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A CRANBERRY RECIPE FOR CITIZEN RULEMAKING

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Abstract: Under the Massachusetts Clean Water Act, a loophole exists that allows fertilizer-laden waters to escape “wet crop” farms and to flow into nearby waterways, causing detrimental effects. Blackmore Pond, located near Cape Cod, Massachusetts, has seen such effects, and its residents are eager for change. Considering that past lawsuits have failed to close the wet crop loophole, the residents of Blackmore Pond may petition the Massachusetts Department of Environmental Protection to amend the Massachusetts Clean Water Act regulations. The Massachusetts Department of Environmental Protection may accept the proposed amendments, in which case the residents of Blackmore Pond will have achieved success in closing the wet crop loophole, or reject the amendments, in which case the residents will be able to challenge this decision through judicial review. Citizen petitions for rulemaking are a seldom-used, powerful means for ordinary citizens to effect change.

INTRODUCTION

At the gateway to Cape Cod, Massachusetts, lies Blackmore Pond, a forty-six acre “great pond” surrounded by approximately sixty homes.¹ This charming settlement resembles postcard New England: a million-gallon lake flanked by wooded lots, summer getaways, and year-round residences.² Completing the scene are over one-hundred acres of cran-

* Articles Editor, BOSTON COLLEGE ENVIRONMENTAL AFFAIRS LAW REVIEW, 2009–2010.

¹ See MASS. DEP’T OF ENVTL. PROT., GREAT PONDS OF MASSACHUSETTS ACCORDING TO STUDY BY DEP/WATERWAYS REGULATION PROGRAM 14 (OCT. 17, 2007), available at <http://www.mass.gov/dep/water/resources/greatpon.pdf> (defining Blackmore Pond as a “great pond”); see also Coalition for Buzzards Bay et al., Blackmore Pond Water Quality Improvement Discussion 2 (Feb. 12, 2001) (on file with author); Comments from Barry C. Cosgrove, Board of Directors, Blackmore Pond Homeowners Ass’n, to Brian Howes & Betsy White, Sch. for Marine Sci. and Tech., Univ. of Mass. [hereinafter Comments] (on file with author) (correcting some of the information regarding Blackmore Pond).

² APPLIED ENVTL. DESIGN & RESEARCH, INC., BLACKMORE POND SANITARY SURVEY AND PRELIMINARY ECOLOGICAL ASSESSMENT 2 (2000) (on file with author) [hereinafter ECOLOGICAL ASSESSMENT]; Comments, *supra* note 1, at 1; E-mail from Barry Cosgrove, Board of Directors, Blackmore Pond Homeowners Association, to Tobias F. Bannon, III, Law Student, Boston College Law School (Apr. 16, 2009, 09:46:16 EDT) (on file with author).

berry bogs that make things even more picturesque.³ But for some unknown reason, in the year 2000, Blackmore Pond seemed different.⁴ Formerly clear waters took on an uncharacteristically blackish-brown hue, causing citizens to worry.⁵ Homeowners who had previously wondered about the water-gulping habits of the nearby cranberry farms now suspected that the farms' activities contributed to Blackmore Pond's mysterious condition.⁶

To investigate the chemistry responsible for the new "muck," a nearby homeowners association commissioned an ecological study of the lake.⁷ The study revealed that the "ink-blobs" and "black globs" floating around in the lake were a result of eutrophication, a process in which algae grows very rapidly due to high levels of nutrients, particularly phosphorus.⁸ The ecological study also pointed out that agricultural water such as that from the nearby cranberry bogs—which borrow water from Blackmore Pond for "flooding" purposes—can have "a significant potential impact on phosphorus levels of receiving waters."⁹

One might expect that a law exists to prohibit potentially damaging waters from flowing out of a cranberry bog or other farm operation. For instance, one might assume that the Federal Water Pollution Control Act Amendments of 1972, commonly known as the Clean Water Act (CWA), prohibit farmers from adding pollutants to waterways like Blackmore Pond.¹⁰ But, as counter-intuitive as it might seem to the residents of Blackmore Pond, discharges and runoff from cranberry bogs and similar agricultural facilities generally are not regulated under the CWA.¹¹ Corresponding state regulations have proven equally ineffective at prohibiting the discharge of polluted agricultural runoff because they have similar loopholes.¹²

This Note explores why the CWA and similar state regulations frequently leave water supplies vulnerable, why past attempts at addressing these issues have failed, and proposes a possible avenue for citizens to

³ ECOLOGICAL ASSESSMENT, *supra* note 2, at 2.

⁴ Jennifer Lade, *Cranberry Growers, Homeowners Clash over Pond*, STANDARD TIMES (New Bedford, Mass.), Nov. 9, 2008, at B1, available at <http://www.southcoasttoday.com/apps/pbcs.dll/article?AID=/20081109/NEWS/811090311>.

⁵ *Id.*

⁶ *Id.*

⁷ See generally ECOLOGICAL ASSESSMENT, *supra* note 2 (providing the commissioned study's conclusions).

⁸ *Id.* at 11–12.

⁹ *Id.* at 14.

¹⁰ See Clean Water Act, 33 U.S.C. §§ 1251–1387 (2006).

¹¹ See *id.* § 1342(l)(1).

¹² See, e.g., 314 MASS. CODE REGS. 3.05(5)–(6), 5.05(9) (2009).

initiate appropriate amendments to current regulations. Part I of this Note diagrams the architecture and operation of cranberry bogs and explains why their discharges are frequently exempted from regulation.¹³ Part II of this Note explores judicial interpretations of this loophole as well as various methods used to fight the polluting behavior.¹⁴ Part III of this Note explains how citizen petitions for rulemaking provide a vehicle to address regulatory issues.¹⁵ Part IV applies the petition process to the situation at Blackmore Pond.¹⁶ This Note concludes that citizen-initiated petitions for rulemaking open the door to amendment as well as judicial review, both of which could close the loophole that allows pollution from cranberry bogs and other agricultural facilities to continue unabated.¹⁷

I. THE LOOPHOLE, AND WHY CRANBERRY BOGS FIT THROUGH IT

A. *Finding the Loop*

The Massachusetts Division of Water Pollution Control (DWPC) has authority over the discharge of ground water and surface water in Massachusetts.¹⁸ This authority covers both point and nonpoint sources of discharge.¹⁹ The DWPC and the Massachusetts Clean Waters Act (MCWA) define a point source as “any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, [or] discrete fissure . . . from which pollutants are or may be discharged.”²⁰ Many such features and characteristics are common in typical cranberry bogs.²¹

Cranberries grow naturally in wetland environments, and in order to imitate those conditions, farmers use a combination of techniques.²²

¹³ See *infra* Part I.

¹⁴ See *infra* Part II.

¹⁵ See *infra* Part III.

¹⁶ See *infra* Part IV.

¹⁷ See *infra* Part V.

¹⁸ MASS. GEN. LAWS ch. 21, §§ 26, 43 (2008); 314 MASS. CODE REGS. 3.01, 5.01 (2009).

¹⁹ See ch. 21, § 27A; 314 MASS. CODE REGS. 3.01-.02, 5.01-.02.

²⁰ 314 MASS. CODE REGS. 3.02, 5.02.

²¹ CAROLYN DEMORANVILLE & HILARY SANDLER, UNIV. OF MASS. CRANBERRY EXPERIMENT STATION, BEST MANAGEMENT PRACTICES GUIDE FOR MASSACHUSETTS CRANBERRY PRODUCTION: WATER RESOURCE PROTECTION AND ENHANCEMENT I (2000), http://www.umass.edu/cranberry/downloads/bmp/water_resource_protection.pdf [hereinafter WATER RESOURCE].

²² See CAROLYN DEMORANVILLE & HILARY SANDLER, UNIV. OF MASS. CRANBERRY EXPERIMENT STATION, BEST MANAGEMENT PRACTICES GUIDE FOR MASSACHUSETTS CRANBERRY PRODUCTION: MINERAL SOIL BOG CONSTRUCTION I (2000), <http://www.umass.edu/>

Farmers use water- and organic-confining layers to form the base of the bed, and they spread six to eight inches of sand on top of those layers.²³ Once they have properly formed the beds, farmers plant cranberry vines, which take several years to reach commercial-grade fruit-bearing capacity.²⁴ Once the vines mature, each harvest of cranberry fruit takes about sixteen months and can benefit from several man-made floods.²⁵ Depending on the season and growth of the fruit, this flooding is done for different reasons.²⁶ Floods can be used to protect against fall and spring frost; to limit exposure to cold, blustery weather in the winter; as a natural pesticide; and perhaps most importantly, floods are frequently used for harvesting ripe cranberries.²⁷ The wet-harvest technique uses floodwater drawn from nearby sources to increase the number of harvestable berries.²⁸ The technique is quite efficient because each cranberry has several small air bubbles within the fruit, allowing it to float to the surface of the water once it is freed from the vine.²⁹ Harvesters then gather the floating berries, using special tools to scoop the berries off the surface of the water.³⁰ The water is subsequently returned to its source when the harvest is complete.³¹

cranberry/downloads/bmp/mineral_soil_bog_construction.pdf [hereinafter BOG CONSTRUCTION]; UNIV. OF MASS. CRANBERRY EXPERIMENT STATION, NATURAL HISTORY OF THE AMERICAN CRANBERRY *VACCINIUM MACROCARPON* AIT. 1–2, <http://www.umass.edu/cranberry/downloads/nathist.pdf> (last visited Jan. 25, 2010) [hereinafter NATURAL HISTORY].

²³ See BOG CONSTRUCTION, *supra* note 22, at 6 fig.1.

²⁴ See *id.* at 5–6; Brent McCown & Eric Zeldin, *Vines Versus Transplants for Planting in Your Marsh*, 1994 CRANBERRY SCH. PROC., 9, 9, http://www.hort.wisc.edu/cran/pubs_archive/proceedings/1994/vinmcc.pdf; UNIV. OF ME. COOP. EXTENSION, GROWING CRANBERRIES: ESTABLISHING AN UPLAND CRANBERRY BED IN MAINE, www.umaine.edu/umext/cranberries/growing.htm (last visited Jan. 25, 2010).

