# DECISION AND FINDINGS
# BY THE
# U.S. SECRETARY OF COMMERCE
# IN THE
# CONSISTENCY APPEAL OF
# ISLANDER EAST PIPELINE COMPANY, L.L.C.
# FROM AN OBJECTION BY THE
# STATE OF CONNECTICUT

## TABLE OF CONTENTS

I. INTRODUCTION . . . . . 1

II. STATUTORY FRAMEWORK . . . . . 2

III. ISLANDER EAST'S PROJECT IS CONSISTENT WITH THE OBJECTIVES OF THE CZMA . . . . . 3

A. The Project Furthers The National Interest In A Significant And Substantial Manner (Element 1) . . . . . 3

1. Background . . . . . 3

2. Discussion . . . . . 4

a. The Project Develops the Coastal Zone . . . . . 6

b. The Project is a Sited, Coastal Dependent Energy Facility . . . . . 8

c. The Project Will Preserve and Enhance Coastal Zone Resources . . . . . 9

B. The National Interest Furthered By The Project Outweighs Its Adverse Coastal Effects (Element 2) . . . . . 10

1. Affected Environment . . . . . 11

2. Construction Techniques . . . . . 12

a. HDD (Mainland Approach) . . . . . 12

b. Dredged Trench (Milepost (MP) 10.9 to 12.0) . . . . . 12

c. Subsea Plow (from MP 12.0) . . . . . 12

3. The Project's Adverse Coastal Effects are Largely Temporary in Nature and Limited in Scope . . . . . 13

a. Suspension of sediments during construction will not significantly impair water quality . . . . . 14

b. Expected releases of drilling fluid will not adversely affect water quality . . . . . 17

i. Managing releases at the drill head exit . . . . . 18

ii. Managing releases during the reaming process . . . . . 18

iii. Managing releases during pipe pullback . . . . . 19

iv. Risk of unplanned release . . . . . 19

c. Shellfish bed and habitat impacts . . . . . 20

i. Concerns raised by Connecticut, NMFS and FWS . . . . . 21

ii. Impacts to shellfish habitat will be limited . . . . . 23

d. Shellfish harvesting/water dependent use impacts will be minimized . . . . . 31

e. Tidal wetlands . . . . . 33

f. Cumulative impacts . . . . . 33

4. The Project Satisfies Element 2 . . . . . 35

C. There Is No Reasonable Alternative Available (Element 3) . . . . . 35

1. The Standard for Finding that a Reasonable Alternative is Available . . . . . 35

2. The ELI System Proposal and ELI Extension Project Are Two Distinct Alternatives . . . . . 36

3. Connecticut Has Failed to Identify with Sufficient Specificity the Alternative It Purports to Deem Consistent . . . . . 37

4. The "ELI Alterative" Is Not Available . . . . . 40

a. The alternative provides an insufficient amount of natural gas to meet the primary purpose of the Project . . . . . 40

b. The increased capacity required by the ELI Alternative is a barrier that Islander East cannot overcome . . . . . 41

5. The "ELI Alternative" Is Not Reasonable . . . . . 45

a. The ELI Alternative does not provide either increased flexibility or reliability in natural gas supply or pipeline-to-pipeline competition . . . . . 46

b. The ELI Alternative provides only incremental environmental benefits, if any, as compared to the Project . . . . . 48

6. There is No Reasonable Alternative Available to Islander East's Project . . . . . 49

IV. CONCLUSION . . . . . 50

## I. INTRODUCTION

The Islander East Pipeline Company, L.L.C. (Islander East)[1] has sought authorization and permits from the Federal Energy Regulatory Commission (FERC) and the U.S. Army Corps of Engineers (Corps) to construct and operate an interstate natural gas pipeline project (Project).[2] The proposed 24-inch-diameter pipeline, approximately 45 miles in length, would originate near North Haven, Connecticut, from an interconnection with the pipeline system of Algonquin Gas Transmission Company (Algonquin), and cross Long Island Sound[3] to a terminus in Suffolk County, Long Island, New York. The pipeline is designed to transport 260,000 dekatherms (Dth) of natural gas per day,[4] sufficient to heat approximately 600,000 homes and meet local gas company growth on Long Island and in New York City.[5]

The states of Connecticut and New York reviewed Islander East's Project pursuant to section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA or Act), and the implementing regulations of the Department of Commerce (Department) at 15 C.F.R. Part 930, Subpart D (2003). Connecticut (State) objected to Islander East's Project,[6] finding that construction impacts to the

---

[1] Islander East is a limited liability company whose two members, with equal ownership rights, are Duke Energy Islander East Pipeline Company, L.L.C. and KeySpan Islander East Company, L.L.C. FERC Preliminary Determination on Non-Environmental Issues, 97 FERC ¶ 61,363 (FERC Order #1), at 2 n.1 (2001).

[2] *See, e.g.,* Islander East Pipeline Project – Abbreviated Application for a Certificate of Public Convenience and Necessity, June 15, 2001.

[3] Islander East's proposed crossing of Long Island Sound (Sound) is 22.6 miles in length: 11.0 miles are in Connecticut's portion of the Sound; 11.6 miles are in New York's.

[4] FERC Order on Rehearing and Issuing Certificates, 100 FERC ¶ 61,276 (FERC Order #2) para. 6; *Id.* n.3 (2002).

[5] Islander East Pipeline Project Final Environmental Impact Statement (FEIS), Aug. 2002, at ES-1.

[6] *See* Letter from Arthur J. Rocque, Jr., State of Connecticut Department of Environmental Protection, to Gene H. Muhlherr, Jr., Islander East Pipeline Company, L.L.C., Oct. 15, 2002 (Connecticut Initial Objection Letter). Connecticut objected a second time to the Project, in connection with a remand from the Department. The remand, granted at the request of Islander East, allowed the State to consider changes intended to minimize adverse impacts associated with the pipeline's construction and address concerns raised by the State's initial objection. The State, however, found the modified Project continued to be inconsistent with Connecticut's Coastal Management Program. *See* Letter to Gene H. Muhlherr, Jr., Islander East, from Arthur J. Rocque, Jr., Connecticut Department of Environmental Protection, July 29, 2003

State's coastal resources primarily involving Long Island Sound were inconsistent with Connecticut's Coastal Management Program.[7] Islander East timely filed a notice of appeal with the Department of Commerce, asking the Secretary to override Connecticut's objection as provided in the CZMA.[8]

For the reasons noted herein, the Islander East Project is found to be consistent with the objectives of the Coastal Zone Management Act: it furthers the national interest in a significant and substantial manner; the national interest furthered by the Project outweighs the Project's adverse coastal effects (considered separately or cumulatively); and there is no reasonable alternative available for the Project. Therefore, federal agencies may issue licenses or permits for Islander East's Project.

## II. STATUTORY FRAMEWORK

The CZMA provides states with federally-approved coastal management programs the opportunity to review proposed projects requiring federal licenses or permits if the project will affect any land or water use or natural resource of the state's coastal zone.[9] A timely objection raised by a state to the project precludes federal agencies from granting licenses or permits required for the project, unless the Secretary of Commerce finds that the activity is:

- "consistent with the objectives of [the CZMA]" (Ground I); *or*
- "necessary in the interest of national security" (Ground II).[10]

A finding that either ground is satisfied will result in an override of the state's objection. In its Notice of Appeal, Islander East asserted that its Project satisfies both Ground I and Ground II.

---

(Connecticut Letter Objecting to Modified Project), at 2.

[7] The State of New York found the Islander East Project consistent with the New York Coastal Management Program. *See* Letter from Vance A. Barr, State of New York Department of State, to Kevin S. Law, Nixon Peabody LLP (representing Islander East), Jan. 14, 2003.

[8] As a threshold procedural matter, Islander East raised, but then waived, the timing of Connecticut's objection. *See* Letter from Frank Amoroso, Nixon Peabody LLP (representing Islander East), to Branden Blum, NOAA, Dec. 20, 2002, at 2; *see also* Letter to David H. Wrinn, State of Connecticut, from Karl D. Gleaves, NOAA, Jan. 10, 2003, at 2.

[9] 16 U.S.C. § 1456(c)(3)(A).

[10] 16 U.S.C. § 1456(c)(3)(A); *see also* 15 C.F.R. §§ 930.63(e), 120, 121, 122, 130(d).

## III. ISLANDER EAST'S PROJECT IS CONSISTENT WITH THE OBJECTIVES OF THE CZMA

Under Ground I, a project is consistent with the objectives of the CZMA if it satisfies *each* of the following three requirements set forth in the CZMA regulations:[11]

(1) The activity furthers the national interest as articulated in § 302 (Congressional Findings) or § 303 (Congressional Declaration of Policy) of the CZMA, in a significant or substantial manner;

(2) The national interest furthered by the activity outweighs the activity's adverse coastal effects, when those effects are considered separately or cumulatively; and

(3) There is no reasonable alternative available which would permit the activity to be conducted in a manner consistent with the enforceable policies of the state coastal management program. (When determining whether a reasonable alternative is available, the Secretary may consider, but is not limited to considering, previous appeal decisions, alternatives described in objection letters and alternatives and other new information described during the appeal.)

The appeal record supports the finding that the Islander East Project is consistent with the objectives of the CZMA. Specifically, the natural gas pipeline furthers the national interest in a significant and substantial manner, and the Project's contribution to the national interest outweighs its adverse coastal effects. In addition, there is no reasonable alternative available that would allow Islander East's Project to be undertaken in a manner consistent with Connecticut's Coastal Management Program. Each element of this finding is addressed in turn below.

### A. <u>The Project Furthers The National Interest In A Significant And Substantial Manner (Element 1)</u>

#### 1. <u>Background</u>

To satisfy Element 1, Islander East's Project must further the national interest, as articulated in sections 302 or 303 of the CZMA, in a significant or substantial manner.[12] Prior CZMA appeal decisions recognize that Congress has broadly defined the national interest in coastal zone

---

[11] 15 C.F.R. § 930.121.

[12] 15 C.F.R. § 930.121(a). The language of this provision was revised effective January 2001, at which time the phrase "in a significant or substantial manner" took effect. This change focuses appeals to those involving "activities of a national import." CZMA Rule, 65 Fed. Reg. 77,124, 77,150 (2000). The likelihood that a project or activity of national import would be found to satisfy Element 1, however, was not affected by the new language.

management to include both protection and development of coastal resources. Thus, "Element [1] normally will be satisfied on appeal."[13]

A wide range of activities has been found in previous decisions to meet the competing goals of resource development and protection.[14] Islander East asserts that the Project will promote at least four national objectives set forth in CZMA §§ 302 and 303 in a significant or substantial manner.[15] These objectives or aspects of the national interest are:

1. "preserv[ing], protect[ing], develop[ing] and . . . restor[ing] or enhanc[ing] the resources of the Nation's coastal zone . . . ."

2. "priority consideration [of] coastal dependent uses and orderly processes for siting major facilities related to . . . energy . . . ."

3. compatible economic development of the land and water resources of the coastal zone.

4. "attaining a greater degree of energy self sufficiency."[16]

Connecticut believes that the Project satisfies none of these objectives and that Islander East failed to demonstrate the Project "significantly and substantially" advances the national interest.[17] Consequently, Connecticut argues the requirements of Element 1 are not fulfilled.

**2. <u>Discussion</u>**

Based on a careful review of the parties' arguments and information in the appeal record, I conclude

---

[13] Decision and Findings in the Drilling Discharge Consistency Appeal of Mobil Oil Exploration & Prod. Southeast, Inc., Sept. 2, 1994, at 13.

[14] *See, e.g.,* Decision and Findings in the Consistency Appeal of the Virginia Electric and Power Company (VEPCO), May 19, 1994, at 19.

[15] Initial Memorandum of Law of Islander East Pipeline Company, L.L.C. on Appeal from a Coastal Zone Management Plan Objection, Feb. 10, 2003 (Islander East Initial Brief), at 3-5; Reply to the CTDEP's Initial Brief in Opposition, Dec. 22, 2003 (Islander East Reply Brief), at 2-3.

[16] CZMA § 303(1), 16 U.S.C. § 1452(1); CZMA § 303(2)(D), 16 U.S.C. § 1452(2)(D); CZMA § 303(2), 16 U.S.C. § 1452(2); and CZMA § 302(j), 16 U.S.C. § 1451(j).

[17] Connecticut Initial Brief, Oct. 6, 2003, at 3; *see generally* Connecticut Initial Brief, at 24-41; Connecticut Reply Brief, Jan. 26, 2004, at 23-32.

that Islander East's Project furthers the national interest as articulated in CZMA §§ 302 or 303 in a significant and substantial manner. Through the use (which constitutes development) of a relatively small portion of the total bottom area/coastal resources comprising Long Island Sound,[18] the proposed Project would enable regional growth and expanded electric generation capacity, providing benefits to hundreds of thousands of people.[19] The Project, a coastal dependent major energy facility sited in the coastal zone, will enhance reliability of energy supplies to Long Island consumers by adding a second pipeline serving eastern Long Island, providing greater access to gas supply sources in Canada and promoting price competition.[20] The Project will also provide the region with a source of clean burning fuel.[21] The economic and environmental benefits of the Project to the region are "incalculable" according to FERC.[22] Given their scope, magnitude and importance beyond the pipeline's location in Long Island Sound, the benefits of Islander East's Project are both substantial and significant.

One persuasive factor in support of a finding that Islander East's Project fulfills the requirements of Element 1 is NOAA's interpretative guidance accompanying the updated CZMA regulations issued in December 2000.[23] In that statement, NOAA interprets the then newly-added regulatory requirement of significance or substantiality to suggest that projects involving the siting of coastal dependent energy facilities typically fulfill the requirement.[24] As Islander East's pipeline falls within

---

[18] The Sound is approximately 113 miles long and 20 miles across. FEIS at 3-39.

[19] Islander East has contracts to provide natural gas transportation service to companies that serve 1.8 million customers in the Long Island/New York City region and would supply enough natural gas to heat approximately 600,000 homes. *See* Islander East Initial Brief, at 8; *supra* n.5.

