

Supreme Judicial Court of Massachusetts.
ENTERGY NUCLEAR GENERATION COM-
PANY
v.
DEPARTMENT OF ENVIRONMENTAL PRO-
TECTION.

No. SJC-10732.
February 7, 2011.
April 11, 2011.

COWIN, J.

This case requires us to consider the scope of the regulatory powers conferred on the Department of Environmental Protection (department) by the Clean Waters Act, G.L. c. 21, §§ 26–53 (State Act). Pursuant to the State Act, the department promulgated regulations (CWIS regulations) implementing its authority to regulate components of industrial facilities that withdraw water from surface waterbodies. See part 1, *infra*. Those components are known as cooling water intake structures (CWISs). The plaintiff, Entergy Nuclear Generation Company (Entergy), obtained a judgment from the Superior Court declaring that the CWIS regulations are *ultra vires*. Because we conclude that the State Act confers on the department authority to protect the water resources of the Commonwealth, and that that authority is broad enough to encompass the regulation of CWISs, we reverse.^{FN2}

1. *Background and prior proceedings.* In 2006, the department promulgated amendments to the surface water quality standards, 314 Code Mass. Regs. §§ 4.00 (2006).^{FN3} Included in the 2006 amendments were the CWIS regulations, which declare that the department had the authority to regulate CWISs in order to ensure that their operation will not lead to a violation of water quality standards. See 314 Code Mass. Regs. § 4.05(3)(b)(2)(d), 4.05(3)(c)(2)(d), 4.05(4)(a)(2)(d), 4.05(4)(b)(2)(d), 4.05(4)(c)(2)(d) (2006).^{FN4} Prior to the 2006 amendments, the water quality standards did not refer explicitly to CWISs.

A CWIS is a structure employed at an industrial facility to cool heat-generating equipment. It takes in large quantities of water through screened intake channels from a nearby water source.^{FN5} In a typical

“once-through” cooling system, the water is taken in through a CWIS, cycled through the facility and then discharged, at a higher temperature, through a separate system of outflow pipes. The heated water that emerges from the outflow pipes is treated as a pollutant and its discharge is regulated under both State and Federal law. See 33 U.S.C. § 1362(6) (2006) (defining “heat” as pollutant); G.L. c. 21, § 26A (defining “heated effluent” as pollutant). The CWIS itself does not discharge anything; its only function is water intake.

In 1999, Entergy purchased Pilgrim Nuclear Power Station (Pilgrim) in Plymouth. Pilgrim has a CWIS that draws water from Cape Cod Bay; the facility's separate outflow pipes return heated water to the bay. Cape Cod Bay is a Class SA body of water, designated as an “excellent habitat for fish [and] other aquatic life.” 314 Code Mass. Regs. § 4.05(4)(a) (2006). Because Pilgrim's outflow pipes discharge both heated water and other pollutants into the bay, since 1975 the facility has held a discharge permit (joint permit) issued jointly by the United States Environmental Protection Agency (EPA) and the department pursuant to Federal and State law as described in part 2, *infra*.^{FN6} Although the Pilgrim permit has been renewed and modified several times,^{FN7} it has not been altered since the promulgation of the CWIS regulations, and Entergy has not indicated an intent to make any changes to the facility that would implicate the permitting process.

The issue in this case is not discharges but rather the unique set of environmental harms caused by the intake of water at a CWIS. As the judge in the Superior Court noted, the underwater suction created by a CWIS can cause injury or death to fish, shellfish, and other aquatic organisms.^{FN8} Larger organisms may become trapped against the screens covering the intake pipes (“impingement”) while smaller organisms may be pulled into the cooling system itself (“entrainment”). As a result, CWISs pose a threat to aquatic species and ecosystems. See *Riverkeeper, Inc. v. United States Env'tl. Protection Agency*, 358 F.3d 174, 181, 182 n. 5 (2d Cir.2004). See also *Entergy Corp. v. Riverkeeper, Inc.*, — U.S. —, —, 129 S.Ct. 1498, 1502, 173 L.Ed.2d 369 (2009); 66 Fed.Reg. 65,256, 65,262–65,265 (2001) (describing

environmental effects of CWISs).

The amendments to the water quality standards, including the CWIS regulations, were promulgated in their final form in December, 2006. One month later, Entergy filed suit in the Superior Court pursuant to G.L. c. 30A, § 7, and the declaratory judgment act, G.L. c. 231A.^{FN9} Entergy sought a judgment declaring that the CWIS regulations exceeded the department's authority under the State Act and were invalid. After a hearing on cross-motions for summary judgment, the judge granted Entergy's motion and entered a judgment declaring that the CWIS regulations, as applied to the CWIS at Pilgrim, were ultra vires and beyond the department's authority to adopt. The department sought review in the Appeals Court, and we transferred the case here on our own motion.