²⁵ NATURAL HISTORY, *supra* note 22, at 2–3; see also CAPE COD CRANBERRY GROWERS' ASS'N, HOW CRANBERRIES GROW: WATER USE, http://www.cranberries.org/cranberries/grow_water.html (last visited Jan. 25, 2010) [hereinafter WATER USE] (explaining the many types of floods used in cranberry farming).

²⁶ NATURAL HISTORY, *supra* note 22, at 2–3; WATER USE, *supra* note 25.

²⁷ NATURAL HISTORY, *supra* note 22, at 2–3; WATER USE, *supra* note 25.

²⁸ See WATER USE, *supra* note 25; E-mail from Dawn Gates-Allen, Communications Manager, Cape Cod Cranberry Growers' Association, to Tobias F. Bannon, III, Law Student, Boston College Law School (Mar. 11, 2009, 09:35:50 EDT) (on file with author); see also WATER RESOURCE, *supra* note 21, at 1.

²⁹ CAPE COD CRANBERRY GROWERS' ASS'N, HOW CRANBERRIES GROW: FALL, http://www.cranberries.org/cranberries/grow_fall.html (last visited Jan. 25, 2010) [hereinafter FALL CRANBERRIES].

³⁰ *Id.*

³¹ See CAPE COD CRANBERRY GROWERS' ASS'N, CRANBERRY WATER USE: AN INFORMATION FACT SHEET 1 (2001), <http://www.cranberries.org/pdf/wateruse.pdf> [hereinafter WATER FACT SHEET].

However, floodwaters are not necessary to harvest cranberries.³² In fact, farmers have used a dry-harvest method for decades.³³ Dry-harvested berries are valuable for many reasons.³⁴ Because fungi tend to grow in damp conditions, dry-harvested berries are more resistant to fungus growth.³⁵ Because of this resistance, typically only dry-harvested berries can be sold as fresh produce.³⁶ Wet-harvested berries, on the other hand, are less resistant to fungi and need to be used more quickly than their dry-harvested counterparts.³⁷ Consequently, wet-harvested berries tend to be used in juices, sauces, and other situations where manufacturers can quickly freeze or process them.³⁸ Dry-harvested berries fetch higher prices because of their more labor-intensive requirements as well as the condition and usability of the fruit.³⁹ Nonetheless, the wet-harvest technique is usually used because it results in larger yields.⁴⁰ According to the Cape Cod Cranberry Growers' Association, approximately ninety percent of cranberries are harvested using the wet-harvest technique.⁴¹

To carry out the floods utilized in wet harvesting, dikes—a series of barriers designed to contain floodwaters—usually surround cranberry beds.⁴² Aside from regular irrigation sprinklers, the beds are also connected to a nearby large-scale source of water that is tapped for flood-

³² See *id.* (explaining “wet” and “dry” harvesting techniques).

³³ See CAPE COD CRANBERRY GROWERS' ASS'N, HISTORY OF CRANBERRIES, <http://www.cranberries.org/cranberries/history.html> (last visited Jan. 25, 2010). Cranberries are native to the United States and were first used by Native Americans for food around 1550. Flooding was used to control insects and prevent frost damage beginning in 1838, but the first successful water harvesting did not occur until sometime in the 1960s. *Id.*

³⁴ See FALL CRANBERRIES, *supra* note 29; see also Gates-Allen, *supra* note 28; E-mail from Hilary Sandler, IPM Specialist, University of Massachusetts. Cranberry Growing Station, to Tobias F. Bannon, III, Law Student, Boston College Law School (Mar. 11, 2009 10:23:01 EDT).

³⁵ Sandler, *supra* note 34.

³⁶ *Id.*

³⁷ Gates-Allen, *supra* note 28; Sandler, *supra* note 34.

³⁸ See FALL CRANBERRIES, *supra* note 29; Gates-Allen, *supra* note 28; Sandler, *supra* note 34.

³⁹ Gates-Allen, *supra* note 28.

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² See CAROLYN DEMORANVILLE & HILARY SANDLER, UNIV. OF MASS. CRANBERRY EXPERIMENT STATION, BEST MANAGEMENT PRACTICES GUIDE FOR MASSACHUSETTS CRANBERRY PRODUCTION: WATER CONTROL STRUCTURES 2 (2000), http://www.umass.edu/cranberry/downloads/bmp/water_control_structures.pdf [hereinafter WATER CONTROL STRUCTURES] (explaining the best management practices for constructing flumes and dikes for flooding).

ing.⁴³ The water travels through a system of flumes, bulkheads, dams, and ditches, all of which are designed to let the water flood the beds.⁴⁴

Subsequent procedures vary according to an individual bog farmer's practice and bog configuration.⁴⁵ "Flow-through" bogs draw water from a source, use it, and then return the used water to either the original source or another nearby waterway.⁴⁶ Conversely, bogs that employ the more sophisticated "tailwater recovery" systems essentially pool the water in reservoirs or retention ponds after its use.⁴⁷ In those ponds, contaminants may settle out of the water before it is returned to the source or reused for more flooding.⁴⁸ Regardless of whether a bog is flow-through or uses tailwater recovery, the system used for output of water is similar to that for input: a network of pumps, flumes, bulkheads, dams, and ditches transports the water back to the source.⁴⁹

Andrew C. Hanson, Attorney Advisor at the U.S. Environmental Protection Agency's Office of Civil Enforcement, and David C. Bender, a practicing environmental attorney, have argued that the CWA definition of "point source" should cover many portions of the bog-associated water transportation system.⁵⁰ There is even reason to consider the gullies and sediment traps as point sources.⁵¹ However, the CWA, the MCWA, and most other state-implemented clean water regulations provide exceptions for agricultural uses.⁵² In fact, the Massachusetts definition of point source expressly "does not include return flows from irri-

⁴³ See ECOLOGICAL ASSESSMENT, *supra* note 2, at 2 (explaining that Eagle Holt cranberry bogs withdraw and discharge water from nearby Blackmore Pond at a rate of up to 1 million gallons per day); see also WATER FACT SHEET, *supra* note 31, at 1.

⁴⁴ See WATER CONTROL STRUCTURES, *supra* note 42, at 1; WATER RESOURCE, *supra* note 21, at 1.

⁴⁵ See Andrew C. Hanson & David C. Bender, *Irrigation Return Flow or Discrete Discharge? Why Water Pollution from Cranberry Bogs Should Fall Within the Clean Water Act's NPDES Program*, 37 ENVTL. L. 339, 362–63 (2007).

⁴⁶ *Id.* at 362.

⁴⁷ *Id.* at 362–63.

⁴⁸ *Id.*

⁴⁹ See *id.* at 349, 362–63.

⁵⁰ See *id.* at 349–50, 361–64.

⁵¹ See Hanson & Bender, *supra* note 45, at 349.

⁵² See 33 U.S.C. § 1342(l)(1) (2006); 314 MASS. CODE REGS. 3.05(5)–(6), 5.05(9) (2009). It is worth noting that unlike in these regulations, in cranberry industry terminology, floodwaters are distinguished from irrigation water in both speech and practice. See, e.g., UNIV. OF MASS. CRANBERRY EXPERIMENT STATION, BEST MANAGEMENT PRACTICES: GUIDES, <http://www.umass.edu/cranberry/services/bmp/> (last visited Jan. 25, 2010) (setting forth a wealth of "Best Management Practices," which clearly draw distinctions between irrigation water and floodwater); WATER USE, *supra* note 25 (defining irrigation differently than floods).

gated agriculture.”⁵³ Furthermore, the Massachusetts Surface Water Discharge Permit Program (SWDPP) exempts “[a]ny introduction of pollutants from nonpoint source agricultural . . . activities including runoff from orchards, [and] cultivated crops”⁵⁴ Under this definition, the return flow exemption provides a loophole through which pumped, piped, and controlled flows of water from cranberry bogs and other agricultural operations can escape into waterways without being subject to pollution regulation.⁵⁵

It is worth noting that cranberry bogs were meant to be included under the discharge permitting process.⁵⁶ In July of 1976, the EPA amended its then-current irrigation return-flow exemption to require permits for “agricultural point sources.”⁵⁷ An official comment to the regulation expressly included water used for cranberry harvesting.⁵⁸ However, Congress ignored this comment in 1977 when it passed the CWA Amendments, granting a sweeping exemption to all irrigation return flows.⁵⁹

Examining the scientific climate when CWA Amendments were written helps explain why Congress decided to allow irrigation return flows to pour runoff into local waterways.⁶⁰ The federal government designed the CWA Amendments at a time when little was known about the deleterious impacts of nonpoint source runoff.⁶¹ The science pointed to the visible point sources of pollution as the primary causes

⁵³ 314 MASS. CODE REGS. 3.02, 5.02. The Massachusetts Ground Water Discharge Permit Program and the Surface Water Discharge Permit Program use nearly identical definitions. *Id.* For purposes of this Note, the Surface Water Discharge Permit Program will be the main focus, because this is the regulation most applicable to cranberry bogs; however, both ground and surface water regulations provide the same loophole and could be amended using the same process. *See supra* Parts III–IV.

⁵⁴ 314 MASS. CODE REGS. 3.05(5) (emphasis added).

⁵⁵ *See id.*; *see also* Hanson & Bender, *supra* note 45, at 349 (pointing out that in spite of the discharge from cranberry bogs seeming like point sources of pollution, little has been done to subject them to regulation).

⁵⁶ Hanson & Bender, *supra* note 45, at 351.

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *See* ZYGMUNT J.B. PLATER ET AL., ENVIRONMENTAL LAW AND POLICY: NATURE, LAW, AND SOCIETY 633–35 (3d ed. 2004). Additionally, since states that implement their own clean water acts usually model them after the federal CWA, the loopholes in those statutes are reliant upon the same reasoning that results in the loophole in the federal CWA. *Compare* 33 U.S.C. § 1342(l)(1) (2006) (exempting irrigation return flows from CWA permit requirements), *with* 314 MASS. CODE REGS. 3.05(5)–(6) (2009) (exempting agricultural runoff and irrigation return flows from permit requirements).