[20] *See generally* FERC Order #2, para. 3.

[21] *See* Letter to Branden Blum, NOAA, from Carl Michael Smith, Department of Energy, May 16, 2003 (DOE Comment Letter), enclosure at 2.

[22] Letter to Scott Gudes, NOAA, from Pat Wood, III, FERC (FERC Comment Letter), Mar. 11, 2003, enclosure at 4 (referring to supplies of natural gas to be delivered by the Islander East Project over the next fifty to one hundred years and the contribution these resources will make to the national interest, in terms of economic benefit achieved and environmental consequences avoided).

[23] *See* CZMA Rule, 65 Fed. Reg. 77,124.

[24] *Id.* at 77,150.

the CZMA definition of energy facilities[25] and, based on the facts of this appeal, is also coastal dependent, the Project furthers the national interest in a significant and substantial manner.[26] The Project's specific contributions to the national interest described below further support this conclusion.

The Project Develops the Coastal Zone – Islander East's Project constitutes development of a portion of Long Island Sound and furthers the national interest in developing the coastal zone and its resources. The Project modifies the Sound's bottom to allow its use for a particular purpose that was previously not available. This changed use of a portion of Long Island Sound is a development of the coastal zone. The benefits of the pipeline are a direct consequence of the modifications that comprise Islander East's Project and therefore are appropriately considered in determining the degree to which the Project furthers the national interest in coastal zone development.[27]

---

[25] The term "energy facilities" is defined by the CZMA to include any equipment or facility which is, or will be, used primarily for "transportation of[] any energy resource." 16 U.S.C. § 1453(6)(A). A pipeline transporting natural gas to Long Island therefore comports with the definition of energy facility.

[26] This decision is the first to apply regulatory changes to 15 C.F.R. §§ 930.121(a) that became effective in January 2001. *See generally* CZMA Rule, 65 Fed. Reg. 77,124. A project may fulfill the requirements of 15 C.F.R. § 930.121(a) by contributing to the achievement of a CZMA objective to a degree that has a value or impact on a national scale (i.e., by furthering the national interest in a *substantial* manner). The project may also satisfy the standard of 15 C.F.R. § 930.121(a) by providing a valuable or important contribution to a national interest (as identified in CZMA §§ 302 or 303) without necessarily being large in scale or having a large impact on the national economy. This latter category of activities would further the national interest in a *significant* manner. *See generally* CZMA Rule, 65 Fed. Reg. 77,124, 77,149 - 77,150.

A finding of significant or substantial contribution to the national interest will depend on the facts of the particular appeal and is not necessarily a result of the number of CZMA objectives furthered by a project. In determining whether a project satisfies the national interest requirement of 15 C.F.R. § 930.121, the primary factors to be considered include the value of the project to furthering one or more CZMA goals (as articulated in CZMA §§ 302 or 303) and the importance of the benefits derived from the project.

[27] The Project would also, to an extent, directly develop coastal resources on Long Island proper, furthering the goals of CZMA §§ 302(a) and 303(1). *See generally,* Islander East Initial Brief, at 35-37. This finding recognizes that the New York coastal zone extends landward of the shoreline and that natural gas from the Project would be transported by local distribution companies for use in these portions of Long Island. (The landward boundary of the New York coastal zone varies from region to region and, in general, is approximately 1,000 feet from the shoreline of the mainland. In certain areas, including portions of Long Island, the boundary may

The requirements of 15 C.F.R. § 930.121(a) are satisfied by projects, such as the Islander East proposed pipeline, that are of national import, raising more than local land use issues. The interstate nature of the pipeline, the large metropolitan areas[28] that would be direct beneficiaries of the Project, and federal agency comments on issues within their expertise suggesting the Project is important from a national perspective[29] are all indicia that Islander East's contribution to the national interest is both significant and substantial.[30]

Connecticut did not directly refute the Project's contribution to development of the coastal zone and its resources, but argued instead that benefits of Islander East's Project are achieved at the expense of equally important resource protection goals recognized by the CZMA.[31] As noted by Connecticut, the CZMA's enumerated priorities of resource protection and development create an inherent

---

extend for up to as much as 10,000 feet inland. *See* NOAA, State of New York Coastal Environmental Impact Statement, Aug. 1982, at II-3-5 to II-3-6. The Project further develops the coastal zone by providing vital infrastructure to support activities in the coastal zone.

[28] Although the primary market for Islander East is Long Island, the FERC licensing order indicates New York City and areas in Connecticut could also receive gas from capacity created by the Islander East Project. *See* FERC Order #1, at para. 45, 52, 55; FERC Order #2, at para. 74 (2002); *see also* FEIS at ES-1 (Islander East's Project would provide natural gas transportation service "to energy markets in Connecticut, Long Island and New York City.").

[29] The Project would develop the nation's energy infrastructure and increase the reliability of the supply of natural gas to the heavily populated Long Island area. FERC Comment Letter, at 2, enclosure at 3; *see also* DOE Comment Letter (advising that the Department of Energy supports FERC's comments from March 11, 2003).

[30] By enhancing pipeline infrastructure and improving security and reliability of service to eastern Long Island, the Islander East Project furthers the CZMA goal of developing the coastal zone in a significant manner. These aspects of the Project's contributions are valuable, important and fall within the broad parameter of the coastal zone development goals articulated by CZMA §§ 302(a) and 303(1). Similarly, the Project is needed to meet the growing demand for natural gas in Long Island, home to more than 1.4 million people in Suffolk County alone, and therefore furthers the national interest in a substantial manner. *See generally* Letter to Scott Gudes, NOAA from Pat Wood III, FERC, Oct. 11, 2003, at 1; Annual Estimates of the Population for the Counties of New York: April 1, 2001 to July 1, 2003 (CO-EST2003-01-36), U.S. Census Bureau, Population Division, Apr. 9, 2004, http://eire.census.gov/popest/data/counties/tables /CO-EST2003-01-36.pdf.

[31] *See generally* Connecticut Reply Brief, at 27, 30.

tension. A project's adverse coastal effects, however, are a primary focus of Element 2,[32] and therefore, do not limit consideration of the benefits of developing coastal resources in making a finding under Element 1. Consequently, the development benefits of Islander East's Project noted above are not diminished for purposes of the Element 1 analysis.[33]

The Project is a Sited, Coastal Dependent Energy Facility – Islander East's Project involves the location of a coastal dependent major energy facility in the coastal zone. The Project therefore furthers the national interest of CZMA § 303(2)(D). As noted *supra*, Islander East's Project falls within the CZMA definition of an energy facility. With an estimated cost in excess of $180 million,[34] and a capacity sufficient to heat approximately 600,000 homes and meet local gas company growth on Long Island and in New York City, Islander East's Project clearly is major in scope.

In arguing that CZMA § 303(2)(D) is not satisfied, Connecticut asserts that the Project is neither coastal dependent nor "sited" in the sense intended by the CZMA.[35] Underlying Connecticut's coastal dependence argument is the assumption that coastal dependent facilities are limited to those

---

[32] States have repeatedly and unsuccessfully argued in prior CZMA appeals that adverse impacts of activities should be considered as part of the Element 1 analysis. *See, e.g.,* Decision and Findings in the Consistency Appeal of Mobil Exploration & Prod. U.S. Inc., June 20, 1995, at 12.

[33] The benefits attributable to the goal of "compatible economic development" (*see* CZMA § 303(2)), by definition, require consideration of a project's impacts to other CZMA objectives, as suggested by Connecticut. *See* Connecticut Initial Brief, at 35, Connecticut Reply Brief, at 27. As noted *supra* (*see* n.32), however, adverse coastal impacts are considered in Element 2. Therefore, the Project's contribution to the national interest, based on the goal of compatible economic development, will be considered as part of the Element 2 process of balancing the overall national interest furthered by the Project and its adverse effects on coastal resources and uses. For purposes of this appeal, to the extent that the significant and substantial contribution of the Project to the national interest as determined in Element 1 (absent consideration of compatible economic development) is found in Element 2 to outweigh any adverse affects, the additional contribution attributable to CZMA § 303(2) need not be determined.

[34] Islander East estimates the cost of its proposed facilities at $149.6 million. FERC Order #1, para. 7. In addition, upgrades to the Algonquin line are required to accommodate the interconnect with Islander East. The costs associated with Algonquin's portion of the Project are estimated to total $32.3 million. *Id.* at para. 13.

[35] Connecticut Reply Brief, at 24.

whose placement "depend[s] upon the nature of the coastal resources available."[36] With regard to siting the pipeline, the State draws a distinction between a facility *located in the coastal zone* (for example, a marine terminal for off-loading oil or gas) and a pipeline that *passes through* the coastal zone, with only the former coming within the ambit of CZMA § 303(2)(D).[37] I find Connecticut unpersuasive on both points.

Structures may be found to be coastal dependent even if, at times, they can be located on land far removed from coastal resources such as water. The Decision and Findings in the Consistency Appeal of the Southern Pacific Transportation Company clearly established this principle, holding that the rehabilitation of a railroad bridge involved a coastal dependent activity[38] that satisfied Element 1 (furthering the national interest in siting major activities related to transportation, CZMA § 303(2)(D)). In Southern Pacific, the bridge was coastal dependent because it spanned a river.

Bridges, like pipelines, are constructed at sites both near and far from water. The primary question for appeals involving these structures is whether their location in or near the coastal zone is required to achieve the primary goal of the project in question. Given that Long Island can be reached only by transiting coastal waters, the pipeline, in this particular case, is a coastal dependent activity.

With regard to "siting" structures, the Southern Pacific Decision confirmed that facilities merely passing through the coastal zone can nevertheless be found to further the national interest of CZMA § 303(2)(D). Both pipelines and bridges transport a commodity from one point to another. In the case of Islander East, the pipeline would transport natural gas, whereas the bridge at issue in the Southern Pacific Decision transported freight and passenger trains. As the principle is the same, I find Connecticut's argument regarding siting unpersuasive.

As Islander East's pipeline must be located in the coastal zone to deliver natural gas to the eastern portion of Long Island, the Project involves a "siting" as articulated by CZMA § 302(2)(D). Aside from its value on a national scale, the Project's delivery capacity is significant. Consequently, the Project reflects a major contribution to the goal of siting energy facilities in the coastal zone and significantly furthers the national interest as reflected in CZMA § 303(2)(D).

<u>The Project Will Preserve and Enhance Coastal Zone Resources</u> – Connecticut questions the degree to which the Project will preserve or enhance resources of the coastal zone.[39] Although natural gas is

---

[36] Connecticut Initial Brief, at 25.

[37] Connecticut Initial Brief, at 24.

[38] Decision and Findings in the Consistency Appeal of the Southern Pacific Transp. Co., Sept. 24, 1985, at 3.

[39] *See, e.g.,* Connecticut Initial Brief, at 37-38; Connecticut Reply Brief, at 31.

generally recognized as a clean burning fuel,[40] the extent to which pollution would be reduced by use of the gas delivered by Islander East depends in part on the extent to which "newer power plants are substituted for older generating units on Long Island."[41] While these benefits have not been quantified, I conclude that they nevertheless would be realized to some degree if this Project were built. These benefits further support the conclusion that the Project contributes to the preservation of coastal resources and furthers the national interest as articulated in the CZMA.[42]

For the reasons noted above, I conclude that Islander East's Project will further the national interest as articulated in CZMA §§ 302 or 303 in a significant and substantial manner. The Project therefore satisfies Element 1.

## B. The National Interest Furthered By The Project Outweighs Its Adverse Coastal Effects (Element 2)

In order to satisfy Element 2, the national interest furthered by the Project must outweigh its adverse coastal effects, when those effects are considered separately or cumulatively.[43] The national interest embodied in the CZMA recognizes that any development project within the coastal zone will use, to some extent, coastal resources. Thus, the assessment of the national interest in Element 2 requires consideration of the extent of the effects of the activity on the natural resources of the coastal zone and the benefits of the development that occurs as a result of the use of coastal resources.

This appeal does not involve impacts to threatened or endangered species, or broad impacts to either Connecticut's waters or the Long Island Sound ecosystem. Rather, Connecticut is concerned primarily with impacts to shellfish and the shellfishing industry. Based on a careful review and weighing of the evidence, I conclude that these impacts are largely temporary in nature and limited in

---

[40] *See supra* n.21.

[41] Islander East Initial Brief, at 35. Islander East also asserts that the pipeline would reduce surface transportation of fossil fuels. *Id.*

[42] My conclusion concerning Element 1 would be the same even if these qualitative benefits were ignored.

Connecticut also argues that the Islander East Project makes no contribution towards the national interest in energy self sufficiency because it does not promote the development of domestic natural gas supplies. Connecticut Initial Brief, at 33; *see also* Connecticut Reply Brief, at 26 (". . . energy self sufficiency is not achieved by the importation of gas from foreign suppliers."). Connecticut's arguments are compelling. The record contains no information indicating that the Project will promote an increase in the overall production of U.S. natural gas resources.

[43] 15 C.F.R. § 930.121(b).

scope, and are outweighed by the Project's significant and substantial contribution to the national interest. Therefore, the Project satisfies Element 2.

### 1. Affected Environment

Connecticut's concerns relate primarily to impacts on Long Island Sound (Sound). The Sound is bounded by Connecticut on the north and by Long Island, New York, on the south. It is approximately 113 miles long (east to west) and approximately 20 miles across (north to south) at its widest point. Mid-Sound depths range between 60 and 130 feet.[44] The primary water quality issue in the Sound is low levels of dissolved oxygen.[45] The majority of contaminants and excess nutrients that enter the Sound do so in association with discharges of fresh waters from larger rivers.[46] The Project area, however, is distant enough from any potential source of contamination that contaminant/nutrient levels in the water and sediments are low, as evidenced by the presence of oyster leases that are used for depuration (that is, cleansing or purification of shellfish grown in other areas before they are consumed).[47]

The nearshore subtidal area (at depths of less than 30 feet) in and around the path of the Project is predominantly soft bottom habitat with interspersed rocky outcrops; this area serves as valuable shellfish habitat and is both recreationally and commercially fished. Connecticut characterizes this area as part of the Thimble Islands region, "one of the most . . . ecologically and geologically unique reaches of the Connecticut coast."[48] The Project's offshore route crosses predominantly soft bottom habitat consisting of fine grained sediments.[49]

---

[44] FEIS at 3-39.