2. *Statutory and regulatory scheme.* Massachusetts waters are protected from environmental degradation by a coordinated system of Federal and State control. The Federal Clean Water Act, 33 U.S.C. §§ 1251 et seq. (2006) (Federal Act), seeks to prevent water pollution^{FN10} primarily by requiring facilities that discharge pollutants into surface waters of the United States to obtain Federal permits that limit the amount of pollutants that may be discharged.^{FN11} In addition to controlling discharges, Federal permits must address the unique ecological impacts of water intake at CWISs by ensuring that “the location, design, construction, and capacity of [CWISs] reflect the best technology available for minimizing adverse environmental impact.” *Id.* at § 1326(b).

The Federal Act also preserves a significant State role in the Federal permitting process. Subject to EPA review, States establish their own water quality standards. *Id.* at § 1313. In addition, States retain the right to impose pollution control limits that are more stringent than the “floor” set by Federal law. *Id.* at §§ 1311(b)(1)(C), 1370. Before a Federal permit may issue, the relevant State first must certify that the permittee's activities will not violate the State's water quality standards. *Id.* at § 1341. This “State certification” process ensures that holders of Federal permits respect and uphold State standards.

The State Act, G.L. c. 21, §§ 26–53, confers on the department “the duty and responsibility ... to enhance the quality and value of water resources and to establish a program for prevention, control, and

abatement of water pollution.” G.L. c. 21, § 27. Like the Federal Act, the State Act creates a comprehensive permitting program to ensure water quality standards are met. *Id.* at §§ 27(6), 43–44.^{FN12} No one may “discharge pollutants ... [or] engage in any other activity that may reasonably be expected to result, directly or indirectly, in discharge of pollutants into waters of the [C]ommonwealth ... without a currently valid permit” issued by the department. *Id.* at § 43(2). Permits may include not only discharge limitations but also any “additional requirements ... necessary to safeguard the quality of the receiving waters.” *Id.* at § 43(7). Violation of the terms of a permit is punishable by civil and criminal penalties. *Id.* at § 42.

In addition to establishing the permit program, the State Act directs that the department shall establish water quality standards. See *id.* at § 27(5). The standards promulgated by the department pursuant to this authority include the CWIS regulations at issue here. See 314 Code Mass. Regs. §§ 4.00 (2006). The State Act also confers on the department the authority to adopt “rules and regulations which it deems necessary for the proper administration of the laws relative to water pollution control and to the protection of the quality and value of water resources.” G.L. c. 21, § 27(12). Unlike the Federal Act, the State Act at no point refers explicitly to CWISs or to water intake.

3. *Discussion.* a. *Availability of declaratory relief.* “Unless an exclusive mode of review is provided by law, judicial review of agency regulations is to be gained through a petition for declaratory relief.” *Borden, Inc. v. Commissioner of Pub. Health*, 388 Mass. 707, 720, 448 N.E.2d 367 (1983). We first consider whether Entergy's objections to the CWIS regulations present an “actual controversy” as required by the declaratory judgment act.^{FN13} The department contends that no actual controversy exists because the instant dispute is not “properly framed by specific factual circumstances.” The department argues that the CWIS regulations merely announce the department's authority to regulate CWISs. Although the department has indicated that it intends to use that authority in the future, the department maintains that Entergy faces no immediate impact from the promulgation of the CWIS regulations. The parties are not contemplating any modifications to Pilgrim's CWIS or permit that would trigger new oversight by the department. As a result, says the department, the concrete facts necessary for an actual controversy be-

tween the department and Entergy are not present.

An actual controversy exists where there is “a ‘real dispute’ caused by the assertion by one party of a duty, right, or other legal relation in which he has a ‘definite interest,’ in circumstances indicating that failure to resolve the conflict will almost inevitably lead to litigation.” *District Attorney for the Suffolk Dist. v. Watson*, 381 Mass. 648, 659, 411 N.E.2d 1274 (1980), quoting *Bunker Hill Distrib., Inc. v. District Attorney for Suffolk Dist.*, 376 Mass. 142, 144, 379 N.E.2d 1095 (1978). “Questions of statutory interpretation, by themselves, do not rise to the level of actual controversy.” *Woods Hole Martha’s Vineyard & Nantucket S.S. Auth. v. Martha’s Vineyard Comm’n*, 380 Mass. 785, 792, 405 N.E.2d 961 (1980). A plaintiff must establish an “identifiable” interest in the agency’s interpretation. *Id.* at 792–793, 405 N.E.2d 961. Accordingly, an actual controversy exists when a plaintiff asserts that an agency has exceeded its statutory authority in a manner that has caused, or will cause, injury to the plaintiff. See *Williams v. Secretary of the Exec. Office of Human Servs.*, 414 Mass. 551, 567 n. 10, 609 N.E.2d 447 (1993) (declaratory relief “is an appropriate route by which to challenge an administrative agency’s non-compliance with its statutory mandate”); *Holden v. Division of Water Pollution Control*, 6 Mass.App.Ct. 423, 428, 376 N.E.2d 1259 (1978) (“A justiciable controversy exists where ... the matter at issue involves a dispute over an official interpretation of a statute”).