⁶¹ *See* PLATER ET AL., *supra* note 60, at 633–35.

of water pollution.⁶² This context set the stage for placing the most emphasis on point sources of pollution.⁶³ Additionally, the irrigation return flow exemption arose from the government's attempt to compensate for the wide-ranging climates of our nation.⁶⁴ Farmers in more arid climates would obviously need to water their crops more frequently than farmers in damper climates, and the federal government did not want to discriminate against the arid-land farmers by subjecting them to the same water regulations as the farmers with wetter land.⁶⁵ To address this issue, the Act left open a general exemption for irrigation waters that flowed off farmers' property after agricultural use.⁶⁶ Though water from a sprinkler that trickles off of a cornfield in Arizona has traveled quite a different pathway than water being pumped from a flooded cranberry bog in Massachusetts, hypothetically this sweeping return flow exemption applies equally to both scenarios.⁶⁷

B. Results of the Loophole

The problem with cranberry bogs using water from nearby sources remains troublesome, but a look back to Blackmore Pond gives a clearer picture. The ecological assessment of Blackmore Pond cited four possible sources of the elevated levels of phosphorus: septic systems, agricultural water, fertilizer, and precipitation.⁶⁸ Evaluation of the data eliminated septic systems from the list of possible causes of the eutrophic growth.⁶⁹ More studies were needed to pinpoint the source.⁷⁰ A 2005 study then showed what Blackmore Pond residents had suspected for years: the water returning from the nearby cranberry bogs was laden with phosphorus.⁷¹ The 2005 study also compared several other bog operations and found "that flood discharges are the events of con-

⁶² *Id.* at 633.

⁶³ *See id.*

⁶⁴ Hanson & Bender, *supra* note 45, at 352 & n.94.

⁶⁵ *Id.*

⁶⁶ *See id.* at 352.

⁶⁷ *See id.* at 348–54 (explaining that the irrigation return flow exemption is very broad and that Congress had hoped that local operations would fine-tune regulation of agricultural wastewater).

⁶⁸ ECOLOGICAL ASSESSMENT, *supra* note 2, at 13.

⁶⁹ *Id.* at 15.

⁷⁰ *Id.* at 16.

⁷¹ CAROLYN DEMORANVILLE & BRIAN HOWES, PHOSPHORUS DYNAMICS IN CRANBERRY PRODUCTION SYSTEMS: DEVELOPING THE INFORMATION REQUIRED FOR THE TMDL PROCESS FOR 303D WATER BODIES RECEIVING CRANBERRY BOG DISCHARGE 17–53 (2005); *see* Lade, *supra* note 4.

cern for cranberry systems.”⁷² Even scheduling those floods to try to minimize phosphorus levels is challenging; flooding too quickly stirs up sediments that can be carried out with the water, but flooding too slowly allows more phosphorus to absorb into the water.⁷³ Additionally, phosphorus used in previous years’ fertilizing can be picked up and washed out with future years’ flooding.⁷⁴ “[F]lood discharge . . . from bog sites is substantially higher in [total phosphate] concentration compared to incoming bog waters.”⁷⁵ Back at Blackmore Pond, the residents and researchers saw a strong link between the eutrophic growth in 2000 and the discharge from the local cranberry bogs.⁷⁶

II. WHY THE LOOPHOLE HAS GOTTEN STRONGER

A. *Fighting Irrigation Return Flow*

1. The Logic of the Fight

Many parties have fought to close the loophole in the CWA and/or their respective state regulations.⁷⁷ They have done so because closing the loophole would force certain types of agricultural discharges, such as cranberry bog discharges, into a category governed by point source regulation.⁷⁸ Point sources are regulated by the National Pollutant Discharge Elimination System (NPDES) and various state discharge regulations.⁷⁹ In Massachusetts, the SWDPP and Ground Water Discharge Permit Program allow the DWPC to set and enforce limits for pollutants in surface water and groundwater point source discharges.⁸⁰ If agricultural discharges were classified as point sources, then the EPA and/or state environmental agencies could regulate their pollutant lev-

⁷² DEMORANVILLE & HOWES, *supra* note 71, at 44.

⁷³ *Id.* at 32–33.

⁷⁴ *Id.* at 19–27, 52.

⁷⁵ *Id.* at 44.

⁷⁶ Barry Cosgrove, Bd. of Dirs., Blackmore Pond Homeowners Ass’n, History of the Blackmore Pond Controversy 5 (2008) (unpublished report on file with author).

⁷⁷ *See, e.g.*, *Fishermen Against the Destruction of the Env’t, Inc. v. Closter Farms, Inc.*, 300 F.3d 1294 (11th Cir. 2002); *Hiebenthal v. Meduri Farms*, 242 F. Supp. 2d 885 (D. Or. 2002); *United States v. Frezzo Bros., Inc.*, 546 F. Supp. 713 (E.D. Pa. 1982), *aff’d*, 703 F.2d 62 (3d Cir. 1983).

⁷⁸ *See generally* Hanson & Bender, *supra* note 45 (arguing that if certain types of agricultural waters were not exempted as part of the irrigation return flow exemption, that those waters could be regulated).

⁷⁹ *See* 33 U.S.C. § 1342(f) (2006); *see also* 314 MASS. CODE REGS. 3.00, 5.00 (2009).

⁸⁰ 314 MASS. CODE REGS. 3.03, 3.05, 5.03, 5.05 (requiring all discharges to go through the permitting process, but providing exceptions for various nonpoint sources).

els.⁸¹ In theory, these agencies could set standards similar to industrial wastewater, water treatment plants, or create entirely different standards for these types of agricultural discharges.⁸² Presently, however, the lack of regulations means that agricultural users do not have to seriously consider their treatment of water resources.⁸³

Commentators have pointed out that water leaving a cranberry bog is very different from a typical return flow of irrigation.⁸⁴ One of the studies done on the Blackmore Pond system showed that the Eagle Holt cranberry bog system—the predominant user of Blackmore Pond water for bog flooding—had “no observed surface water discharge except during flood releases.”⁸⁵ In other words, the researchers found that most of the time there was no surface water flowing from the bogs into Blackmore Pond.⁸⁶ Even the water used for irrigation during the growing season was not detectible as surface water discharge.⁸⁷ The water that is used for the few floods each year is the only measurable surface water return flow from the Eagle Holt system to Blackmore Pond.⁸⁸

With the potential of dry-harvesting in mind, citizens wonder why discharge from wet-harvested berries—water that was not used during the growing season but merely as an alternative harvesting technique—fits into the runoff from cultivated crops exclusion.⁸⁹ If the MCWA defined cranberry bog discharge as a point source or not a return flow of irrigation, the DWPC could regulate pollutant levels in these discharges.⁹⁰

⁸¹ See 314 MASS. CODE REGS. 3.02–.03, 3.05. If, for example, the term “point source” did not have such a sweeping exemption including all “return flows from irrigated agriculture,” or the exemption granted under section 3.05 excluded agricultural water that was not used for irrigation, then cranberry bog flood discharge could be regulated. *See id.*

⁸² *See id.* at 3.06–.19 (illustrating the regulation of various other classifications of discharge water).

⁸³ *See id.* at 3.05.

⁸⁴ *See, e.g.,* Hanson & Bender, *supra* note 45, at 356.

⁸⁵ DEMORANVILLE & HOWES, *supra* note 71, app. at 74. “Flood releases” include floodwaters used for harvest and winter protection. *See id.* at 13.

⁸⁶ *See id.* app. at 74.

⁸⁷ *See id.*

⁸⁸ *See id.*

⁸⁹ E-mail from Barry Cosgrove, Board of Directors, Blackmore Pond Homeowners Association, to Tobias F. Bammon, III, Law Student, Boston College Law School (Apr. 16, 2009, 17:28:08 EDT) (on file with author); *see also* Hanson & Bender, *supra* note 45, at 347, 364.

⁹⁰ 314 MASS. CODE REGS. 3.02–3.03, 3.05 (2009).

2. History of the Fight

Although no case history exists with regard to closing the loophole for cranberry bog discharge, litigants have fought similar battles.⁹¹ The most closely related case appears to be *Fishermen Against the Destruction of the Environment v. Closter Farms*.⁹² In this Eleventh Circuit case, a sugarcane farm was actively pumping water into Lake Okeechobee, Florida.⁹³ The water consisted of storm drainage as well as water used to flood and irrigate the sugarcane.⁹⁴ The court held that the sum of the water being pumped off of the premises could be classified as either “agricultural stormwater discharge” or “return flow from irrigation agriculture” despite the active pumping mechanisms.⁹⁵ Discharge for water classified as either agricultural stormwater discharge or return flow from irrigation agriculture is unregulated; therefore, the water leaving Closter Farms was similarly unregulated.⁹⁶ The court even added that “any pollutants that originated within Closter Farms can be discharged into Lake Okeechobee by Closter Farms without [a discharge] permit.”⁹⁷ This statement reinforced the loophole that federal and/or state environmental agencies cannot regulate agricultural floodwaters.⁹⁸

Hiebenthal v. Meduri Farms further illustrates the strength of the irrigation return flow loophole.⁹⁹ Defendants owned two fruit dehydrating plants in Oregon and used the wastewater from dehydration as irrigation for their crops.¹⁰⁰ Before using the water for irrigation, defendants stored it, allowed it to settle, and treated it; however, even after these processes, the court recognized that the water was still polluted.¹⁰¹ The plaintiffs accused the farmers of frequently over-watering their crops—possibly to dispose of the excess wastewater easily—and claimed that the excess wastewater was more similar to industrial dis-

⁹¹ See, e.g., *Fishermen Against the Destruction of the Env't, Inc. v. Closter Farms, Inc.*, 300 F.3d 1294 (11th Cir. 2002); *Hiebenthal v. Meduri Farms*, 242 F. Supp. 2d 885 (D. Or. 2002); *United States v. Frezzo Bros., Inc.*, 546 F. Supp. 713 (E.D. Pa. 1982), *aff'd*, 703 F.2d 62 (3d Cir. 1983).