[45] FEIS at 3-40.

[46] FEIS at 3-40.

[47] FEIS at 3-40; *see also* Connecticut Letter Objecting to Modified Project at 4.

[48] Connecticut Initial Brief, at 1; *see also* Connecticut Letter Objecting to Modified Project, at 3; Connecticut Initial Brief, at 42-46; Connecticut Reply Brief, Appendix at 2-4. The parties dispute whether the pipeline route actually crosses the "Thimble Islands;" Islander East, for example, argues that the Project was "sited to avoid the Thimble Islands area." Supplemental Memorandum of Islander East Pipeline Company, L.L.C. in Further Support of Appeal from a Coastal Management Plan Objection (Islander East Supplemental Brief), Appendix at 25; *see also* Islander East Reply Brief, at 9-10, 29-30. Regardless of how the affected area is characterized, the impacts to the resources will be the same.

[49] FEIS at 3-57.

## 2. Construction Techniques

Islander East will cross Connecticut waters in the Sound using three different construction techniques:

a. HDD (Mainland Approach): Islander East will employ horizontal directional drilling (HDD) for installation of an approximately 4,000-foot-long segment of the pipe, beginning on the Connecticut shore. This technique will involve drilling a hole from the entry point on the mainland to the exit point in the nearshore area of the Sound, and installing a prefabricated segment of the pipe through the hole.[50] The exit pit, or transition basin, will be about 20 feet deep, and 250 feet by 300 feet in area.[51]

b. Dredged Trench (Milepost (MP) 10.9 to 12.0): Beginning at the HDD exit area, the pipeline trench will be excavated using bucket or clamshell dredging.[52] The lay barge used for dredging will be relatively small in size, and equipped with either anchors or "spuds" (supporting legs).[53] Barge movement in shallow waters will be assisted by tug boats or smaller self-propelled barges.[54]

c. Subsea Plow (from MP 12.0): From approximately MP 12 on, in waters greater than 20 feet deep, Islander East would use a subsea plow to bury the pipeline.[55] The lay barges used in association with the plow are typically moored in place and propelled by winches attached by cables

---

[50] *See* FEIS at 2-36. Connecticut is concerned that Islander East has failed to provide an acceptable alternative for this section of the Sound crossing in case of HDD failure. *See, e.g.,* Connecticut Reply Brief, at 33, Appendix at 8. An HDD can fail for various reasons, including failure to complete the pilot hole, inability to maintain a stable open hole, the loss of the hole opening tool, inability to pull the pipe back through the hole, or loss of the drill head. FEIS at 3-36. The FEIS states that preliminary indications are that HDD should be feasible. FEIS at 3-52. Islander East, however, will not be permitted to begin offshore construction until it has successfully performed an HDD installation, and any alternative route/crossing method proposed by Islander East would be submitted to Connecticut's Department of Environmental Protection. *See* FEIS at 3-52; FERC Order #2, at Appendix, Environmental Condition # 21.

[51] FEIS at 3-53.

[52] *See* FEIS at 2-36, 3-49.

[53] FEIS at 2-36.

[54] *Id.*

[55] *See* FEIS at 2-31. The subsea plow will be used through the balance of Connecticut waters, and into New York waters in the Sound.

to an array of large anchors. The lay barges will have between 8 and 12 anchors, each approximately 15 feet wide. These anchors are designed to penetrate several feet into the sea floor sediments.[56]

During the course of the appeal, Islander East agreed to several modifications that will substantially reduce the Project's impacts. These include:

- Reducing the depth of the pipeline trench along the dredged trench section from 3 feet to 18 inches, between MP 10.9 to 12.0;[57]
- Storing dredged material on barges, rather than sidecasting dredged material in an area about 60 feet wide on one side of the trench, and then using this material to backfill the trench, as originally proposed;[58]
- Importing engineered backfill consisting of rock topped by sand to place in the dredged trench section and HDD exit area once the pipeline is installed; and
- Reducing the number of anchored barge passes from four to three for the subsea plow section, thereby reducing the number of anchor strikes and cable sweeps associated with subsea plowing.[59]

As described in greater detail below, these changes will significantly reduce the Project's impacts below the levels already found by FERC to be quite modest.

### 3. The Project's Adverse Coastal Effects are Largely Temporary in Nature and Limited in Scope

Connecticut identifies four categories of adverse effects: (1) water quality (from sedimentation and the release of drilling fluid),[60] (2) shellfish/habitat, (3) shellfish harvest, and (4) wetlands. In

---

[56] FEIS at 2-31.

[57] Islander East Supplemental Brief, at 9.

[58] *See* FEIS at 2-36.

[59] Islander East Supplemental Brief, at 9-10.

[60] Connecticut denied Islander East's application for Water Quality Certification (required under the Federal Clean Water Act) for the project. *See* Letter from Arthur J. Rocque, Jr., State of Connecticut Department of Environmental Protection, to Gene H. Muhlherr, Islander East Pipeline Co., L.L.C., Feb. 5, 2004. According to Connecticut, this denial is "determinative, because it . . . constitute[s] a legal bar to the permitting of this project," under the Clean Water Act. Connecticut Initial Brief, at 21. However, Connecticut's denial is not a bar to the

addition to the materials submitted by Connecticut and Islander East, the FEIS prepared by FERC, and comment letters from other Federal agencies such as the National Marine Fisheries Service (NMFS) and the Fish and Wildlife Service (FWS) provide information on impacts. These materials, however, generally describe impacts from the Project as it was originally proposed by Islander East.

**a. Suspension of sediments during construction will not significantly impair water quality**

The majority of the Project's route is within an area of fine-grained sediments that can be easily resuspended into the water column.[61] Any construction method used by Islander East will displace or disturb the bottom sediments of the Sound, resulting in the release of sediments to the water column and in an increase in turbidity.[62] (That is, once disturbed, the fine-grained sediments will become temporarily suspended in the water column, resulting in a "plume" of turbid water that drifts with the current; the particles will eventually settle on the bottom.)[63] The resuspension of sediments can temporarily affect water quality by reducing dissolved oxygen levels, reducing the depth of light penetration (needed for photosynthesis and production of oxygen), and potentially releasing contaminants.[64]

The majority of sediment displacement will result from dredging and use of the subsea plow.[65] The use of cables and anchors to secure the barges during trenching and subsea plowing will also disturb bottom materials, but the record evidence does not suggest that they will cause any significant

---

Secretary's decision under the CZMA.

[61] FEIS at 3-40; *see also* Letter from William T. Hogarth, NMFS, to Branden Blum, NOAA, June 4, 2003 (NMFS Comment Letter) at 2.

[62] FEIS at 3-44.

[63] FEIS at 3-49.

[64] FEIS at 3-44.

[65] FEIS at 3-44, 3-49; *see also* John C. Roberge, P.E., "Potential Sedimentation Impacts Which Could Result From Dredging, MP 10.9 - 12.0, Proposed Construction of The Islander East Gas Transmission Pipeline," May 5, 2003 (Roberge Report) at 8 ("Sediment is released from the dredging site through a combination of actions, including but not necessarily limited to: the dredge bucket impacting the ocean bottom; dragging of the bucket on the bottom; the shedding of sediments from the bucket as it is hauled through the water column; and related operational parameters.")

amount of sedimentation.[66] Regarding contaminated sediments, sediment quality is fairly consistent along the pipeline route, and there is no indication that any contamination problems are present. Samples taken along some portions of the proposed route contained nickel and arsenic at levels slightly above National Oceanic and Atmospheric Administration (NOAA) screening criteria. These screening criteria suggest only that moderate levels of contamination may exist. Nevertheless, concentrations of these contaminants within the water column immediately surrounding the plowed trench are expected to remain far below applicable state water quality standards.[67]

Connecticut asserts that these construction activities will nevertheless result in significant adverse impacts to water quality and to benthic organisms and their habitat through the introduction of suspended solids into the water column.[68] NMFS also provided comments that, as originally proposed (i.e., prior to Islander East's agreeing to modifications), the Project would "disperse significant volumes of resuspended sediment into nearby spawning, nursery, and maturation habitats for finfish, mollusks, and crustaceans."[69] FWS noted that construction techniques, again as

---

[66] *See, e.g.,* FEIS at 3-44. An evaluation of sediment dispersion performed for Islander East stated:

> [T]he transport of materials resuspended during repositioning will be small and confined to the immediate vicinity of the anchor point. It is expected that a significant fraction of the sediment load displaced by the emerging anchor will fall from the anchor as a coherent mass settling on or in the anchor hole. Much of the remainder will adhere to the anchor. Little if any of this material will be washed to form a significant concentration of suspended materials prior to replacement of the anchor. Given these characteristics, anchor handling operations cannot be expected to result in measurable sediment dispersion beyond the immediate vicinity of the anchoring sites.

W. Frank Bohlen, "An Initial Evaluation of Marine Sediment Dispersion Associated with the Installation of the Islander East Natural Gas Pipeline," prepared for Natural Resources Group Inc., Apr. 8, 2002 (Bohlen Report) at 11.

[67] FEIS at 3-43, 3-51 to 3-52, 3-65. The FEIS concludes, "[g]iven this estimate, the relatively low levels of contamination identified in the sediments, the offshore locations of these areas where seaplowing would be used causing minimal sediment resuspension, and the lack of contamination near shellfish beds and other nearshore habitats, we believe that contaminant resuspension from pipeline trenching activities would have little effect on the Sound's water quality in the short-term and no noticeable effect on long-term water quality." FEIS at 3-52.

[68] Connecticut Letter Objecting to Modified Project at 4; Connecticut Initial Brief, at 58-59.

[69] NMFS Comment Letter at 3.

originally proposed, would cause "local increases in turbidity, direct and indirect mortality for benthic organisms, and possibly resuspend contaminated sediments."[70]

Based upon my review of the evidence in the record, however, I conclude that the increase in turbidity will result in only limited, temporary adverse impacts on water quality. While water within impacted areas will have higher than normal background turbidity levels until the suspended sediments settle, sediment contamination levels are relatively low, and the increased turbidity will last only a matter of days in any particular construction area.[71] Indeed, some estimates predict that organisms along the pipeline route will be exposed to increased turbidity only for a matter of hours.[72] Absent a storm event, even Connecticut has acknowledged that "[t]urbidity of the water column would be relatively short-term."[73]

---

[70] Letter from Steve Williams, FWS, to Branden Blum, NOAA, Apr. 3, 2003 (FWS Comment Letter) at 1.

[71] FEIS at 3-50 to 3-51. Although the FEIS indicates that the Sound in its entirety could be affected by increased turbidity for a matter of months, no area within the Sound would be affected for more than a matter of days. *See* FEIS at 3-50.

[72] *See* TRC Environmental Corporation, "Evaluation of Benthic Impacts Associated with Islander East's Modified Offshore Construction Techniques," Feb. 17, 2003 (TRC Report), at 6 ("Reversing tidal currents and dredge movement along the pipeline corridor limit sediment plume exposure to organisms at any one location to around 6 hours.")

[73] Letter from Arthur J. Rocque, Jr., State of Connecticut Department of Environmental Protection, to Gene H. Muhlherr, Islander East Pipeline Co., L.L.C., Feb. 5, 2004, at 3. The State remains concerned that suspended sediment levels could remain elevated if a severe storm event were to occur during construction. A storm that took place during construction of the Iroquois pipeline (which crosses Long Island Sound between Milford, Connecticut and Northport, New York) caused suspended sediment to remain elevated during the four days including and just after the storm event, with sediment levels approximately 65% higher than that suspended during normal dredging operations. Connecticut Letter Objecting to Modified Project at 4; *see also* Connecticut Initial Brief at 58-59; W. Frank Bohlen, "An Investigation of Sedimentation Induced by Gas Pipeline Laying Operations in the Vicinity of the Oyster Bed Lease Areas, Milford, Connecticut," Mar. 17, 1992, at 27. To minimize impacts to clams and oysters, pipeline construction is slated to take place during the fall and winter months, when "less than ideal conditions are common." Connecticut Initial Brief at 59. Islander East's modeling and analysis, however, included two typical "northeasters," and adequately captured data representing a typical storm event that could occur during construction. FEIS at 3-51. On this issue, I find persuasive the expert opinion offered by Dr. Roman Zajac, a marine biologist consulting on the project; he concluded that the modified construction techniques, particularly "the removal of dredge spoils," would "eliminate . . . the potential for severe erosion in the case of a storm event during the construction period." Islander East Supplemental Brief, at 34; *see also* TRC Report, at 5.

### b. Expected releases of drilling fluid will not adversely affect water quality

Drilling fluids will be used during the HDD construction phase.[74] Drilling fluids (consisting of bentonite clay, native rock cuttings, and water) will be circulated through the borehole during drilling and reaming operations in order to lubricate the bit and drill pipe, stabilize the hole, carry cuttings away from the drill bit, and reduce friction as the pipeline is pulled through the hole.[75]

According to Islander East's "Directional Drilling Monitoring and Operations Program" for the pipeline's installation, releases of drilling fluid are anticipated "during the initial pilot hole seafloor penetration, during the final pipeline pullback from the offshore setup, and, to a greater extent, during the reaming passes."[76] Drilling fluids using bentonite clay, however, are not considered toxic.[77] Hence, the primary concern from releases of drilling fluids at the HDD exit point is an increase in turbidity, rather than toxicity.[78]

According to Connecticut, more than 7.6 million gallons of drilling fluids will be released into the Sound during HDD.[79] Connecticut further claims that releases of drilling fluids occur in at least 50 percent of marine and coastal projects undertaken in that State, and that these releases typically occur as "frac-outs," or incidents in which the drilling fluid is released from the drill path under high pressure.[80] The State asserts that, when drilling fluid is released into the water column, it forms a thick, gel-like layer on the bottom surface that can smother benthic organisms such as shellfish.[81]

---

[74] FEIS at 3-53.