This case presents an actual controversy. The department, based on its interpretation of its authority under the State Act, has promulgated regulations asserting the right to regulate CWISs. Entergy denies that the department has statutory authority to create regulations pertaining to CWISs. Such a matter of agency power is “the kind of controversy that is especially susceptible of resolution by a declaratory decree.” *Ciszewski v. Industrial Acc. Bd.*, 367 Mass. 135, 139, 325 N.E.2d 270 (1975), quoting *Boston Ins. Co. v. Fawcett*, 357 Mass. 535, 537, 258 N.E.2d 771 (1970). Each party has an identifiable interest in determining whether the department’s authority extends to CWISs. See *Woods Hole Martha’s Vineyard & Nantucket S.S. Auth. v. Martha’s Vineyard Comm’n*, *supra*. Moreover, because future permitting at Pilgrim will be subject to the CWIS regulations if they are upheld, it appears clear that litigation on this

question is inevitable.

The department’s argument that further factual development is required misconstrues the nature of the dispute in this case. The substance of the CWIS regulations is a declaration that the department has authority to regulate water intakes at CWISs. Entergy disputes that the department has any such power. That question requires no factual development. The question before us is not the *extent* of the department’s power to regulate CWISs, a matter that would require a “concrete fact situation” for proper judicial determination. See *Hadley v. Amherst*, 372 Mass. 46, 52, 360 N.E.2d 623 (1977).

In addition, the department’s claim that Entergy is not affected, currently or imminently, by the CWIS regulations runs counter to the department’s own assertion that those regulations merely codify existing practice. As discussed in part 3.b, *infra*, the department claims that, through a provision in Pilgrim’s joint permit, it has always regulated Pilgrim’s CWIS. If that claim is true, Entergy has been subject to the department’s CWIS oversight—however unwittingly—since Entergy purchased Pilgrim in 1999. Accordingly, by the department’s own characterization of its past oversight, Entergy faces not the prospect of future regulation, but the continuation of existing regulation. If Pilgrim’s current permit already encompasses the oversight to which Entergy objects, Entergy does not need to wait for a permit modification to challenge that oversight.

Although the department has not contested Entergy’s standing, a plaintiff seeking declaratory relief must demonstrate not only the existence of an actual controversy, but also “the requisite legal standing to secure its resolution.” See *Massachusetts Ass’n of Indep. Ins. Agents & Brokers, Inc. v. Commissioner of Ins.*, 373 Mass. 290, 292, 367 N.E.2d 796 (1977). Standing exists where a party alleges a legally cognizable injury within the area of concern of the statute at issue. *Id.* at 293, 367 N.E.2d 796. As the owner of a CWIS and a party regulated by the State Act, Entergy’s interest clearly falls within the State Act’s “area of concern.” The primary question is whether the CWIS regulations create a legally cognizable injury to Entergy or the threat thereof.

A regulated party has standing to challenge the promulgation of a regulation that affects the party’s

primary conduct even if that regulation has not been enforced against that party. See *American Family Life Assurance Co. v. Commissioner of Ins.*, 388 Mass. 468, 476–477 & n. 5, 446 N.E.2d 1061 (1983) (reviewing facial challenge to validity of regulation brought by regulated party against whom regulation had not yet been enforced). The CWIS regulations, however, are atypical; not only do they have no self-executing effect, they purport not to regulate at all. The literal terms of the regulations go no further than declaring that the department has the *authority* to regulate CWISs. If that anomaly prevents CWIS owners from asserting a cognizable injury, however, the CWIS regulations will be reviewable only when they are employed as the basis for imposing new permit conditions on a facility.^{FN14} At that point, facilities such as Entergy must either comply with a permit requirement they believe to be unlawfully imposed, potentially to their financial detriment, or violate the permit conditions and face civil or criminal penalties pursuant to G.L. c. 21, § 42. Our laws on standing are not intended to produce such a Hobson's choice. See A. Cella, *Administrative Law & Practice* § 1856, at 426 (1986).

Parties clearly targeted by a regulation should not be precluded entirely from challenging its legality. Here, the department not only announced its intention to use the stated authority in the future, but also claims to have been using that authority for decades. In light of these considerations, the CWIS regulations are sufficiently linked to regulatory oversight of Pilgrim's CWIS for Entergy to establish a legally cognizable injury from their promulgation.