⁹² See 300 F.3d 1294.

⁹³ *Id.* at 1296.

⁹⁴ *Id.* at 1297.

⁹⁵ *Id.*

⁹⁶ *Id.* at 1297–98.

⁹⁷ See *id.*

⁹⁸ See 33 U.S.C. § 1342(l)(1) (2006); *Closter Farms, Inc.*, 300 F.3d, at 1297–98.

⁹⁹ 242 F. Supp. 2d 885 (D. Or. 2002).

¹⁰⁰ *Id.* at 886.

¹⁰¹ *Id.* at 886–87.

charge than agricultural discharge.¹⁰² The defendants, by dumping toxic waters onto crop fields, were essentially evading regulation of what would otherwise be industrial wastewater.¹⁰³ The court held that it did not have subject-matter jurisdiction to hear the case.¹⁰⁴ While the court recognized that the defendants might frequently apply excess amounts of polluted water to their crops and that this water often left the fields as runoff, it reiterated the rule that the CWA does not provide a remedy to the plaintiffs.¹⁰⁵ The court stated that in order to have jurisdiction, excess runoff must come from a point source.¹⁰⁶ Because this runoff—even though it began life as industrial wastewater—was used to irrigate crops, it was not regulated under the CWA and the court had no power to hear such matters.¹⁰⁷

In contrast, the District Court for the Eastern District of Pennsylvania held that water discharged from a mushroom composting facility was not irrigation return flow.¹⁰⁸ The holding in *United States v. Frezzo Bros., Inc.* focused on distinguishing what actually constituted “agricultural” water.¹⁰⁹ Even though composting was done on site and then some of that compost was used to grow mushrooms at the same site, the court held that because the majority of the compost was sold as a manufactured commodity, the use of the water in the process of making the compost did not constitute an agricultural use.¹¹⁰ At a pretrial hearing, the defendants produced two expert witnesses who argued that making mushroom compost is an agricultural activity; nonetheless, the court held otherwise.¹¹¹ Utilizing a previous holding regarding the Fair Labor Standards Act, the court explained that “mushroom growing is a type of farming, [but] the production of mushroom compost is a preliminary activity which manufactures a product.”¹¹² This distinction meant that the court considered the water used in producing the compost to be separate from the agricultural process; consequently, it did

¹⁰² *Id.* at 888.

¹⁰³ *See id.*

¹⁰⁴ *See id.*

¹⁰⁵ *Hiebenthal*, 242 F. Supp. 2d at 888.

¹⁰⁶ *Id.* at 887.

¹⁰⁷ *See id.* at 887–88.

¹⁰⁸ *United States v. Frezzo Bros., Inc.*, 546 F. Supp. 713, 723 (E.D. Pa. 1982), *aff'd*, 703 F.2d 62 (3d Cir. 1983).

¹⁰⁹ *Id.* at 722–24.

¹¹⁰ *Id.* at 724.

¹¹¹ *Id.* at 722, 724.

¹¹² *Id.* at 723 (citing *Donovan v. Frezzo Bros.*, 678 F.2d 1166, 1169 (3d Cir. 1982)).

not constitute any sort of irrigation return flow.¹¹³ This classification made the water subject to discharge regulation.¹¹⁴

B. *Alternate Fighting Tactics*

Because lawsuits attempting to close the loophole in the CWA and corresponding state regulations have proven unsuccessful to date, some parties have opted to sue under different theories.¹¹⁵ Like Blackmore Pond, Musky Bay, Wisconsin, became heavily laden with phosphorus during the early 2000s.¹¹⁶ This phosphorus was also suspected to have originated from the fertilizers applied to nearby cranberry beds.¹¹⁷ Evidence showed that defendant's bogs were responsible for forty to fifty percent of the phosphorus entering the bay.¹¹⁸ Such high amounts of phosphorus caused drastic changes in water clarity as well as plant and algae growth.¹¹⁹ The State of Wisconsin accordingly filed a public nuisance suit, seeking an injunction to bar the defendant from releasing phosphorus into Musky Bay, requiring him to restore the bay, and to pay damages to nearby landowners.¹²⁰ The court recognized that the defendant's cranberry operation was a factor in the degradation occurring at Musky Bay.¹²¹ The stumbling block, however, was that there was no way to determine whether "the overall scope of the interference . . . [was] a public nuisance."¹²² Counting the number of days per year that the public was interfered with might have given an indication of the condition of the lake, but due to the likelihood that other factors contribute to the usability of Musky Bay, the court was not comfortable using those calculations to find the defendant liable.¹²³ With no way of calculating damages, the court did not impose a penalty on the defendant.¹²⁴

The difficulty of measuring responsibility for public nuisances often presents plaintiffs with a challenge.¹²⁵ Even outside the context of a

¹¹³ See *id.* at 724.

¹¹⁴ *Frezzo Bros.*, 546 F. Supp. at 725.

¹¹⁵ See, e.g., *State v. Zawistowski*, No. 2006AP1539, 2008 WL 302382, at *1 (Wis. Ct. App. Feb. 5, 2008).

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ *Id.*

¹²⁰ *Id.*

¹²¹ *Zawistowski*, 2008 WL 302382, at *1.

¹²² *Id.* at *2.

¹²³ *Id.*

¹²⁴ *Id.* at *5.

¹²⁵ See, e.g., *id.* (showing that even though cranberry bogs were recognized as a large contributor to the phosphorus that rendered the bay useless for part of the year, it was the

public nuisance suit, placing blame can be difficult.¹²⁶ For example, after previous eutrophic growth incidents on Blackmore Pond, Eagle Holt growers blamed the residents of Blackmore Pond.¹²⁷ Eagle Holt claimed septic systems might be responsible for the elevated phosphorus levels.¹²⁸ Although this accusation was later proven false, the claim illustrates how challenging it can be to assign liability and recover damages in a public nuisance action.¹²⁹

III. CITIZEN-INITIATED RULEMAKING

A. *The Rulemaking Process*

In the context of futile attempts at closing the regulatory loophole and seemingly hopeless public nuisance suits, the residents of Blackmore Pond are eager for a creative solution.¹³⁰ A solution may exist that enables the residents to amend regulations under the Massachusetts Clean Waters Act to protect what they consider to be their, as well as the public's, interest.¹³¹

The United States allows citizens to propose adoption, amendment, or repeal of federal regulations.¹³² This powerful tool is also codified in many state administrative procedures, allowing citizens to petition for the adoption, amendment, or repeal of state and local regulations.¹³³ The General Laws of Massachusetts, chapter 30A, section 4, permit “any interested person [to] petition an agency requesting the adoption, amendment or repeal of *any* regulation.”¹³⁴ Although Massachusetts law is ambiguous, federal law has often held that “person,” as defined by the

measuring of liability and institution of a penalty that proved to be a difficult—and in this case, impossible—task).

¹²⁶ *See, e.g.*, Cosgrove, *supra* note 76, at 2 (showing the ease with which blame can be cast).

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ *See id.*; *see also* ECOLOGICAL ASSESSMENT, *supra* note 2, at 10, 13–16 (discussing how septic systems can sometimes contribute to degradation of nearby lake water quality, but that the risk of such an occurrence at Blackmore Pond is minimal).

¹³⁰ *See* E-mail from Zygmunt Plater, Professor of Law, Boston College Law School, to Barry Cosgrove, Member of Blackmore Pond Homeowners Association (July 11, 2008 13:43:35 EDT) (on file with author).

¹³¹ *See* MASS. GEN. LAWS ch. 30A, § 4 (2008); Lade, *supra* note 4.

¹³² 5 U.S.C. § 553(e) (2006).

¹³³ *See, e.g.*, MASS. GEN. LAWS ch. 30A, § 4.

¹³⁴ *Id.* (emphasis added).

Administrative Procedure Act (APA), may include groups and organizations.¹³⁵

The Massachusetts statute also dictates that each government agency “shall prescribe by regulation the procedure for the submission, consideration and disposition of such petitions.”¹³⁶ For example, the MADEP sets out its own procedure in chapter 310, section 2.00 of the Massachusetts Code of Regulations.¹³⁷ MADEP’s code of regulations clearly states that petitions for rulemaking can be addressed to the department in writing at any time or delivered to the agency in person and that “[t]he petition may be accompanied by any supporting data, views or arguments.”¹³⁸ Even though the right to petition for adoption, repeal, or amendment of any MADEP regulation is available to any interested party, the petition process at MADEP is very seldom used, indicating that doing so may be a novel approach to attempting to address the irrigation return flow loophole.¹³⁹

Once a party submits its petition to MADEP, the agency will then consider the petition at a meeting—at which attendees’ comments or questions may be permitted—and shall determine whether to schedule the petition or recommendation for further proceedings.¹⁴⁰ Within ten days of the original meeting, the department will notify the petitioner of the department’s action.¹⁴¹

Provided that MADEP decides to act on the petition, there are slightly different procedures for rulemakings that require hearings versus those that do not.¹⁴² Because a public hearing is required for “any regulation the violation of which is punishable by fine or imprisonment,” and because violation of the MCWA is punishable by fine or imprisonment, a public hearing would likely be required for this amend-

¹³⁵ See *id.* § 1(4); ZYGMUNT PLATER ET AL., THE STATE OF ALASKA’S POWER TO PETITION FOR FEDERAL RULEMAKING UNDER APA § 553(c), at 2 (1989).

¹³⁶ MASS. GEN. LAWS ch. 30A, § 4.

¹³⁷ 310 MASS. CODE REGS. 2.00 (1994).

¹³⁸ *Id.* at 2.02.