[75] *Id.*

[76] FEIS, Appendix N, Directional Drilling Monitoring and Operations Program for Natural Gas Pipeline Installation in Long Island Sound for Islander East Pipeline Co., L.L.C. (Directional Drilling Monitoring and Operations Program), at 1-2.

[77] The Garrett Group, LTD, "Preliminary Report on the Anticipated Biological Impacts Associated with the Proposed Islander East Pipeline Project," prepared for Town of Branford, CT, May 8, 2003 (TGG Report), at 10.

[78] FEIS at 3-53.

[79] Connecticut Initial Brief, at 7.

[80] Connecticut Letter Objecting to Modified Project, at 5.

[81] Connecticut Letter Objecting to Modified Project, at 5; Connecticut Initial Brief, at 7.

Because portions of the HDD corridor will occur under "locally-managed shellfish lease beds," Connecticut believes these shellfish beds are susceptible to damage from a potential frac-out.[82]

After a careful review of the evidence, I conclude that the release of drilling fluid will result in only limited, temporary adverse impacts on water quality. Absent an unanticipated release, the amount of drilling fluid that enters the water column will be limited, and its impacts should be confined to the HDD exit pit. The risk of an accidental release or "frac-out" is low. Moreover, Islander East has contingency plans to clean up and contain any accident.

### i. Managing releases at the drill head exit

Islander East estimates that approximately 445 barrels (18,690 gallons) of drilling fluid would be released at the directional drill exit point.[83] According to an expert report prepared for Islander East, most of this drilling fluid will settle within the limits of the area that will be excavated during construction of the transition basin.[84] The drilling fluids released during the pilot hole phase will then be excavated from the pit and placed onto barges for offshore disposal.[85]

### ii. Managing releases during the reaming process

Once the exit pit has been excavated, the directional drill hole will be reamed to produce a diameter of approximately 36 inches.[86] Connecticut asserts that the vast majority of the drilling fluid (7.4 million gallons) will be released to the Sound during this phase of construction. Islander East has explained, however, that, prior to the reaming process, it will install a closed-fluid containment system that includes a casing pipe to contain drilling fluid from the exit hole.[87] Islander East also states that it "has committed to containing 100 percent of the drilling fluid during the reaming and

---

[82] Connecticut Letter Objecting to Modified Project, at 5.

[83] FEIS at 3-53.

[84] Islander East Reply Brief, at 35; Bohlen Report, Apr. 8, 2002, at 9. The Bohlen report explains that, as the Project was originally proposed, the drilling fluids were expected to disperse over an area approximately equal to that involved in the excavation of the transition basin and placement of the bordering berm of dredged materials. *Id.* As noted earlier, however, Islander East will now place the dredged materials onto barges for off-site disposal.

[85] Islander East Supplemental Brief, at 36; Islander East Reply Brief, at 35.

[86] *See* Bohlen Report, Apr. 8, 2002, at 10.

[87] Islander East Supplemental Brief, at 36.

swab passes of HDD installation."[88] This assertion is supported by other materials in the record; one report, for example, states that "[a]ll reaming muds are to be contained and none will be available for dispersion."[89]

### iii. Managing releases during pipe pullback

Once the hole has been reamed to approximately 36 inches in diameter, the pipe would be laid on the sea floor and pulled back into the hole. During this phase, approximately 5,000 barrels (210,000 gallons) of drilling fluid would be introduced into the exit pit. Because this volume is substantially less than the capacity of the exit pit, the released muds are expected to collect in the deepest part of the exit pit, near the drill exit point.[90] Dispersal of this mud into the water column is thus unlikely.[91] Therefore, any water quality impact will be short-term and likely confined to the exit pit.[92]

### iv. Risk of unplanned release

Our prior decisions indicate that it is appropriate to consider adverse effects that can "arise from an unplanned event, i.e., improper conduct of an activity or an accident."[93] Here, however, I conclude that the risk that drilling fluids could be released to the Sound through a frac-out is low. The FEIS states:

> [T]he results of the geotechnical investigation conducted to date indicate that overburden (primarily silt, overlying the bedrock) thickness along the HDD route varies from 25 to 90 feet. It is thus expected that any drilling mud released through fractures in the bedrock would be contained within the overburden and would not be released to the Sound.[94]

---

[88] Islander East Reply Brief, at 34.

[89] Bohlen Report, Apr. 8, 2002, at 10; *see also* FEIS at 2-41 and 3-53.

[90] FEIS at 3-53; Bohlen Report, Apr. 8, 2002, at 10.

[91] FEIS at 3-53 to 3-54.

[92] FEIS at 3-53.

[93] *See, e.g.*, Decision and Findings in the Consistency Appeal of the Amoco Prod. Co., July 20, 1990 (Amoco Decision), at 16; Decision and Findings in the Consistency Appeal of Chevron U.S.A. Inc., Oct. 29, 1990 (Chevron Decision - 1990), at 24; Decision and Findings in the Consistency Appeal of the Korea Drilling Co., Ltd., Jan. 19, 1989, at 10.

[94] FEIS at 3-54.

Similarly, it notes that, "[a]s proposed, the HDD would primarily pass through the local bedrock at a maximum depth of about 120 feet below the sea floor. Based on surface indicators, the bedrock is hard and stable, and drilling would proceed slowly."[95]

Moreover, Islander East has proposed contingency measures to contain and clean up any releases from a frac-out. FERC has reviewed Islander East's "Directional Drill Monitoring and Operations Program" and believes that its implementation "would adequately minimize potential adverse impacts from drilling mud releases," with the addition of several review and reporting requirements.[96] The program's objective is to identify any unplanned release of drilling fluids, determine the size and location of the release, and prepare for any necessary containment and cleanup.[97] Islander East intends to use three different monitoring techniques: a "first level" detection system consisting of remote sensing hardware (side scan sonar and fluorometry); a "second level" inspection system consisting of an underwater color television camera; and a "third level" consisting of divers.[98] Islander East has also described the procedures that it will follow in case of an unplanned release, including coordination with the Army Corps and the Connecticut Department of Environmental Protection.[99] The existence of these contingency measures further supports my conclusion that few, if any, adverse water quality impacts will likely result from use of drilling fluids during HDD.[100]

### c. Shellfish bed and habitat impacts

The pipeline route crosses seven shellfish lease areas under Connecticut's jurisdiction, and recreational shellfish habitat under Branford's jurisdiction that has potential value as a lease area.[101] Four of the seven leases will be avoided through use of HDD crossing methods.[102] The pipeline will then cross through the (unleased) shellfish habitat that is under Branford's jurisdiction, until it

---

[95] FEIS at 2-41.

[96] FEIS at 3-54.

[97] Directional Drilling Monitoring and Operations Program, at 2-1.

[98] *Id.*

[99] *See id.* at 4-6 to 4-11, 5-1.

[100] "[I]t is appropriate to consider the measures that will be used to contain and clean up" an accident if one should occur, because some risk of an accident always exists. *See* Mobil Decision (1995), at 29.

[101] FEIS at 3-57, 3-69.

[102] FEIS at 3-69.

reaches MP 11.9.[103] From MP 11.9 to 12.5, the pipeline will cross through two lease areas that have been unlisted because they are recovering from commercial harvesting, but are still considered valuable shellfish habitat.[104] The pipeline will then cross the corner of shellfish lease bed L-555, between MP 12.5 and 12.9.[105] In addition to the seven leases that will be crossed by the pipeline, three lease beds located within the anchor corridor will be impacted by anchor placement and/or cable sweep: L-473, L-572, and L-559.[106]

### i. Concerns raised by Connecticut, NMFS and FWS

Connecticut is concerned that installation of the pipeline will permanently alter the bottom substrate, eliminating the naturally-occurring shellfish communities, and that these communities will be unable to recover.[107] According to the State, over 67,000 acres of oysters are cultivated in Connecticut's coastal waters, and it ranks first in the nation in dollar value of oysters harvested.[108] The harvest of hard clams is also a multi-million dollar industry within the State.[109] Comments submitted by the Attorney General of Connecticut note that a total of approximately 85,000 acres are under cultivation in the Sound. [110] Connecticut states that the length of the pipeline route from the start of the dredged trench section of the pipe to the farthest depth useful for commercial shellfishing (MP 15, where the depth is approximately 50 feet) is about four miles, consisting of one mile of trenched pipe plus three miles of plowing,[111] and that pipeline installation in the trenched segment between MP 10.9 and MP 12 would directly destroy 5.5 acres of shellfish habitat, five acres of which are in Branford's

---

[103] FEIS at 3-57.

[104] *Id.*

[105] *Id.*

[106] *See* FEIS at 3-57, 3-69, 3-71, and 3-121 to 3-123.

[107] Connecticut Letter Objecting to Modified Project, at 5.

[108] Connecticut Initial Brief, at 50; *see also* Application of Iroquois Gas Transmission System, L.P., for Certificate of Public Convenience and Necessity, Docket No. CP02-52-000, Dec. 2001, at 69 (noting that more than 60,000 acres of shellfish grounds are cultivated in Connecticut's coastal waters).

[109] Connecticut Initial Brief, at 50.

[110] Comments of the Attorney General of Connecticut, Nov. 19, 2003, at 25.

[111] Connecticut Initial Brief, at 54.

commercial lease beds.[112] Connecticut asserts that the substrate will be permanently altered, as the habitat disturbed in 1991 by installation of the Iroquois pipeline, which crosses Long Island Sound between Milford, Connecticut and Northport, New York,[113] has not yet recovered.[114] According to the State, pipeline installation will impact a total of about 3,700 acres in Connecticut waters, including the installation area (both the trenched and plowed sections) as well as the associated anchor strikes and cable sweeps, which will "constitute[] a swath of impact more than 1,200 feet to 2,000 feet on either side of the lay barge."[115]

NMFS and FWS have also expressed concern regarding the Project's impacts on shellfish and shellfish habitat. NMFS believes that pipeline installation may affect habitat function for long periods, that shellfish habitat may take much longer than five years to recover, and that it may never fully recover to its conditions prior to installation of the pipeline.[116] NMFS asserts that the Project will cause both immediate and protracted destabilization of the seafloor.[117] According to NMFS, the pits created by anchor placement, or anchor scars, can collect organic materials, resulting in hypoxic or anoxic "traps" incapable of supporting benthic organisms.[118] NMFS also expressed the view that hydrated sediment will be too fluid to support the weight of adult clams which, as they grow, may sink into the sediment and become smothered,[119] and that, because much of the central Sound floor is composed of fine grain materials, sediment reconsolidation may be protracted.[120] The FWS

---

[112] Connecticut Letter Objecting to Modified Project, at 7; Connecticut Reply Brief, Technical Comments, Appendix A at 1, 3-4.

[113] *See* Iroquois Gas Transmission System Map. The Iroquois pipeline begins at the New York-Canadian Border near Iroquois, Ontario and ends near South Commack, New York on Long Island. Application of Iroquois Gas Transmission System, L.P., for Certificate of Public Convenience and Necessity, Docket No. CP02-52-000, Dec. 2001, at 6.

[114] *See* Connecticut Letter Objecting to Modified Project, at 5-6; Connecticut Reply Brief at 36.

[115] Connecticut Initial Brief, at 59; *see also* Connecticut Reply Brief, Appendix at 7.

[116] *See* NMFS Comment Letter, at 2.

[117] *Id.*

[118] *Id.* at 4.

[119] *Id.* at 2, 4.

[120] *Id.* at 4.

expressed similar concerns that pipeline construction and maintenance will have long-term effects on substrate and will directly affect shellfish and other benthic organisms.[121]

### ii. Impacts to shellfish habitat will be limited

I conclude that the Project will result in limited adverse impacts – that is, both temporally and spatially – on shellfish. Construction of the pipeline will likely result in direct mortality to shellfish within the construction footprint, as well as disturbance and disruption to habitat that is either currently used or suitable for the cultivation of shellfish. The impact area, however, is expected to recover within a matter of years. The TGG Report that was prepared for the Town of Branford, for example, states that, "[a]fter all project related activities and secondary conditions associated with the construction have ceased, the bottom will recover after several years and return to the existing condition."[122] A biologist consulting on the Project testified before the Connecticut Siting Council that most of the beds along the pipeline route are used for harvesting hard clams (rather than oysters, which require a hard substrate), and, because the habitat consists primarily of muds, recovery should occur within three or four years.[123]

In evaluating these impacts, I must first resolve the dispute between Connecticut and Islander East as to the size of the area impacted. After reviewing the record carefully, I find that I cannot accept Connecticut's claim of impacts to 3,700 acres within the State's waters. Connecticut does not provide support for this estimate, and fails to explain what percentage of these impacts will result from each of the different construction techniques, or specifically how these impacts will be adverse to shellfish. The FEIS – which was prepared before Islander East's adoption of modified construction techniques that will reduce the area of impact – indicates that the total area of Sound bottom that will be disturbed *in both Connecticut and New York waters* is approximately 3,140 acres.[124] For the modified project, Islander East estimates that a total of about 1,121 acres will be impacted within Connecticut waters, as follows:[125]

---

[121] FWS Comment Letter, at 1.

[122] TGG Report, at ES-2, 14.

[123] Testimony of Dr. Roman Zajac before the Connecticut Siting Council, Apr. 11, 2002, at 134, lines 7-18.

[124] FEIS at 3-45.

[125] Islander East Supplemental Brief, at 10-11; Islander East Reply Brief, at 42.

| CONSTRUCTION METHOD | IMPACTED AREA |
|---|---|
| HDD Exit Area | 8.4 acres[126] |
| Dredged Trench Section | 5.6 acres[127] |
| Anchor Strikes | 3.2 acres[128] |
| Anchor Cable Sweep | 1,023 acres[129] |
| Plowing/Burial | 81.2 acres[130] |
| **Total:** | **1121.4 acres** |

After considering the positions of both parties, I conclude that Islander East's estimates are more credible, and I will use them in support of my analysis set forth below.

