

United States Court of Appeals,
Second Circuit.
ISLANDER EAST PIPELINE COMPANY, LLC, Petitioner,
v.

State of CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION, Respondent.

Docket No. 05-4139-AG.

Argued Jan. 4, 2006.

Reargued April 11, 2006.

Decided Oct. 5, 2006.

*298 Frederick M. Lowther (Beth L. Webb, Janet M. Robins, on the brief), Dickstein Shapiro Morin & Oshinsky LLP, Washington, D.C.; Anthony M. Fitzgerald, Carmody & Torrance, LLP, New Haven, CT; Thomas L. Stanton, Associate General Counsel, Duke Energy Islander East Pipeline Company, LLC as Operator for Islander East Pipeline Company, LLC; Walter Dellinger (Jonathan D. Hacker, Nicole A. Saharsky, on the brief), O'Melveny & Myers LLP, Washington, D.C., for Petitioner. Richard Blumenthal, Attorney General, State of Connecticut (Kimberly P. Massicotte, David H. Wrinn, Assistant Attorneys General, on the brief), Office of the Attorney General, Hartford, CT, for Respondent.

Before KEARSE and RAGGI, Circuit Judges, and RESTANI, FN* Judge.

FN* The Honorable Jane A. Restani, Chief Judge of the United States Court of International Trade, sitting by designation.

Judge KEARSE dissents in a separate opinion.

*299 RESTANI, Chief Judge.

Petitioner Islander East Company, LLC (Islander East) is a natural gas company, formed under the laws of Delaware, with its principal place of business in Houston, Texas. Petitioner seeks to construct an interstate natural gas pipeline, originating in North Haven, Connecticut, and crossing the Long Island Sound to terminate in Brookhaven, Long Island. In furtherance of this project, Petitioner asks the Court to review an order of the State of Connecticut Department of Environmental Protection (CTDEP) denying Petitioner's application for a Water Quality Certificate (WQC) for discharge into the waters of the Long Island Sound. Although we review such an agency denial deferentially, in this case, it appears that the challenged agency decision was arbitrary and capricious because the CTDEP (1) failed adequately to explain or support its denial with record evidence, (2) did not acknowledge or explain contradictory record evidence, and (3) neglected to consider important aspects of the problem. Accordingly, we remand to the agency for further proceedings consistent with this opinion.

BACKGROUND

This case involves a petition to review a state agency determination pursuant to a recent amendment to the Natural Gas Act of 1938(NGA), 15 U.S.C. § 717 (2000). The Energy Policy Act of 2005 (EPACT), Pub.L. No. 109-58, § 313(b), 119 Stat. 594, 689-90 (2005), in part amended section 19 of the NGA to provide an expedited direct cause of action in the federal appellate courts to challenge a state administrative agency's order, action, or failure to act with respect to a permit application required under federal law in order to proceed with a natural gas facility project subject to section 5 or 7 of the NGA. FN1 See 15 U.S.C. § 717r(d) (West Supp.2006). Our consideration of section 19(d) of the NGA is a matter of first impression in this circuit.

FN1. Prior to the EPACT's amendment to section 19, an NGA applicant only had recourse to challenge a state's denial of a WQC via the state's own review procedures. In this case, Islander East filed an action in Connecticut Superior Court to challenge the CTDEP's denial prior to the enactment of the EPACT, which is currently pending. See *Islander East Pipeline Co., LLC v. Env'tl. Prot. Comm'r*, No. HHD-CV-04-402253-S.

A. Statutory and Regulatory Scheme

The NGA provides comprehensive federal regulation for the transportation or sale of natural gas in interstate commerce. 15 U.S.C. § 717(b); see also *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293, 300-01, 108 S.Ct. 1145, 99 L.Ed.2d 316 (1988). Natural gas companies are subject to the exclusive jurisdiction of the Federal Energy Regulatory Commission (FERC). 42 U.S.C. § 7172(a)(1). Pursuant to section 7 of the NGA, a natural gas company must obtain from the FERC a "certificate of public convenience and necessity" before it constructs, extends, acquires, or operates any facility for the transportation or sale of natural gas in interstate commerce. 15 U.S.C. § 717f(c)(1)(A). The FERC is required to issue such a certificate if it finds the company "is able and willing" to comply with the federal regulatory scheme and the proposed project "is or will be required by the present or future public convenience and necessity," but the FERC may attach "to the issuance of the certificate ... such reasonable terms and conditions as the public convenience and necessity may require." *Id.* § 717f(e).

In conjunction with the FERC's review of a natural gas project application, it must ensure that the project complies with the requirements of all relevant federal laws, *300 including the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321-4370f, FN2 the Coastal Zone Management Act (CZMA), 16 U.S.C. §§ 1451- 1465, FN3 and the Clean Water Act (CWA), 33 U.S.C. §§ 1251- 1387. FN4 See *Islander East Pipeline Co.*, 102 F.E.R.C. ¶ 61,054, at 61,130 (2003) (order on rehearing) (stating that "[w] hile state and local permits are preempted under the NGA, state authorizations required under federal law are not").

FN2. The NEPA requires the FERC to prepare an Environmental Impact Statement prior to taking "major Federal actions" that significantly affect the quality of the human environment. 42 U.S.C. § 4332(2)(C).

FN3. The CZMA requires that "any applicant for a required Federal license or permit to conduct an activity, in or outside of the coastal zone, affecting any land or water use or natural resource of the coastal zone of that state shall provide in the application to the licensing or permitting agency a certification that the proposed activity complies with the enforceable policies of the state's approved program and that such activity will be conducted in a manner consistent with the program." 16 U.S.C. § 1456(c)(3)(A).

FN4. Pursuant to section 401 of the CWA, “[a]ny applicant for a Federal license or permit to conduct any activity ... which may result in any discharge into the navigable waters,” is required to “provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of sections 1311, 1312, 1313, 1316, and 1317 of this title.” 33 U.S.C. § 1341(a)(1). State certification is deemed waived if a state refuses or fails to act on a request for certification within one year of such request. *Id.*

The EPACT amended section 19 of the NGA to provide natural gas companies with a cause of action in federal court to challenge an agency's order, action, or failure to act with respect to permits necessary for the construction or operation of natural gas projects. Specifically, if an agency denies a permit,

[t]he United States Court of Appeals for the circuit in which a facility subject to section 717b of this title or section 717f of this title is proposed to be constructed, expanded, or operated shall have original and exclusive jurisdiction over any civil action for the review of an order or action of a Federal agency (other than the Commission) or State administrative agency acting pursuant to Federal law to issue, condition, or deny any permit, license, concurrence, or approval (hereinafter collectively referred to as “permit”) required under Federal law, other than the Coastal Zone Management Act of 1972.

15 U.S.C. § 717r (d)(1) (citation omitted). If the Court finds that the order or action (1) is inconsistent with the federal law governing the permit, and (2) would prevent the construction, expansion, or operation of the proposed natural gas facility, “the Court shall remand the proceeding to the agency to take appropriate action consistent with the order of the Court.” 15 U.S.C. § 717r(d)(3). Further, the statute provides expedited review over such an order, action, or failure to act. See 15 U.S.C. § 717r (d)(5).

The limited legislative history accompanying the EPACT indicates that Congress enacted section 19(d) because applicants, like Islander East, were encountering difficulty proceeding with natural gas projects that depended on obtaining state agency permits. See Reg'l Energy Reliability & Sec.: DOE Auth. to Energize the Cross Sound Cable: Hearing Before the H. Subcomm. on Energy & Air Quality, 108th Cong. 8 (2004) (statement of Rep. Barton) *301 (discussing an earlier version of the EPACT, and explaining that “the comprehensive energy bill requires States to make a decision one way or another, and removes the appeal of that decision to Federal court,” which “will help get projects, like the Islander East natural gas pipeline, constructed”); Natural Gas Symposium: Symposium Before the S. Comm. on Energy & Natural Res., 109th Cong. 41 (2005) (statement of Mark Robinson, Director, Office of Energy Projects, FERC) (observing that, prior to the enactment of the EPACT, NGA applicants were subject to “a series of sequential administrative and State court and Federal court appeals that [could] kill a project with a death by a thousand cuts just in terms of the time frames associated with going through all those appeal processes”).

B. Islander East's NGA Application

On June 15, 2001, Islander East filed an application with the FERC under section 7(c) of the NGA for a certificate of public convenience and necessity to construct, own, and operate a new interstate pipeline to transport gas in Connecticut and New York. See *Islander East Pipeline Co.*, 97 F.E.R.C. ¶ 61,363, at 62,685 (2001). In pertinent part, Islander East proposed to construct: (1) approximately 44.8 miles of 24-inch pipeline from an interconnection with an existing pipeline near North Haven, Connecticut, across the Long Island Sound to Brookhaven, New York on Long Island; and (2) approximately 5.6 miles of 24-inch pipeline from the proposed Islander East mainline near Wading River, New York, to a power plant in Calverton, New York. *Id.* Approximately 22.6 miles of the pipeline would cross the Long Island Sound, with the remaining 27.8 miles onshore. See *Islander East Pipeline Co.*, 100 F.E.R.C. ¶ 61,276, at 62,102 (2002).

On December 21, 2001, the FERC issued a Preliminary Determination on Non-Environmental Issues relating to pipeline construction, which indicated that authorization for the construction and operation of the proposed work would be in the public convenience and necessity as required for approval under section 7(c) of the NGA. See *Islander East Pipeline Co.*, 97 F.E.R.C. at ¶ 62,685. On August 21, 2002, the FERC issued a Final Environmental Impact Statement (FEIS), pursuant to the requirements of NEPA. Fed. Energy Regulatory Comm'n, *Islander East Pipeline Project, Final Environmental Impact Statement (2002)*; see also *Islander East Pipeline Co.*, 102 F.E.R.C. ¶ 61,054, at 61,113-14 (2003). The FEIS determined that one project system alternative to Islander East's proposal would be environmentally preferable because that alternative, based on the Iroquois Pipeline's ELI Extension Project, had a shorter Long Island Sound crossing, avoided more shellfish leases, and would only have air quality and noise impacts onshore in Connecticut. See FEIS at ES-5. Nevertheless, the FEIS concluded that, if Islander East constructed the project as proposed and in accordance with the recommended mitigation measures, it would be an environmentally acceptable action. See *id.*

On September 19, 2002, the FERC issued a final order granting Islander East's requests for authorization to construct and operate its proposed interstate natural gas pipeline, conditioned on its compliance with various environmental requirements prior to beginning construction on the pipeline. *Islander East Pipeline Co.*, 100 F.E.R.C. at ¶ 62,102. The FERC concluded that because the Islander East Project would be an environmentally acceptable action and because it would provide significant benefits, it was required by public convenience and necessity under the NGA. *302 The FERC pointed out that Islander East's proposal would provide Long Island with a second source of natural gas supply, providing the benefits of pipeline-to-pipeline competition, and would provide a second facility to access natural gas supplies in the event of a problem with one of the facilities.FN5 See *id.*

FN5. Various parties, including the Town of North Branford, the Town of Branford, and the Connecticut Attorney General, requested a rehearing. On January 17, 2003, the FERC denied those requests. *Islander East Pipeline Co.*, 102 F.E.R.C. ¶ 61,054, at 61,113 (2003).

The CTDEP and the Connecticut Attorney General filed petitions for review of the FERC's decision with the D.C. Circuit. The D.C. Circuit summarily dismissed the CTDEP's petition for lack of jurisdiction, see *Blumenthal v. FERC*, No. 03-1066, 2005 WL 562410, 2005 U.S.App. LEXIS 3962 (D.C.Cir. Mar. 8, 2005), and the Connecticut Attorney General voluntarily withdrew his petition.

Pursuant to the CZMA and the CWA, Islander East filed applications with the States of New York and Connecticut seeking the following state authorizations under federal law: (1) a certificate of consistency with the state's Coastal Zone Management Plan (CZMP) pursuant to section 307(c)(3)(A) of the CZMA, 16 U.S.C. § 1456(c)(3)(A); and (2) a WQC indicating consistency with the state's Water Quality Standards pursuant to section 401(a) of the CWA, 33 U.S.C. § 1341(a). In January and February 2003, New York granted both of the necessary authorizations. However, the Connecticut Department of Environmental Protection (CTDEP) denied both the CZMP FN6 and WQC authorizations.

FN6. On October 15, 2002, the CTDEP rejected Islander East's CZMA application, finding that the construction impacts to the State's coastal resources would be inconsistent with its CZMP. Following a remand by the Department of Commerce (Department) to consider project changes aimed at minimizing adverse impacts, the CTDEP again found the project to be inconsistent with its CZMP. Islander East timely filed a notice of appeal with the Department, asking the Secretary of Commerce to override Connecticut's objection under the CZMA. See 16 U.S.C. § 1456(c)(3)(B)(iii) (allowing the Secretary of Commerce to approve licensing where the proposal is consistent with the statute or "otherwise necessary in the interest of national security").

In a fifty-page decision, the Secretary of Commerce overrode the CTDEP and granted Islander East's certification, finding the project to be consistent with the objectives of the CZMA. See Donald Evans, Sec'y, Dep't of Commerce, Decision & Findings of the U.S. Sec'y of Commerce in the Consistency Appeal of Islander East Pipeline Co., LLC (2004) (Commerce Report). Respondent appealed the Secretary's findings to the U.S. District Court for the District of Connecticut, and that action is still pending. Connecticut v. United States Dep't of Commerce, No. 03:04-CV-01271-SRU (D. Conn. filed July 30, 2004). Islander East filed its application to obtain WQC certification with the CTDEP on February 13, 2002. On March 13, 2003, Islander East withdrew its application and submitted a new application, which reflected modified offshore construction techniques aimed at reducing the project's environmental impacts. In brief, Islander East proposed the use of three different pipeline installation methods for the Connecticut portion of the pipeline project. First, Islander East proposed to utilize a horizontal directional drill (HDD) construction technique to initiate the pipeline installation at a point onshore in Connecticut, approximately 700 feet inland from the shoreline, that would continue until mile post (MP) 10.9. The HDD method would involve drilling a hole along the pipeline's projected path, enlarging it to accommodate the pipeline, then pulling the pipeline into the hole. The method would involve no exposure to the sea floor until the drill reached an exit point at MP 10.9.

Second, Islander East proposed to use a mechanical bucket dredge to excavate an *303 exit basin that would serve to contain and restrict the release of drill fluid at the HDD exit point. From the exit basin, Islander East would continue to use the mechanical bucket dredge to excavate a trench to approximately MP 12. In order to reduce the impacts of sediment deposition, Islander East would place dredge spoil onto hopper barges, instead of sidcasting it onto the sea floor for later use as backfill. Next, the pipeline would be laid into the trench, and the trench would be covered with engineered backfill, in the form of bank-run gravel.

