UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Maryland 20910

THE DIRECTOR

JUN - 4 2003

MEMORANDUM FOR: Brandon Blum
Office of General Counsel for Ocean Services

FROM: for William T. Hogarth, Ph.D.

SUBJECT: Islander East Pipeline Company Consistency Appeal

I am responding to the memorandum from the former Deputy Under Secretary for Oceans and Atmosphere, Mr. Scott Gudes, regarding a Department of Commerce administrative appeal by the Islander East Pipeline Company (Islander East or appellant) pursuant to the Coastal Zone Management Act (CZMA). The appeal petitions the Secretary for an override of the State of Connecticut's objection to Islander East's proposed natural gas pipeline. The pipeline would extend from a connection with an existing natural gas infrastructure near North Haven, Connecticut across and beneath the waters of Long Island Sound (the Sound) connecting to an inland terminus at Brookhaven, Long Island, New York. The State of Connecticut has determined that the proposed action would adversely impact natural resources, land and water uses in their coastal zone beyond acceptable levels. In his January 31, 2003 memo, Mr. Gudes asked NOAA's National Marine Fisheries Service (NOAA Fisheries) to provide comments on the Islander East appeal. We are responding to those substantive grounds as they relate to our mandate to protect, manage, and restore the nation's fishery resources. We are unable to provide comments on the procedural grounds of timing of communications or national security interest.

Based on our understanding of the proposed action and the specifications contained within Mr. Gudes' memo, the State of Connecticut decision raises important concerns with respect to the environmental impact of the proposal. Portions of the pipeline route transit ecologically sensitive areas of importance to the state and nation, and there is a likelihood of incurring significant adverse environmental impacts during pipeline installation. There are reasonable alternative alignments, and we have identified less destructive installation methodologies and procedures, both of which would significantly lessen adverse impacts on natural resource, while advancing the appellant's objectives.

NOAA Fisheries' Comments on the Issues being Considered in the Appeal

For the Secretary to find for the appellant, he must determine that the project satisfies two substantive grounds. The first is that the project is "consistent with the objectives" of the CZMA. This ground is subdivided into three interrelated items. The Secretary must find that the pipeline 1) furthers the national interest as articulated in sections 302 or 303 of the CZMA in a

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significant or substantial manner; 2) outweighs the national interest associated with the activity's adverse coastal effects, when those effects are considered separately or cumulatively; and 3) has no reasonable alternatives that could be conducted in a manner consistent with the enforceable policies of the State of Connecticut's Coastal Zone Management Program.

The second substantive ground for overriding a state's objection is whether the proposed activity is necessary in the interest of national security. The Secretary must find that a national defense or other national security interest would be significantly impaired if the activity in question was not permitted to go forward as proposed.

Islander East Company proposes a pipeline project in the shoal waters of Connecticut to dredge a trench and to store the removed sediment "in-water," immediately adjacent to the excavation. Within that 1.8 km (1.1 mile) long trench area and adjacent seafloor, as well as offshore to the 15 meter isobath, immediate and protracted destabilization of the seafloor will be incurred. The project construction footprint encompasses an area of 1,270 hectares (5 square miles). The sediments in the project area are mostly composed of fine particles that are tightly consolidated in an undisturbed state. When disturbed, however, as through dredging, they become very loosely consolidated and easily resuspended into the water column (Tavolaro, 1984). Wave energy is strong enough to disperse these destabilized, excavated sediments, and may result in continued impacts on nearby sea floor habitats. The physical displacement of the existing habitat and hydration of the sediment will diminish or exclude resource use for relatively long periods of time. Evidence of this from the Hudson River collected from benthic profiling performed by LaMont-Doherty Geological Observatory for the State of New York *(New York State Department of Environmental Conservation 2003)* indicates that other utility crossings, undertaken in the Hudson even decades ago, continue to have discernible adverse impacts on the aquatic resources in the project alignments. As a specific example, benthic profiling of a water line installation between Newburgh and Wappinger in1974 indicates that the site has not fully recovered to preconstruction conditions. Thus, sediment dispersal and acute adverse habitat degradation from the Islander East proposed construction will affect habitat function for long periods. FERC's Islander East Pipeline Project FEIS *(2002)* states on page 5-5 that, "Based on a review of sea floor recovery rates and analysis of existing conditions, most disturbed benthic communities would be expected to recover within 5 years." However, the document further states, "...disruption of nearshore Connecticut shellfish habitat and deep anchor pits or depressions created by construction could take longer to recover and in some cases may develop different benthic communities." This indicates that shellfish habitat may take much longer than five years to recover and may never fully recover to pre-existing use condition for these resources. Moreover, hydrated sediment is too fluid to support the weight of adult clams, the size and weight of which is dependent on the consistency of the sediment. As settled clams grow and gain weight, they may sink deep enough into these sediments and smother as oxygen depletes (Wilber and Clarke 2001). The nature and persistence of these physical impacts were deemed by the state to be inconsistent with 14 enforceable policies of the Connecticut CZMP (Connecticut DEP letter to Islander East Co., 2002).