- **There is virtually no impact to shellfish habitat at the HDD exit area**

The exit pit for the HDD will be approximately 250 feet by 300 feet;[131] according to Islander East, this will result in a total of 8.4 acres of both direct and indirect impacts.[132] There are currently no

---

[126] *See* TRC Report, at 5.

[127] *See* TRC Report, at 5.

[128] This estimate is supported by the impact estimate contained in the FEIS, once adjusted to exclude impacts within New York waters, and to take into account the fact that there will be three rather than four passes using the subsea plow. *See* FEIS at 3-45; Islander East's Amendment to the Section 401 Water Quality Certificate Application – Construction Installation Modifications, at 3-4.

[129] *See id.*

[130] This estimate is supported by the impact estimate contained in the FEIS, once adjusted to exclude impacts within New York waters. *See* FEIS at 3-45; Islander East's Amendment to the Section 401 Water Quality Certificate Application – Construction Installation Modifications, at 3-4.

[131] FEIS at 3-53.

[132] Islander East Supplemental Brief, at 10; TRC Report, at 5.

shellfish leases in the area.[133] As described earlier, no live hard clams, live oysters, or oyster shells were found in any of the samples taken in the HDD exit area.[134] Islander East will fill the exit pit using engineered backfill, as described below, which may actually result in new shellfish habitat where none existed before.[135]

- **The dredged trench area will be restored, reseeded, and will likely recover in 3 to 5 Years (MP 10.9 to 12.0)**

Mechanical dredging of the trench would likely result in a 50-foot wide trench;[136] Islander East states that installation of the pipeline in this section will result in 5.6 acres of direct and indirect impacts.[137] Trenching and backfilling would dislodge and likely result in direct mortality of some mobile shellfish, and of the majority of shellfish attached to the substrate.[138] Samples taken by divers along the path of the proposed pipeline, however, revealed no live hard clams or oysters at most sampling locations; hard clams at densities of approximately 1 per 0.25 square meter were found at two stations located 1,750 and 1,000 feet to the west of the pipeline corridor.[139] Also, because Islander East is now proposing to dig a shallower trench than was analyzed in the FEIS, the trenching will have even fewer direct impacts – the trench will be narrower with less slumping on the sides, causing less disturbance to habitats and communities.[140]

Islander East had originally proposed to sidecast dredged materials adjacent to the HDD exit area and the dredged trench section, and then to use that material to fill the exit pit/trench.[141] Islander East subsequently evaluated and developed an "Engineered Backfill Plan," that involves storing dredged material on barges,[142] placing rock around the pipeline, and then topping the rock with gravelly

---

[133] Islander East Reply Brief, at 12.

[134] TRC Report, at 3.

[135] Islander East Supplemental Brief, at 29-30.

[136] FEIS at 3-69.

[137] Islander East Supplemental Brief, at 10; TRC Report, at 5.

[138] FEIS at 3-62.

[139] TRC Report, at 4.

[140] TRC Report, at 5.

[141] Islander East Supplemental Brief, at 29.

[142] *See* Islander East Supplemental Brief, at 9-10.

coarse- to fine-grained sand.[143] Islander East contends that the backfill will provide a substrate that can be utilized by clams and oysters;[144] a report prepared for Islander East notes that the use of engineered backfill "may increase biological diversity, and has the potential to improve conditions for two valuable commercial species, oyster and lobster."[145] The TGG Report reaches a similar conclusion, stating that "use of engineered fill will create a varied benthic habitat, shelter/relief, and should enhance nearshore bottom conditions."[146]

The FEIS, which analyzed Islander East's original proposal, noted that the disturbed sediment would require time to reconsolidate before it would provide adequate shellfish habitat.[147] Similarly, NMFS was concerned that, because much of the central Sound floor is composed of fine grain materials, sediment reconsolidation may be protracted.[148] As noted previously, hydrated sediment is too fluid to support the weight of adult clams.[149] However, Islander East's decision to use engineered backfill in the HDD exit area and dredged trench section addresses these concerns. The FEIS states that, once the substrate provides suitable habitat, recovery of shellfish beds would take at least 3 to 5 years, the time it takes for a settled clam or oyster to reach marketable size.[150]

---

[143] Islander East Supplemental Brief, at 29-30.

[144] Islander East Supplemental Brief, at 30.

[145] TRC Report, at 7. The report further explains:

> Engineered backfill has value as hard substrate for attachment of organisms and plants, which could promote habitat diversity. The conversion of mud substrates to a more rocky material will have minimal impacts on soft sediment species populations because it represents a very minor percent decrease in availability of mud substrates . . . . [F]ine sediments may start to fill in the interstices of the engineered backfill, with the potential for some areas to become entirely covered with silty sediments over time. In time, the rock backfill area along the length of the pipeline trench will become a mosaic of several substrate type combinations. This substrate mosaic has the potential to increase habitat diversity, supporting greater species richness than a single substrate type.

*Id.* at 6.

[146] TGG Report, at 15.

[147] FEIS at 3-70.

[148] NMFS Comment Letter, at 4.

[149] *Id.* at 2, 4.

[150] FEIS at 3-70.

The FEIS also cites information provided by the State, specifically the Department of Agriculture, Bureau of Aquaculture, indicating that there are still unproductive areas in nearby shellfish habitat impacted by construction of the Iroquois pipeline across the Sound in 1991.[151] Islander East, however, points out that three new shellfish leases, totaling 1,114 acres, have been established along the existing Iroquois pipeline in areas where no leases existed previously, indicating that areas in this vicinity are now economically viable for shellfish production.[152] Although oysters do not appear to have returned, the disturbed area has been recolonized with hard shell clams.[153]

- **Subsea plowing**

Subsea plowing would impact a 75-foot-wide corridor, including 3.8 acres of shellfish lease bed L-555;[154] Islander East states that plowing and burial of the pipeline will impact a total of 81.2 acres in Connecticut waters.[155] As with the dredged trench section of the pipeline, use of the subsea plow will result in direct mortality of some mobile shellfish, and the majority of shellfish attached to the substrate.[156] As discussed previously, both the FEIS and NMFS noted that the disturbed sediment will require time to reconsolidate before it will provide suitable habitat for shellfish.[157]

- **Anchor placement**

The FEIS states that use of large construction barges requires a depth of at least 20 feet; therefore, they would not be used until approximately MP 12.[158] Anchor strikes will impact 3.2 acres in Connecticut waters.[159] Due to the weight of the anchor, shellfish within the footprint of the scar would experience mortality.[160] As discussed below, recovery of anchor scars could occur within a

---

[151] FEIS at 3-70; *see also* Connecticut Letter Objecting to Modified Project, at 6.

[152] Islander East Supplemental Brief, at 32.

[153] *Id.*

[154] FEIS at 3-71 to 3-72; *see also* FEIS at 3-65 to 3-66.

[155] Islander East Supplemental Brief, at 11.

[156] FEIS at 3-62.

[157] *See* FEIS at 3-70.

[158] FEIS at 3-71.

[159] Islander East Supplemental Brief, at 11.

[160] FEIS at 3-71.

year, or could take several years.[161] Once the scar is filled and the sediment provides adequate habitat, it would take another 3 to 5 years for shellfish to reach marketable size.[162]

The FEIS does raise concerns, however, that if anchor scars did not refill adequately, the depressions could represent a long-term conversion of shellfish habitat:[163]

> Some of the deep depressions created by anchors could persist for many years. [One study] showed that in channels with high current velocities, pits were filled in within one year, but pits in areas with lower current velocities took 5 to 10 years to fill. Due to the fact that much of the offshore route is located in a depositional environment with low current velocities, it is likely that some long-term seabed depressions could result from the Islander East pipeline construction. These long lasting depressions can act as sediment traps accumulating fine sediment and organics, which can lead to anoxic sediments that develop considerably different communities from the original deposits.[164]

Similarly, NMFS states that the anchor scars may act like much larger depressions, and that in areas below 60 feet of water depth, refilling may be problematic.[165]

Neither the FEIS or NMFS provide any basis to believe, however, that a significant number of anchor scars will not refill adequately. Islander East cites testimony provided by Dr. Roman Zajac, a marine biologist consulting on the Project, before the Connecticut Siting Council, which notes that an anchor depression "actually can become active habitat for a number of organisms because it does add dimensionality to the system."[166] Thus, while I find that there is a risk that some areas impacted by the anchor strikes might not recover and fully attain their previous use, I find those impacts insignificant when compared to the overall acreage of shellfish beds in Long Island Sound.

---

[161] *Id.*

[162] *Id.*

[163] *See id.*

[164] FEIS at 3-65.

[165] Letter from Peter Colosi, NMFS, to Magalie Salas, FERC, May 20, 2002, at 3 (DEIS Comment Letter). Sixty feet, however, is beyond the depth suitable for commercial shellfishing, which Connecticut states is about 50 feet. Connecticut Initial Brief, at 54.

[166] Testimony of Dr. Roman Zajac before the Connecticut Siting Council, Apr. 12, 2002, at 56, lines 14-16.

- **Cable sweep**

Islander East indicates that anchor cable sweep will result in 1,023 acres of impact in Connecticut waters.[167] Many clams and oysters would likely experience mortality as a result of direct impact with, or being dislodged by, sweeping cables.[168] Areas within depressions or where the cable does not make complete contact, however, would survive relatively intact.[169] Recovery of shellfish areas is expected to take at least 3 to 5 years, the time needed for newly established clams to reach marketable size.[170]

- **Sediment impacts on shellfish that are not in the direct path of construction**

Connecticut's expert conducted a "worst-case" analysis estimating the thickness of sediment layers that will result from dredging,[171] and determined that a maximum of 2.7 mm of sediment will be deposited, and that this amount would occur only within 5 m of the trench centerline.[172] No sediment would be deposited more than 300 m from the trench.[173] Similarly, an expert report prepared for Islander East notes that no area will experience sediment deposition greater than 3 mm in thickness,[174] and that deposition thicknesses of 2 to 3 mm will be limited to the HDD exit hole area.[175] Islander East's modeling, which was reviewed by FERC, estimates that sediment suspension

---

[167] Islander East Supplemental Brief, at 11.

[168] FEIS at 3-71.

[169] *Id.*

[170] FEIS at 3-70 to 3-72; *see also* FEIS at 3-65 to 3-66.

[171] The analysis assumed "worst-case" conditions, including maximum tidal current velocities, maximum sediment release rates, and that all of the materials suspended in the turbidity plume will be deposited at the maximum extent of transport. Roberge Report, at 9.

[172] *See* Roberge Report, at 10.

[173] *Id.*

[174] *See* TRC Report, at 5; *see also* Applied Science Associates, Inc., "Results of SSFATE Model Simulations, Nearshore Connecticut, Long Island Sound," Feb. 2003 (ASA Report), at 4. Connecticut appears to accept this estimate in the absence of a storm, noting that, "[m]odeling studies have shown that, under ideal conditions with no storm events, sedimentation of up to 3 millimeters is expected." Connecticut Initial Brief, at 58.

[175] TRC Report, at 6; *see also* ASA Report, at 5.

from plowing should be minimal to non-existent, and that impacts would be confined to the immediate vicinity of the trench.[176]

I find persuasive the expert opinion offered by Dr. Zajac:

> Considering only the maximums, and if the projections are correct, this degree of sediment deposition onto the sea floor should have little impact on sea floor habitats and communities, and may approach background/natural levels of sediment resuspension and deposition in the area.[177]

Further, "no mortality is expected and stress factors will be minimal."[178]

I thus conclude that this limited deposition of sediment will result in few adverse impacts in areas near the construction path or shellfish habitat. Tidal currents and storm events regularly resuspend fine sediments in environments such as the Sound.[179] Shellfish such as clams and oysters are adapted to these conditions – "[a]daptation for existence in such a silt laden environment is obviously essential" – and shellfish mortality from the short-term increase in turbidity is not expected.[180] Although the TGG Report notes that the deposition of 1.0 - 2.0 mm of sediment can limit the settling

---

[176] FEIS at 3-49; *see also* Bohlen Report, at 11 ("[D]isplaced sediments caused by passage of the mechanical plow should be minimal to non-existent. The primary impact zone for this method therefore is confined to the immediate vicinity of the trench."); FEIS at 3-64 ("Dispersion of sediments by the subsea plow would be minimal because this method does not resuspend significant amounts of sediment.")

[177] TRC Report, at 5. The report notes that this conclusion is based on several factors: (1) construction will occur during the winter months – most benthic species will not be recruiting (that is, adding new individuals to their populations) during this time, and there should be little burial of the more sensitive, newly settled individuals; (2) many adult organisms that live within the sediments can adjust their position, and less than 3 mm of sediment should result in little to no stress to these organisms; (3) mobile organisms that live on the surface of the sediment will either move away from the depositional areas, or be little affected by the localized increases in suspended sediments that last only a short time; and (4) reversing tidal currents and dredge movement along the pipeline corridor will limit organisms' exposure to the sediment plume at any one location to around 6 hours. *Id.* at 6.

[178] TRC Report, at 6.

[179] FEIS at 3-49.

[180] FEIS at 3-70 to 3-71.

of oyster larvae on hard substrates,[181] construction has been scheduled during the winter months, which should avoid and minimize impacts to settling clams and oysters.[182]

**d. Shellfish harvesting/water dependent use impacts will be minimized**

Connecticut is concerned not only with impacts to shellfish, but also with the proposed pipeline's impacts to shellfish harvesting. The State notes that the Thimble Islands area, situated in nearshore waters off Branford, currently supports 3 full-time commercial lobstermen and 14 licensed shellfishermen, as well as recreational fishermen.[183] It contends that, by using engineered backfill in the HDD exit and dredged trench areas, Islander East will render these areas – according to Connecticut, a total of 5.5 acres – unsuitable for commercial harvesting equipment.[184] Connecticut also believes that a much larger area will be eliminated from harvesting; not only would the area that the commercial harvesting equipment needs to avoid be wider than the backfilled trench itself because of the required turning radius,[185] but also shellfishermen may avoid areas impacted by anchor strikes and cable sweep for fear of damaging or losing gear.[186] Finally, the State is concerned that topographic irregularities caused by backfill with gravel and use of the subsea plow, anchors and cables, may adversely affect the efficiency and safety of harvesting operations.[187]

Islander East disputes whether the impacts from pipeline installation will actually pose a long-term problem for shellfish harvesting equipment used in the Sound,[188] and Connecticut has submitted little or no evidence to support its claim. In the areas where backfill will be used, Islander East intends to achieve a finished substrate equivalent to the existing surface with a tolerance of +2' to -1': the TGG Report prepared for Branford notes that it expects a depression of about 1.5' to result in these areas, but that "[t]he change in relief should not pose any additional adverse effect to the post construction nearshore bottom."[189] The TGG Report also states that direct impacts will "have a dramatic effect in

---

[181] *See* TGG Report, at 15.