Finally, for the deeper waters between MP 12 and MP 32, Islander East proposed to use a vessel with a sub-sea plow and mooring system. Using this method, the towing vessel would move along the pipeline route by pulling in its bow anchor lines and releasing its stern anchor lines, while an anchor handling tug would move the anchors ahead of the towing vessel. To minimize anchoring impacts, Islander East proposed to lower the pipeline with a single pass of the sub-sea plow. Following the pass, a backfill plow would return the displaced spoil to the trench. See generally Islander East Pipeline Co., Permit Application for: 401 Water Quality Certificate, Marine Pipeline Installation Methodology 1-6 (2003) (Pipeline Installation Methodology).

On February 5, 2004, the CTDEP denied Islander East's application for a WQC, finding the proposed pipeline work to be inconsistent with the Connecticut Water Quality Standards (CTWQS). See Islander East Pipeline Co., CTDEP Denial Letter (Feb. 5, 2004) (CTDEP Denial). On April 16, 2004, Islander East filed a petition for a declaratory ruling with the CTDEP seeking to overturn the CTDEP's denial of certification, which the CTDEP deemed procedurally deficient, and on June 21, 2004, Islander East filed an action in Connecticut Superior Court challenging the CTDEP decision. See *Islander East Pipeline Co., LLC v. Env'tl. Prot. Comm'r*, No. HHD-CV-04-4022253-S.

While the state proceedings were pending, EPACT was signed into law on August 8, 2005. That same day, pursuant to the newly enacted section 19(d) of the NGA, Islander East filed a petition for expedited review of the CTDEP Denial with this Court, see Dkt. No. 05-4139, and moved to stay the Connecticut state court proceedings. Subsequently, the CTDEP moved to dismiss Islander East's petition for review in this court for lack of subject matter jurisdiction, and Islander East moved to amend its petition to add current CTDEP Commissioner Gina McCarthy as a respondent. On January 23, 2006, this court ruled that it would consider the above motions along with the merits of Islander East's petition.

DISCUSSION

Islander East brings this petition for review to contest the CTDEP's denial of its WQC application, so that it may begin construction of its FERC-approved natural gas pipeline project. Petitioner contends that the denial of its application for a WQC (1) prevents the construction of a pipeline facility subject to section 7 of the NGA, and (2) violates federal law because the pipeline facility is consistent with the CTWQS. Thus, Petitioner asks the Court to find in its favor on both the aforementioned grounds and to remand this proceeding to the CTDEP with instructions to issue the requested WQC.

As an initial matter, the CTDEP challenges the Court's subject matter jurisdiction to review this petition, contending that the Tenth and Eleventh Amendments to the United States Constitution bar Petitioner's suit against the CTDEP on the basis of state sovereignty, and arguing *304 that Section 19(d) of EPACT may not be retroactively applied to confer jurisdiction on this court. FN7 The CTDEP also asks the Court to deny Petitioner's motion to add the Commissioner as a respondent, arguing that the Ex parte Young doctrine allowing suits against state officials does not provide an exception to the State's Eleventh Amendment immunity in this case. See *Ex parte Young*, 209 U.S. 123, 28 S.Ct. 441, 52 L.Ed. 714 (1908).

In the event that the Court reaches the merits of Petitioner's section 19(d) suit, Respondent contends that the CTDEP Denial is consistent with federal law.

FN7. In the CTDEP's supplemental submission to the Court, it argued that Islander East's suit is barred because it failed to exhaust all available state administrative remedies. Section 19(d) of the EPACT does not expressly require that state administrative remedies be exhausted before the commencement of an action under its terms, but Respondent argued that an exhaustion requirement should be implied. At oral argument, however, counsel for Respondent stated that the CTDEP would not press its exhaustion argument, as that argument was neither essential nor important to the case. Accordingly, we deem the exhaustion argument waived.

I. Jurisdiction over the CTDEP and the Commissioner

A. Eleventh Amendment Immunity

The Eleventh Amendment provides that United States courts may not consider “any suit in law or equity, commenced or prosecuted against one of the United States by Citizens of another State...” U.S. Const. amend. XI. Although not clear from the terms of the amendment, the Supreme Court has interpreted this language to bar suit against a state by its own citizens. See *Seminole Tribe of Fla. v. Florida*, 517 U.S. 44, 54, 116 S.Ct. 1114, 134 L.Ed.2d 252 (1996) (citing *Hans v. Louisiana*, 134 U.S. 1, 10 S.Ct. 504, 33 L.Ed. 842 (1890)). The Supreme Court also applies this immunity to suits against state agencies. See *Pennhurst State Sch. & Hosp. v. Halderman*, 465 U.S. 89, 100, 104 S.Ct. 900, 79 L.Ed.2d 67 (1984) (holding that “in the absence of consent a suit in which the State or one of its agencies or departments is named as the defendant is proscribed by the Eleventh Amendment”).

Respondent argues that section 19(d) of the NGA violates the Eleventh Amendment because it permits a private company to bring suit in federal court to challenge a decision by a state agency. Respondent acknowledges two circumstances in which private citizens may sue state agencies in federal court: (1) when Congress unequivocally expresses its intent to abrogate state sovereign immunity pursuant to a valid grant of constitutional authority, see *Fitzpatrick v. Bitzer*, 427 U.S. 445, 456, 96 S.Ct. 2666, 49 L.Ed.2d 614 (1976); and (2) when a State voluntarily waives its Eleventh Amendment immunity, see *Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 527 U.S. 666, 686-87, 119 S.Ct. 2219, 144 L.Ed.2d 605 (1999) (inferring State waiver of immunity from the State's acceptance of a “gratuity” offered by Congress conditioned on the State's willingness to be subject to suit in federal court). Respondent argues that the CTDEP is entitled to a presumption of immunity, and that neither of the above exceptions to Eleventh Amendment immunity exist here. See *id.* at 682, 119 S.Ct. 2219 (stating that “[c]ourts indulge every reasonable presumption against waiver” of sovereign immunity (quoting *Aetna Ins. Co. v. Kennedy ex rel. Bogash*, 301 U.S. 389, 393, 57 S.Ct. 809, 81 L.Ed. 1177 (1937))).

Islander East analogizes the Court's jurisdiction under section 19(d) of the NGA to the federal regulatory scheme established*305 by the Telecommunications Act of 1996(TCA), 47 U.S.C. §§ 151-614, and it argues that state agencies regulating pursuant to federal grants under the authority of both the NGA and the TCA thereby waive their sovereign immunity from suit. By passing the TCA, Congress

“federalized the regulation of competition for local telecommunications service,” but granted states a limited right to regulate, conditioned on federal court review of state regulatory decisions. *MCI Telecomm. Corp. v. Bell Atl.-Penn.*, 271 F.3d 491, 509 (3d Cir.2001). Under the TCA, if a state chooses not to regulate, regulatory decision-making reverts back to the Federal Communications Commission. *Id.*; see also 33 U.S.C. § 1341(a)(1) (providing that, under the CWA, if state refuses or declines to rule on WQC application within one year, regulatory decision-making reverts back to federal authorities). The Courts of Appeals that have considered the issue have uniformly held that state agencies that regulate agreements under the TCA knowingly waive their Eleventh Amendment immunity by voluntarily accepting the power to regulate local telecommunications competition. See *Bell Atl.-Penn.*, 271 F.3d at 512-13 (“[A] state commission that decides to participate in this statutory scheme is on notice from the outset that it will be subject to suit, brought only in federal court, by any party aggrieved by its decision.”); *AT&T Commc'ns v. BellSouth Telecomms. Inc.*, 238 F.3d 636, 645-47 (5th Cir.2001); *MCI Telecomms. Corp. v. Ill. Bell Tel. Co.*, 222 F.3d 323, 342-43 (7th Cir.2000); *MCI Telecomms. Corp. v. Pub. Serv. Comm'n*, 216 F.3d 929, 938-39 (10th Cir.2000). But see *Bell Atl. Md., Inc. v. MCI Worldcom, Inc.*, 240 F.3d 279, 293-94 (4th Cir.2001), vacated on other grounds sub nom. *Verizon Md. Inc. v. Pub. Serv. Comm'n*, 535 U.S. 635, 122 S.Ct. 1753, 152 L.Ed.2d 871 (2002).FN8

FN8. The Supreme Court declined to rule on the issue of whether a State may be deemed to have waived its Eleventh Amendment immunity by participating in a federal regulatory scheme. *Verizon*, 535 U.S. at 645, 122 S.Ct. 1753.

As with the TCA, Congress wholly preempted and completely federalized the area of natural gas regulation by enacting the NGA. See *Schneidewind v. ANR Pipeline Co.*, 485 U.S. at 300-01, 108 S.Ct. 1145 (describing the comprehensive federal regulatory scheme in the NGA). Congress did not, however, thereby supersede any other federal statutory requirements, such as section 401 of the CWA. Under the CWA, as described supra, at page 5 n. 4, Congress provides states with the option of being deputized regulators under the authority of federal law.FN9 Without suggesting that states are *306 required to relinquish their sovereign immunity with regard to all actions they take pursuant to the CWA, Petitioner argues that section 19(d) of the NGA does require a waiver of state sovereign immunity with respect to state agency decisions that are appealable under the EPACT's terms. Thus, Petitioner contends that Connecticut effectively waived its Eleventh Amendment immunity by electing to participate in the regulatory scheme provided by the NGA and the CWA.

FN9. The CWA establishes distinct roles for state and federal governments in regulating water quality. Under the CWA, each state is authorized to institute comprehensive water quality standards establishing water quality goals for all intrastate waters. 33 U.S.C. §§ 1311(b)(1)(C), 1313. The state must submit its proposed water quality standards to the Environmental Protection Agency for federal approval, and upon approval the state standard becomes “the water quality standard for the applicable waters of that State.” 33 U.S.C. § 1313(c)(3). The CWA sets forth the following broad regulatory goals:

to protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter. Such standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation.

33 U.S.C. § 1313(c)(2)(A). Section 303 also sets forth an “anti-degradation policy,” which requires that state standards be sufficient to maintain existing beneficial uses of navigable waters, preventing their further degradation. 33 U.S.C. § 1313(d)(4)(B). The CWA allows states to impose more stringent water quality controls than are required under its terms. See 33 U.S.C. § 1370; 40 C.F.R. § 131.4(a) (2000) (stating that “[s]tates may develop water quality standards more stringent than required by this regulation”).

Respondent does not dispute that by accepting a role as deputized regulator under the CWA, a state agrees to waive its immunity from suit under section 19(d) of the NGA. Instead, Respondent argues that it never waived its Eleventh Amendment immunity from suit under section 19(d) because this provision was passed into law only after the CTDEP denied Islander East's WQC application. Thus, Respondent argues that Connecticut did not knowingly agree that its participation in the NGA and CWA regulatory scheme would be conditioned upon accepting federal jurisdiction over its decisions made pursuant to that scheme.

Respondent's argument is flawed by a fatal omission: Respondent does not assert that Connecticut ever withdrew its participation from the CWA and NGA regulatory scheme following the enactment of the EPACT. Thus, by going forward with its federally deputized role even after the EPACT's enactment, Connecticut has now knowingly waived its immunity from section 19(d) suit in order to receive the benefits of participating in the NGA and CWA regulatory scheme. See *Lapides v. Bd. of Regents*, 535 U.S. 613, 619, 122 S.Ct. 1640, 152 L.Ed.2d 806 (2002) (noting that “more than a century ago this Court indicated that a State's voluntary appearance in federal court amounted to a waiver of its Eleventh Amendment immunity” (citing *Clark v. Barnard*, 108 U.S. 436, 447, 2 S.Ct. 878, 27 L.Ed. 780 (1883))); *Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 527 U.S. at 686-87, 119 S.Ct. 2219 (noting that a state constructively waives its Eleventh Amendment immunity by accepting a gift or gratuity conditioned on said waiver).

As a case in point, the CTDEP Denial continues to prevent Islander East from proceeding with its FERC-approved natural gas pipeline project, and the CTDEP has chosen to defend its denial of Islander East's WQC application in this litigation. The principles underlying State sovereign immunity do not justify applying Connecticut's waiver solely on a prospective basis, that is, only for new CWA determinations, especially where the state's decision continues to serve as a bar to proceeding with a federally approved natural gas project. This conclusion is particularly warranted where, as in this case, after the state becomes aware that it is subject to federal jurisdiction, it continues actively to litigate in defense of its earlier decision and elects not to abdicate its deputized authority back to the federal government. See *AT&T Commc'ns v. BellSouth Telecomms., Inc.*, 238 F.3d at 645 (“[A]fter *College Savings*, Congress may still obtain a non-verbal voluntary waiver of a state's Eleventh Amendment immunity, if the waiver can be inferred from the state's conduct in accepting a gratuity after being given clear and unambiguous statutory notice that it was conditioned on waiver of immunity.”); see also *In re Charter Oak Assocs.*, 361 F.3d 760, 767 (2d Cir.2004) (noting that the doctrine of “waiver by litigation” derives not from a state's “ ‘actual preference or desire,’ but rather upon ‘the judicial need to avoid inconsistency, anomaly, and unfairness’ ” (quoting *Lapides v. Bd. of Regents*, 535 U.S. at 620, 122 S.Ct. 1640)). Thus, we conclude that once Congress enacted section 19(d), Connecticut was on notice that its continued

participation in the NGA and CWA regulatory scheme would constitute a waiver of its Eleventh Amendment immunity with respect to all suits under section 19(d).

Accordingly, in this case, Connecticut knowingly and intelligently waived its Eleventh Amendment immunity from section 19(d) suit. Because we hold that the Eleventh Amendment does not bar Petitioner's suit against the CTDEP, it is unnecessary for us to consider Petitioner's motion to add the Commissioner as a Respondent, or to address the application of the Ex parte Young doctrine to suits under section 19(d). Therefore, Petitioner's motion to add the Commissioner is denied as moot.

B. Tenth Amendment Immunity

The Tenth Amendment prescribes that “[t]he powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.” U.S. Const. amend. X. Thus, in cases involving the division of authority between federal and state governments, “[i]f a power is delegated to Congress in the Constitution, the Tenth Amendment expressly disclaims any reservation of that power to the States; if a power is an attribute of state sovereignty reserved by the Tenth Amendment, it is necessarily a power the Constitution has not conferred on Congress.” *New York v. United States*, 505 U.S. 144, 156, 112 S.Ct. 2408, 120 L.Ed.2d 120 (1992).