¹³⁹ See E-mail from Lin Sasman, Massachusetts Department of Environmental Protection, to Tobias F. Bannon, III, Law Student, Boston College Law School (Jan. 28, 2009, 14:39:08 EST) (on file with author) (explaining that MADEP does not have any record of citizen petitions for rulemaking ever being used, and that when asked, three employees with between twenty-four and thirty-four years of experience at MADEP could not recall any recent petitions for rulemaking).

¹⁴⁰ 310 MASS. CODE REGS. 2.03–.04.

¹⁴¹ *Id.* at 2.03.

¹⁴² Compare *id.* at 2.05 (dismissing public hearing requirement), with *id.* at 2.06 (requiring a public hearing).

ment.¹⁴³ Preceding the public hearing, MADEP is required to give notice of the hearing at least twenty-one days prior to the scheduled date.¹⁴⁴ The notice must be published “in at least two newspapers of general circulation, and where appropriate, in such trade, industry, or professional publications as the agency may select.”¹⁴⁵

When the time comes for the hearing, “the meeting shall be opened, presided over, and adjourned by the Commissioner, or another employee authorized to adopt regulations, or a designee.”¹⁴⁶ Although the format of the public hearing is subject to some flexibility, it may not take the form of an adjudicatory proceeding.¹⁴⁷ “Any interested person or his duly authorized representative . . . shall be given an opportunity to present orally statements and arguments”; however, the agency may use its discretion to limit the length of oral presentations.¹⁴⁸ Also, written statements and arguments may be filed with the agency within ten days of the close of the public hearing.¹⁴⁹ The agency is required to consider all relevant material presented to it before amending any regulation.¹⁵⁰

B. *The Aftermath of the Rulemaking Process*

Following the hearing, the agency may amend the regulation or reject the proposed amendment.¹⁵¹ MADEP’s regulations concerning notice of the disposition of the proposed action—the decision to accept or reject the petition—are silent when it comes to regulations where a public hearing is required; however, if the process resembles regulations where no public hearing is required, the agency must give written notice of the disposition to all persons taking part in the peti-

¹⁴³ See *id.* at 2.06; see also MASS. GEN. LAWS ch. 21, § 42 (2008) (indicating a fine or imprisonment may be the penalty for violation of water discharge regulations).

¹⁴⁴ 310 MASS. CODE REGS. 2.06(1).

¹⁴⁵ *Id.* The notice shall contain more than just the location and date of the meeting. The agency is also required to publish, among other things, the text of the proposed regulation and the agency’s statutory authority to adopt the proposed regulation. *Id.*

¹⁴⁶ *Id.* at 2.06(2).

¹⁴⁷ *Id.*

¹⁴⁸ *Id.* at 2.06(3).

¹⁴⁹ *Id.* at 2.06(2).

¹⁵⁰ 310 MASS CODE REGS. 2.06(2).

¹⁵¹ See *id.* at 2.03, 2.08 (explaining that regulations will take effect if and when they are filed). Although there is no clear procedure for the rejection of a proposal, section 2.03 states that the department will notify petitioner within ten days of the department’s action, implying that the department will either accept or reject the proposal. See *id.* at 2.03.

tion process.¹⁵² As such, the petitioners can expect that the agency will notify all parties of its disposition of the proposed action.¹⁵³

One possible outcome of the petition process is that MADEP decides to amend the regulation.¹⁵⁴ In this case, the changes shall take effect upon filing, unless a later date is specified by the agency in the regulation.¹⁵⁵ A second possibility is that the agency decides not to amend the regulation.¹⁵⁶ Although non-adoption might seem like defeat to the petitioners, it is not the end of the road.¹⁵⁷

Following an agency decision not to amend the given regulation, there are still a number of possible grounds for petitioners to succeed.¹⁵⁸ The fact receipt of a petition requires public notice means that the proposal will be in the public eye.¹⁵⁹ Furthermore, especially when a public hearing is involved, media attention may be captured.¹⁶⁰ One possible result of this attention is that state and local politicians may become aware of and involved with the issues raised by the petition.¹⁶¹ Then, regardless of whether or not the petition proceeds smoothly through the regulatory process, the politician may instigate rulemaking by exerting force in the political process.¹⁶² In 2001, for example, Massachusetts Acting Governor Jane Swift sought to reduce emissions from the commonwealth's dirtiest power plants.¹⁶³ "The filthy five," as they were called, were six power plants responsible for ninety percent of total pollution generated by all of the commonwealth's power plants.¹⁶⁴ The Clean Air Now coalition had originally filed a petition with

¹⁵² *Id.* at 2.05(2). Most of the processes of non-hearing procedures are analogous to hearing-required procedures. In light of this, one can presume that where the post-hearing notification process of regulations that require a hearing is silent, it would be analogous the post-submission period process of regulations that do not require hearings. *See id.* at 2.05–.06.

¹⁵³ *See id.* at 2.05(2), 2.06(2).

¹⁵⁴ *See id.* at 2.06.

¹⁵⁵ *Id.* at 2.08.

¹⁵⁶ 310 MASS. CODE REGS. 2.06, 2.08; *see also* Andrew P. Morriss et al., *Choosing How to Regulate*, 29 HARV. ENVTL. L. REV. 179, 192–95 (2005) (discussing various outcomes of unsuccessful petitions for rulemaking).

¹⁵⁷ *See* Morriss et al., *supra* note 156, at 192–95.

¹⁵⁸ *See id.*

¹⁵⁹ *Id.* at 192.

¹⁶⁰ *See id.*

¹⁶¹ *Id.*

¹⁶² *See id.*; *see also* Frank Phillips & Beth Daley, *Swift Seen Seeking Cuts in Emissions: Regulations to Crack Down on Power Plants*, BOSTON GLOBE, Apr. 21, 2001, at A1.

¹⁶³ Phillips & Daley, *supra* note 162.

¹⁶⁴ *See id.*

MADEP in 2000 seeking to amend emissions regulations.¹⁶⁵ MADEP granted a hearing to petitioners, and received over 1200 pages of written comments and heard over twenty-five hours of oral testimony.¹⁶⁶ In 2001, under pressure from Governor Swift, MADEP amended power plant emissions regulations, setting limits on sulfur dioxide, nitrogen oxides, carbon dioxide, and mercury.¹⁶⁷ The entire process took years; MADEP officially issued new regulations on June 7, 2002. Despite the delay, Clean Air Now considered the campaign a success.¹⁶⁸

If the petition process fails, another option for pursuing amendment is judicial review.¹⁶⁹ During the petition process, the comment period helps establish the record for judicial review.¹⁷⁰ MADEP must address all comments received during the comment period, forcing the agency to pay attention to industry and public concerns.¹⁷¹ Addressing the comments also results in agencies being held accountable for considering and addressing the issues raised in the comments.¹⁷² During judicial review, a court may examine the agency response data.¹⁷³

In Massachusetts, petitioners can file for judicial review of any regulation.¹⁷⁴ Judicial review opens up the possibility of declaratory relief, but the burdens for obtaining such relief are high.¹⁷⁵ Historically, the courts have made it clear that they will defer to the agencies.¹⁷⁶ If petitioners simply show facts to support their amendment, they will not

¹⁶⁵ DEP'T OF ENVTL. PROT., APPENDIX A: RESPONSE TO COMMENTS: 310 CMR 7.29, at 24 (2001), available at <http://www.mass.gov/dep/air/laws/finalrtc.doc>; E-mail from Rob Sargent, Energy Program Director, Environment America, to Tobias F. Bannon, III, Law Student, Boston College Law School (Mar. 24, 2009, 12:53:58 EDT) (on file with author).

¹⁶⁶ DEP'T OF ENVTL. PROT., BUREAU OF WASTE PREVENTION, DIV. OF PLANNING & EVALUATION, STATEMENT OF REASONS AND RESPONSE TO COMMENTS FOR 310 CMR 7.00 ET SEQ.: 310 CMR 7.29 – EMISSION STANDARDS FOR POWER PLANTS 1 (2001), available at <http://www.mass.gov/dep/air/laws/finalrsn.doc>.

¹⁶⁷ Phillips & Daley, *supra* note 162; see also CLEAN WATER ACTION ET AL., HELP STOP GLOBAL WARMING POLLUTION IN YOUR BACKYARD!!! 4, available at <http://www.newenglandclimate.org/packet/filthyfivehearingkit.pdf> (last visited Jan. 25, 2010).

¹⁶⁸ Ray Henry, *State Sets New Limits on Fossil-Fuel Plants: 6 Facilities Are Told to Reduce Pollution*, BOSTON GLOBE, June 8, 2002, at B4.

¹⁶⁹ See Morriss et al., *supra* note 156, at 193–95.

¹⁷⁰ See *id.* at 192.

¹⁷¹ See 310 MASS. CODE REGS. 2.06(2) (1994); Morriss et al., *supra* note 156, at 192.

¹⁷² Morriss et al., *supra* note 156, at 192.

¹⁷³ See *id.* at 195.

¹⁷⁴ MASS. GEN. LAWS ch. 30A, § 7 (2008).