[182] FEIS at 3-71.

[183] Connecticut Letter Objecting to Modified Project, at 3.

[184] *Id.* at 7.

[185] Connecticut Initial Brief, at 55; Connecticut Letter Objecting to Modified Project, at 7.

[186] Connecticut Letter Objecting to Modified Project, at 7; Connecticut Reply Brief, Appendix at 7.

[187] Connecticut Letter Objecting to Modified Project, at 7.

[188] *See* Islander East Supplemental Brief, at 37-38; Islander East Reply Brief, at 51.

[189] TGG Report, at 5.

the *short term fishery*,"[190] rather than long-term impacts to the industry, and then recommends a number of mitigation measures (many of which have been adopted by Islander East).[191]

While there will be impacts to shellfish and thus to shellfish harvesting, I conclude that Islander East has adequately mitigated impacts to the shellfish industry. Islander East consulted with Connecticut lobstermen and fishermen in order to minimize and/or avoid impacts to commercial harvesting, and has agreed to:

- Avoid four leased commercial shellfish beds under Branford's jurisdiction, through use of HDD;[192]
- Install the pipeline during winter months to avoid the peak fishing season;[193]
- Use spotters during construction to identify and relocate commercial fishing gear;[194]
- Harvest actively-cultivated commercial shellfish beds located along the pipeline route prior to construction, and reseed leased beds with clams following construction.[195]

Moreover, Islander East has made agreements to compensate all state commercial shellfish lease holders whose beds will be directly affected.[196] Finally, FERC has noted that Islander East would be responsible for any damages caused by construction of the pipeline, including any loss of

---

[190] TGG Report, at ES-3, 16.

[191] TGG Report, at 16-17.

[192] Islander East Supplemental Brief, at 37.

[193] Islander East Supplemental Brief, at 38. Offshore construction (in both Connecticut and New York waters) was originally scheduled for October 2002 through April 2003. *See* FEIS at 2-12.

[194] Islander East Supplemental Brief, at 38.

[195] *Id.*

[196] Islander East Supplemental Brief, at 39; FEIS at 3-105 & 5-7. The agreements specify payments for: (1) pre-construction harvesting of shellfish within the affected area; (2) coordination of shellfish harvesting activities in the anchor corridor area during construction; (3) damages during and immediately following construction; and (4) reseeding the beds with seed shellfish following construction, if desired by the leaseholder. Islander East Supplemental Brief, at 39-40; FEIS at 3-105.

productivity in shellfish beds.[197] Because of these measures, I conclude that Islander East has effectively reduced and minimized the Project's impacts on commercial fishing activities.[198]

e. **Tidal wetlands**

In its consistency objection, Connecticut noted that the Project would impact two wetland areas, wetland CT-A37 (MP 9.6) and pond CT-A21 (MP 9.8); it also noted that mitigation was possible for wetland CT-A37.[199] The State has not provided any further information or evidence concerning potential impacts in its briefs submitted for this appeal.

Based on the evidence contained in the record, I conclude that any temporary impacts to these wetland areas will be adequately mitigated. The pipeline will cross both areas using specialized construction techniques designed to minimize impacts; following construction, the original contours will be restored and the disturbed wetland will be reseeded. Islander East will conduct post-construction monitoring for three years or until the wetlands are successfully restored.[200] Islander East has also coordinated with the Branford Land Trust to establish restoration measures for the pond and adjacent areas, including the planting of native species to promote wildlife habitat adjacent to the pipeline.[201] The FEIS states that, "Islander East and Algonquin have minimized wetland impacts through the proposed route, and the use of its [Erosion and Sedimentation Control] Plan and other proposed impact mitigation measures would avoid or minimize potential impacts on wetlands."[202]

f. **Cumulative impacts**

The applicable regulations state that a project's cumulative effects are also to be considered. Previous decisions have construed this requirement to mean "the effects of an objected-to activity when added to the baseline of other past, present and reasonably foreseeable future activities

---

[197] FEIS at 3-106 to 3-107.

[198] FEIS at 5-7.

[199] Connecticut Letter Objecting to Modified Project, at 8. According to Islander East, these two wetlands are located on the west side of the Branford Steam Railroad and are separated from adjacent tidal wetlands by the railroad bed. Islander East Initial Brief, at 49.

[200] Islander East Initial Brief, at 50-51.

[201] Islander East Supplemental Brief, at 42-43.

[202] FEIS at 3-96 to 3-97. The FEIS also explains that the pipeline route will cross the pond as a result of a route variation adopted to reduce impacts to the Branford Land Trust property, and states, "The CTDEP concurs that the Pond Variation is preferable to the proposed route and that permanent impacts to the pond should not be great. The CTDEP also points out that construction through the pond would remove unwanted invasive vegetation." FEIS at 4-39 to 4-42; *see also* Islander East Supplemental Brief, at 41.

occurring in the area of, and adjacent to, the coastal zone in which the objected-to activity is likely to contribute to adverse effects on the natural resources of the coastal zone."[203] Temporary or short-term impacts from other activities will only be considered "cumulative" if they will occur at the same time as the impacts from the project under review.[204]

Neither Connecticut nor Islander East meaningfully addresses this issue or presents evidence suggesting that any impacts should be considered other than those outlined above in Sections III.B.3.a-e.[205] The FEIS prepared by FERC, however, uses an interpretation of "cumulative impacts" similar to that described above,[206] and limits its analysis to activities that could have impacts within the timespan of Islander East's Project.[207]

The FEIS identifies a number of cumulative impacts that could result from ongoing (residential and industrial) activities and new activities (e.g., construction of power plants or another gas pipeline). The FEIS does not indicate that significant impacts are likely to result from these ongoing activities.[208]

The only "reasonably foreseeable" new activity identified by the FEIS that would potentially have had construction impacts on the Sound during installation of the Islander East pipeline was the ELI Extension Project;[209] however, Iroquois withdrew its proposal for that project.[210] I thus conclude that there are no cumulative effects involving construction impacts to Long Island Sound and that the

---

[203] *See, e.g.,* Amoco Prod. Decision (1990), at 39.

[204] *See* Consistency Appeal of Chevron U.S.A., Inc., Jan. 8, 1993 (Chevron Decision - 1993), at 21.

[205] The Connecticut Reply Brief's sole reference to cumulative impacts involves "the legacy of a prior pipeline project [Iroquois] . . . ." Connecticut Reply Brief, at 42. Connecticut asserts the impacts of the Islander East and Iroquois projects constitute "serious, cumulative adverse impacts to the biological and socioeconomic uses of the coastal zone . . . ." *Id.* The record lacks evidence to support this conclusion.

[206] The focus of the FEIS cumulative impact analysis involves impacts that "may result when the environmental effects associated with a proposed project are added to either temporary (construction related) or permanent (operation related) impacts associated with past, present, or reasonably foreseeable future projects." FEIS at 3-178.

[207] FEIS at 3-178.

[208] *See generally*, FEIS at 3-178 to 3-187.

[209] FEIS at 3-180, 3-185.

[210] Iroquois Gas Transmission System, L.P., Docket No. CP02-52-000, Notice of Withdrawal of Certificate Application, Feb. 7, 2003.

record contains no evidence suggesting other cumulative effects are significant or otherwise unacceptable.

### 4. The Project Satisfies Element 2

In order to find for the appellant on Element 2, I must be convinced by a preponderance of the evidence that the national interest furthered by the Project outweighs its adverse coastal effects.[211] Construction of the pipeline will result in temporary, limited adverse impacts to water quality, and limited adverse impacts to shellfish habitat. While in some instances the habitat may take five years or longer to recover, I find that overall, these adverse effects are limited such that the Project's significant contribution to the national interest outweighs these adverse effects. Therefore, Element 2 is satisfied.

## C. There Is No Reasonable Alternative Available (Element 3)

Based on my review and weighing of the evidence in the record, I conclude that there is no reasonable alternative available to the Project as proposed by Islander East, for three distinct reasons. Each reason standing alone is sufficient to find in Islander East's favor on Element 3.

First, Connecticut has not identified the alternative it deems consistent with sufficient specificity. Even if I were to choose a "consistent" alternative based on Connecticut's discussion of two different alternatives, that alternative is not available because (1) it may not satisfy Islander East's primary purpose of building a pipeline to carry 260,000 Dth of natural gas per day and (2) it would require Islander East to obtain permission to add additional compressor capacity to an existing pipeline of another company. Third, that alternative is not reasonable: the incremental benefits of the alternate route (possibly fewer impacts to coastal resources, primarily existing shellfish beds) do not outweigh the costs (loss of benefits associated with a second pipeline route to eastern Long Island).

### 1. The Standard for Finding that a Reasonable Alternative is Available

In order to override an objection, I must find that "[t]here is no reasonable alternative available which would permit the activity to be conducted in a manner consistent with the enforceable policies of the [state's coastal] management program."[212] Connecticut bears the burden of identifying, with sufficient specificity, an alternative that is consistent with its coastal management program. If Connecticut meets that burden, the burden then shifts to Islander East to show that the alternative is either unavailable or unreasonable.[213]

---

[211] *See* 15 C.F.R. § 930.121(b).

[212] 15 C.F.R. § 930.121(c).

[213] VEPCO Decision, at 39.

## 2. The ELI System Proposal and ELI Extension Project Are Two Distinct Alternatives

In its briefs, Connecticut refers interchangeably to two distinct alternatives: the "ELI System Alternative" and the "ELI Extension Alternative." While both involve the same route across Long Island Sound and originate from an interconnection with the existing Iroquois pipeline, the System Alternative involves a configuration having a capacity of 260,000 Dth per day while the Extension was planned to transport only 175,000 Dth per day.

As noted above, Iroquois' existing pipeline extends from the New York-Canadian Border near Iroquois, Ontario to South Commack, New York, on Long Island, crossing the Long Island Sound between Milford, Connecticut, and Northport, New York.[214] Iroquois is the only natural gas pipeline currently serving eastern Long Island.[215]

In 2002, Iroquois submitted an application to FERC seeking approval to construct and operate a second pipeline to serve the eastern end of Long Island and termed the "ELI Extension." This 29-mile pipeline would have tapped into Iroquois' existing pipeline in Long Island Sound offshore at Milford, Connecticut, and continued through the Sound to landfall at Shoreham (Long Island), New York.[216] Iroquois designed the ELI Extension to carry 175,000 Dth of natural gas per day across the Sound. To supply the additional natural gas required by the ELI Extension from Iroquois' existing pipeline, Iroquois would need to construct two new compressor stations for the existing pipeline (at Milford and Brookfield). In 2003, however, Iroquois withdrew its application for the ELI Extension project.[217]

By way of contrast, FERC fashioned the "ELI System Alternative" as a possible alternative to Islander East's Project.[218] As envisioned by FERC, the ELI System Alternative would tap into the existing Iroquois pipeline at the same place in Long Island Sound as the Extension Alternative. The

---

[214] Application of Iroquois Gas Transmission System, L.P. for Certification of Public Convenience and Necessity, at 6, Dec. 2001; Iroquois Gas Transmission System Map.

[215] Islander East Supplemental Brief, at 15-16; Islander East Reply Brief, at 16; *see also* FERC Order #3, para. 5.

[216] Eastern Long Island Extension Project Draft Environmental Impact Statement (ELI DEIS), Aug. 2002, at 1-1, 2-1 to 2-3.

[217] Iroquois Gas Transmission System, L.P., Docket No. CP02-52-000, Notice of Withdrawal of Certificate Application, Feb. 7, 2003; Islander East Reply Brief, at 15; Connecticut Reply Brief, at 4.

[218] *See* FEIS at 4-3 to 4-6.

System Alternative, however, would require additional compressor capacity at the second (Brookfield) station because of the larger volume of natural gas the pipeline would transport.[219]

### 3. Connecticut Has Failed to Identify with Sufficient Specificity the Alternative It Purports to Deem Consistent

Connecticut bears the burden of identifying with sufficient specificity an alternative that is consistent with its coastal management program. Prior consistency appeal decisions explained the rationale underlying this requirement:

> [A]lternatives must be described with specificity; vague descriptions do not suffice. The objecting state must describe the proposed alternatives with enough detail for the project's proponent and the Secretary to know how the proposed alternative could be implemented consistently with the objecting state's coastal management program and evaluate whether the alternative is reasonable and available.[220]

Connecticut, however, has not met its burden here. Instead, Connecticut's briefs refer to the ELI Extension and ELI System Alternatives interchangeably. Notwithstanding the opportunity to clarify the matter in its reply brief, Connecticut only continued to perpetuate the confusion.

In its 2002 objection letter, Connecticut identifies the ELI System Alternative as an option that Islander East should pursue in lieu of its Project:

> The FEIS describes in section 4.2.1 an option entitled 'ELI System Alternative' which appears feasible, as it would meet essentially the same energy needs while eliminating some of the anticipated adverse impacts altogether and reducing others.[221]

In its initial brief on appeal, Connecticut again identifies the ELI System Alternative and states that:

> [Connecticut] has reviewed the ELI System Alternative and deemed the impacts associated with the installation of a new pipeline to be tapped into an existing 24" diameter pipe located off the Milford shore in water approximately 30' deep to be consistent with Connecticut's [coastal management program].[222]

In that same brief, Connecticut's heading on this issue reads "Alternative *Configurations* Of The

---

[219] FERC suggests the larger capacity of the System Alternative would "deliver the volumes of gas required . . ." of an alternative to the Islander East project. *Id.* at 4-3.