The declaratory judgment act is a broad remedial statute that is intended to “remove, and afford relief from, uncertainty and insecurity with regard to rights [and] duties” and that must be “liberally construed and administered.” G.L. c. 231A, § 9. While we recognize some merit in the department's contention that a mere assertion of authority to regulate does not constitute proper grounds for declaratory relief, that approach would not resolve the underlying question of the department's power over CWISs. It would do nothing to “enable the parties to deal intelligently with the situation before them, to agree between themselves as far as possible, and to reduce as much as possible the area of future litigation.” See *Southbridge v. Southbridge Water Supply Co.*, 371 Mass. 209, 214–215, 355 N.E.2d 920 (1976), quoting

Cohasset Water Co. v. Cohasset, 321 Mass. 137, 149, 72 N.E.2d 3 (1947). Accordingly, even were we to agree with the department on the prematurity of Entergy's suit, we would still exercise our discretion to consider the substantive issues raised therein. See *Southbridge v. Southbridge Water Supply Co.*, *supra* (holding declaratory relief appropriate in action by town to determine meaning of “actual cost” in statute allowing town to purchase water supply company even though town had not yet voted to authorize purchase).

b. *Validity of the CWIS regulations.* Turning to the merits, we consider whether the State Act confers on the department sufficient authority to regulate CWISs. Entergy's primary contention is that the State Act permits the department to regulate only “water pollution” in the traditional sense, i.e., the *discharge* of harmful substances into a body of water.^{FN15} Because the *intake* of water at a CWIS is not a discharge activity, Entergy maintains that the department lacks authority to regulate CWISs. We conclude that the language of the State Act does not support, nor did the Legislature intend, such a narrow view of the department's authority.

A party challenging an agency regulation must demonstrate that the regulation is invalid or illegal. Because we accord substantial deference to validly promulgated regulations, that burden is substantial. We will “apply all rational presumptions in favor of the validity of the administrative action and not declare it void unless its provisions cannot by any reasonable construction be interpreted in harmony with the legislative mandate.” *Salisbury Nursing & Rehabilitation Ctr., Inc. v. Division of Admin. Law Appeals*, 448 Mass. 365, 371–372, 861 N.E.2d 429 (2007), quoting *Massachusetts Fed'n of Teachers, AFT, AFL–CIO v. Board of Educ.*, 436 Mass. 763, 771, 767 N.E.2d 549 (2002). Determining the validity of the CWIS regulations requires consideration of what authority is conferred on the department in the State Act.

A statute must be interpreted in such a way as to effectuate the legislative intent underlying its enactment. See *Water Dep't of Fairhaven v. Department of Env'tl. Protection*, 455 Mass. 740, 744, 920 N.E.2d 33 (2010). In cases where the statutory text is not clear, we look to “the cause of its enactment, the mischief or imperfection to be remedied and the main object to

be accomplished, to the end that the purpose of its framers may be effectuated.” *Id.*, quoting *DiFiore v. American Airlines, Inc.*, 454 Mass. 486, 490, 910 N.E.2d 889 (2009). We will not create provisions the Legislature did not see fit to include, see *General Elec. Co. v. Department of Env'tl. Protection*, 429 Mass. 798, 803, 711 N.E.2d 589 (1999), nor will we interpret the statute so as to render any part of it superfluous or ineffective, see *Wolfe v. Gormally*, 440 Mass. 699, 704, 802 N.E.2d 64 (2004).

The purpose of the State Act is unambiguous: it creates “a comprehensive program for protection of the surface and groundwaters of the Commonwealth.” *Friends & Fishers of the Edgartown Great Pond, Inc. v. Department of Env'tl. Protection*, 446 Mass. 830, 837, 848 N.E.2d 393 (2006). As a means to effectuate that purpose, the State Act delegates to the department the primary responsibility to “enhance the quality and value of water resources” and authorizes the department to achieve that goal by adopting “rules and regulations which it deems necessary for the proper administration of the laws relative to ... the protection of the quality and value of water resources.” G.L. c. 21, § 27. “The statutory purpose of the Act, expressed through its text, makes it clear that the department has the discretion to create regulations that will best preserve and also restore the quality of our waters.” *Friends & Fishers of the Edgartown Great Pond, Inc. v. Department of Env'tl. Protection*, *supra* at 838.

It is true that the State Act emphasizes, as the primary mechanism for achieving water quality, the management of “water pollution” in the traditional sense (i.e., the discharge of harmful substances into water). It is also true that significant portions of the statute are devoted to the establishment of a system of permits for discharges as the department's primary enforcement mechanism. See G.L. c. 21, §§ 42–44. Because traditional water pollution (discharge) historically has been the foremost water quality concern,^{FN16} the State Act's focus is reasonable. Nevertheless, the permitting regime for discharges does not foreclose the department from developing compatible methods of regulating water intakes at CWISs. See *Water Dep't of Fairhaven v. Department of Env'tl. Protection*, *supra* at 751, quoting *Grocery Mfrs. of Am., Inc. v. Department of Pub. Health*, 379 Mass. 70, 76, 393 N.E.2d 881 (1979) (“Specific statutory authority to act in a particular respect does not bar

consistent action under general statutory authority”). See also *Cambridge Elec. Light Co. v. Department of Pub. Utils.*, 363 Mass. 474, 496, 295 N.E.2d 876 (1973) (specific statutory directives that “exemplify the legislative purpose” will not “conflict with or exclude the present regulations seeking to achieve similar ends”).

The emphasis on traditional threats to water resources cannot be read to deprive the department of authority to address atypical or novel threats that may also harm those resources.^{FN17} The department's authority to create a discharge and pollution reduction program does not limit its authority to deal with water quality issues other than discharges and traditional pollution under its broad statutory powers. Restricting the department's authority to water pollution control, as Entergy suggests, would render superfluous the department's parallel duty to protect “the quality and value of water resources.”