As presently proposed, the 1,270 hectares of pipe laying and multiple pass, plowing, and backfill programs would physically and adversely impact the Long Island Sound seabed, and would disperse significant volumes of resuspended sediment onto nearby spawning, nursery, and maturation habitats for finfish, mollusks, and crustaceans. Suspended sediments have been shown to degrade habitat functions and values and exclude motile species (Wilbur and Clarke *2001;* Limburg *et. al.* 1999; Benfield and Minello 1996; Johnson and Wildish 1982). Connecticut DEP has concluded that those actions would be inconsistent with ten enforceable policies of their CZMP (Connecticut DEP letter to Islander East Co., 2002). These impacts also have national interest implications regarding fishery resources which are managed by NOAA Fisheries, either solely or jointly with the State of Connecticut. Although the State of Connecticut's consistency determination focused on lobsters and quahogs, the New England Fishery Management Council and the Mid Atlantic Fishery Management Council did designate the project area as essential fish habitat for as many as 23 aquatic species managed under the Magnuson-Stevens Fishery Conservation and Management Act. This is an important consideration for NOAA Fisheries as the project could affect habitats used by these species.

NOAA Fisheries' communications to FERC and the Army Corps of Engineers (ACOE) present similar arguments regarding the proposed pipeline. Discussions among the appellant and the regulatory agencies indicated significant, unacceptable, and avoidable individual and cumulative adverse impacts associated with the project. NOAA Fisheries has expressed these conclusions and their justification to both FERC on May 20, 2002, during their National Environmental Policy Act review process (FERC/EIS - 0143F), and to the ACOE, New England District, on July 3, 2002 in response to their public notice for this project. Those impacts were characterized as two principal types--removal or burial of both resource and habitat within the actual construction corridor, and intensified suspended sediment-induced impacts in the far-field. Both impact types have been shown to be associated with the pipe installation methodologies proposed by Islander East and are destructive to habitats and resources of concern to NOAA Fisheries.

Many of the adverse impacts associated with the proposed pipeline relate to the installation techniques proposed by the appellant. As noted above, NOAA Fisheries has identified that the impact area contains both species and habitats managed under the Magnuson-Stevens Fishery Conservation and Management Act as well as the Fish and Wildlife Coordination Act, and that those resources would be adversely impacted by the pipeline installation. The present design calls for the creation of open trenches and pits with adjacent, in-water storage of the excavated material and subtidal discharge of drilling mud and its contents in water depths where simple pipe laying and burial procedures cannot be employed (waters < 7 meters). In waters deeper than 7 meters, the project calls for a total of four passes of the installation and burial equipment along the remainder of the approximately 32-kilometer underwater section between Branford, CT and Wading River, NY. Both the inshore and offshore activities will result in seabed disruptions that have been characterized by the appellant as adversely impacting approximately 1,274 hectares.

Additional impacts are created by the proposed lay barge mooring and positioning system which will require approximately 70 anchor placements per kilometer. These habitat displacements and

dispersion of sediment created by the anchoring procedures are seen as pits and fluidized sediments. Habitat found in waters deeper than 15 meters are more stable (i.e., less influenced by natural disturbance events) than those in shallower waters. Because of that stability, disturbance in deeper waters usually result in protracted damage to such habitat, perhaps much longer than five years (SAIC 1995). Pits created by anchor placements, particularly of the size used for pipe laying, can capture organic materials and semi-motile species creating hypoxic or anoxic traps incapable of supporting benthic organisms. (Bohlen, Cohen and Strobel 1992). Hydrated sediments are incapable of providing support for molluscan organisms that can grow as heavy as northern quahog or surf clams. Eventually, these molluscs sink in the unstable sediment, and without contact with the overlying oxygenated waters, they suffocate (Hirsch, Disalvo and Peddicord 1978). Because much of the central Sound floor is composed of fine grained materials, sediment reconsolidation will be protracted. Near bottom turbidity in such depths diminishes efficient feeding by aquatic resources and may inhibit both spawning and hatching success by exhausting resources needed for gonadal development and by suffocating released gametes (Wilbur and Clarke 2001).

In determining whether the national interest of the proposed pipeline outweighs the adverse coastal effects, either separately or cumulatively, we note that there are several other natural gas pipeline and energy transmission interconnection proposals seeking access to the same market. Other proposals, such as the Iroquois Eastern Long Island Extension Project, as mentioned in the Islander East FEIS, have significantly fewer and smaller individual and cumulative impacts associated with their design than those found in the Islander East proposal. Further, the State of Connecticut has authorized the placement of utility structures in their coastal zone, indicating that some proposals can comply with the Connecticut Coastal Zone Policies. FERC identified and discussed a number of alignment and system alternates in their final environmental impact statement (FERC/EIS-0143F 2002), and concluded on page 4-3 that an Eastern Long Island (ELI) system alternative is more environmentally benign than the appellant's. NOAA Fisheries has recommended that the appellant employ such alternative alignments and identified less destructive installation methodologies that would reduce further local and regional adverse impacts. Selection of an alignment with fewer shellfish resources, elimination of the trenching, and reduction in the number of plow and backfill passes are alternatives that would greatly reduce the adverse impacts associated with the Islander East proposal.

Finally, we note that Islander East and the principal regulatory agencies (State of Connecticut and federal) are involved in technical discussions, concurrent with this appeal process, regarding designs and practices that could greatly reduce the adverse impacts associated with the present proposal. The Coastal Zone Management Act, Federal Consistency Regulations (15 C.F.R. Part 930) Sections 930.129(b), (c) and (d) provide for those discussions.

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