[220] VEPCO Decision, at 39 (citation omitted).

[221] Connecticut Initial Objection Letter, at 5.

[222] Connecticut Initial Brief, at 62-63.

Proposed Project Are Available Whose Impacts Would Be Consistent With The Enforceable Policies Of Connecticut's Coastal Management Program."[223] In the text, however, it discusses details of the ELI Extension Project instead of the ELI System Alternative. For example, Connecticut cites to the ELI Extension in describing it as "more than sufficiently detailed in the draft EIS that the FERC's NEPA review staff produced in August, 2002."[224] Connecticut then compares the ELI Extension with the Islander East Project, stating that "the ELI Extension alternative would meet the DEP [Connecticut Department of Environmental Protection] approval criterion of an available alternative that combines both 'the least invasive construction techniques with the most appropriate siting of the facility.'"[225] Connecticut further notes that EPA and other federal agencies agree there is an alternative to Islander East's Project that is "like the ELI Extension."[226] Connecticut then concludes, again with a description of the ELI Extension Alternative and its 175,000 Dth per day capacity:

> [i]n accordance with the Secretary's alternatives review standard, the alternative that the State of Connecticut has identified meets Islander East's primary objective, that is, to route additional natural gas supplies to Long Island. The total dekatherm delivery is smaller (175,000 Dth/d) than that proposed by Islander East, but the arithmetical difference is actually a secondary aspect of the alternative's loss/benefit calculus and is adequate.[227]

In its response, Islander East expressly points out the confusion created by Connecticut in its initial brief.[228] In reply, Connecticut demonstrates that it is well aware of differences between the ELI System Alternative and the ELI Extension Alternative,[229] claims that it has identified an alternate route, and references additional compression from onshore facilities.[230] Yet after claiming there is no

---

[223] *Id.* at 60 (emphasis added).

[224] *Id.* at 63.

[225] *Id.* at 64.

[226] *Id.* at 67.

[227] *Id.* at 68.

[228] Islander East Reply Brief, at 14-15.

[229] "Islander East asserts that the DEP has 'confused' the ELI Extension Project with the ELI System Alternative, the former being a now-withdrawn proposal of the Iroquois Pipeline Co. to transport 175,000 Dth/d from a tap on its existing cross-Sound pipeline; the latter being a NEPA-driven alternatives analysis of the FERC of Islander East's project that utilized the Iroquois proposal along with additional compression and/or looping to achieve volume commensurate with Islander East's goal of providing 260,000 Dth/d." Connecticut Reply Brief, at 4.

[230] Connecticut Reply Brief, at 6-7.

uncertainty as to the alternative it is advocating, Connecticut ambiguously describes the consistent alternative as an "amalgam of the Iroquois-based improvements"[231] with an initial capacity of 175,000 Dth per day:

> The identified alternative . . . takes the initial proposal of Iroquois to transmit 175,000 Dth/day along with added compression as projected by the company and by the FERC, in order to achieve pressures sufficient to accommodate the additional volumes. Because the market conditions appertaining at the time of any such future application are necessarily subject to fluctuation, consistent with the more conservative approach suggested in the Iroquois analysis of its proposal, *a starting volume figure of at least 175,000 Dth/d of firm service is perfectly acceptable* for the purposes of the identification of a CMP [coastal management program]-consistent alternative and with Islander East's primary project purpose. . . .[232]

I find that Connecticut failed to specify whether the alternative it deems consistent is the ELI Extension or the ELI System Alternative. Because of that failure, I find that Islander East did not know what volume of gas the alternative would carry or how much additional compression would be allowed. Without knowing the volume of gas to be transported, Islander East could not determine whether the primary purpose of its Project would be met. Without knowing whether Connecticut has deemed the additional compressor capacity for the ELI System Alternative – and any associated coastal impacts – consistent with its coastal management program, Islander East did not know whether to cost the alternative or evaluate its impacts with or without that capacity.

Notably, when Islander East wrote its opening brief, it did not know what alternative(s) Connecticut would identify as consistent in response. Upon receipt of Connecticut's initial brief, Islander East then had slightly more than two months to develop a response addressing all aspects of reasonableness and availability. The burden of specificity is imposed on the state in large part because the appellant has limited time to respond and must know what the proposed alternative is in order to respond fully. It should not be required to evaluate multiple alternatives in this short timeframe – and possibly analyzing each less thoroughly than would have been possible otherwise if the options were more limited – unless the state is explicit that the identified alternatives are consistent with its coastal management program. To hold otherwise would be to place the appellant in an unfair position and to give the state undue advantage.

Connecticut might suggest that I should choose one or both of the two alternatives as "consistent alternatives." Without certainty about the alternative identified by the State, however, any decision would risk Connecticut's objecting after the fact to the identified alternative, and arguing that Islander East cannot pursue that alternative without further consistency review.

In sum, the CZMA regulations require Connecticut to identify any alternative it deems consistent

---

[231] *Id.* at 8.

[232] *Id.* at 8 (emphasis added) (footnote omitted).

with sufficient specificity to ensure a fair and orderly process. It has not done so here. Thus, I conclude that there is no alternative that meets the criteria of Element 3.

### 4. The "ELI Alternative" Is Not Available

Even were I to choose one or both alternatives as "consistent alternatives," I would nevertheless find them unavailable. "For a proposed alternative to be 'available,' the proponent of the proposed project must be able to implement the alternative and the alternative must achieve the primary or essential purpose of the project. An alternative is not available, for instance, if the [appellant] is unable to implement it because of a technical or legal barrier, or the resources do not exist."[233] In this case, two separate bases support my conclusion that the "ELI Alternative"[234] is not available: (1) the uncertain volume of natural gas provided by the alternative; and (2) the uncertainty concerning FERC's authority to order additional compression capacity on the Iroquois pipeline. After review and weighing of the evidence in the record, I conclude that the ELI Alternative is unavailable on both bases.

#### a. The alternative provides an insufficient amount of natural gas to meet the primary purpose of the Project

First, and foremost, because the State has failed to identify with sufficient specificity the alternative it deems consistent, it is not possible to say that the "ELI Alternative" is available to meet Islander East's primary purpose: to construct a pipeline with a capacity of carrying at least 260,000 Dth of natural gas per day.

If the ELI Extension Project were the alternative deemed consistent by the State, I would still find it unavailable. As designed by Iroquois, the ELI Extension Alternative would only transport 175,000 Dth per day, less than 70 percent of the 260,000 Dth initial capacity of the Islander East Project.[235] Connecticut itself appears to acknowledge that an alternative must meet essentially the same energy needs as the proposed project.[236]

---

[233] VEPCO Decision, at 38 (footnote omitted).

[234] I refer to the "ELI Alternative" because the State has failed to specify whether the ELI Extension or the ELI System Alternative is consistent with its program.

[235] *See generally*, VEPCO Decision, at 49-50 (Where project's purpose was to supply 60 million gallons of water per day, alternative supplying only 14 was unavailable). Islander East's total capacity may fluctuate up to as much as 285,000 Dth per day. FERC Order #1, para. 145. This fact further supports my conclusion that the ELI Extension Alternative at 175,000 Dth per day is unavailable.

[236] Connecticut Letter Objecting to Modified Project, at 9.

**b. The increased capacity required by the ELI Alternative is a barrier that Islander East cannot overcome**

For an alternative to be available, "the proponent of the proposed project must be able to implement the alternative and the alternative must achieve the primary or essential purpose of the project."[237] Where an alternative must be implemented by another party – that is, where the project proponent lacks the legal authority to implement the alternative and has no means of compelling the other party to do so – it has been held to be unavailable.[238] The Secretary's decision in the Consistency Appeal of the Virginia Electric and Power Company (VEPCO) also noted, however, that:

> The analysis could be different if there were an established process by which the [project proponent] could obtain a permit to undertake the actions . . . . It could also be different if there were evidence that [the other party] had offered the [project proponent] the opportunity to undertake these actions. If this were the case, the [project proponent] would have the authority to implement these alternatives by exercising its legal authority to enter into a binding contract.[239]

Implementing the ELI Alternative would require not only an interconnection between Islander East and the Iroquois pipeline (rather than the Algonquin pipeline as proposed), but also the construction or modification of numerous additional facilities along the Iroquois line in order to increase that pipeline's capacity.[240] Absent a sufficient increase in capacity, the ELI alternative would not meet the "primary or essential" purpose of the project – to bring *additional* natural gas supplies to Long Island – and would therefore be considered unavailable on that basis.

Connecticut argues that sharing capacity and making interconnections are common business practice within the gas transmission industry and, if necessary, FERC has the authority to order a connection.[241] It points to no precedent, however, that would provide Islander East with the legal authority to allow Islander East to make (or require Iroquois to make) required large-scale modifications to the Iroquois pipeline system. In addition, no evidence indicates that Iroquois has

---

[237] VEPCO Decision, at 38 (footnote omitted).

[238] VEPCO Decision, at 45.

[239] VEPCO Decision, at 126 n. 308; *see also* Decision and Findings in the Consistency Appeal of Millennium Pipeline Co., L.P., Dec. 12, 2003, at 30-31, n.97.

[240] *See* Islander East Pipeline Project FEIS, August 2002, at 4-2 ("Iroquois' existing system does not have the capacity to make Islander East's deliveries without expansion and is not located near some of Islander East's customers."); Islander East Reply Brief, at 16 ("[B]oth ELI alternatives are incapable of transporting expansion volumes without significant facility additions . . . ."); Application of Iroquois Gas Transmission System, L.P. for Certificate of Public Convenience and Necessity, Docket No. CP02-52-000, Dec. 2001, at 1-2, 19-20.

[241] Connecticut Reply Brief, at 14-19.

offered Islander East the opportunity to undertake these major changes to its pipeline.[242] Accordingly, the ELI Alternative is not available to Islander East.

In addition to construction of the pipeline itself, construction of the ELI Extension Alternative would require the following simply to increase capacity by 175,000 Dth per day:

- Construction of a new 20,000 hp compressor station at Milford, CT;
- The addition of cooling at a Dover, NY compressor station;
- Piping and metering modifications, and a gas filtration system at a Brookfield, CT meter station;
- A proposed compressor station at Brookfield;[243] and
- Other necessary facilities, including a tap valve in Long Island Sound, three mainline valves, pig launchers/receivers, and temporary facilities such as pipe yards, storage yards, access roads, and staging areas.[244]

Construction of an alternative based on the larger capacity ELI System Alternative would require these same facilities plus additional modifications at Brookfield to increase capacity to 260,000 Dth per day.[245] Without these modifications, Iroquois' existing system is unable to transport the

---

[242] *See* FERC Order #2, at para. 124. Connecticut argues that "given the interest formerly expressed by Iroquois in this line . . . it is unlikely that a joint venture [with] Islander East would be unattractive, since both companies would benefit . . . ." Connecticut Reply Brief, at 19. Connecticut's argument is mere speculation and supported by no record evidence. Indeed, the fact that Iroquois abandoned the ELI Extension Project could be as easily cited to support a contrary conclusion.

[243] Connecticut argues that FERC has certificated the Brookfield compressor station, *see* FERC Order Issuing Certificate, 101 FERC ¶ 61,131 (2002) , "substantially clearing the way for such an alternative to meet the needs identified by Islander East." Connecticut Reply Brief, at 6. First, the Brookfield compressor station is only one of several modifications that would be needed to increase capacity by 175,000 Dth per day. In any event, even as to the Brookfield compressor station, the issue is not whether Iroquois has obtained necessary approvals, but whether Islander East could get the necessary approval if Iroquois chooses not to proceed with construction.

[244] *See* Application of Iroquois Gas Transmission System, L.P. for Certificate of Public Convenience and Necessity, Docket No. CP02-52-000, Dec. 2001, at 2.

[245] *See* FEIS at 4-3 to 4-4.

additional volumes required by the ELI Alternative. As noted in Iroquois' application for the ELI Extension project:

> Absent the capacity that the ELI Project will make available, Iroquois will not have the capacity to provide firm transportation service on behalf of the proposed expansion shippers; nor will it have the physical capability to make these deliveries to the Eastern Long Island area. Iroquois is currently transporting natural gas at virtually its full certificated capacity . . . to meet existing contractual obligations.[246]

Islander East argues that it has no means of acquiring the facilities necessary to construct the ELI Alternative, or of requiring Iroquois to negotiate or enter into agreements that would permit Islander East joint ownership of or access to those facilities.[247] Furthermore, "[t]here is no process by which FERC or CTDEP can compel the use of the Iroquois' pipeline for the purpose of constructing either hypothetical."[248]

In response, Connecticut argues that the Iroquois pipeline is an open access pipeline and that this designation means that Iroquois may transport other companies' gas.[249] If necessary, Connecticut argues, "[i]t is possible for a natural gas transmission company to file a complaint with the FERC after having been refused an interconnection with another company's pipeline for the purpose of moving natural gas supplies into a market area to serve its suppliers,"[250] and FERC can compel the interconnection.[251]

Connecticut cites two separate FERC orders in support of its contentions. The first notes only that, if a pipeline proposes an interconnect and believes it is receiving unduly discriminatory treatment, it may then file a complaint with FERC.[252] The second order concerns one such complaint – ANR Pipeline Company (ANR) requested that FERC order Transcontinental Gas Pipe Line Corporation to

---

[246] Application of Iroquois Gas Transmission System, L.P. for Certificate of Public Convenience and Necessity, Docket No. CP02-52-000, Dec. 2001, at 20; *see also* Islander East Reply Brief, at 15, n.43 ("Iroquois' website indicates that it does not currently have any firm unsubscribed capacity.")

[247] Islander East Reply Brief, at 17.

[248] *Id.*

[249] Connecticut Reply Brief, at 14.

[250] *Id.* at 16-17.

[251] *Id.* at 16-19.