The department's broad authority to protect water quality properly may extend to regulation of CWISs. Where, as here, the scope of agency authority is at issue, we must determine whether the agency is acting within “the powers and duties expressly conferred upon it by statute and such as are reasonably necessary to carry out its mission.” *Morey v. Martha's Vineyard Comm'n*, 409 Mass. 813, 818, 569 N.E.2d 826 (1991). See *Commonwealth v. Donohue*, 452 Mass. 256, 270, 892 N.E.2d 718 (2008) (Cowan, J., dissenting). “[A] regulation ... need not necessarily find support in a particular section of [the enabling statute]; it is enough if it carries out the scheme or design of the chapter and is thus consistent with it.” *Cambridge Elec. Light Co. v. Department of Pub. Utils.*, *supra* at 494, 295 N.E.2d 876. Accordingly, the absence of references to CWISs or water withdrawals in the State Act is not material. The State Act need not mention CWISs explicitly in order to encompass them within the department's broad regulatory mandate. Rather than enumerate in the State Act every deleterious activity it intended the department to address, the Legislature appropriately chose “to put into the hands of an expert administrative agency the decision making regarding complex issues of environmental ... science.” *Friends & Fishers of the Edgartown Great Pond, Inc. v. Department of Env'tl. Protection*, *supra*, quoting *Brookline v. Commissioner of the Dep't of Env'tl. Quality Eng'g*, 398 Mass. 404, 411, 497 N.E.2d 9 (1986).

“We will not substitute our judgment as to the need for a regulation, or the propriety of the means chosen to implement the statutory goals, for that of the agency, so long as the regulation is rationally related to those goals.” *American Family Life Assurance Co. v. Commissioner of Ins.*, 388 Mass. 468, 477, 446 N.E.2d 1061 (1983). Here, the department has concluded that regulation of CWISs may be necessary to perform its duties under the State Act. Nothing in the record would suggest that that determination is unreasonable. As the sources referenced by the department indicate, the ecological harms associated with CWISs are well understood. The intake of water by a CWIS at “a single power plant can kill or injure billions of aquatic organisms in a single year.” *Riverkeeper, Inc. v. United States Env'tl. Protection Agency*, 475 F.3d 83, 90 (2d Cir.2007), rev'd in part on other grounds, *Entergy Corp. v. Riverkeeper, Inc.*, — U.S. —, 129 S.Ct. 1498, 173 L.Ed.2d 369 (2009). See *Riverkeeper, Inc. v. United States Env'tl. Protection Agency*, 358 F.3d 174, 181 (2d Cir.2004) (“The environmental impact of these systems is staggering [,] ... destabilizing wildlife populations in the surrounding ecosystem”). In areas with a designated use as aquatic habitat (such as Cape Cod Bay where Pilgrim's CWIS operates), therefore, CWISs hinder the attainment of water quality standards. Accordingly, authority to regulate CWISs reasonably may be implied as necessary to protect water quality in the Commonwealth, and the CWIS regulations at issue here, which implement that authority, are not ultra vires.^{FN18, FN19}

It appears that the department intends to exercise the authority stated in the CWIS regulations, at least in part, via the Federal permitting process.^{FN20} There is nothing improper about that approach. As noted above, the “State certification” process created by the Federal Act requires States to confirm that the activities at a facility holding a Federal discharge permit will not violate the State's water quality standards. See 33 U.S.C. § 1341 (2006). The certification arrangement allows States to require the imposition of additional conditions in Federal permits as needed to ensure that the permit applicant's activities comply with water quality standards. *Id.* at § 1341(d). State-imposed conditions in Federal permits need not be discharge-related; the Federal Act authorizes “limitations on the activity *as a whole* once the threshold condition, the existence of a discharge, is satisfied”

(emphasis added). *PUD No. 1 of Jefferson County v. Washington Dep't of Ecology*, 511 U.S. 700, 711–712, 114 S.Ct. 1900, 128 L.Ed.2d 716 (1994) (upholding State requirement that permit applicant maintain minimum flow levels in source waterway because “[t]he text refers to the compliance of the applicant, not the discharge”). The only limitation is that the State must have the authority under State law to regulate the activities upon which it seeks to place conditions. See *id.* at 710 (minimum flow requirement authorized by State law). The department's authority under the State Act to regulate water intakes at CWISs permits the department to impose CWIS conditions through the State certification process.

Entergy argues that the few statements in the State Act regarding generalized protection of water quality cannot “bear the weight” the department places upon them. Citing *Whitman v. American Trucking Ass'ns, Inc.*, 531 U.S. 457, 468, 121 S.Ct. 903, 149 L.Ed.2d 1 (2001) (legislatures do not “hide elephants in mouseholes”), and *Food & Drug Admin. v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 160, 120 S.Ct. 1291, 146 L.Ed.2d 121 (2000) (Legislature would not “delegate a decision of such ... significance ... in so cryptic a fashion”), Entergy claims that those provisions alone cannot suffice to convey regulatory authority over an entirely new category of activities—namely, water withdrawals.