“[W]here Congress has the authority to regulate private activity under the Commerce Clause, [the Supreme Court has] recognized Congress' power to offer States the choice of regulating that activity according to federal standards or having state law pre-empted by federal regulation.” *Id.* at 167, 112 S.Ct. 2408. Congress's offer of shared regulatory authority does not run afoul of the Tenth Amendment. See *Hodel v. Va. Surface Mining & Recl. Ass'n*, 452 U.S. 264, 290, 101 S.Ct. 2352, 69 L.Ed.2d 1 (1981) (“We fail to see why [the statute at issue] should become constitutionally suspect simply because Congress chose to allow the States a regulatory role.”).

In this case, there is no question that “the Federal Government under the Commerce Clause of the Constitution (Art. I, § 8, cl.3) has dominion, to the exclusion of the States, over navigable waters of the United States.” *City of Tacoma v. Taxpayers of Tacoma*, 357 U.S. 320, 334, 78 S.Ct. 1209, 2 L.Ed.2d 1345 (1958). By enacting the CWA, Congress provided states with an offer of shared regulatory authority. See *Arkansas v. Oklahoma*, 503 U.S. 91, 101, 112 S.Ct. 1046, 117 L.Ed.2d 239 (1992) (stating that the CWA “anticipates a partnership between the States and the Federal Government, animated by a shared objective”).

Respondent does not dispute that under the CWA the Federal Government elected to maintain control over the mechanism of regulating discharges into navigable waters. Rather, Respondent argues that federal court review of a WQC decision infringes upon Connecticut's jurisdiction over its own public trust lands, i.e., the land underlying the Long Island Sound. See *308 *Idaho v. Coeur d'Alene Tribe of Idaho*, 521 U.S. 261, 283, 117 S.Ct. 2028, 138 L.Ed.2d 438 (1997) (concluding that the court order sought “would divest the State of its sovereign control over submerged lands, lands with a unique status in the

law and infused with a public trust the State itself is bound to respect”); *Utah Div. of State Lands v. United States*, 482 U.S. 193, 195-98, 107 S.Ct. 2318, 96 L.Ed.2d 162 (1987) (stating that lands underlying navigable waters have historically been considered “sovereign lands,” and state ownership of them is “considered an essential attribute of sovereignty”).

The Supreme Court cases cited by Respondent are inapposite, and we conclude that granting Islander East's petition for review would not interfere with Connecticut's control over its sovereign lands. The Supreme Court's decisions in *Coeur d'Alene* and *Utah Div. of State Lands* involved challenges to state sovereignty over state land: in *Coeur d'Alene*, a private party brought an action for declaratory and injunctive relief against the State claiming ownership of various submerged lands, 521 U.S. at 261, 117 S.Ct. 2028, while in *Utah Div. of State Lands*, the State brought an action for declaratory and injunctive relief contending that it was the owner of a lake bed, 482 U.S. at 200, 107 S.Ct. 2318. Here, the grant or denial of a WQC does not involve an issue of land ownership. Islander East's authorization to exercise the power of eminent domain to obtain a right of way for the natural gas pipeline unquestionably comes from the FERC in accordance with its authority under the NGA. Thus, in this case, federal court review involves no infringement of state jurisdiction over its lands. Such review, at most, intrudes upon the State's authority to determine whether the anticipated construction of Islander East's federally approved pipeline on the land at issue satisfies state water quality standards. The exercise of this authority is not a sovereign state right under the Tenth Amendment. Rather, Congress has the authority to regulate discharges into navigable waters under the Commerce Clause, and the State, in this case, exercises only such authority as has been delegated by Congress. Accordingly, there is no basis for Respondent's Tenth Amendment challenge to Islander East's petition for review.

C. Retroactivity of NGA Section 19(d)

Respondent argues that it cannot be sued under NGA section 19(d) because section 19(d) does not state that it is retroactive, and the CTDEP Denial was issued eighteen months before the statute's enactment. We disagree.

In *Landgraf v. USI Film Prods.*, the Supreme Court held that “[e]ven absent specific legislative authorization, application of new statutes passed after the events in suit is unquestionably proper in many situations.” 511 U.S. 244, 273, 114 S.Ct. 1483, 128 L.Ed.2d 229 (1994). The Court explained that statutes applying new jurisdictional rules are typically retroactive because such statutes regulate the conduct of the courts, not the parties:

We have regularly applied intervening statutes conferring or ousting jurisdiction, whether or not jurisdiction lay when the underlying conduct occurred or when the suit was filed.... Application of a new jurisdictional rule usually takes away no substantive right but simply changes the tribunal that is to hear the case. Present law normally governs in such situations because jurisdictional statutes speak to the power of the court rather than to the rights or obligations of the parties.... Because rules of procedure regulate secondary rather than primary conduct, the fact that a new procedural rule was instituted after the conduct giving rise to the suit does not *309 make application of the rule ... retroactive.

Id. at 274-75, 114 S.Ct. 1483 (internal citations and quotation marks omitted); accord *Hughes Aircraft Co. v. United States*, 520 U.S. 939, 951, 117 S.Ct. 1871, 138 L.Ed.2d 135 (1997).

Respondent is correct in noting that a presumption against retroactivity applies when new provisions affect contractual or property rights. See *Landgraf v. USI Film Prods.*, 511 U.S. at 270-71, 114 S.Ct. 1483 (“The largest category of cases in which we have applied the presumption against statutory retroactivity has involved new provisions affecting contractual or property rights, matters in which predictability and stability are of prime importance.”). But as discussed above in the context of Respondent's Tenth Amendment challenge, section 19(b) did not affect any of Connecticut's rights-property, contractual, or otherwise. The CTDEP's ability to issue WQCs was conferred by the federal government, which has exclusive control over navigable waterways. CTDEP therefore lacks independent rights in its WQC determinations.

Even if the CTDEP did have property or contract rights under the CWA, section 19(d) would not affect its exercise of those rights. The CTDEP is still entitled to make WQC determinations; those determinations simply are now reviewed in federal court as opposed to state court. Thus, we conclude that section 19(d) applies retroactively, and its provision of exclusive jurisdiction to this court controls this petition.

II. Merits of Petitioner's Section 19(d) Suit

A. Standard of Review

Proceeding to the merits, we first address the standard of review to be applied in reviewing an action under section 19(d) of the NGA. Section 19(d)(3) provides for a remand where the state agency action is “inconsistent with the Federal law governing such [action] and would prevent the construction, expansion, or operation of the facility subject to [the NGA].” 15 U.S.C. § 717r (d)(3). Here, there is no dispute that the CTDEP Denial is preventing the construction of the pipeline project, so the only question is whether the CTDEP Denial is inconsistent with federal law. Although the statute does not prescribe the applicable standard of review for this question, both parties suggest that the appropriate standard is the traditional arbitrary and capricious standard for review of federal agency decisions under the Administrative Procedure Act (APA). See 5 U.S.C. § 706(2)(A).

By definition, the APA applies only to federal agency actions, see 5 U.S.C. § 551(1), however, in the context of the TCA, federal courts have used the arbitrary and capricious standard when reviewing the merits of state agency decisions made pursuant to federal law. See, e.g., *Mich. Bell Tel. Co. v. MFS Intelenet of Mich., Inc.*, 339 F.3d 428, 433 (6th Cir.2003); *U.S. West Commc'ns, Inc. v. Sprint Commc'ns Co.*, 275 F.3d 1241, 1248 (10th Cir.2002); *SW. Bell Tel. Co. v. Waller Creek Commc'ns, Inc.*, 221 F.3d 812, 816 (5th Cir.2000); *US West Commc'ns, Inc. v. MFS Intelenet, Inc.*, 193 F.3d 1112, 1117 (9th Cir.1999). Specifically, in reviewing challenges to state agency interconnection agreement rulings under a review provision in the TCA analogous to that in NGA section 19(d), see 47 U.S.C. § 252(e)(6), federal courts have adopted a two-step approach. See *Mich. Bell*, 339 F.3d at 433. Courts first review de novo whether

the state agency complied with the requirements of the relevant federal law. See *id.* “If no illegality is uncovered during such a *310 review,” the court then analyzes the state agency’s factual determinations “under the more deferential arbitrary-and-capricious standard of review usually accorded state administrative bodies’ assessments of state law principles.” *Id.*; see also *Ace Tel. Ass’n v. Koppendrayner*, 432 F.3d 876, 878 (8th Cir.2005).

We apply the same two-step standard to NGA review. Here, there is no question that the CTDEP complied with federal law in applying its state water quality standards to Islander East’s permit application, as directed by the CWA. See 33 U.S.C. § 1341(a). Therefore, we proceed directly to an analysis of the CTDEP’s factual determinations under the arbitrary and capricious standard. See 5 U.S.C. § 706(2)(A).

Pursuant to the arbitrary and capricious standard, an agency must

examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made. In reviewing that explanation, we must consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment. Normally, an agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise. The reviewing court should not attempt itself to make up for such deficiencies; we may not supply a reasoned basis for the agency’s action that the agency itself has not given. We will, however, uphold a decision of less than ideal clarity if the agency’s path may reasonably be discerned.

Motor Vehicle Mfrs. Ass’n of the U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 42-43, 103 S.Ct. 2856, 77 L.Ed.2d 443 (1983) (internal quotation marks and citations omitted) (hereinafter *State Farm*). Additionally, “courts may not accept appellate counsel’s post hoc rationalizations for agency action. It is well established that an agency’s action must be upheld, if at all, on the basis articulated by the agency itself.” *Id.* at 50, 103 S.Ct. 2856 (citation omitted).

B. The CTDEP Denial

In the instant case, the CTDEP denied Islander East’s WQC application in a brief six-page letter of denial, determining that “the proposed work in the proposed location is inconsistent with the Water Quality Standards,” because the project would “adversely affect water quality and prohibit the existing and designated uses of the receiving waters.” CTDEP Denial at 1. The CTDEP cited three bases for its conclusion: (1) temporary water quality disturbance and habitat alteration would be inconsistent with the CTWQS, Surface Water Quality Standard No. 1; FN10 (2) degradation of water quality and disruption of existing uses would be inconsistent with the anti-degradation policy set forth in the CTWQS; FN11 *311 and (3) disruption of habitat would be inconsistent with section 22a-98 of the Connecticut Coastal

Management Act (CCMA). Id. at 2-5. The CTDEP explained that “[t]hese elements do not stand alone, but must be read in such a fashion as to be internally consistent within the Water Quality Standards and consistent with the goals of the [CWA].” Id. at 2. Based on a close analysis of the CTDEP’s justifications and the record, we conclude that the CTDEP did not adequately examine the relevant record evidence, and failed to articulate rational connections between the facts in the record and the bases for its decision. To explain our conclusion, we examine each of the agency’s three grounds for the Denial. FN10. Surface Water Quality Standard No. 1 states:

It is the State’s goal to restore or maintain the chemical, physical, and biological integrity of surface waters. Where attainable, the level of water quality that provides for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water shall be achieved.

CTWQS at 1.

FN11. The anti-degradation policy to the CTWQS “requires the maintenance and protection of water quality in high quality waters and protection and maintenance of existing uses in all cases.” CTWQS at Appx. E-1.

1. Water Quality Impacts and Habitat Alteration

a. Findings

The CTDEP determined that the “dredging, plowing, backfilling, equipment anchoring, and anchor cable sweeping” associated with pipeline installation would cause temporary water quality disturbance, permanent change to the benthic substrate, and negative impacts to the aquatic biota, which it found inconsistent with the goal of the CTWQS to “restore or maintain the chemical, physical, and biological integrity of surface waters.” CTDEP Denial at 4 & n. 11. FN12

FN12. The CTWQS define “biological integrity” as “the ability of any aquatic ecosystem to support and maintain a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitats of a region.” CTDEP Denial at 4.

According to the CTDEP Denial, installation would cause direct disturbance to the benthic substrate (sea floor), and would result in short-term turbidity of the water column, followed by sediment deposition on the benthic substrate. Id. at 4. To support this conclusion, the Denial cited a study estimating that between 1 and 3 millimeters of sediment would be deposited in and around the pipeline trench area. Id. at 3 (citing Letter from John C. Roberge to Anthony J. DaRos, First Selectman, Town of Branford at 3 (Sept. 30, 2003)) (Sept. 30, 2003 Roberge Report). The Denial determined that this disturbance would “permanently change the [benthic] substrate and negatively impact the existing aquatic biota that depend on such substrate”; thus, it concluded that “[t]he combined assaults of direct habitat disturbance and temporary water quality impacts ... [would] negatively impact the overall biological integrity of the Thimble Islands ecosystem.” Id. at 4. Other than the Roberge Report, however, the Denial cited no studies or record evidence to support this conclusion.

Additionally, the CTDEP Denial concluded that direct habitat disturbance caused by sediment deposition would “dramatically alter natural habitats and adversely impact the existing community of organisms.” Id. Specifically, the Denial noted that once the original seabed has been disturbed, the “high-order or late successional stage species such as clams and oysters that lived in the original substrate can no longer exist,” and that instead, “early-stage opportunistic species such as polychaete worms” would populate the new habitat. Id. The CTDEP concluded that it was “uncertain whether the associated diverse assemblage of bottom dwelling organisms currently present in this area could be reestablished” because “[n]o studies exist from which one may predict a known recovery time for both these benthic communities and the substrate, if, indeed, there is any significant recovery.” Id. The only record evidence to support this conclusion was a report issued by Peter E. Pellegrino entitled “Macrobenthic Community Structure Along the Proposed Islander East Pipeline Route in Long Island Sound” (Pellegrino Report), which was cited by the CTDEP without discussion of its substance.

b. Analysis

(i) Impact on Water Quality

The record shows that the pipeline installation's impact on water quality would be short-term, and Respondent does not suggest that such a result would be inconsistent with the CTWQS. See id. at 3 (acknowledging that “[t]urbidity of the water column would be relatively short-term”); FEIS at 5-3 (stating belief that “impacts to water quality [of the Sound near the Connecticut shore] would be short-term in nature,” because “elevated turbidity levels caused by sediment dispersion through the water column typically return to background levels within days of completion of backfilling,” and therefore impacts on Long Island Sound water quality should last “no more than several months”); John C. Roberge, “Potential Sedimentation Impacts Which Could Result from Dredging” at 3 (2003) (Roberge Report) at 4 (noting that dredging in the Long Island Sound historically causes “suspended sediment concentrations returning to pre-project levels almost immediately following cessation of the trenching operations”); TRC Env'tl. Corp., “Evaluation of Benthic Impacts Associated with Islander East's Modified Offshore Construction Techniques,” at 6 (2003) (TRC Report) (estimating that organisms along the pipeline route would be exposed to increased turbidity at any one location for only “around 6 hours”). Thus, we do not read the CTDEP Denial to place significant reliance on the pipeline project's temporary impact on water quality.