[252] *Portland Natural Gas Transmission Sys. Maritimes and Northeast Pipeline, LLC, and Portland Natural Gas Transmission Sys.*, 80 FERC ¶ 61,345, at 62,147 (Sept. 24, 1997).

install certain minor facilities interconnecting the two lines.[253] FERC granted ANR's request, relying upon its broad authority under Section 4(b) of the Natural Gas Act.[254] FERC noted that it was authorized to require pipelines to transport gas as a remedy for undue discrimination; hence, it could compel pipelines to construct interconnects necessary to effect or facilitate that transportation.[255]

FERC went on to note, however, that in an earlier case, *Panhandle Eastern Pipe Line Co. v. FPC*, 204 F.2d 675 (3rd Cir. 1953), the Third Circuit had rejected FERC's then-assertion of "power to direct a natural gas company to enlarge its transportation facilities or to sell and deliver gas beyond the capacity of such facilities,"[256] and held that "[FERC] may not compel the enlargement of the transportation facilities of a natural gas company."[257]

Thus, while the orders Connecticut cites suggest that FERC has the authority to allow Islander East to interconnect with Iroquois' pipeline, they do not support a conclusion that FERC could – or would – order Iroquois to construct the improvements necessary to increase its pipeline's capacity, or to allow Islander East to do so. In fact, FERC's own regulations and interconnection policy run counter to Connecticut's argument. FERC's regulations explicitly state that "[a] person providing service under Subpart . . . G of [Part 284] is not required to provide any requested transportation service *for which capacity is not available or that would require the construction or acquisition of any new facilities*."[258] (Iroquois had proposed the ELI Extension Project in order to "provide firm gas transportation services to . . . shippers under its Part 284 Subpart G blanket certificate,"[259] and Islander East similarly sought a blanket transportation certificate under Part 284 Subpart G.[260]) Similarly, FERC's interconnection policy allows a party desiring access to a pipeline to obtain an

---

[253] *ANR Pipeline Co. v. Transcon. Gas Pipe Line Corp.*, 91 FERC ¶ 61,066 (Apr. 14, 2000).

[254] That section provides, "No natural-gas company shall, with respect to any transportation or sale of natural gas subject to the jurisdiction of the Commission, (1) make or grant any undue preference or advantage to any person or subject any person to any undue prejudice or disadvantage, or (2) maintain any unreasonable difference in rates, charges, service, facilities, or in any other respect, either as between localities or as between classes of service." 15 U.S.C. § 717c(b).

[255] *ANR Pipeline Co.*, 91 FERC at 61, 244.

[256] *Panhandle Eastern*, 204 F.2d at 680.

[257] *Id.* at 679.

[258] 18 C.F.R. § 284.7(f) (emphasis added).

[259] Application of Iroquois Gas Transmission System, L.P. for Certificate of Public Convenience and Necessity, Docket No. CP02-52-000, Dec. 2001, at 3.

[260] *See* FERC Order #1, para. 1.

interconnection if it satisfies certain conditions.[261] When it announced that policy in 2000, however, FERC emphasized that it "does not require a pipeline to expand its facilities, to construct any facilities leading up to an interconnection, or even to construct the interconnection itself."[262]

In light of the Third Circuit's *Panhandle Eastern* decision and FERC's own statements on the possible limits of its authority, I cannot conclude that there is an existing permit or regulatory process that would provide Islander East with the legal authority to compel the necessary increase in capacity on the Iroquois system required to implement the ELI Alternative. Even if FERC would have the authority to compel the enlargement or expansion of a pipeline's capacity in some hypothetical future case,[263] Connecticut cites no decision in which FERC has asserted such authority since its efforts to do so were rejected by the Third Circuit in *Panhandle Eastern* more than 50 years ago.[264] FERC's current regulations and applicable policy explicitly state that such an expansion will *not* be required. For an alternative to be available, there must be a realistic path to achieve the same project purpose, not simple conjecture that the project proponent can easily adopt the offered alternative. I thus find the ELI Alternative unavailable on this basis as well.

### 5. <u>The "ELI Alternative" Is Not Reasonable</u>

Even if I were to choose one or both of the alternatives as "consistent alternatives," I would find that they are unreasonable. In prior consistency decisions, reasonableness has been defined as a weighing of the differences in environmental impacts and cost between the alternative and the proposed project.[265] Additionally, "where an alternative would prevent a project from achieving a non-essential or secondary purpose(s) or would result in the non-obtainment of certain benefits, I will consider that fact when analyzing whether the alternative is reasonable."[266] After weighing the

---

[261] *See Panhandle Eastern Pipe Line Co.*, 91 FERC ¶ 61,037 at 61,141 (Apr. 12, 2000) (setting forth interconnection policy).

[262] *Id.*

[263] I recognize that FERC has questioned the continued viability of the holding in *Panhandle Eastern Pipe Line Co. v. FPC*, 204 F.2d 675 (3rd Cir. 1953), in light of the competitive principles underlying its statutory authority and structural changes in the natural gas industry. *See Arcadian Corp. v. Southern Natural Gas Co.*, 61 FERC ¶ 61,183 at 61,677 n.33 (Nov. 3, 1992). That fact only serves to reinforce my views as to the uncertainty of the extent of FERC's authority in this instance.

[264] *See Arcadian Corp. v. Southern Natural Gas Co.*, 61 FERC ¶ 61,183 at 61,677 (Nov. 3, 1992) ("We assert here no authority to require a pipeline to provide service beyond capacity.")

[265] *See, e.g.,* VEPCO Decision, at 38.

[266] Decision and Findings in the Consistency Appeal of Yeamans Hall Club, Aug. 1, 1992 (Yeamans Hall Decision), at 6, n.7.

advantages and disadvantages of the ELI Alternative, I conclude that the ELI Alternative is not reasonable.

**a. <u>The ELI Alternative does not provide either increased flexibility or reliability in natural gas supply or pipeline-to-pipeline competition</u>**

As discussed at greater length above, the "ELI Alternative" would add a second pipeline partway through the Sound and would depend on the existing onshore Iroquois pipeline facilities for its natural gas supply.[267] The Islander East Project, however, would entail a separate Sound crossing at a different location and originate at an entirely separate location, connecting to a pipeline system owned by Algonquin, instead of Iroquois.

After weighing the evidence in the record and the arguments made by the parties on this issue, I conclude that the separate facilities envisioned by the Islander East Project enjoy two distinct advantages over the "ELI Alternative": (1) increased reliability and flexibility and (2) pipeline-to-pipeline competition.[268] I further find that these benefits are substantial and compelling and advance the national interest as defined by the CZMA.

On the issue of reliability, Islander East correctly notes that "both the ELI Extension and the ELI System Alternative would deliver gas from a point at the south end of the Iroquois system, which is vulnerable to any upstream disruption on Iroquois."[269] FERC itself identified the benefits of a separate Sound crossing in both its initial decision,[270] and its decision on rehearing. As noted in its January 2002 order:

> The Commission also reviewed the filings made by Islander East's proposed customers and the New York PSC emphasizing the need for a totally separate sound crossing to provide contingency protection for both gas and electric systems against a total loss of supply if damage were to occur to the Iroquois line . . . . Any disruption of existing firm service from Iroquois for any significant period could require KeySpan to curtail service to approximately 124,000 customers on Long Island. Such

---

[267] ELI DEIS at 2-1; FEIS at § 4.2.

[268] Although Islander East asserts that flexibility and reliability are primary purposes of the Project (Islander East Initial Brief, at 53), they are more properly considered secondary benefits. In particular, for example, I find significant here that Islander East characterized these as "additional benefits" in its FERC application and not aspects of its primary purpose. Islander East Application for Certificates of Public Convenience and Necessity and Related Authorizations, at 13.

[269] Islander East Reply Brief, at 15-16.

[270] FERC Order #1, at para. 61-62.

> curtailments would have a significant and possibly disastrous impact.[271]

FERC reaffirmed its views in its rehearing decision in January 2003:

> [T]he proposed Islander East project will provide much needed security and reliability by providing a second facility to access supply in the event something happens to either of the pipeline facilities. Iroquois' proposed ELI Project (and the modified ELI System Alternative) cannot provide similar benefits.[272]

Separately, I find that the Islander East Project will add significant opportunities for pipeline-to-pipeline competition that will benefit natural gas consumers on eastern Long Island. Again, I find persuasive under the facts of this case the opinions expressed by FERC. In its December 2001 preliminary decision, FERC observed that:

> [T]he Islander East project will . . . offer[] more direct access to existing and new gas supply sources and increased availability to gas and electric generation markets in the Long Island and New York City markets. This should also result in more price competition, and potentially lowering natural gas prices in these markets as well.[273]

FERC reiterated these points in its January 2003 decision on rehearing:

> In the September 19 order, the Commission also pointed out that the Islander East Project provided significant benefits that the ELI Project (and, similarly, the ELI System Alternative) did not . . . . The proposed Islander East Project will provide Long Island with another source of supply, allowing this market to enjoy the benefits of pipeline-to-pipeline competition for the first time.[274]

While not quantified, the benefits of the Islander East Project outlined above are substantial, compelling and further the national interest as defined by the CZMA. Reliability furthers the national interest of developing the coastal zone[275] in that it allows for more certainty in the supply of natural gas. Pipeline-to-pipeline competition will further the national interest in developing the coastal zone by encouraging economic competition. These benefits of the Islander East Project are lost to society and therefore are a cost of constructing the alternative.

---

[271] FERC Order #3, at 23.

[272] FERC Order #3, at 3-4.

[273] FERC Order #1, at 15.

[274] FERC Order #3, at 3.

[275] *See* 16 U.S.C. § 1451(a).

**b. <u>The ELI Alternative provides only incremental environmental benefits, if any, as compared to the Project</u>**

In terms of coastal impacts, the incremental environmental benefits of the ELI Alternative, if any, over the proposed Islander East Project primarily stem from the different route crossing of the Long Island Sound.[276]

The route across the Sound for the ELI Alternative would be shorter than that of the proposed Islander East Project. The FEIS states:

> Our analysis of the system alternative offshore pipeline indicates the crossing of the Sound would be reduced by 5.5 miles. The ELI System Alternative would open-cut about 936 feet of shellfish leases . . . . Islander East would open-cut about 6,141 feet of shellfish leases . . . .[277]

These figures, however, do not mean that the total area impacted by the ELI Alternative is less than that impacted by the Project.

Connecticut claims that the Islander East Project would impact 3,700 acres within the State's waters.[278] As I previously concluded in Part III.B *supra*, this claim is unsupported by the record. FERC found that the Islander East project would disturb approximately 3,140 acres in both

---

[276] While not necessarily coastal impacts, there are also some onshore environmental impacts that I have taken into account:

> Using the ELI System Alternative would eliminate the construction of 10.2 miles of new onshore mainline in Connecticut. Avoiding the onshore pipeline construction in Connecticut associated with the Islander East Project would eliminate crossing 16 water bodies, 41 wetlands, and about 0.4 mile of land trust property. . . . The system alternative would also avoid disturbance of 185 acres of land onshore in Connecticut, including 32 acres of forested land, and construction within 50 feet of 34 residences. However, it would require the construction of a new compressor station at Milford, Connecticut, . . . and the addition of a new compressor unit at the currently proposed Brookfield Compressor Station.

FEIS at 4-3. The emissions from the additional compression required by the ELI Alternative would be greater than for the Islander East Project. For New York, the ELI Alternative would have the same onshore impacts as the Islander East Project. *Id.* at 4-4.

[277] FEIS at 4-4.

[278] Connecticut Initial Brief, at 57; *see also* Connecticut Reply Brief, Appendix at 7.

Connecticut and New York waters.[279] The FEIS, however, did not consider Islander East's subsequent adoption of several modified construction techniques that would reduce the area of impact. With these modifications, Islander East estimates that a total of about 1,121 acres will be impacted in Connecticut waters.[280] Islander East supports this number with a detailed breakdown of acres affected by each construction method. After reviewing the record and weighing the evidence, I conclude that Islander East's estimates are more credible and that approximately 1,121 acres would be impacted in Connecticut waters by the Islander East Project.

By comparison, the ELI Alternative would impact approximately 2,930 acres in both Connecticut and New York waters.[281] A comparison of the 3,140 acres that FERC estimated the Islander East Project would affect prior to its being modified and the 2,930 acres that FERC estimated the ELI Alternative would affect, demonstrates that the difference between the two – prior to the modifications made by Islander East to its Project – is slight. In addition, as now proposed, the Islander East Project would likely impact fewer acres than the ELI Alternative.

I recognize that the Islander East Project will go through more linear feet of shellfish leases than the ELI Alternative. Given the limited and temporary nature of impacts to shellfish beds from Islander East's Project and the mitigating steps Islander East has taken to reduce impacts to commercial leaseholders (*supra* Part III.B), I do not place great weight on the differences in linear feet impacted.

Based on the evidence available in the record, I find the incremental benefits of the alternate route do not outweigh its costs.[282] I therefore conclude that the ELI Alternative is not reasonable.

### 6. <u>There Is No Reasonable Alternative Available To Islander East's Project</u>

After review and weighing of the evidence in the record, I conclude that Connecticut has failed to meet its burden of identifying, with sufficient specificity, an alternative that is consistent with its coastal management program. I also conclude there is no reasonable alternative available.[283]

---

[279] FEIS at 3-45.

[280] Islander East Supplemental Brief, at 10-11; Islander East Reply Brief, at 42.

[281] FEIS at 4-3 to 4-6.

[282] Although I reach the same conclusion as FERC regarding the ELI Alternative as compared to Islander East's Project, that should not be read as suggesting that I will so conclude in every case. FERC's decisions are based on the Natural Gas Act and consider a proposed project through that lens. My decisions are governed by the CZMA. Thus, how I will evaluate and weigh FERC's conclusions in a future case will depend on the facts and circumstances then before me.

[283] Because I have ruled in Islander East's favor on Ground I, it is not necessary to address Ground II.

## IV. CONCLUSION

For the foregoing reasons, I find that Islander East's Project is consistent with the objectives of the Coastal Zone Management Act. Accordingly, the Project may receive licenses and permits from federal agencies.

MAY 05 2004

Date

Donald L. Evans
Secretary of Commerce