¹⁷⁵ *Id.* at ch. 231A, §§ 1–2 (explaining the power of declaratory judgments); see, e.g., *Borden, Inc. v. Comm'r Pub. Health*, 448 N.E.2d 367, 378 (Mass. 1983); *Purity Supreme, Inc. v. Att'y General*, 407 N.E.2d 297, 306 (1980)

¹⁷⁶ *Borden*, 448 N.E.2d at 378; *Purity Supreme, Inc.* 407 N.E.2d at 306.

meet the burden of proof required to amend the regulation.¹⁷⁷ Instead, petitioners will have to show “the absence of any conceivable ground upon which [the rule] may be upheld.”¹⁷⁸ Here, agency responses to public comment may be useful.¹⁷⁹ Because the court looks for “reasonableness, not rightness” in supporting the agency’s position, the petitioners must strive to show that the agency’s grounds are unreasonable.¹⁸⁰ If the petitioners are successful in doing so, they may obtain declaratory relief.¹⁸¹

At the national level—as seen in the Supreme Court case *Chevron U.S.A., Inc. v. Natural Resources Defense Council*—judicial review generally takes two steps: in the first, courts question whether Congress has directly spoken to the precise question at issue.¹⁸² If yes, then both the court and agency “must give effect to the unambiguously expressed intent of Congress.”¹⁸³ In other words, if Congress has spoken, the agency is not free to make its own interpretation of the statute; it must follow the directives of Congress.¹⁸⁴ On the other hand, if Congress has not directly addressed the precise question at issue—if the statute is silent or ambiguous with respect to the specific issue—then the question for the court is whether the agency’s answer is based on a permissible construction of the statute.¹⁸⁵ In *Chevron*, for example, the Court of Appeals had held that the EPA’s “bubble” concept—a means of grouping stationary source emissions by overall emissions at a given property rather than at each specific smokestack—was “inappropriate” for achieving the Clean Air Act’s goals of improving air quality.¹⁸⁶ Reversing this holding, the Supreme Court pointed out that even if a court felt that the statute should have been interpreted differently, the court

¹⁷⁷ See *id.*

¹⁷⁸ See *id.* (citing *Borden, Inc. v. Comm’r of Pub. Health*, 448 N.E.2d 367, 378 (Mass. 1983)).

¹⁷⁹ See Morriss et al., *supra* note 156, at 192 & n.67.

¹⁸⁰ 40 MASS. PRAC. 1641 (explaining that under judicial review, the reviewing court seeks to find reasonableness, not rightness, of the administrative agency’s decision).

¹⁸¹ See MASS. GEN. LAWS ch. 231A, §§ 1–2 (2008); 40 MASS. PRAC. 1641.

¹⁸² 467 U.S. 837, 842 (1984).

¹⁸³ *Id.* at 843.

¹⁸⁴ See *id.*

¹⁸⁵ *Id.*

¹⁸⁶ See *id.* at 841–42. More specifically, the appeals court held that the bubble concept was mandatory in programs designed to maintain existing air quality, but in nonattainment areas—those areas with substandard air quality, where the primary goal is improvement of air quality—the bubble concept is “inappropriate” and contrary to law. See *id.* Since power plants could modify their facilities but maintain the same level of emissions within the “bubble” that covered their entire property, the appeals court found this to be contradictory to the goal of improving air quality in nonattainment areas. See *id.*

may not substitute its own construction for a “reasonable interpretation made by the administrator of an agency.”¹⁸⁷ Furthermore, the Court repeatedly stressed the importance of deference to the agency, especially when statutes are vague or leave room for interpretation.¹⁸⁸

Despite high levels of deference, courts will hold that an agency’s action is unreasonable if that action directly contradicts the face value of the regulation in question.¹⁸⁹ In *United States Gypsum Co. v. Executive Office of Environmental Affairs*, for example, the Massachusetts Appeals Court held that an official’s exclusion of certain properties from a specific type of zoning was “unsupported by substantial evidence” because the properties undoubtedly fit criteria clearly defined in agency regulations that would have included those properties as part of the zoning.¹⁹⁰ Furthermore, the court expressly stated that “courts will not hesitate to overrule agency interpretations of rules when those interpretations are arbitrary, unreasonable, or inconsistent with the plain terms of the rule itself.”¹⁹¹ The court explained that in most cases, though, an agency’s reasonable interpretation will be “entitled to great weight.”¹⁹²

If petitioners do not meet success through petition, public and political attention, and judicial review at the state level, they can essentially repeat the entire process at the federal level.¹⁹³ The CWA includes similar irrigation return-flow exemptions that result in loopholes for cranberry bogs.¹⁹⁴ Because state-specific clean water acts must be at least as strict as the CWA, if this loophole were closed at the federal level, it would need to be closed at the state level as well.¹⁹⁵ As such, citizens or citizen groups could use the APA to submit a petition to amend the federal CWA.¹⁹⁶ This process would provide another opportunity for petitioners to propose amendment, catch public attention, and file for judicial review if necessary.¹⁹⁷

¹⁸⁷ *Id.* at 842, 844.

¹⁸⁸ *Chevron*, 467 U.S. at 842–44.

¹⁸⁹ *United States Gypsum Co. v. Exec. Office of Env'tl. Affairs*, 867 N.E.2d 764, 770–71 (Mass. App. Ct. 2007).

¹⁹⁰ *Id.*

¹⁹¹ *Id.* at 770 (citing *Manor v. Superintendent, Mass. Correctional Inst.*, 626 N.E.2d 614 (Mass. 1994)).

¹⁹² *Id.*

¹⁹³ See 5 U.S.C. § 553(e) (2006) (providing the procedures for a federal petition).

¹⁹⁴ 33 U.S.C. § 1342(l)(1); see *supra* Part I.

¹⁹⁵ *Id.* § 1316(c).

¹⁹⁶ See 5 U.S.C. § 553(e).

¹⁹⁷ See Morriss et al., *supra* note 156, at 192–95.

IV. USING CITIZEN PETITIONS FOR AMENDMENT TO CLOSE THE LOOPHOLE

A. *Petitioning for Amendment*

The CWA's irrigation return-flow exemption results in loopholes that many consider to be illogical and a nuisance to the public.¹⁹⁸ The residents of Blackmore Pond are particularly affected by the loophole, and they, as well as the water quality of the lake, would benefit from its closing.¹⁹⁹ Although a lawsuit against the growers is one possible option for the residents, such suits are generally unsuccessful.²⁰⁰ As such, a citizen petition for rulemaking—in this case, amendment of a regulation—may provide an unexpected avenue of addressing the problem.²⁰¹ This seldom-utilized procedure would allow any one citizen or group of citizens, such as a homeowners association, to petition MADEP to amend the ground and surface water discharge permit programs.²⁰²

To begin the petition process, the homeowners association would need to petition MADEP by proposing an amendment to the MCWA regulations.²⁰³ For example, the association might seek to amend title 314 of the Code of Massachusetts Regulations, section 3.05(6).²⁰⁴ The regulation currently excludes “[r]eturn flows from irrigated agriculture” from pollution permit regulation.²⁰⁵ The association might petition to amend subsection 3.05(6) to read “return flows from irrigated agriculture, *but not including non-irrigation agricultural waters.*”²⁰⁶ Such a

¹⁹⁸ See generally Hanson & Bender, *supra* note 45; Lade, *supra* note 4.

¹⁹⁹ See Lade, *supra* note 4 (illustrating the frustration of the residents of Blackmore Pond); see also DEMORANVILLE & HOWES, *supra* note 71, at 6 (recommending that cranberry bogs should try to minimize the release of phosphorus into local waterways); ECOLOGICAL ASSESSMENT, *supra* note 2, at 11–12.

²⁰⁰ See generally Fishermen Against the Destruction of the Env't, Inc. v. Closter Farms, Inc., 300 F.3d 1294 (11th Cir. 2002); Hiebenthal v. Meduri Farms, 242 F. Supp. 2d 885 (D. Or. 2002); United States v. Frezzo Bros., Inc., 546 F. Supp. 713 (E.D. Pa. 1982), *aff'd*, 703 F.2d 62 (3d Cir. 1983).

²⁰¹ See 310 MASS. CODE REGS. 2.00 (1994) (providing the grounds to petition for amendment of a regulation); Sargent, *supra* note 165 (explaining that what began as a citizen petition turned into support and action by the governor).

²⁰² See 310 MASS. CODE REGS. 2.02; Sasman, *supra* note 139 (indicating that citizen petitions for amendment are not commonly used).

²⁰³ See 310 MASS. CODE REGS. 2.02–.03.

²⁰⁴ See 314 MASS. CODE REGS. 3.05(6) (2009).

²⁰⁵ *Id.*

²⁰⁶ See *id.* (italicized portion indicates the proposed amendment). Additionally, the definition of “point source” might have to be amended to distinguish between true irrigation return flows and non-irrigation agricultural discharge so that no conflict exists between the definitions of terms and application of regulations. See *id.* at 3.02.

change in regulation would mean that waters used by farmers for purposes other than irrigation would be subject to discharge regulations.²⁰⁷ This modification can be seen as a modest compromise: the irrigation return-flow exemption is left intact because true return flows from irrigation can remain unregulated, but agricultural waters not used for irrigation must go through the discharge permitting process.²⁰⁸ As a result, water that trickles off of fields after sprinklers are used to water the crops would remain untouched by the amendment, but water that is piped and pumped onto bogs and then returned to the source after collecting the harvest would fall into a category requiring permits for discharge.²⁰⁹

Upon submitting the petition for amendment, the association would want to also submit relevant information supporting their petition.²¹⁰ The agency guidelines do not suggest what sort of materials should be submitted, but in order to build as strong a case as possible, the petitioners would want to submit relevant “data, views [and] arguments.”²¹¹ Submitting the scientific studies would demonstrate that phosphorus is the cause of the eutrophic growth and that the cranberry bogs, not septic tanks, are the most troublesome contributor of phosphorus.²¹² By explaining the water patterns, the water study could help support the notion that flood releases are the major cause of phosphorus leaving the bogs and entering the lake, thereby pinpointing the source of the problem.²¹³ Photographic evidence could illustrate the effects of the eutrophic growth, both at different times of the year and in the past several years.²¹⁴ Documentation of the fact that irrigation return-flow exemptions were meant to protect actual irrigation done by farmers in dry climates could support the argument that water leaving the cranberry bog should not fit into the “irrigation return

²⁰⁷ See *id.* at 3.03, 3.05.

²⁰⁸ See *id.*

²⁰⁹ Compare *id.* at 3.05(6) (exempting non-irrigation return flows from regulation under MCWA), with text accompanying note 206 (proposing amendments to 3.05 to subject cranberry bogs to regulation under the MCWA); see also 314 MASS. CODE REGS. 3.03.

²¹⁰ See 310 MASS. CODE REGS. 2.02 (1994)

²¹¹ See *id.*; Morriss et al., *supra* note 156, at 192 (indicating that agencies sometimes learn new information during the rulemaking process, and that this information may lead to amendments to regulatory provisions).