(ii) Impact of Sediment Deposition and Direct Disturbance on Benthic Substrate and Natural Habitats

While the CTDEP acknowledged that the water quality disturbance caused by pipeline installation was not particularly problematic, it did conclude that the sediment deposition and direct benthic substrate disturbances resulting from installation would “permanently change the substrate and negatively impact the existing aquatic biota that depend on such substrate.” CTDEP Denial at 4. The CTDEP cited no scientific studies or other evidence that directly supported the latter findings, and the Denial failed to acknowledge or respond to contradictory data in the record.

An analysis of the record reveals considerable evidence indicating that direct pipeline installation and accompanying sediment deposition would not have a permanent effect on the benthic environment. For example, the FEIS noted that, although “most sessile benthic organisms and demersal fish eggs in [the disturbed] area would be smothered by [sediment],” most fish and mobile benthic organisms would relocate and avoid it. FEIS at 3-64. The FEIS concluded that “recovery of most of the disturbed benthic communities along the pipeline route could be expected to occur within 2 to 5 years.” Id. at 3-66; see also id. at 3-70, 3-71 (predicting the recovery of disturbed shellfish beds within “3 to 5 years”).

Significantly, reports prepared for both Islander East and the Town of Branford projected similar limited impacts. The TRC Report, prepared for Islander East, concluded that,

*313 [c]onsidering only the maximum[] [estimates of sediment deposition], and if the predictions 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.

TRC Report at 5 (quoting the opinion of Dr. Roman Zajac, an independent marine biologist consulting on the project); see also id. at 6 (concluding that “no mortality is expected and stress factors will be minimal” as a result of sediment deposition caused by pipeline installation with 1.5 feet depth of cover). Similarly, the Garrett Group Report, prepared for the town of Branford, concluded that the anticipated “bottom damage” caused by construction would “alter an existing productive shellfish habitat, and an existing invertebrate community structure,” but 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.” Garrett Group, Ltd., “Preliminary Report on the Anticipated Biological Impacts Associated with the Proposed Islander East Pipeline Project” at ES-2 (2003) (Garrett Report) (emphasis added); see also id. at 15. Additionally, the Pellegrino Report, cited in the Denial, explicitly discusses the “recovery process” after sediment deposition, noting that the process typically concludes with the reestablishment of high-order species. Id. at 6.

The Denial thus failed to mention that at least four scientific studies in the record concluded that the substrate was capable of a return to its existing condition-findings directly opposite to its conclusion that pipeline installation would “permanently change the substrate” and “dramatically alter natural habitats.” Denial at 4. Such failure alone could be deemed arbitrary and capricious. See *State Farm*, 463 U.S. at 42-43, 103 S.Ct. 2856 (noting that an agency's failure to offer an “explanation for its decision that runs counter to the evidence” before it is arbitrary and capricious). Additionally, the CTDEP's conclusion that “no studies” existed from which a “known recovery time for both these benthic communities and the substrate” could be predicted, Denial at 4, was manifestly contradicted by the above studies, two of which provided specific recovery time estimates, and none of which predicted permanent alteration of the benthic substrate.FN13

FN13. The dissent contends that these studies' recovery estimates were equivocal and, therefore, that the CTDEP was justified in its conclusion that no studies existed predicting a “known” recovery time. See post at 328. However, the CTDEP's failure to acknowledge the existence of the above studies, all of

which suggest eventual total recovery of the benthic substrate, constitutes a “fail[ure] to consider an important aspect of the problem,” which is arbitrary and capricious under our governing standard of review. *State Farm*, 463 U.S. at 43, 103 S.Ct. 2856.

The CTDEP Denial cited two studies during its analysis of the project's impact on the benthic substrate, however, neither of these studies supported its conclusion that the benthic substrate would be “permanently changed” and the surrounding natural habitats would be “dramatically alter[ed].” The Denial cited the Roberge Report simply as a source for its citation of the amount of sediment deposition that would result from pipeline installation.FN14 *314 See Denial at 3. The Roberge Report does not make any predictions as to the impact of this activity on water quality, the benthic substrate, or the aquatic habitat. See Roberge Report at 17 (stating that going forward “[i]t is essential that the potential impacts upon pelagic, demersal and benthic fauna as well as subtidal flora imposed by the sedimentation processes be evaluated and quantified”).FN15 Indeed, any conclusions that Roberge later made as to mortality caused by sedimentation apparently were drawn from the Garrett Report, which found that sedimentation would not cause permanent damage. FN16 See Sept. 30, 2003 Roberge Report at 4 (discussing Garrett Report's conclusions regarding sedimentation).

FN14. Although the CTDEP appended the Roberge Report to its Denial, it nowhere indicated that it relied on that report for anything other than the limited cited purpose. Notably, it did not cite the Roberge Report to reject factual conclusions favorable to Islander East noted in other similarly appended reports, as our dissenting colleague suggests. The deference we accord agency decisions depends on a record showing that the agency has, in fact, “examine[d] the relevant data” and itself identified “a rational connection between the facts found and the choice made.” *State Farm*, 463 U.S. at 42, 103 S.Ct. 2856. The mere appending of voluminous documents to a brief agency decision is insufficient to demonstrate the agency's adequate examination of the relevant data, particularly where, as in this case, (1) the facts in dispute are complex, (2) the agency fails to identify and resolve critical factual conflicts discussed in the appended documents, and (3) some circumstantial evidence suggests that the agency issued its denial despite recognition of the inadequacy of its factual analysis. See *infra* at 320.

FN15. The dissent, like the CTDEP, implicitly assumes that mortality in the existing shellfish community will lead to “an adverse and permanent effect on the makeup of the benthic community.” See post at 326-27. The Roberge Report does not make this conclusion. Roberge mentions “significant mortality within the benthic communities” that may result from pipeline installation, but makes no mention of the permanent loss of habitat claimed by CTDEP. The Roberge Report does note a significant “impact [on] the current fisheries operations,” but concludes that fishing activities could resume with adaptation. See Letter from John C. Roberge to First Selectman John Opie at 3 (Feb. 4, 2004) (Feb. 4, 2004 Roberge Report); Sept. 30, 2003 Roberge Report at 4. There is a difference between the death of a group of existing shellfish and a permanent loss of habitat in which future generations of shellfish may grow. The CTDEP points to evidence that some shellfish will die following pipeline installation, but points to no evidence that shellfish habitat will be permanently lost.

FN16. The dissent claims that the Roberge Reports “explicitly” rejected the conclusions of Dr. Zajac and the Garrett Report. See post at 327. The dissent correctly states that the Sept. 30, 2003, and Feb. 4, 2004, Roberge Reports referenced an Army Corps of Engineers Report (“ACOE Report”) for evidence, “contrary to Dr. Zajac's opinion,” that “sediment deposits of up to 1 mm will cause up to 50% mortality, and deposits of up to 2 mm will cause 100% mortality to some benthic species.” See Sept. 30, 2003

Roberge Report at 3; Feb. 4, 2004 Roberge Report at 2. But this is the same conclusion made in the Garrett Report. In fact, the Roberge Reports never “explicitly” reject the findings of the Garrett Report regarding the recovery of benthic communities. Likewise, none of the portions of the ACOE Report on the record state that shellfish mortality would result in a permanent loss of habitat.

The Denial also cited the Pellegrino Report to support its description of the changes that the benthic substrate would undergo as a result of disturbance caused by pipeline installation. However, rather than commenting on the damage that such disturbances cause, the Pellegrino Report describes the natural recovery process from such disturbances, concluding that such recovery is a matter of course. See Pellegrino Report at 6.FN17 If anything, the *315 Pellegrino Report demonstrates that benthic communities are naturally shaped by disturbances similar to those that would be caused by the Islander East pipeline project:

FN17. Contrary to the dissent, see post at 327, the Pellegrino Report's discussion is not confined to “usual” disturbances. “Usual” in the report refers to the fact that it is “infrequent severe events” that typically disrupt benthic communities, thus controlling their structure. If anything, the Pellegrino Report finds that there are a wide variety of events, “physical, biotic or chemical,” that can qualify as “severe events” that “usually” control the structure of benthic communities. Neither the dissent nor the CTDEP point to any evidence that pipeline installation would not qualify as an “infrequent severe event.” The structure of benthic communities is usually controlled by infrequent severe events (disturbances) that disrupt the community and return the successional process to an earlier stage. Disturbances can be physical, biotic, or chemical in nature and may have multiple direct and indirect impacts on community structure. The recovery process in soft-sediment communities is characterized by a succession of community types, usually beginning with the appearance of opportunistic species (Stage I) and progressing to the establishment of high order (Stage III) successional assemblages....

Pellegrino Report at 6. Indeed, the FEIS confirms this assessment, stating that “fine sediments along coastal margins are regularly resuspended by tidal currents.” FEIS at 3-49.

In sum, we see no rational connection between the CTDEP's conclusion that the pipeline project would cause a permanent harmful change to the benthic substrate and the record evidence cited by the CTDEP. Further, the CTDEP offers no explanation for dismissing record evidence that runs counter to its findings. Neither of the studies cited by the CTDEP support its conclusion that pipeline installation and resultant sediment deposition would “permanently change” the benthic substrate and “dramatically alter” the surrounding natural habitat. Denial at 4. The dissent points to portions of the record indicating that installation would directly harm large areas of the substrate, disturb shellfish habitats, and cause significant shellfish mortality in certain locations. See post at 69-70. However, “we may not supply a reasoned basis for the agency's action that the agency itself has not given.” *State Farm*, 463 U.S. at 43, 103 S.Ct. 2856. It is not our province to mine the record for evidence that would support the Denial. Even if such evidence exists, it is the agency's task to conduct a thorough examination of the record, to explain why it has rejected or ignored contradictory evidence, and to come to a decision supported by substantial evidence in the record. As to its first basis for its Denial, the CTDEP did none of the above.

2. Antidegradation Policy

a. Findings

The CTDEP also concluded that the proposed pipeline construction would violate the anti-degradation policy set forth in the CTWQS, which requires “the maintenance and protection of water quality in high quality waters and protection and maintenance of existing uses in all cases.” CTWQS at Appx. E-1. According to the CTDEP, “where water quality is better than the criteria established in the Water Quality Standards, such existing high quality must be maintained except under exceptional and very limited circumstances.” CTDEP Denial at 4.

The CTDEP determined that the high quality waters in the Thimble Islands ecosystem would be degraded because the “discharge of backfill associated with pipeline installation would result in approximately 5.5 acres of nearshore bottom habitat being permanently degraded and rendered unsuitable for supporting the diverse assemblage of shellfish and other bottom dwelling organisms currently inhabiting this area.” *Id.* at 4. The CTDEP concluded that impact on shellfish*316 harvesting would “extend well beyond the 5.5 acres of direct disturbance” because the bank-run gravel used as engineered backfill would interfere with harvesting techniques. *Id.*

Moreover, the CTDEP concluded that “the resulting topographic irregularities over the entire 3,700-acre Islander East corridor caused by sedimentation, backfill with gravel, plow utilization, anchor strikes, and cable sweeps” would “adversely affect the population of resident benthic organisms and shellfish as well as the efficiency and safety of the existing shellfish harvesting operations and handling of shellfish harvesting equipment.” *Id.* at 5. The CTDEP dismissed as unrealistic Islander East's projection that it would achieve a finished substrate with topographic variations of no more than +2' to -1', explaining that, “based on the experience of the Department with the installation of the Iroquois pipeline in 1991, the Department does not agree that such a minimal impact restoration of the work site contours can, in practice, be achieved.” *Id.* The CTDEP also appeared to dismiss even Islander East's proposed minimal variation rate as unacceptable because traditional shellfish harvesting techniques were employed throughout the pipeline route. See *id.* The CTDEP did not cite any studies or record evidence to support these findings.

b. Analysis

(i) Impacts on Existing Shellfish Harvesting

As mentioned above, the CTDEP Denial asserts that “sedimentation, backfill with gravel, plow utilization, anchor strikes, and cable sweeps” would impact the “entire 3,700 acre [pipeline] corridor,” adversely affecting “benthic organisms and shellfish as well as the efficiency and safety of the existing shellfish harvesting operations.” CTDEP Denial at 5. The Denial, however, fails to support its contention that 3,700 acres of Connecticut's surface waters would be disturbed and fails to identify with any specificity the shellfish communities that would be impacted by the pipeline.

The CTDEP Denial points to no evidence supporting its claim that an area of 3,700 acres would be impacted. This apparent assumption is belied by evidence on the record, which the CTDEP did not address. The FEIS refers to a total impacted area of only 3,140 acres across the entire project, including New York and Connecticut waters. FEIS at 3-45 (finding total disturbance to be 3,140 acres, including subsea plowing with buoys, HDD exit hole and “dredge trench and associated spoil mounds”). The FEIS calculation of 3,140 acres is itself likely exaggerated, because it is based on Islander East’s proposal before Islander East agreed to ship approximately 24,000 cubic yards of dredged material away on barges. FN18 See Islander East Pipeline Co., Offshore Dredge Disposal Permit Amendment at 1 (July 29, 2003); see also TRC Report at 4 (discussing changes in proposed construction methodologies that would reduce impact area of HDD exit hole and narrow the dredging trench). To explain clearly how the pipeline would degrade a particular area, the CTDEP must first define the area in question. The CTDEP Denial fails to address this “important aspect of the problem.” State Farm, 463 U.S. at 43, 103 S.Ct. 2856.

FN18. Although the Secretary of Commerce’s decision on the CZMP appeal was rendered after the CTDEP issued its WQC Denial and therefore was not part of the record available to the CTDEP at the time of its WQC decision, it is informative to note that the Secretary of Commerce found that he “could not accept Connecticut’s claim of impacts to 3,700 acres” because “Connecticut did not provide support for this estimate.” See Commerce Report at 23-24 (adopting 1121.4 acres as actual impact area, citing, inter alia, the TRC Report at 5 and FEIS at 3-45).

Similarly, the Denial cites a threat to commercial interests that collect shellfish using “traditional harvest shellfishing techniques” in the affected area. CTDEP Denial at 5. CTDEP asserts in general terms that the pipeline is sited “within and adjacent to extensive shellfish grants, leased shellfish grounds and public shellfishing lands,” id. at 2, yet fails to point to even one specific lease that would be impacted.

Furthermore, the Denial’s repeated reference to “dredging, plowing, backfilling, equipment anchoring, and anchor cable sweeping,” see id. at 3-4, obscures the fact that these activities would occur in discrete areas, and that particular shellfish beds, to the extent they actually do reside near the construction zone, would be subject to different potential injuries of different magnitudes. FN19 Although it may be argued that the FEIS contains a description of shellfish beds and leases that lie in the pipeline’s path, see FEIS at 3-69, we may not supply a rationale for agency action where the agency has provided none, nor may we construct support for an agency’s conclusion when the agency has not pointed to evidence on the record favoring its decision. See State Farm, 463 U.S. at 50, 103 S.Ct. 2856 (“The reviewing court should not attempt itself to make up for such deficiencies; we may not supply a reasoned basis for the agency’s action that the agency itself has not given.”).

