# Committee on Resources

## Subcommittee on Fisheries Conservation, Wildlife and Oceans

## Statement

**TESTIMONY OF**

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**U.S. DEPARTMENT OF COMMERCE**

**BEFORE THE**

**SUBCOMMITTEE ON FISHERIES CONSERVATION, WILDLIFE AND OCEANS**

**COMMITTEE ON RESOURCES**

**U.S. HOUSE OF REPRESENTATIVES**

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Thank you for the opportunity to testify before the Subcommittee on Fisheries Conservation, Wildlife and Oceans regarding the effects of the disposal of dredged materials on living marine resources in the Mid-Atlantic Bight, including activities associated with the area formerly known as the "Mud Dump," located off the coast of New Jersey. I am Andy Kemmerer, Director of the National Marine Fisheries Service (NMFS) Office of Habitat Conservation, within the National Oceanic and Atmospheric Administration.

NMFS authority to comment on dredging and ocean disposal projects stems from the Clean Water Act, the Marine Protection, Research and Sanctuaries Act, the Endangered Species Act, the Marine Mammal Protection Act, the Fish and Wildlife Coordination Act, and, more recently, the Magnuson-Stevens Fishery Conservation and Management Act.

Although NOAA has experience with dredged material disposal in many areas, and NMFS specifically has almost thirty years of experience in dealing with dredged material disposal in the Mid-Atlantic Bight and at the "Mud Dump," NMFS has not conducted or participated in scientific studies that directly correlate such open water disposal activities with effects on living marine resources. We have conducted studies on the recovery of the Sludge Dump Site, found within the Bight, but sludge has a considerably higher content of organic carbon and a different particle size distribution than dredged material. The different natures of sludge and dredged materials make comparisons between the two disposal sites difficult.

The potential adverse responses to dredged material disposal encompass acute effects, including direct mortality of fish and invertebrates, and chronic effects. With respect to the former, our 1995 fish tissue analysis study, undertaken for the Environmental Protection Agency and the Corps of Engineers, did not indicate evidence of detrimental impacts to harvested species in the New York Bight, even in the vicinity of the Mud Dump Site. In addition, our studies of fish in Newark Bay show that while this estuary is a source of contaminated sediments, it supports a wide variety of fish. Evidence linking contaminants with fish mortality in the New York Bight is inconclusive. Regarding mortality induced by the physical act of dumping dredged material, resource losses are dependent on the ability of individual organisms to escape or avoid the plume of materials raining down from the surface.

The question of induced chronic effects to fisheries is more difficult to answer. Some species show evidence of contaminants in their tissues, especially those with relatively high lipid levels or an affinity for accumulating materials deemed to be pollutants (e.g., toxic metals). The problem is to differentiate the source of the contaminants. Within the New York Bight itself, contaminants similar to those in the area of the Mud Dump Site pervade the harbor estuary and are carried into the Bight by the Hudson River plume and other sources. In addition, atmospheric deposition is a significant source of contamination to the Bight.

Species of fish that inhabit the Bight exhibit varying degrees of motility. Some, like the bluefish, are highly migratory and may take up contaminants continuously throughout their journey from the Carolinas and Virginia to southern New England. Others, like the tautog, migrate little. In between are species like the winter flounder, which exhibit a medium degree of motility, living at various times in New York Harbor and offshore. In general, the highly migratory species exhibit the highest levels of tissue contamination. This may be attributable to the presence of a high percentage of "red muscle" in these organisms, which contain significantly higher levels of fat *(lipid)* than "white muscle" and have a greater affinity for organic molecules, including contaminants. These organisms also tend to be higher trophic level feeders with a greater likelihood to accumulate contaminants.

Our studies with American lobsters in the Bight suggest that they bioaccumulate a number of polar organic contaminants, most notably dioxin. American lobsters are less migratory than many finfish, but individuals may move from estuaries to the open ocean. In view of this, it is not surprising that American lobsters taken in the vicinity of the Mud Dump Site often exhibit contaminant levels sufficient to warrant health advisories. In lobsters, unlike fish, the contaminants are not primarily found in the edible flesh [muscle] but instead reside in the hepatopancreas or "green gland."

One management approach for reducing the flow of pollutants through the food web from benthic forage organisms living in contaminated sediments is through the practice of capping. This strategy was employed at the former Mud Dump Site and involved covering the contaminated sediments with a layer of remediation material that was deep enough to prevent penetration by burrowing organisms. Appropriate cap placement can prevent or disrupt colonization in contaminated sediment.

In the past when the Mud Dump Site was an active disposal area, NMFS did not oppose the capping of lightly- to moderately-contaminated dredged material. In general, we have not opposed the overboard disposal of dredged material when local conditions and the nature of the dredged materials indicate that such a practice is an appropriate strategy. We endorse the more restrictive present practice which permits only the placement of dredged materials that are suitable for use as remediation materials.

The former Mud Dump Site covered a 2.2-square nautical mile area, representing a small portion of the

aquatic habitat within the New York Bight (approximately 15,000 square nautical miles). The fishery resources of the Mid-Atlantic Bight appear to be healthy, suggesting that the current management of dredged material is causing little, if any, detrimental effect on these organisms.

This concludes my testimony. I would be happy to answer any questions from the Subcommittee.

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