Contrary to Entergy's framing of the issue, the department has not claimed, and we do not decide, that the relevant provisions of the State Act confer a freewheeling authority to regulate any type of water withdrawal. The department claims only the limited authority to regulate CWISs. Nothing in the record suggests that authority is the “elephant” that Entergy suggests. It is a relatively minor adjunct to a comprehensive scheme established by the Legislature to protect water resources.^{FN21} Moreover, recognizing that authority does not expand vastly the power of the department. Almost all facilities with CWISs, by their very nature, discharge heated effluent through their separate outflow pipes into waters of the Commonwealth. As pollutant dischargers, these facilities are already subject to permitting and regulation by the department. Interpreting the State Act to allow regulation of CWISs does not, therefore, expand the class of regulated parties under the State Act. It expands only the range of activities at those facilities that the department may regulate.

To the extent that Entergy's argument can be seen as a “slippery slope” contention, it is unjustified. The authority to regulate CWISs does not open the door to unlimited regulatory authority over all water withdrawals. The department's authority to regulate is bounded by two critical requirements in this respect: the regulated activity must have a reasonably direct impact on the quality of the Commonwealth's waters, and the regulation must be reasonably necessary to protect the quality of those waters. Nothing in the record would lead us to believe that all non-CWIS water withdrawals will meet those criteria for regulation under the State Act.^{FN22}

Entergy contends further that regulation of CWISs by the department is not necessary. First, Entergy notes that CWISs already are regulated by EPA, see 33 U.S.C. § 1326(b) (2006), and that further State regulation is not necessary. Absent Federal preemption, however, the question of what regulation is necessary is a matter for the Legislature's discretion. Entergy does not suggest, nor could it, that State regulation is preempted by Federal law. In fact, State regulation is an integral component of the Federal Act. See 33 U.S.C. §§ 1251(b), 1370 (2006).

Alternatively, Entergy notes that numerous other State statutes—in particular the Water Management Act, G.L. c. 21G—allow the department to regulate water withdrawal. See G.L. c. 130 (regulating marine fisheries); G.L. c. 131 (regulating inland fisheries); G.L. c. 131, § 40 (Wetlands Protection Act); G.L. c. 131A (Endangered Species Act). Entergy suggests that these statutes indicate that harm due to CWIS withdrawals has been addressed adequately outside the context of the State Act. However, Entergy maintains the inconsistent view that none of these other statutes authorizes the department to promulgate the CWIS regulations. While it may be true that these statutes address water withdrawals, Entergy fails to put forward a cogent argument that they eliminate the need for CWIS regulation under the State Act.^{FN23}

Entergy's argument on this point could be construed as a contention that the lack of necessity is an indication that the Legislature did not intend the department to have authority over CWISs. Even if Entergy had demonstrated a lack of necessity, which it has not, that fact would not be dispositive of legislative intent. The Legislature did not need to intend or

approve each particular approach employed by the department in addressing the complicated matter of water quality protection; the purpose of conferring broad power on an expert agency is to permit discretion in determining the best approaches to a complex issue. See *Friends & Fishers of the Edgartown Great Pond, Inc. v. Department of Env'tl. Protection*, 446 Mass. 830, 838, 848 N.E.2d 393 (2006). Had the Legislature wished to constrain the department's choice of methodology, it would not have included the sweeping authority found in G.L. c. 21, § 27.

Finally, Entergy argues that we should not afford deference to the department's interpretation of the State Act. Entergy contends that the department's declaration of authority in the CWIS regulations marks a sharp break with past statements, and that such an “abrupt volte-face” is not entitled to deference. In support of its factual claim, Entergy cites internal communications between the department and EPA prior to the 2006 amendments that, Entergy argues, indicate the department did not believe it could regulate “non-discharge activities.” In response, the department asserts that those statements were taken out of context. Moreover, the department argues, it has never disclaimed authority to regulate CWISs, and that in fact the department has previously regulated the CWIS at Pilgrim through the joint permit. In particular, the department points to a provision in the permit since it was first issued in 1975 requiring that any modifications to the CWIS meet with the approval of both EPA and the department.

A review of the record indicates that, with respect to the disputed communications with EPA, the department has the better of the argument. The statements cited by Entergy appear to refer primarily to concerns about regulating water quantity (i.e., minimum stream flow levels) and “non-point” sources (i.e., runoff rather than “end-of-pipe” outflows) rather than CWIS. Even were the statements clear, the Pilgrim permit offers competing evidence that the department has, for over three decades, publicly expressed oversight authority regarding Pilgrim's CWIS.^{FN24} The combination of these considerations is insufficient to determine unambiguously that the department's assertion of authority is a new development, and there is no reason not to accord reasonable deference to the department's interpretation.