FN19. For example, the FEIS found that out of seven shellfish lease areas located near the pipeline path, four would not be affected because they lie above the area Islander East proposes to excavate using the HDD. See FEIS at 3-69. The CTDEP Denial does not mention this evidence, and it is impossible to tell from the Denial that these shellfish grounds would not be impacted by topographic disturbances alleged to result from dredging and plowing. See CTDEP Denial at 5 (referencing “topographic irregularities over the entire 3,700 acre Islander East corridor” that would disrupt existing shellfish communities and harvesting activities).

(ii) Impact of Backfill

As discussed above, the CTDEP failed to cite any record evidence supporting its conclusion that pipeline installation would permanently degrade the benthic substrate along the pipeline route. It similarly failed to point to any record evidence supporting its conclusion that the use of engineered bank-run gravel as trench backfill would permanently degrade the nearshore bottom, rendering it unsuitable for shellfish and other bottom-dwelling organisms.

To the contrary, the record reflects that Islander East's use of engineered backfill was proposed to serve a beneficial purpose and, indeed, would have benefitted shellfish habitats. Midway through Islander East's planning process, a representative from the National Marine Fisheries Service expressed concern that non-engineered (all-rock) trench backfill would cause damage to commercial shellfish operations. See Elizabeth Dolezal, Islander East Pipeline Co., LLC, Project Meeting Minutes: Multi Agency Construction Consultation, at 1-2 (Feb. 3, 2003) (Feb. Minutes). At a subsequent meeting, a representative from the Connecticut Bureau of Aquaculture suggested that Islander East use engineered backfill, which would be more "conducive to shellfish." Elizabeth Dolezal, Islander East Pipeline Co., LLC, Project Meeting Minutes: Multi Agency Construction Consultation, at 4 (March 4, 2003) (March Minutes) ("A general discussion*318 about the 1991 Iroquois installation resulted in agreement that installation methods have greatly improved and that [engineered] backfilling process and equipment being considered on Islander East have the potential to result in the restoration of shellfish habitat.").

Indeed, several studies in the record, commissioned by both proponents and opponents of the pipeline, support the conclusion that the use of engineered backfill could produce future habitats even more diverse than those currently existing. See TRC Report at 6 ("Engineered backfill has value as hard substrate for attachment of organisms and plants, which could promote habitat diversity.... This [new] substrate mosaic [created by the backfill] has the potential to increase habitat diversity, supporting greater species richness than a single substrate type."); see also id. at 7 ("[T]he use of engineered backfill may increase biological diversity, and has the potential to improve conditions for two valuable commercial species, oyster and lobster."); Garrett Report at 15 ("The use of engineered fill will create a varied benthic habitat, shelter/relief, and should enhance nearshore bottom conditions."). FN20 FN20. We also note that the Secretary of Commerce concurred with the studies' positive assessments of the impact of engineered backfill. See Commerce Report at 26 (stating that "Islander East's decision to use engineered backfill ... addresses ... concerns" that "sediment reconsolidation will be protracted," and noting that shellfish beds would recover within three to five years).

The CTDEP's failure to acknowledge this record evidence directly contradicting its conclusion is arbitrary and capricious. See *State Farm*, 463 U.S. at 43, 103 S.Ct. 2856 (holding that an agency's failure to "consider an important aspect of the problem," or to "offer[] an explanation for its decision that runs counter to the evidence before the agency" is arbitrary and capricious). One document in the record supports the CTDEP's conclusion that shellfish harvesting will be negatively affected by engineered backfill. See Feb. 4, 2004 Roberge Report at 3 (predicting that proposed engineered backfill would "significantly alter the existing benthic communities within the construction footprint," and surmising that the backfill "may completely change the fisheries within the trench band and could require commercial fishing operations to either abandon the area ... or employ revised ... methods"). The

CTDEP, however, did not cite this document in its Denial, nor did it support its conclusions with any scientific data from the record. As mentioned above, reviewing courts may not “attempt ... to make up for ... deficiencies” in agency decisions; “we may not supply a reasoned basis for the agency's action that the agency itself has not given.” *State Farm*, 463 U.S. at 43, 103 S.Ct. 2856. We must uphold agency decisions of “less than ideal clarity,” *id.*, however, where the record directly contradicts the unsupported reasoning of the agency and the agency fails to support its pronouncements with data or evidence, we may not defer. As the Supreme Court has held:

There are no findings and no analysis here to justify the choice made, no indication of the basis on which the [agency] exercised its expert discretion.... Expert discretion is the lifeblood of the administrative process, but unless we make the requirements for administrative action strict and demanding, expertise, the strength of modern government, can become a monster which rules with no practical limits on its discretion.

Id. at 48 (internal quotation marks omitted).

*319 (iii) Impact of Topographic Irregularities

The CTDEP justified its finding that Islander East would be able to achieve its benthic topography restoration goal solely by referencing its “experience” with the 1991 installation of the Iroquois Pipeline. Denial at 5. Again, the agency cited no data or studies to support this conclusion.

First, the Denial points to no record evidence demonstrating that the Iroquois project permanently degraded the benthic substrate of Long Island Sound waters. Even if the record contained evidence indicating that those waters have yet to recover, we again emphasize that it is not our province to mine the record for data supporting the agency's blanket conclusions.

Second, and more important, the CTDEP failed to acknowledge the extensive work Islander East did to modernize and improve its technology so as to avoid causing similar environmental harm to that wrought by the Iroquois Pipeline. Islander East proposed to: (1) use HDD technology to drill under the seabed so as not to disturb the sea floor, as opposed to Iroquois, which dredged the seafloor from the shore to the 15-foot water mark; (2) place dredge spoil on barges, and backfill trenches with engineered bank-run gravel designed to increase habitat diversity, whereas Iroquois sidecast dredged material back onto the sea floor and backfilled the trenches with some of the sidecast spoil; and (3) restore the sea bottom contours without dragging a 40-ton steel box over the sea floor, as Iroquois had done at the request of CTDEP, apparently with unfortunate results. See generally Islander East WQC Application. Additionally, as indicated by the record, it was acknowledged at two multi-agency meetings that “installation technology [has] significantly improved since the Iroquois line installation.” Feb. Minutes at 1; see also March Minutes at 4 (“A general discussion about the 1991 Iroquois installation resulted in agreement that installation methods have greatly improved”).

The Denial neglected even to mention these proposed installation improvements, much less point to evidence indicating that they would have been inadequate to avoid the topographic irregularities caused by the Iroquois installation. Although, as the dissent points out, see post at 328, it was Islander East's burden to demonstrate its entitlement to favorable action on its WQC application, it was the CTDEP's burden adequately to consider important aspects of the issue. See *State Farm*, 463 U.S. at 43, 103 S.Ct. 2856. By rejecting Islander East's topography predictions out of hand, with no discussion of its attempts to improve construction methods, the agency failed to “examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made.” *Id.* (internal quotation marks omitted).

The CTDEP's conclusion that the proposed pipeline would violate its antidegradation policy was unsupported and contradicted by evidence in the record, and therefore must be rejected as arbitrary and capricious.

3. Connecticut Coastal Management Act

As the third basis for its WQC Denial, the CTDEP concluded that the proposed pipeline violates the Connecticut Coastal Management Act (CCMA), Conn. Gen.Stat. § 22a-98, which requires that WQCs comport with the CCMA's goals and policies. See Denial at 5. Islander East argues that such consideration was inappropriate, because the CWA requires that WQC determinations be grounded only in state water quality standards, not *320 in extraneous state statutes. Counsel for the CTDEP concedes that the CCMA “was not an independent basis for denial,” and explains that the Denial's “passing mention” of the CCMA was “merely an observation that the project would have adverse impacts upon existing water-dependent resources,” relating directly to the Connecticut Water Quality Standards' antidegradation policy. Respondent's Br. at 38-39. The Denial's discussion of the CCMA certainly appeared to be more than a “passing mention,” as it was framed as one of three main reasons supporting the decision to deny Islander East's application. Nevertheless, the court will deem counsel's concession as a waiver of the CCMA as an independent basis for the Denial, and we need not decide whether it might properly have constituted an independent ground for decision. In light of our determinations that the CTDEP's other two justifications for its Denial were insufficient, we must therefore conclude that the Denial as a whole was arbitrary and capricious, and cannot support the agency's decision to deny Islander East's WQC application.

4. Miscellaneous Factors Supporting the Arbitrary and Capricious Determination

Two additional factors contribute to our conclusion that the Denial is arbitrary and capricious. First, the Denial's brevity is troubling. After a two-and-a-half page introduction, the Denial contains a mere two-and-a-half pages of analysis, supported by five record citations, none of which, for reasons already discussed, reasonably support the broad conclusions reached. As points of comparison, the two other governmental entities that have considered the Islander East project to date, FERC and the Secretary of Commerce, FN21 each issued voluminous reports on the potential environmental effects of the proposed pipeline. The FEIS (issued by FERC) spanned hundreds of pages and included citations to all

available evidence; its table of contents alone was almost as long as the CTDEP Denial. See FEIS at i-v. The Secretary of Commerce's determination was fifty pages long and included 283 record citations. We do not suggest that it would have been impossible for the CTDEP to issue a well reasoned and adequately supported WQC determination in a shorter report than those of FERC or the Secretary of Commerce. We note simply that the complexity of the matter under consideration did not lend itself easily to brief analysis. Thus, when the CTDEP's failures (a) to provide record support for its conclusions, and (b) to discuss evidence to the contrary are considered together with the surprising brevity of its Denial decision, the latter fact only reinforces our conclusion that the challenged decision is arbitrary and capricious.

FN21. The Secretary of Commerce's report was prepared in connection with Islander East's permit application under the Coastal Zone Management Act, but involved similar environmental analysis. Additionally, there is some evidence in the record suggesting that CTDEP knew it was not adequately prepared to support the Denial, and that its issuance had become more a matter of "strategy" in opposing the pipeline than of fact-finding. See CTDEP email from Sue Jacobson to Peter Francis and Ron Rozsa (May 15, 2003) ("[W]e met with folks from the AG's office this morning and they were aghast that we have not yet begun collecting the data."); CTDEP email from Jane Stahl to Peter Francis (May 28, 2003) ("No surprises in Islander East response and I don't think any change in our strategy."); CTDEP email from Sue Jacobson to Jonathan Goldman (Oct. 2, 2003) ("[O]ur biggest*321 hook will be the [pipeline's] potential to lower surface water quality"); CTDEP email from Peter Francis to Betsey Wingfield (Jan. 21, 2004) ("Sue and I did some work on the 401 letter this week but it still feels incomplete and a bit artificial/manufactured.").

Any effort by the CTDEP to pursue a "strategy" to justify a foreordained opposition to the pipeline would be incompatible with a reviewing agency's mandate to use its expertise to come to a reasoned decision supported by substantial evidence. In fulfilling its statutory prerogative to review Islander East's WQC application, CTDEP was entrusted with identifying the conditions for construction that would adequately safeguard the environment. To the extent some evidence indicates a greater concern with mounting a public relations campaign to preclude building the pipeline than with neutrally evaluating the record evidence, that evidence further supports the conclusion that the Denial was arbitrary and capricious.

CONCLUSION

For the foregoing reasons, we conclude that the CTDEP's Denial of Islander East's application for a WQC was arbitrary and capricious. We draw no conclusion as to whether the record evidence obligates the CTDEP to grant Islander East's application; we require only that the CTDEP conduct the sort of complete and reasoned review required by law. Accordingly, we Remand to the CTDEP to conduct the type of review contemplated by federal law, within seventy-five days of issuance of this opinion, or if the CTDEP is unwilling or unable to do so, to abdicate its authority to issue a WQC in this case.

KEARSE, Circuit Judge, dissenting.

With all due respect, I dissent from the majority's view that the February 5, 2004 decision ("Decision") of respondent State of Connecticut Department of Environmental Protection ("CTDEP"), denying the application of petitioner Islander East Pipeline Company ("Islander East") for a Water Quality Certificate ("WQC") under the Clean Water Act, 33 U.S.C. § 1251 et seq. ("CWA"), with respect to its proposed construction of a natural gas pipeline under Long Island Sound, was arbitrary and capricious. In my view, the Decision sufficiently indicates the basis for CTDEP's order and reveals a rational connection between the facts found and the denial. We are not entitled to second-guess that decision merely because there is evidence in the record from which different inferences might have been drawn.

A. Jurisdiction

Preliminarily, I note my assumption that, under § 19 of the Natural Gas Act, 15 U.S.C. § 717r, as amended by the Energy Policy Act of 2005, Pub.L. No. 109-58, § 313(b), 119 Stat. 594, 689-90 (2005) ("EPACT"), this Court would have jurisdiction based on *Ex parte Young*, 209 U.S. 123, 28 S.Ct. 441, 52 L.Ed. 714 (1908), to entertain Islander East's petition for review of the CTDEP Decision if we were to grant Islander East's pending motion to add CTDEP's Commissioner Gina McCarthy as a respondent. See, e.g., *Verizon Maryland Inc. v. Public Service Commission*, 535 U.S. 635, 645, 122 S.Ct. 1753, 152 L.Ed.2d 871 (2002) (a federal court may adjudicate a suit against a state official for prospective relief against an ongoing violation of federal law, even though the state itself, or its agency, would enjoy Eleventh Amendment immunity from the same suit). Islander East asks this Court to instruct CTDEP to "promptly issue a WQC to Islander East" (Islander East reply brief in support of petition at 23), which would permit Islander East to pursue its plan to *322 construct the proposed pipeline. Plainly, the relief sought by Islander East is prospective. I would grant Islander East's motion to add the Commissioner as a respondent, as I disagree with the majority's view that that motion is moot.

I do not endorse the majority's view that, in light of EPACT's conferral of jurisdiction on the federal courts of appeals to review orders such as denials of CWA certificates, Connecticut has waived its sovereign immunity with respect to its denial of Islander East's application for such a certificate. A state may of course waive its sovereign immunity; but for a waiver to be inferred from the state's conduct, that conduct must have been "knowing[], cognizant of the [waiver] consequences." *Pennhurst State School & Hospital v. Halderman*, 451 U.S. 1, 17, 101 S.Ct. 1531, 67 L.Ed.2d 694 (1981). CTDEP denied Islander East's application in February 2004; EPACT was not enacted until August 2005. I cannot view CTDEP's action in denying Islander East's petition as a knowing waiver of sovereign immunity on the basis of a law that did not become effective until 18 months later.

