Lester Wolff Oyster Bay National Wildlife Refuge
- Compatibility Determination
- Intra-Service and NOAA Fisheries Section 7 Consultation Documentation
- National Historic Preservation Act Section 106 Documentation
- Essential Fish Habitat Consultation Documentation
- Public Comment and Response Summary