²¹² See DEMORANVILLE & HOWES, *supra* note 71, at 44; ECOLOGICAL ASSESSMENT, *supra* note 2, at 15.

²¹³ See DEMORANVILLE & HOWES, *supra* note 71, at 44, 74.

²¹⁴ See ECOLOGICAL ASSESSMENT, *supra* note 2, at 1 (indicating that lake conditions have changed with time).

flow” category.²¹⁵ Ultimately, beneficial material could include anything that the homeowners association believes will help support their case.²¹⁶

Following the submission of the petition to amend the MCWA regulations, MADEP would decide at a meeting whether to schedule the petition for further proceedings; it would notify the association within ten days of the decision.²¹⁷ If the agency decides to proceed, then this procedure would likely occur by the public hearing method, because violation of the ground and surface water discharge permit programs are punishable by fine or imprisonment.²¹⁸ The public would be notified of the hearing through at least two local newspapers, and the agency might also choose to notify local cranberry growers through industry publications.²¹⁹ In the interim, all interested parties would be able to submit written statements and arguments, and could continue doing so until ten days after the public hearing.²²⁰ The greater the number of well-reasoned statements and arguments submitted to MADEP, as well as the number of parties who attend and participate at the public hearing, the greater the impact on MADEP in terms of appreciating the significance of this issue.²²¹ The homeowners association would want to encourage as many submissions and attendees as possible.

Following the public hearing, the agency may or may not amend the regulation.²²² If MADEP amends the regulation as proposed, the homeowners association would obviously be delighted, and as soon as

²¹⁵ See Hanson & Bender, *supra* note 45, at 352.

²¹⁶ See 310 MASS. CODE REGS. 2.02 (1994) (allowing supporting data, views, or arguments to accompany petitions). Because MADEP will receive these forms of support when it considers whether to proceed with the amendment process, the homeowners association would benefit by building a convincing case for amendment as early as possible. See *id.*; Morriss et al., *supra* note 156, at 192.

²¹⁷ See 310 MASS. CODE REGS. 2.03.

²¹⁸ See *id.* at 2.06 (stating that petitions regarding regulations, for which violations are punishable by fine or imprisonment, will require a public hearing); see also MASS. GEN. LAWS ch. 21, § 42 (2008) (instituting fines or imprisonment for violating discharge regulations).

²¹⁹ See 310 MASS. CODE REGS. 2.06(1). The agency is permitted to use its discretion in publishing notice of the hearing in trade and industry publications. *Id.* In this case, the agency might choose to publish notice in local industry newsletters such as the Cape Cod Cranberry Growers’ Association newsletter or the University of Massachusetts Cranberry Station newsletter. See *id.*

²²⁰ See *id.* at 2.06 (2).

²²¹ See *id.* (requiring the agency to consider all relevant material presented to it); Morriss et al., *supra* note 156, at 192 (suggesting that agencies may sometimes discover new information or relevant viewpoints during the comment period).

²²² See 310 MASS. CODE REGS. 2.03, 2.06, 2.08; see also Morriss et al., *supra* note 156, at 192–95.

MADEP files the amendment (or at a date specified by the agency), cranberry bogs would need to meet specified criteria for discharges of non-irrigation agricultural waters.²²³ The cranberry bog floodwaters could then be regulated under the MCWA.²²⁴ The amendment proposed by the homeowners would remove non-irrigation agricultural waters from the exemption category, which would open the door to limitations on nearly all types of pollution.²²⁵ MADEP could enforce phosphorus limitations to minimize or avoid future eutrophic growth, and the cranberry farmers would then have a choice: either stop using the water or abide by MADEP's permitting and regulation process.²²⁶ Even if Eagle Holt were to choose dry harvesting, if they were to execute floods throughout the growing season—for instance, for winter weather protection purposes—then this water would also have to meet discharge regulations upon release because it is non-irrigation agricultural water.²²⁷

If MADEP does not amend the regulation, or if MADEP decides not to proceed upon receipt of the original petition, then the homeowners association might want to begin the process of judicial review.²²⁸ Judicial review provides an avenue to amend regulations, but the burden of proof is high.²²⁹ It is possible that the court would look to *Chevron* for guidance and would thus consider whether the intent of Congress is clear in this particular regulation, and if not, whether the agency's construction of the regulation is permissible.²³⁰ Based on the fickle mid-1970s discharge regulations, as well as the struggles seen in modern case history, the homeowners association can likely show that legislative intent is not clear in terms of whether non-irrigation agricultural runoff is meant to fit through the irrigation return flow loop-

²²³ See 310 MASS. CODE REGS. 2.08.

²²⁴ See 314 MASS. CODE REGS. 3.03–19 (2009).

²²⁵ See *id.* The proposed amendment would remove non-irrigation agricultural waters from the list of exempted water discharges. See *id.* at 3.05; *supra* note 206 and accompanying text. The definition of “point source” would also likely need amending to ensure consistency between the regulatory provisions. See 314 MASS. CODE REGS. 3.02. With these changes in place, the DWPC could then regulate the discharge. *Id.* at 3.03, 3.08.

²²⁶ See *id.* at 3.03, 3.08.

²²⁷ See *id.* at 3.03, 3.05, 3.08.

²²⁸ See MASS. GEN. LAWS ch. 30A § 7 (2006) (offering any citizen the right to judicial review).

²²⁹ See MASS. GEN. LAWS ch. 231A, §§ 1–2 (stating that judicial review can be used to obtain declaratory relief); see also 39 MASS. PRAC. 774 (describing the high burden of proof during judicial review).

²³⁰ See *Chevron U.S.A., Inc. v. Natural Res. Def. Council*, 467 U.S. 837, 842–43 (1984).

hole.²³¹ Still, the subsequent level of deference to the agency would be high, and the association would need to prove that the agency's choice to enforce the regulation is unreasonable, not that it is "not right."²³²

On one hand, the court might analogize to *Chevron*.²³³ Even if the court might have interpreted the statute differently, provided that the agency's interpretation is one form of reasonable interpretation, the court will not provide a remedy.²³⁴ However, it is possible that the court could find that MADEP's interpretation of the Act is "arbitrary, unreasonable, or inconsistent with the plain terms of the rule itself."²³⁵ For instance, the court might look to the intent behind the 1976 permitting regulations and note that return flows from cranberry bogs were meant to be regulated before Congress passed the sweeping irrigation return flow exemption in the 1977 Clean Water Act Amendments.²³⁶ Using this history as guidance, and by considering agency responses to public concerns raised during the petition's comment period, the court might hold that it is unreasonable to permit controlled releases of non-irrigation agricultural waters under the return flow exemption.²³⁷

B. *The Relevance of Case History in the Petition Process*

Upon submitting the petition to MADEP, appealing to prior case history might also help the homeowners association.²³⁸ Because it is almost impossible to find consistent, established precedent with regard to irrigation return flow matters, it is obvious that clarifying the definition of "irrigation return flow" would be beneficial.²³⁹

²³¹ See Hanson & Bender, *supra* note 45, at 350–54; see, e.g., Fishermen Against the Destruction of the Env't, Inc. v. Closter Farms, Inc., 300 F.3d 1294 (11th Cir. 2002); Hiebenthal v. Meduri Farms, 242 F. Supp. 2d 885 (D. Or. 2002); United States v. Frezzo Bros., Inc., 546 F. Supp. 713 (E.D. Pa. 1982), *aff'd*, 703 F.2d 62 (3d Cir. 1983).

²³² See U.S. Gypsum Co. v. Executive Office of Env'tl. Affairs, 867 N.E.2d 764, 770 (Mass. App. Ct. 2007) (discussing the high level of discretion given to an agency or agency official); 40 MASS. PRAC. 1641.

²³³ See 467 U.S. at 842–44.

²³⁴ See *id.* at 844.

²³⁵ See *Gypsum*, 867 N.E.2d at 770.

²³⁶ Hanson & Bender, *supra* note 45, at 350–54.

²³⁷ See *Gypsum*, 867 N.E.2d at 770; Hanson & Bender, *supra* note 45, at 350–54; Morriss et al., *supra* note 156, at 192 & n.67.

²³⁸ See Morriss et al., *supra* note 156, at 192.

²³⁹ Compare Fishermen Against the Destruction of the Env't, Inc. v. Closter Farms, Inc., 300 F.3d 1294 (11th Cir. 2002) (holding that water used in sugar cane farming was return flow from irrigation agriculture even though the water was actively pumped off the premises), and Hiebenthal v. Meduri Farms, 242 F. Supp. 2d 885 (D. Or. 2002) (holding that water that was industrial waste was not subject to regulation because it was used to irrigate crops), with United States v. Frezzo Bros., Inc., 546 F. Supp. 713 (E.D. Pa. 1982), *aff'd*, 703

Frezzo Bros. is perhaps the only case where the court felt comfortable enough to make a distinction between various types of waters used at one agricultural operation.²⁴⁰ Pointing out that some water coming off of a farm is very different than what regulations seek to exempt, the court ruled that the runoff resulting from mushroom composting must be subject to discharge regulation.²⁴¹ In essence, the court drew a line between traditional farming activities and other activities that may take place on a farm.²⁴² Runoff from traditional farming activities was more likely to be classified as an exemption.²⁴³ In this case, the court held that composting water, because it was used primarily to manufacture a commodity for sale, could be subject to discharge pollution regulation; the irrigation, rain, and runoff water, however, was exempt as irrigation return flow.²⁴⁴ In sum, *Frezzo Bros.* seems to indicate that certain processes that take place on a farm—in this case, manufacturing—do not fit through a loophole in the irrigation return-flow exemption.²⁴⁵

The holding in *Frezzo Bros.* was subsequently weakened when the court in *Hiebenthal* held that it had no authority over excess manufacturing wastewater disposed of on crop fields.²⁴⁶ The court even mentioned that the water was polluted and that such discharge is likely to continue.²⁴⁷ In spite of such conditions, the court held that it did not have subject-matter jurisdiction over the waters in question.²⁴⁸ *Hiebenthal* thus illustrates a mismatch between common sense and written law: polluted waters running off of a crop field should be regulated, but because there exists a general irrigation return-flow exemption, the court is powerless.²⁴⁹ Furthermore, *Hiebenthal* does not support the holding in *Frezzo Bros.* that manufacturing wastewater is subject to CWA regulation.²⁵⁰

If non-irrigation agricultural waters were regulated under the CWA, then perhaps the *Hiebenthal* court would not have had to give up

F.2d 62 (3d Cir. 1983) (holding that water used in mushroom composting was subject to discharge permitting requirements).