The majority finds that Connecticut has waived its sovereign immunity in the present matter by failing to discontinue its participation in Clean Water Act regulation of natural gas pipeline projects after EPACT was enacted. I do not agree. The fact that Connecticut, with awareness of the effect of EPACT since mid-2005, elects to continue to decide applications for CWA certificates may perhaps constitute a waiver with respect to its post-EPACT decisions; but its present actions do not establish knowledge or voluntariness with respect to its past actions.

Finally, I disagree with the majority's view that Connecticut lacks sovereign immunity on the theory that EPACT's effect is merely procedural, see Majority Opinion ante at 308-09. Although jurisdictional statutes generally "speak to the power of the court rather than to the rights or obligations of the parties," *Landgraf v. USI Film Products*, 511 U.S. 244, 274, 114 S.Ct. 1483 (1994) (internal quotation marks omitted), and although *Landgraf* does state that "[c]hanges in procedural rules may often be applied in suits arising before their enactment without raising concerns about retroactivity," *id.* at 275, 114 S.Ct. 1483, I cannot regard an enactment that strips a state of immunity from suit as a matter of mere procedure. Sovereign immunity from suit is a privilege, see, e.g., *College Savings Bank v. Florida Prepaid Postsecondary Education Expense Board*, 527 U.S. 666, 681-82, 119 S.Ct. 2219, 144 L.Ed.2d 605 (1999); the elimination of that privilege is surely a matter of substance.

Nonetheless, the fact that CTDEP, a state agency, is immune from suit does not mean that relief under EPACT, if merited, would be unavailable. If *Islander East's* motion to add the CTDEP Commissioner were granted, as discussed above there would be no sovereign-immunity bar to entertaining its petition, which seeks prospective relief; and "[w]hen the intervening statute authorizes or affects the propriety of prospective relief, application of the new provision is not retroactive," *Landgraf*, 511 U.S. at 273, 114 S.Ct. 1483.

Accordingly, I turn to the merits of *Islander East's* petition and the standard under which the petition is to be reviewed.

B. The Merits

1. Standard of Review

Although EPACT provides little guidance as to the contours of what it refers to as a "civil action for the review of an order," 15 U.S.C. § 717r(d)(1), or as to the "arbitrary-and-capricious" standard for review of such an order, I accept the proposition that, in this case, the proper standard is the arbitrary-and-capricious standard as set forth in the federal Administrative Procedure Act ("APA"), see 5 U.S.C. § 706. In conferring federal jurisdiction to review such decisions, EPACT groups orders of "a Federal agency" with orders of a "State administrative agency acting pursuant to Federal law," 15 U.S.C. § 717r(d)(1); and where, as here, a state agency has acted as a "[CWA-]deputized regulator[] under the authority of federal law," Majority Opinion ante at 305, I see no reason to apply to the state agency's orders a review standard different from the APA arbitrary-and-capricious standard applicable to actions of federal agencies.

The APA provides, in pertinent part, that a court reviewing an agency decision is to set aside a decision that is "found to be ... arbitrary[or] capricious," and that in making such a determination, "the court shall review the whole record or those parts of it cited by a party." 5 U.S.C. § 706 (emphasis added). Although the agency must provide some rational explanation for its decision, these APA provisions establish a standard of review that is deferential:

The scope of review under the “arbitrary and capricious” standard is narrow and a court is not to substitute its judgment for that of the agency. Nevertheless, the agency must examine the relevant data and articulate a satisfactory explanation for its action including a “rational connection between the facts found and the choice made.” *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168, 83 S.Ct. 239, 9 L.Ed.2d 207 (1962). In reviewing that explanation, we must “consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment.” *Bowman Transportation, Inc. v. Arkansas-Best Freight System, Inc.*, [419 U.S. 281, 285, 95 S.Ct. 438 (1974)]; *Citizens to Preserve Overton Park v. Volpe*, [401 U.S. 402, 10 416, 91 S.Ct. 814 (1971)]. Normally, an agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise. The reviewing court should not attempt itself to make up for such deficiencies; we may not supply a reasoned basis for the agency's action that the agency itself has not given. *SEC v. Chenery Corp.*, 332 U.S. 194, 196, 67 S.Ct. 1575, 91 L.Ed. 1995 (1947). We will, however, “uphold a decision of less than ideal clarity if the agency's path may reasonably be discerned.” *Bowman Transportation, Inc. v. Arkansas-Best Freight System, Inc.*, *supra*, at 286, 95 S.Ct. 438. See also *Camp v. Pitts*, 411 U.S. 138, 142-143, 93 S.Ct. 1241, 36 L.Ed.2d 106 (1973) (*per curiam*).

Motor Vehicle Manufacturers Ass'n of the United States, Inc. v. State Farm Mutual Automobile Insurance Co., 463 U.S. 29, 43, 103 S.Ct. 2856, 77 L.Ed.2d 443 (1983) (“ *State Farm* ”) (emphases added); see also *id.* at 42, 103 S.Ct. 2856 (“[U]nder this standard, a reviewing court may not set aside an agency rule that is rational, based on consideration of the relevant factors [,] and within the scope of the authority delegated to the agency by the statute.”).

“A court reviewing an agency's adjudicative action should accept the agency's factual findings if those findings are supported by substantial evidence in the record as a whole.” *324 *Arkansas v. Oklahoma*, 503 U.S. 91, 113, 112 S.Ct. 1046, 117 L.Ed.2d 239 (1992) (emphasis omitted); see also *State Farm*, 463 U.S. at 44, 103 S.Ct. 2856 (agency's factual findings are to be upheld if “supported by substantial evidence on the record considered as a whole ” (emphasis added) (internal quotation marks omitted)). Since an agency's findings are to be upheld if they are supported “by substantial evidence on the record as a whole,” *State Farm*, 463 U.S. at 44, 103 S.Ct. 2856 (emphasis added), the statement in *State Farm* that an order may be found arbitrary and capricious if it “runs counter to the evidence before the agency,” *id.* at 43, 103 S.Ct. 2856 (emphasis added), means that it may be so found if it runs counter to all of the substantial evidence. Thus, the Court has stated that this facet of the arbitrary-and-capricious determination is in essence a “dec[isi]on as to whether on th[e] record it would have been possible for a reasonable jury to reach the [agency's] conclusion,” *Allentown Mack Sales & Service, Inc. v. NLRB*, 522 U.S. 359, 366-67, 118 S.Ct. 818, 139 L.Ed.2d 797 (1998) (emphasis added). Where there is evidence in the record from which a reasonable jury could have reached the agency's decision, the “court is not to substitute its judgment for that of the agency,” *State Farm*, 463 U.S. at 43, 103 S.Ct. 2856.

The majority takes the position that “[i]t is not our province to mine the record for evidence that would support [an agency decision].” Majority Opinion ante at 315. That characterization of the scope of review confuses the reasons for a decision with the evidence to support that decision. We are not to supply the rationale for an agency decision; but where the agency has stated its rationale, or where its rationale “may reasonably be discerned,” *State Farm*, 463 U.S. at 43, 103 S.Ct. 2856, we are required to “review the whole record,” 5 U.S.C. § 706, and to uphold the agency decision if it is “supported by substantial evidence on the record considered as a whole,” *State Farm*, 463 U.S. at 44, 103 S.Ct. 2856 (internal quotation marks omitted).

Given these principles, I cannot conclude that CTDEP's denial of Islander East's application should be disturbed.

2. The Contents of the CTDEP Decision

Preliminarily, I note that the CTDEP Decision is not so sketchy as the majority suggests. Although the text of the Decision is six pages, the Decision annexes and refers to appendices covering some 300 pages. The appendices to the Decision include a United States Environmental Protection Agency-funded survey of water quality in Long Island Sound (see Decision Appendix B); a report on “Potential Sedimentation Impacts Which Could Result from Dredging,” authored by Roberge Associates Coastal Engineers, LLC, comprising a series of analyses, dated May 5, 2003, September 30, 2003, and February 4, 2004 (collectively the “Roberge Reports”), of the likely effects of the Islander East pipeline as initially proposed and as subsequently amended (see Decision Appendix E); a report by coastal resource analyst Peter H. Pellegrino entitled “Macrobenthic Community Structure along the Proposed Islander East Gas Pipeline Route in Long Island Sound” (“Pellegrino Report”) (see Decision Appendix F); and a 12-page July 29, 2003 letter from CTDEP to Islander East explaining CTDEP's objections to Islander East's initial proposal and requesting additional specified information (see Decision Appendix G). Materials that an agency cites and attaches to its decision must be taken into account in determining whether the decision is arbitrary and capricious. See 5 U.S.C. § 706.

*325 Given the text of the CTDEP Decision, which I attach as an appendix to this dissent, and the contents of the Appendices that were appended to the Decision, I think it clear that CTDEP denied Islander East's application on the basis that the proposed pipeline, which is not a water-dependent use, would be routed through prime shellfish habitat, would have a lengthy, significant, adverse impact of unknown duration on the shellfish industry, and would displace the obviously water-dependent activity of shellfishing. (See Decision at 2-6.)

The majority appears to suggest that the shellfish-injury rationale is a creation of this dissent rather than a rationale given by CTDEP, as the majority opinion (a) states that “[t]he dissent points to portions of the record indicating that installation would directly harm large areas of the substrate, disturb shellfish habitats, and cause significant shellfish mortality in certain locations,” and (b) continues by stating, “[h]owever, ‘we may not supply a reasoned basis for the agency's action that the agency itself has not given,’ ” Majority Opinion ante at 315 (quoting *State Farm*, 463 U.S. at 43, 103 S.Ct. 2856). In suggesting

that injury to shellfish and the shellfish industry was not a basis relied on by CTDEP (and in stating as well that CTDEP “fail[ed] to identify with any specificity the shellfish communities that would be impacted by the pipeline,” Majority Opinion ante at 316), the majority ignores even the text of the Decision. With respect to the issue of shellfish habitat alteration, the Decision stated in part as follows:

Islander East has proposed a regulated activity in coastal waters of the State in the nearshore waters of the Thimble Islands complex in the Town of Branford. Overall, chemical and bacteriological water quality conditions in this location are consistently excellent....

In concert with excellent water quality, the Thimble Islands region also exhibits an abundance of high quality habitat. These physical conditions combine to support a diverse and abundant assemblage of marine life.... The United States Fish and Wildlife Service, for example, has designated this particular area a “significant habitat complex in need of protection.” In addition to providing habitat for a variety of demersal and pelagic species, these diverse bottom habitats of the Thimble Islands region also support eastern oyster (*Crassostrea virginica*), hard clams (*Mercenaria mercenaria*), soft clams (*Mya arenaria*), blue mussels (*Mytilus edulis*), and channel whelk (*Busycon canaliculatum*).

These species, clams and oysters in particular, support significant commercial shellfish harvesting operations. The pipeline corridor, as proposed by Islander East, is sited within and adjacent to extensive shellfish grants, leased shellfish grounds and public shellfishing lands. The submerged land through which the pipeline route is proposed that is not currently leased is also productive shellfish habitat and is significant for potential future expansion of the shellfish industry, particularly in as much as the western reaches of Long Island Sound have been more affected in recent decades by lower dissolved oxygen levels and other environmental impacts that affect shellfish and benthic abundance. The shellfish industry is an economically-significant and long-established water-dependent use in Connecticut. In fact, Connecticut's nationally-recognized shellfish industry produces the highest quality oysters in the United States....

The shellfishing industry in the Thimble Islands region thrives because of the *326 excellent water quality and exceptional habitat conditions. ...

[T]he water is of sufficiently high quality to allow for direct consumption of shellfish from these beds without the requirement for relocation and depuration of the shellfish prior to human consumption....

[T]he waters off Branford support approximately 46% of shellfishing areas approved for direct harvest in eastern Connecticut....

....

.... Th[e] proposed installation would include dredging, plowing, backfilling, equipment anchoring, and anchor cable sweeping. These activities would result in negative impacts to both the water quality and substrate. Turbidity of the water column would be relatively short-term. When this material precipitates out of the water column, it will result in sediment deposition on the benthic substrate. At the request of

the Town of Branford's Blue Ribbon Committee, John Roberge, P.E., LLC, prepared an assessment of sedimentation impacts associated with pipeline installation as modified by Islander East to mitigate sediment dispersion. The following sediment deposition pattern was estimated in Mr. Roberge's study:

1 mm up to 100 meters from the trench centerline (approximately 70 acres); and

3 mm up to 40 meters from the trench centerline (approximately 35 acres).

The Department has determined that the negative impacts resulting from this depositional layer, in addition to direct substrate disturbance associated with dredging, plowing, backfilling, equipment inconsistent with the Water Quality Standards. Pipeline installation would not only temporarily disturb water quality, it would permanently change the substrate and negatively impact the existing aquatic biota that depend on such substrate. The Connecticut Water Quality Standards define biological integrity as the ability of any aquatic ecosystem to support and maintain a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitats of a region. The combined assaults of direct habitat disturbance and temporary water quality impacts resulting in sediment deposition negatively impact the overall biological integrity of the Thimbles [sic] Islands ecosystem and are therefore inconsistent with Standard No. 1 of the Connecticut Water Quality Standards.

Pipeline installation through the Thimble Islands ecosystem will dramatically alter natural habitats and adversely impact the existing community of organisms. As discussed in a study entitled "Macrobenthic Community Structure Along The Proposed Islander East Pipeline Route In Long Island Sound," by Pellegrino, there are dramatic differences in community structure associated with a disturbed versus a non-disturbed substrate. Once the original bottom has been disturbed, a soft sediment, referred to as the nephloide layer, covers the bottom and fills in any depressions left on the disturbed surface. Thus, the high-order or late successional stage species such as clams and oysters that lived in the original substrate can no longer exist. The community structure of the original substrate changes to that of early-stage opportunistic species such as polychaete worms. It is uncertain whether the associated diverse assemblage of bottom dwelling organisms currently present in this area could be reestablished. No studies*327 exist from which one may predict a known recovery time for both these benthic communities and the substrate, if, indeed, there is any significant recovery.

(Decision at 2-4 (footnotes omitted) (emphases added).) Thus, it is clear that CTDEP denied Islander East's application based principally on the finding, in short, that if its project were carried out, where now there is an abundance of oysters and clams, there could well be only worms. CTDEP also noted that the Connecticut antidegradation policy requires the maintenance and protection of water quality in high-quality-water areas and "mandates that existing uses must continue to be supported in all cases." (Decision at 4.) The Decision stated that the above findings showed that the Islander East pipeline would not be consistent with this policy:

As previously described, the pipeline is proposed to be sited within and adjacent to extensive shellfish grants, leased shellfish grounds and public shellfish lands. The discharge of backfill associated with pipeline installation would result in approximately 5.5 acres of nearshore bottom habitat being permanently degraded and rendered unsuitable for supporting the diverse assemblage of shellfish and other bottom dwelling organisms currently inhabiting this area.