4. *Conclusion.* The order allowing the plaintiff's

motion for summary judgment, and the declaration entered in the plaintiff's favor, are vacated. The order denying the defendant's motion for summary judgment is reversed. A new judgment shall enter declaring that the regulations codified at 314 Code Mass. Regs. §§ 4.05(3)(b)(2)(d), 4.05(3)(c)(2)(d), 4.05(4)(a)(2)(d), 4.05(4)(b)(2)(d), and 4.05(4)(c)(2)(d) (2006) are a valid exercise of the authority vested in the Department of Environmental Protection by the Clean Waters Act, G.L. c. 21, §§ 26–53.

So ordered.

FN1. Justice Cowin participated in the deliberation on this case and authored this opinion prior to her retirement.

FN2. We acknowledge the amicus brief of the New England Legal Foundation in support of the plaintiff.

FN3. The water quality standards established by the Department of Environmental Protection (department) create “designated uses” for different classes of surface waters in the Commonwealth (e.g., fish habitat, recreation) and enumerate the criteria necessary to protect both existing and designated uses. See 314 Code Mass. Regs. § 4.05 (2006). See also 33 U.S.C. § 1313(c)(2)(A) (2006).

FN4. The cooling water intake structure regulations (CWIS regulations) state:

“[I]n the case of a cooling water intake structure (CWIS) regulated by [the United States Environmental Protection Agency (EPA)] under [33 U.S.C. § 1326], the [d]epartment has the authority under [33 U.S.C. § 1341], [G.L.] c. 21, §§ 26 through 53 and 314 [Code Mass. Regs. §§] 3.00 to condition the CWIS to assure compliance of the withdrawal activity with 314 [Code Mass. Regs. §§] 4.00, including, but not limited to, compliance with narrative and numerical criteria and protection of existing and designated uses.”

See 314 Code Mass. Regs. § 4.05(3)(b)(2)(d), 4.05(3)(c)(2)(d), 4.05(4)(a)(2)(d), 4.05(4)(b)(2)(d), 4.05(4)(c)(2)(d) (2006). The five regulations are identical; each concerns a different class of surface waters in the Commonwealth.

FN5. Federal regulations define a CWIS as “the total physical structure and any associated constructed waterways used to withdraw cooling water.” The CWIS “extends from the point at which water is withdrawn from the surface water source up to, and including, the intake pumps.” It does not include the outflow pipes or any other equipment located beyond the intake pumps. See 40 C.F.R. § 125.93 (2010).

FN6. The permit was issued originally to Boston Edison Company. When Entergy Nuclear Generation Company (Entergy) purchased Pilgrim Nuclear Power Station (Pilgrim) in 1999, the permit was transferred to Entergy.

FN7. Pilgrim's permit most recently was renewed in 1991 and modified in 1994. Although the permit expired in 1996, it continues in force until a new permit is issued.

FN8. The parties did not stipulate to any facts regarding the harm caused by CWISs. Although Entergy disputed a proposed statement of fact regarding CWIS impacts, it did so on the ground that the statement was not material to the legal issues before the Superior Court judge. However, Entergy did not object when, at a hearing on the parties' cross-motions for summary judgment, the judge gave a description of the environmental harms caused by CWISs.

FN9. Pursuant to G.L. c. 30A, § 7, “judicial review of any regulation ... may be had through an action for declaratory relief in the manner and to the extent provided” by G.L. c. 231A.

FN10. The Federal Clean Water Act, 33 U.S.C. §§ 1251 et seq. (2006) (Federal Act),

defines water pollution as “man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.” 33 U.S.C. § 1362(19) (2006).

FN11. Most States have been delegated authority by EPA to administer, through a State agency, the Federal permit program. See 33 U.S.C. § 1342(b)-(c) (2006). Because Massachusetts, as one of four “non-delegated” States, has not sought or obtained that authority, EPA administers the Federal program in the Commonwealth.

FN12. Because facilities in Massachusetts are subject to both Federal and State permitting requirements, pursuant to a 1973 agreement, EPA and the department issue to many types of facilities joint permits, signed by both agencies, that “shall constitute [Federal] permits issued under the [Federal] Act, and shall also constitute permits issued under Massachusetts law.” In cases of disagreement regarding permit terms, the agencies retain the authority to issue separate permits.

FN13. General Laws c. 231A, § 1, states in pertinent part that “the superior court ... may on appropriate proceedings make binding declarations of right, duty, status and other legal relations sought thereby, either before or after a breach or violation thereof has occurred in any case in which an actual controversy has arisen.”

FN14. The CWIS regulations are not self-executing but rather put the regulated community on notice that the department has authority to impose limits on CWISs. The department could impose such limits either by promulgating self-executing, enforceable regulations or by adding conditions to discharge permits. The department apparently intends to adopt the latter approach. See note 20, *infra*.

FN15. We do not address whether Entergy's treatment of “water pollution” as synonymous with “discharge” is correct. The Federal Act, for example, adopts a definition of

“water pollution” that is broad enough to encompass intakes as well as discharges. See note 10, *supra*. See also *PUD No. 1 of Jefferson County v. Washington Dep't of Ecology*, 511 U.S. 700, 719–720, 114 S.Ct. 1900, 128 L.Ed.2d 716 (1994) (discussing broad Federal definition of water pollution). In this case, however, defining that term is unnecessary. As discussed *infra*, the Clean Waters Act, G.L. c. 21, §§ 26–53 (State Act), confers on the department a mandate that is broader than the prevention of “water pollution” and broader than the regulation of “discharge.”

FN16. See note 21, *infra*. See also Adler, *The Two Lost Books in the Water Quality Trilogy: The Elusive Objectives of Physical and Biological Integrity*, 33 *Env'tl. L.* 29, 66–67 (2003).

FN17. It is reasonable to assume that the Legislature did not have CWISs specifically in mind when it enacted the State Act in 1966. The ecological impacts of CWISs did not attract the attention of Congress or the public until the late 1960s. See Rbago, *What Comes Out Must Go In: Cooling Water Intakes and the Clean Water Act*, 16 *Harv. Env'tl. L.Rev.* 429, 445–446 (1992). It would be “contrary to the general legislative purpose,” however, to “freeze” the State Act within the scientific understanding of water quality problems that existed in 1966. *Hayon v. Coca Cola Bottling Co. of New England*, 375 Mass. 644, 649, 378 N.E.2d 442 (1978). The Legislature wisely adopted language in the State Act that permits the department to adapt its regulations to evolving knowledge of the problem. See *Commonwealth v. Welosky*, 276 Mass. 398, 403, 177 N.E. 656 (1931) (“Statutes framed in general terms ... may include conditions as they arise from time to time not even known at the time of enactment, provided they are fairly within the sweep and the meaning of the words and falling within their obvious scope and purpose”). See also *Diamond v. Chakrabarty*, 447 U.S. 303, 314–316, 100 S.Ct. 2204, 65 L.Ed.2d 144 (1980).

FN18. We need not reach the other grounds for CWIS regulation put forth by the department.

FN19. Our decision today establishes only that the department may regulate CWISs, to some degree, when it is reasonably necessary to protect water resources. Entergy's assertion in this case is that the department has no authority whatsoever with regard to CWISs. Having rejected that contention, we lack a "concrete factual situation" in which to explore the scope of the authority that does exist. See part 3.a, *supra*. Accordingly, we express "at this time an opinion only as to the apparent or surface validity of the regulations, for they have not yet been put to practical use." *Cambridge Elec. Light Co. v. Department of Pub. Utils.*, 363 Mass. 474, 493, 295 N.E.2d 876 (1973).

FN20. The record reflects that Mirant Kendall Station, a power plant in Cambridge, sought a Federal discharge permit in 2006. EPA requested that the department issue a "State certification" for the permit as required by 33 U.S.C. § 1341 (2006). The department found that the facility's CWIS would need to be subject to additional requirements in order to comply with the relevant water quality standards and conditioned issuance of the Federal permit (which was issued as a joint State and Federal permit, see note 12, *supra*) on the inclusion within the permit of the department's requirements.

FN21. A useful indicator of the minor role that CWIS regulation plays in an over-all scheme of water quality regulation is the Federal Act, which accords a miniscule amount of attention to CWISs. The single provision of the Federal Act addressing CWISs, 33 U.S.C. § 1326(b) (2006), is "somewhat unusual": it is the only point in a sweeping statute, devoted overwhelmingly to discharge permitting, in which regulation of intakes is discussed. See *Riverkeeper, Inc. v. United States Env'tl. Protection Agency*, 475 F.3d 83, 124 (2d Cir.2007), *rev'd in part on other grounds, Entergy Corp. v. Riverkeeper, Inc.*, — U.S. —, 129 S.Ct.

1498, 173 L.Ed.2d 369 (2009). Moreover, the legislative history of the Federal Act demonstrates that provision to be "something of an afterthought," inserted without substantive comment and almost entirely unmentioned in the legislative history of the statute. See *Riverkeeper, Inc. v. United States Env'tl. Protection Agency*, 358 F.3d 174, 186 n. 12 (2d Cir.2004).

FN22. Entergy notes, as discussed *infra*, that several other statutes regulate non-CWIS water withdrawals in the Commonwealth. The oversight authority afforded by these other statutes decreases the likelihood that it will be "reasonably necessary" for the department to regulate non-CWIS withdrawals under the State Act.

FN23. The Water Management Act, for example, permits the department to regulate withdrawals, but its focus is water quantity and water conservation. Its inadequacy as a mechanism to regulate CWIS withdrawals is illustrated by the fact that all "nonconsumptive" withdrawals are considered exempt from regulation pursuant to that statute. See G.L. c. 21G, § 4.

FN24. Entergy argues that only Pilgrim's Federal permit, not its State permit, regulates Pilgrim's CWIS. As the joint permit is a single document that serves as both a Federal and State permit, we find this claim unpersuasive. See note 12, *supra*.