(Id.) The Decision concluded that CTDEP had

determined that the regulated activity in the proposed location will permanently alter the existing high quality physical and biological integrity and productivity of this area to the extent that the existing uses for habitat for marine fish, other aquatic life and wildlife and shellfish harvesting for direct human consumption will be impaired. Essential shellfish habitat will be lost due to the temporary and permanent alteration of the benthic environment resulting from the proposed work. Finally, the siting of the non-water dependent pipeline through prime shellfish habitat would cause a significant and permanent adverse impact to a water-dependent use by displacing the water-dependent use of shellfishing with the non-water-dependent use of natural gas transmission.

(Id. at 6 (emphases added).)

The majority states that CTDEP failed to cite any studies or record evidence to support its findings. See, e.g., Majority Opinion ante at 312 (“The CTDEP cited no scientific studies or other evidence that directly supported the ... findings” that the “sediment deposition and direct benthic substrate disturbances resulting from installation would ‘permanently change the substrate and negatively impact the existing aquatic biota that depend on such substrate.’ ” (quoting Decision at 4)). The majority also states that CTDEP

failed to mention that at least four scientific studies in the record concluded that the substrate was capable of a return to its existing condition-findings directly opposite to its conclusion that pipeline installation would “permanently change the substrate” and “dramatically alter natural habitats.”

Majority Opinion ante at 313 (quoting Decision at 4). By these “opposite” opinions, the majority apparently refers to (1) an opinion by consulting marine biologist Dr. Roman Zajac (“Zajac opinion”); (2) a report by TRC Environmental Corp. entitled “Evaluation of Benthic Impacts Associated with Islander East's Modified Offshore Construction Techniques” (“TRC Report”), which quotes and relies on the Zajac opinion; (3) a report by the Garrett Group, Ltd., entitled “Preliminary Report on the Anticipated Biological Impacts Associated *328 with the Proposed Islander East Pipeline Project, Through the Nearshore Area of Long Island Sound-Branford, Connecticut” (“Garrett Group Report”); and (4) the Pellegrino Report. See Majority Opinion ante at 313-14.

But both the contention that CTDEP cited nothing to support its findings and the contention that CTDEP failed to consider the “opposite” opinions are contradicted by the record. First, CTDEP pointed out that coastal engineering consultant John Roberge had “prepared an assessment of sedimentation impacts

associated with pipeline installation as modified by Islander East to mitigate sediment dispersion” (Decision at 3), and it attached his series of reports to the Decision as Appendix E (see id. n. 10). The Roberge Reports predicted that “benthic species will likely be killed even in areas receiving a thin veneer of deposited sediments” (Roberge Report dated February 4, 2004, at 2; Roberge Report dated September 30, 2003, at 3) and that “[t]his seafloor burial has the potential to result in significant mortality within the benthic communities” (Roberge Report dated February 4, 2004, at 3; Roberge Report dated September 30, 2003, at 4). In making this prediction, the Roberge Reports stated, inter alia, that the Islander East pipeline would cover 69.8 acres with up to 1 mm of sediment and cover 34.9 acres with up to 3 mm of sediment, and noted that a study by the United States Army Corps of Engineers had found “that sediment deposits of up to 1 mm will cause up to 50% mortality, and deposits of up to 2 mm will cause 100% mortality to some benthic species.” (Roberge Report dated February 4, 2004, at 3 (emphasis added); Roberge Report dated September 30, 2003, at 4 (emphasis added)). This evidence supported CTDEP's finding that the Islander East pipeline would have an adverse and permanent effect on the makeup of the benthic community.

Second, the Roberge Reports expressly mentioned two of the studies on which the majority relies for the opposite conclusion:

As reported in the “Preliminary Report on the Anticipated Biological Impacts Associated with the Proposed Islander East Pipeline Project, through the Nearshore Area of Long Island Sound-Branford, CT”, prepared by The Garrett Group, LTD and dated May 8, 2003, near and far-field deposition of suspended solids may cause a measurable cover, or a thin veneer of fine particles cover over proximal hard bottom substrate. The Garrett report references benthic studies performed by the U.S. Army Corps of Engineers (LaSalle et al [sic] 1991) which note[], contrary to Dr. Zajac's opinion, that sediment deposits of up to 1 mm will cause up to 50% mortality, and deposits of up to 2 mm will cause 100% mortality to some benthic species.

(Decision Appendix E, Roberge Report dated February 4, 2004, at 2 (emphases added); Roberge Report dated September 30, 2003, at 4 (emphases added).) Although the majority opinion states that “any conclusions that Roberge ... made as to mortality caused by sedimentation apparently were drawn from the Garrett Report, which found that sedimentation would not cause permanent damage,” Majority Opinion ante at 314 (emphasis added), it is plain from the above language of the Roberge Reports themselves that the Roberge Reports explicitly rejected the views of the Garrett Group and Dr. Zajac in light of the contrary findings of the Army Corps of Engineers-in studies to which the Garrett Group Report itself had adverted. Further, given the reliance of the TRC Report on the opinion of Dr. Zajac, see Majority Opinion ante at 313 (quoting TRC Report's quotation of the *329 Zajac opinion), the Roberge Reports can properly be regarded as implicitly rejecting the views of the TRC Report as well. Although the majority suggests that CTDEP should have granted Islander East's application based on the reports such as that of the Garrett Group, it is the very antithesis of “deferential” review to conclude that an agency was required to credit a report that cites evidence contradicting the report's own conclusions.

The fourth report advanced by the majority as one of the “opposite” opinions supposedly ignored by CTDEP is the Pellegrino Report. The majority's suggestion that this report was ignored by CTDEP is peculiar, given that the report is annexed to the Decision as Appendix F. Further, the majority's reliance on the Pellegrino Report as a basis for the conclusion that the CTDEP Decision is arbitrary and capricious is puzzling. The conclusion of this report stated that “[t]he structure of benthic communities is usually controlled by infrequent severe events (disturbances) that disrupt the community and return the successional process to an earlier stage,” and that the “recovery process in soft-sediment communities is characterized by a succession of community types, usually beginning with the appearance of opportunistic species,” i.e., polychaete worms, and eventually “progressing to the establishment of high order ... successional assemblages,” such as bivalves and gastropods (Pellegrino Report at 6 (emphasis added)); but the Pellegrino Report contained no discussion whatsoever of the impact on such communities by a pipeline construction process—a process that surely is not the “usual []” type of “disturbance[].” Indeed, the stated purpose of the Pellegrino Report was simply to describe the results of a benthic survey along the proposed Islander East pipeline route, in order “to document existing benthic community structure and to provide a benthic baseline against which future changes may be detected.” (Id. at 2.)

In sum, I cannot agree with the majority's view that the CTDEP “fail [ed] to acknowledge the existence of the above studies,” Majority Opinion ante at 313 n. 13. I think it appropriate, in conducting a review that is to be deferential, to infer that CTDEP must have acknowledged the study it attached to its Decision and, in relying on the Roberge Reports, implicitly acknowledged the existence of studies that were explicitly mentioned and disputed in the Roberge Reports.

I note that the majority also relies on many statements in the Final Environmental Impact Statement (“FEIS”) on Islander East's proposed pipeline, issued by the United States Federal Energy Regulatory Commission (“FERC”), see, e.g., Majority Opinion ante at 312, 314-15. The FEIS, however, also included many findings not mentioned by the majority that are consistent with CTDEP's conclusion that the Islander East pipeline would adversely impact benthic communities. For example, the FEIS indicates that construction of the trench and installation of the pipeline would directly impact 3,140 acres of Sound bottom, including 298 acres disturbed by trenching, 23.8 acres by the creation of an “exit hole” needed for horizontal directional drilling, 2,807 acres disturbed by cable sweep, and 9.7 acres by anchor strikes. (See FEIS at 3-45.) Islander East expected to make more than 2,000 anchor strikes, each causing a 1376-cubic-foot hole in the Sound floor (see id. at 3-65); “lobsters ... in the direct area of anchor placement would suffer mortality” (id. at 3-72), and “ [t]he persistence of these depressions would represent a long-term conversion of benthic habitat ” (id. at 3-65 (emphasis added)); “[d]ue to the weight of the anchor and the depth of the [anchor] scar, the *330 impact on shellfish likely would be complete mortality within the footprint of the scar” (id. at 3-71 (emphasis added)). The record shows that CTDEP had considered the FEIS. (See Decision Appendix G at 9 (“Staff have reviewed FERC's Final Environmental Impact Statement (FEIS) FERC/EIS-0143F dated August 2002.”).)

The majority repeatedly faults the CTDEP Decision for “not point[ing] to evidence ” in support of its rationale that the shellfish industry would be negatively impacted, Majority Opinion ante at 317

(emphasis added); see also *id.* at 43 (Decision “fails to point to even one specific lease that would be impacted”), and states that “ ‘[t]he reviewing court should not attempt itself to make up for such deficiencies,’ ” *id.* at 44 (quoting *State Farm*, 463 U.S. at 43, 103 S.Ct. 2856). However, as can be seen from the more complete *State Farm* passage quoted above in Part B.1. of this dissent, the Supreme Court's reference to “such” deficiencies did not include a failure to “point to evidence,” Majority Opinion *ante* at ---; rather, that passage referred to an agency's reliance on factors unintended by Congress, or an “entire[]” failure “to consider an important aspect of the problem,” or proffering of explanations “so implausible that [they] could not be ascribed to a difference in view or the product of agency expertise,” *State Farm*, 463 U.S. at 43, 103 S.Ct. 2856.

Further, I disagree with the majority's view that the record evidence indicates with certainty “that direct pipeline installation and accompanying sediment deposition would not have a permanent effect on the benthic environment,” Majority Opinion *ante* at 312 (emphasis added). The majority cites the FEIS and the four “opposite” opinions that it contends CTDEP failed to consider. But not only does the record indicate, as discussed above, that these sources were considered by CTDEP; the record also reveals that the reports themselves do not match the majority's certainty. For example, the TRC Report states that the anticipated “degree of sediment deposition ... should have little impact on sea floor habitats and communities, and may approach background/natural levels of sediment resuspension and deposition in the area,” but only “if the predictions are correct.” (TRC Report at 5 (emphases added) (internal quotation marks omitted).) The FEIS states that “recovery of most of the disturbed benthic communities along the pipeline route could be expected to occur within 2 to 5 years” (FEIS at 3-66 (emphasis added)) but that “some portions of shellfish habitat may remain unproductive for many years due to trenching activities” (*id.* at 3-70 (emphasis added)). And while the Garrett Group Report states at one point that “the bottom will recover after several years” (Garrett Group Report at ES-2 (emphasis added)), this is said to be based on the Garrett Group's “professional experience ... that bottom recoveries typically require several years in the absence of additional activity” (*id.* at 5 (emphasis added)), and that report itself acknowledges that “[r] ecolonization of bottom disturbances can vary dramatically (*id.* at ES-1 (emphasis added))”.

It was hardly irrational, therefore, for CTDEP to conclude from these hedged opinions that “[n]o studies exist from which one may predict a known recovery time.” (Decision at 4 (emphasis added).) Not one of the reports relied on by the majority was unequivocal; and CTDEP's own experience with the Iroquois Pipeline project-completed more than a dozen years earlier-supported CTDEP's view that the adverse impacts of such a project were likely permanent. CTDEP stated that habitat lost in the Iroquois Pipeline installation in 1991 “ has not recovered to *331 date.” (Decision Appendix G at 6 (emphasis added).)

Although the majority states that the Iroquois Pipeline installation is not comparable because Islander East proposes to use horizontal directional drilling (“HDD”), rather than dredging, in order to mitigate topography problems, the record does not indicate that Islander East carried its burden of showing that that proposal would have a substantial mitigating effect. The total length of the proposed pipeline was to be 44.8 miles, of which 22.7 miles would be under the waters of Long Island Sound. While the majority opinion might give the impression that nearly half of the pipeline to be laid underwater would

be installed by means of HDD, see Majority Opinion ante at 302 (describing the proposed HDD as “initiat[ing] the pipeline installation at a point onshore in Connecticut, approximately 700 feet inland from the shoreline [and] continu[ing] until mile post (MP) 10.9”), in fact mile post 10.9 is only 3,500 feet offshore. The mile posts begin in North Haven, Connecticut, 10.1 miles from the point in Branford at which the pipeline was to enter the Sound. (See FEIS at 2-12.) Thus, Islander East planned to use HDD under water only for the nearshore 3,500 feet of the pipeline (see Decision at 3), i.e., less than two-thirds of one mile, and not for the remaining 22+ miles of underwater installation. For the 97% of the underwater section of the pipeline in the Thimble Islands region and beyond, Islander East proposed to dredge and plow, as was done for the Iroquois Pipeline. And the needed HDD exit hole—a 23.8-acre underwater pit that would be the dirtiest part of the pipeline installation, as it must be created by mechanical dredging and is the area into which the muds and lubricants used in the HDD process would be spewed (see FEIS at 3-49, 3-52 to 3-53)—would have been less than one-tenth of a mile from the Thimble Islands and their (currently) especially-clean waters (see Decision Appendix C).

Finally, the majority states that CTDEP “fails to support” its “claim that an area of 3,700 acres would be impacted” by the Islander East pipeline, Majority Opinion ante at 316, and states that “[t]he FEIS refers to a total impacted area of only 3,140 acres,” *id.* It does not appear to me that the CTDEP Decision was intended to mean that all 3,700 acres would be uniformly impacted. The Decision states that “topographic irregularities ” would occur “over the entire 3,700-acre Islander East corridor,” Decision at 5 (emphasis added), and it is plain that the pipeline construction process would not result in uniform conditions on the floor of the Sound. The FEIS, for example, discussed the fact that Islander East proposed to make 2,628 anchor strikes (see FEIS at 3-65); each of them would cause a 1376-cubic-foot hole in the Sound floor (see *id.* at 3-45, 3-65), holes that would “persist[]” and cause “a long-term conversion of benthic habitat” (*id.* at 3-65). In any event, even if “ only 3,140,” Majority Opinion ante at 316 (emphasis added), out of 3,700 acres would be impacted as the FEIS found, I would be hard-pressed to find that an absence of anticipated impact on 560 acres out of 3,700 (i.e., 15% of the project) made the denial of the requested permit arbitrary and capricious.

To summarize, the CTDEP Decision explained that the Islander East application was being denied because construction of the pipeline planned by Islander East—to be routed through the waters of the Thimble Islands, a thriving shellfishing area that the United States Fish and Wildlife Service has designated as a significant habitat complex in need of protection—would likely permanently change the benthic substrate, depositing layers of sediment*332 in which clams and oysters, which lived in the original substrate, could no longer survive; that this would have adverse effects on shellfish and the shellfish industry, given that although early-stage opportunistic species such as polychaete worms could be expected to return to the areas disturbed by pipeline construction, it is uncertain when the higher-order organisms currently present in these areas would return, if ever. CTDEP's denial and rationale are supported by evidence in the record as a whole, and other opinions were addressed in reports cited by CTDEP and attached to its Decision. Accordingly, I dissent from the majority's conclusion that CTDEP's Decision is arbitrary and capricious.

APPENDIX A

CTDEP DECISION of February 5, 2004, DENYING WATER QUALITY CERTIFICATE

[omitting only a paragraph that addressed the Connecticut Coastal Management Act, on which CTDEP places no reliance]

On March 14, 2003, the Islander East Pipeline Company, LLC ("Islander East") submitted a Water Quality Certificate (WQC) application for discharges to the waters of the State pursuant to Section 401(a)(1) of the Federal Clean Water Act (the "Act"), as amended. The proposed activity includes the upgrade of an existing natural gas transmission pipeline system in Cheshire and North Haven and installation of a new 24" diameter pipeline in East Haven, North Branford and Branford continuing across Long Island Sound to Brookhaven, New York.

Determination

The proposed work was evaluated for compliance with the applicable provisions of sections 301, 302, 303, 306 and 307 of the Act, the State of Connecticut's Water Quality Standards including the Connecticut Anti-Degradation Implementation Policy, and Water Quality Criteria adopted pursuant to Section 22a-426 of the Connecticut General Statutes and the goals and policies of Chapter 444 of the Connecticut General Statutes. Based on this review, the Department of Environmental Protection ("Department") has determined that the proposed work in the proposed location is inconsistent with the Water Quality Standards. The work, as proposed, would adversely affect water quality and prohibit the existing and designated uses of the receiving waters. Accordingly, the Department hereby denies Water Quality Certification of Application # 200300937 in accordance with Section 401(a)(1) of the Clean Water Act.

Connecticut Water Quality Standards

Section 303 of the Act requires that states adopt surface water quality standards. These state water quality standards are submitted to, and must be approved by, the Administrator of the U.S. Environmental Protection Agency ("EPA"). State water quality standards provide the basis for water quality management decision-making by the Department and are a critical component in the state's efforts to achieve the fundamental goal established in the Act of protecting and maintaining the physical, chemical, and biological integrity of the nation's waters. At a minimum, the standards must be sufficient also to meet the interim goals of the Act for achieving water quality conditions that allow for protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water.

As required by the Act, Connecticut's Water Quality Standards include:

- beneficial designated uses for each waterbody (e.g., aquatic life, swimming, drinking, navigation, etc.) that are assigned on the basis of the waterbody's classification;

*333 • narrative and/or numeric water quality criteria that must be met to support each designated use; and

- policy statements including an anti-degradation policy and implementation procedures designed to maintain and protect water quality in high quality waters, and protect and maintain existing uses in all cases.FN22

FN22. See Appendix A. State of Connecticut, Department of Environmental Protection, Water Quality Standards.

These elements do not stand alone, but must be read in such a fashion as to be internally consistent within the Water Quality Standards and consistent with the goals of the Act.

Coastal Water Classification and Designated Uses

Islander East has proposed a regulated activity in coastal waters of the State in the nearshore waters of the Thimble Islands complex in the Town of Branford. Overall, chemical and bacteriological water quality conditions in this location are consistently excellent. Long-term water quality monitoring initiated in 1991 by the Department as part of the Long Island Sound Study FN23 shows that only rarely are these waters subjected to the impacts of low dissolved oxygen conditions that generally develop each summer in areas farther to the west in Long Island Sound.FN24 The resulting water quality classifications for this region are SB/SA and SA.FN25 The SB/SA Classification signifies that the water quality management goal is to achieve full support of all Class SA designated uses. Class SA waters are designated for habitat for marine fish, other aquatic life and wildlife; shellfish harvesting for direct human consumption; recreation; industrial water supply; and navigation.FN26

FN23. Initiated in 1985, the Long Island Sound Study (LISS) is a partnership of federal, state, and local governments [sic] agencies, private organizations and citizens formed to develop and implement a comprehensive conservation and management plan for Long Island Sound. Funding support for the LISS is provided by the Environmental Protection Agency through the National Estuary Program and by the States of Connecticut and New York.

FN24. See Appendix B for summary of monitoring program and survey results.

FN25. See Appendix C for map of Water Quality Classification areas.

FN26. Please refer to Appendix A (Water Quality Standards, pages 15-17) for a more complete description of these classifications and designated uses.

In concert with excellent water quality, the Thimble Islands region also exhibits an abundance of high quality habitat. These physical conditions combine to support a diverse and abundant assemblage of marine life. The Thimble Islands typically emerge from relatively shallow waters, approximately 30' deep. In addition to this significant area of shallow water-land interface where biological diversity is rich and productive, this area hosts unique subtidal conditions including submerged rock reefs and a diversity of benthic habitats that range from soft mud to compacted sand and gravel all of which contribute to the biological integrity of the aquatic ecosystem. The United States Fish and Wildlife Service, for example, has designated this particular area a "significant habitat complex in need of protection." FN27 *334 In addition to providing habitat for a variety of demersal and pelagic species, these diverse bottom habitats of the Thimble Islands region also support eastern oyster (*Crassostrea*

virginica), hard clams (*Mercenaria mercenaria*), soft clams (*Mya arenaria*), blue mussels (*Mytilus edulis*), and channel whelk (*Busycon canaliculatum*).

FN27. Northeast Coastal Areas Study: Significant Coastal Habitats of Southern New England and Portions of Long Island, New York (August, 1991). The United States National Marine Fisheries Service has also designated Long Island Sound as an “Essential Fish Habitat (EFH).”

These species, clams and oysters in particular, support significant commercial shellfish harvesting operations. The pipeline corridor, as proposed by Islander East, is sited within and adjacent to extensive shellfish grants, leased shellfish grounds and public shellfishing lands. The submerged land through which the pipeline route is proposed that is not currently leased is also productive shellfish habitat and is significant for potential future expansion of the shellfish industry, particularly in as much as the western reaches of Long Island Sound have been more affected in recent decades by lower dissolved oxygen levels and other environmental impacts that affect shellfish and benthic abundance. The shellfish industry is an economically-significant and long-established water-dependent use in Connecticut. In fact, Connecticut's nationally-recognized shellfish industry produces the highest quality oysters in the United States. Despite a devastating blow to oyster production from MSX FN28 in 1997, the annual commercial landing statistics, provided by the National Oceanic and Atmospheric Administration-Fisheries, Connecticut continues to compete nationally and in 2001 was ranked first in hard clam production on the east coast and second for oyster market harvest.

FN28. MSX (multinucleated sphere unknown) is a single-cell parasite that invades the oyster's soft body, grows and divides within the tissue, and eventually overwhelms the normal metabolic processes in the shellfish resulting in death.

The shellfishing industry in the Thimble Islands region thrives because of the excellent water quality and exceptional habitat conditions. Of particular importance to maintaining the existing shellfishing use of this area is authorization by the State of Connecticut Department of Agriculture, Aquaculture Division (DA/AD) for harvest of shellfish for direct human consumption. The DA/AD “Approved” designation, which is the most stringent and, therefore, the most difficult to achieve, recognizes that the water is of sufficiently high quality to allow for direct consumption of shellfish from these beds without the requirement for relocation and depuration of the shellfish prior to human consumption (see map in Appendix D). Although many of Connecticut's marine waters are classified SA or SB/SA, the designated areas where suitable habitat exists and monitoring data documents the exceptionally good water quality necessary to receive an “Approved” designation by DA/AD are in fact limited. In general, the waters off Branford support approximately 46% of shellfishing areas approved for direct harvest in eastern Connecticut. FN29 A more detailed description of the specific parameters and required criteria relating to authorization for direct harvest of shellfish is referenced in the Water Quality Standards at page seventeen (Appendix A).

FN29. Statistics provided by Kelly Streich, DEP Water Bureau[.]

Water Quality Impacts and Habitat Alteration

The landward-most segment of pipeline, approximately 3500 feet, is proposed to be installed in-water from Juniper Point utilizing the horizontal directional drilling (HDD) method. At the HDD exit point a pit of approximate dimensions 18' deep x *335 130' wide x 310' long is proposed to be excavated. From this

exit pit, a trench approximately 5' deep x 37' wide x 5520' long is proposed to be dredged to approximately Milepost 12. (A trench width of 37' is based on a 3:1 angle of repose.) The exit pit and 5520' long trench are proposed to be backfilled with bank-run gravel. From Milepost 12 for nine miles to the Connecticut/New York state line, three passes of a sub-sea plow are proposed to: create a trench 5' deep x 25' wide at the top of slope; lay the pipe; and backfill previously sidecast sediment mounds. This proposed installation would include dredging, plowing, backfilling, equipment anchoring, and anchor cable sweeping.

These activities would result in negative impacts to both the water quality and substrate. Turbidity of the water column would be relatively short-term. When this material precipitates out of the water column, it will result in sediment deposition on the benthic substrate. At the request of the Town of Branford's Blue Ribbon Committee, FN30 John Roberge, P.E., LLC, prepared an assessment of sedimentation impacts associated with pipeline installation as modified by Islander East to mitigate sediment dispersion. FN31 The following sediment deposition pattern was estimated in Mr. Roberge's study:

FN30. A committee appointed by the Town of Branford First Selectman to review and comment on the Islander East application.

FN31. See Appendix E for report dated May 5, 2003 with September 30, 2003 and February 4, 2004 amendments.

1 mm up to 100 meters from the trench centerline (approximately 70 acres); and

3 mm up to 40 meters from the trench centerline (approximately 35 acres).

The Department has determined that the negative impacts resulting from this depositional layer, in addition to direct substrate disturbance associated with dredging, plowing, backfilling, equipment anchoring, and anchor cable sweeping, are inconsistent with the Water Quality Standards. Pipeline installation would not only temporarily disturb water quality, it would permanently change the substrate and negatively impact the existing aquatic biota that depend on such substrate. The Connecticut Water Quality Standards define biological integrity as the ability of any aquatic ecosystem to support and maintain a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitats of a region. The combined assaults of direct habitat disturbance and temporary water quality impacts resulting in sediment deposition negatively impact the overall biological integrity of the Thimbles [sic] Islands ecosystem and are therefore inconsistent with Standard No. 1 of the Connecticut Water Quality Standards. FN32

FN32. Surface Water Quality Standard No. 1-It is the State's goal to restore or maintain the chemical, physical, and biological integrity of surface waters. Where attainable, the level of water quality that provides for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water shall be achieved.

Pipeline installation through the Thimble Islands ecosystem will dramatically alter natural habitats and adversely impact the existing community of organisms. As discussed in a study entitled "Macrobenthic Community Structure Along The Proposed Islander East Pipeline Route In Long Island Sound," by

Pellegrino, FN33 there *336 are dramatic differences in community structure associated with a disturbed versus a non-disturbed substrate. Once the original bottom has been disturbed, a soft sediment, referred to as the nephloide layer, covers the bottom and fills in any depressions left on the disturbed surface. Thus, the high-order or late successional stage species such as clams and oysters that lived in the original substrate can no longer exist. The community structure of the original substrate changes to that of early-stage opportunistic species such as polychaete worms. It is uncertain whether the associated diverse assemblage of bottom dwelling organisms currently present in this area could be reestablished. No studies exist from which one may predict a known recovery time for both these benthic communities and the substrate, if, indeed, there is any significant recovery.

FN33. Appendix F, Final Report, January 2002, section 4.0.

Antidegradation Policy

Connecticut's Water Quality Standards include an Anti-degradation policy FN34 as required by the Act (see Code of Federal Regulations, Title 40 Part 131.12). In brief, the policy requires that where water quality is better than the criteria established in the Water Quality Standards, such existing high quality must be maintained except under exceptional and very limited circumstances. In addition to addressing issues of quality, the policy mandates that existing uses must continue to be supported in all cases. Consistency with Connecticut's Anti-degradation Policy and the procedures established in the Water Quality Standards to implement the policy is required for all activities regulated by the Department and can serve as the primary basis for Section 401 certification decisions.

FN34. See Appendix A, Water Quality Standards. The Connecticut Anti-degradation Implementation Policy is found in Appendix E of Water Quality Standards.

As previously described, the pipeline is proposed to be sited within and adjacent to extensive shellfish grants, leased shellfish grounds and public shellfish lands. The discharge of backfill associated with pipeline installation would result in approximately 5.5 acres of nearshore bottom habitat being permanently degraded and rendered unsuitable for supporting the diverse assemblage of shellfish and other bottom dwelling organisms currently inhabiting this area. Because the bank-run gravel would also interfere with harvesting techniques, the area of impact to shellfish harvesting would extend well beyond the 5.5 acres of direct disturbance. While the gravel-filled trench would be 37' wide, the area that the commercial shellfish harvesting equipment would need to avoid would be much wider because of the required turning radius of the vessels with gear in tow.

Additionally, the resulting topographic irregularities over the entire 3,700-acre Islander East corridor caused by sedimentation, backfill with gravel, plow utilization, anchor strikes, and cable sweeps will adversely affect the population of resident benthic organisms and shellfish as well as the efficiency and safety of the existing shellfish harvesting operations and handling of shellfish harvesting equipment. The application materials indicate that it is the goal of the applicant to achieve a finished substrate equivalent to the adjacent benthic surface with a proposed acceptable tolerance of +2' to -1'. Based on the experience of the Department with the installation of the Iroquois pipeline in 1991, the Department does not agree that such a minimal impact restoration of the work site contours can, in practice, be achieved. While such a range in tolerance level might be less significant in an area of *337 lower

environmental value, where shellfish resources were scarce due to lack of suitable habitat, or where traditional harvest shellfishing techniques were not employed, that is not the case in respect to the area through which the pipeline route has been proposed by Islander East.

.....

Summary

The Department therefore finds that Islander East's proposed work is inconsistent with Connecticut's federally-approved Water Quality Standards. Due to the sensitive nature of the receiving waters and the ecological system dependent upon such water, the Department has determined that the regulated activity in the proposed location will permanently alter the existing high quality physical and biological integrity and productivity of this area to the extent that the existing uses for habitat for marine fish, other aquatic life and wildlife and shellfish harvesting for direct human consumption will be impaired. Essential shellfish habitat will be lost due to the temporary and permanent alteration of the benthic environment resulting from the proposed work. Finally, the siting of the non-water dependent pipeline through prime shellfish habitat would cause a significant and permanent adverse impact to a water-dependent use by displacing the water-dependent use of shellfishing with the non-water-dependent use of natural gas transmission.

467 F.3d 295, 163 Oil & Gas Rep. 159, 36 Env'tl. L. Rep. 20,207