²⁴⁰ See 546 F. Supp. at 723–25.

²⁴¹ *Id.* at 725.

²⁴² See *id.* at 723–25.

²⁴³ *Id.* at 724–25.

²⁴⁴ *Id.* at 725.

²⁴⁵ See *id.* at 734.

²⁴⁶ *Hiebenthal v. Meduri Farms*, 242 F. Supp. 2d 885, 887 (D. Or. 2002); see *Frezzo Bros.*, 546 F. Supp. at 723–25.

²⁴⁷ *Hiebenthal*, 242 F. Supp. 2d at 887.

²⁴⁸ *Id.*

²⁴⁹ See *id.* at 887–88.

²⁵⁰ See *id.*; *Frezzo Bros.*, 546 F. Supp. at 724–25.

so easily and the holding would fit more squarely with *Frezzo Bros.*²⁵¹ The *Hiebenthal* court instead could have been able to make a distinction: the water that was sufficient for irrigating the crops could fit into the “irrigation return flow” exemption and flow naturally without permit, but the excess water that was intentionally applied for disposal purposes is not irrigation and therefore must meet certain water quality standards upon discharge.²⁵² A regulation that stated such a distinction might have been easier for the court to enforce and possibly could have resulted in less of a struggle.²⁵³

Frezzo Bros. and *Hiebenthal* are proof that clarity in the CWA is needed; when the holdings from the cases are compared, it is difficult to see a consistent application of the irrigation return flow exemption.²⁵⁴ It would have been possible for the *Hiebenthal* court to follow the precedent set in *Frezzo Bros.* and demand that excess manufacturing wastewater be subject to CWA regulation, but instead, the court held otherwise.²⁵⁵ Even though the water was polluted, the court held that it did not have jurisdiction under the CWA.²⁵⁶ Closing the non-irrigation agricultural waters loophole would solve this problem and enable more consistent regulation of the various types of agricultural waters.²⁵⁷

C. *The Aftermath of the Petition Process: Modern Solutions to Old Problems*

The courts could have decided differently or more efficiently in many of the cases mentioned if the irrigation return flow loophole did not exist.²⁵⁸ These cases also give an indicator as to how cranberry bogs might be regulated in light of a CWA amendment.²⁵⁹ For example, although the court in *Frezzo Bros.* might not have decided differently, it

²⁵¹ See *Hiebenthal*, 242 F. Supp. 2d at 887–88; *Frezzo Bros.*, 546 F. Supp. at 722–24.

²⁵² See *Hiebenthal*, 242 F. Supp. 2d at 887–88; see also 33 U.S.C. § 1342(l)(1).

²⁵³ See *Hiebenthal*, 242 F. Supp. 2d at 887–88.

²⁵⁴ Compare *id.* (holding that water that was industrial waste was not subject to regulation because it was used to irrigate crops), with *Frezzo Bros.*, 546 F. Supp. at 724–25 (holding that water used in mushroom composting is subject to discharge permitting requirements).

²⁵⁵ See *Hiebenthal*, 242 F. Supp. 2d at 887–88; *Frezzo Bros.*, 546 F. Supp. at 722–24.

²⁵⁶ See *Hiebenthal*, 242 F. Supp. 2d at 888; *Frezzo Bros.*, 546 F. Supp. at 722–24.

²⁵⁷ See *Hiebenthal*, 242 F. Supp. 2d at 887–88; *Frezzo Bros.*, 546 F. Supp. at 722–24; see also Hanson & Bender, *supra* note 45, at 364.

²⁵⁸ See, e.g., *Fishermen Against the Destruction of the Env't, Inc. v. Closter Farms, Inc.*, 300 F.3d 1294 (11th Cir. 2002); *Hiebenthal* 242 F. Supp.2d 885; *Frezzo Bros.* 546 F. Supp. 713. Additionally, the public nuisance suit in *Zawistowski* might not have even been necessary if the level of phosphorus was regulated in cranberry bog discharges. See *State v. Zawistowski*, No. 2006AP1539, 2008 WL 302382, at *1 (Wis. Ct. App. Feb. 5, 2008).

²⁵⁹ See *Fishermen*, 300 F.3d 1294; *Hiebenthal* 242 F. Supp. 2d 885; *Frezzo Bros.* 546 F. Supp. 713; see also Hanson & Bender, *supra* note 45, at 364.

probably could have made its finding much more efficiently.²⁶⁰ Rather than having to turn to prior case law to determine if manufacturing was classified as part of agricultural activity, the court could have simply placed the water into the “non-irrigation agricultural waters” category and enforced CWA regulation accordingly.²⁶¹ By analogizing cranberry production to the farming practices in *Frezza Bros.*, one can distinguish between water used to help the cranberries grow and water used to collect a marketable commodity.²⁶² Noting that it is possible to harvest cranberries without flooding the beds, cranberry farmers clearly use the floodwaters for the wet-harvesting method to procure a commodity for sale; therefore, like water used to manufacture compost, it is not agricultural irrigation.²⁶³

The *Hiebenthal* scenario is also analogous to the situation at Blackmore Pond because the cranberry floodwaters are similar to the excess manufacturing wastewater coming off of the fields in *Hiebenthal*.²⁶⁴ In neither situation is the water that creates the controversial “return flow” used to irrigate crops; in the former the water is used to harvest, in the latter it is left-over manufacturing wastewater applied in excess of irrigational needs.²⁶⁵ It would have been possible for the farmer in *Hiebenthal* to use less water when irrigating his crops.²⁶⁶ Similarly, cranberry farmers can harvest their crops without using any floodwaters at all.²⁶⁷ Thus, like the court in *Hiebenthal* would have had jurisdiction over the excess waters if the non-irrigation agricultural waters loophole were closed, the MADEP could regulate the water from Eagle Holt cranberry bogs returning to Blackmore Pond if the loophole were closed.²⁶⁸

Finally, *Fishermen Against the Destruction of the Environment* represents perhaps the broadest interpretation of the agricultural water return flow loophole, and it is important to distinguish the case from modern-

²⁶⁰ See 546 F. Supp. at 722–25 (dedicating nearly three full pages to clarifying what constitutes traditional farming versus other processes that take place on a farm, something the court likely would not have had to do if the CWA provided clearer guidelines).

²⁶¹ See *id.*

²⁶² See *id.*; *supra* Part I.A. (explaining the use of water in cranberry production).

²⁶³ See *Frezza Bros.*, 546 F. Supp. at 724; FALL CRANBERRIES, *supra* note 29.

²⁶⁴ 242 F. Supp. 2d at 887–88.

²⁶⁵ *Id.* at 888; see also DEMORANVILLE & HOWES, *supra* note 71, app. at 74 (showing that water traveled from the cranberry bogs to Blackmore Pond following floods but not at all during the growing season).

²⁶⁶ 242 F. Supp. 2d at 888 (mentioning that the farmer used water “in excess of the crops’ actual absorption”).

²⁶⁷ FALL CRANBERRIES, *supra* note 29.

²⁶⁸ See 242 F. Supp. 2d at 887; see also 314 MASS. CODE REGS. 3.03, 3.05 (2009).

day cranberry operations.²⁶⁹ In *Fishermen*, the court held that discharge of the floodwaters from a sugarcane field was stormwater and irrigation return flow and thus exempted from regulation.²⁷⁰ During sugarcane growth, the fields stay flooded throughout the growing season, and much of the floodwater is actually used to water the crops as they grow.²⁷¹ As such, closing the non-irrigation loophole might allow proportionate regulation of the volume of water that is not used to irrigate the sugarcane, but leave unregulated the volume of water used to actually irrigate the crops.²⁷² This situation is very different from that seen on most cranberry bogs.²⁷³ Whereas the floodwater on the sugarcane fields is actually used to irrigate growing crops, the cranberry floodwaters are utilized for other purposes.²⁷⁴ As seen in the water pattern study at Blackmore Pond, the only surface water measured leaving the bogs was after a flood release, not during the regular growing season.²⁷⁵ This finding supports the argument that the water is not actually any sort of return flow from irrigation; after all, true irrigation would have been done during the growing season, but the researchers did not observe any water leaving the bog at that point in time.²⁷⁶ Rather, the water that is normally discharged during flood releases is more of a tool that farmers use to harvest the berries at the end of the growing season.²⁷⁷ If the homeowners association were successful at closing the loophole via amendment to the MCWA, the designation of these waters would no longer be a guessing game; as non-irrigation agricultural waters, they would be subject to regulation.²⁷⁸

CONCLUSION

The residents of Blackmore Pond would benefit from an amendment adding “non-irrigation agricultural waters” to the list of regulated

²⁶⁹ *Fishermen Against the Destruction of the Env't, Inc. v. Closter Farms, Inc.*, 300 F.3d 1294, 1297–98 (11th Cir. 2002).

²⁷⁰ *Id.* at 1297.

²⁷¹ *Id.*

²⁷² See 33 U.S.C. § 1342(l)(1) (2006); *Fishermen*, 300 F.3d at 1297.

²⁷³ See *Fishermen*, 300 F.3d at 1297; WATER USE, *supra* note 25.

²⁷⁴ See *Fishermen*, 300 F.3d at 1297; WATER USE, *supra* note 25.

²⁷⁵ DEMORANVILLE & HOWES, *supra* note 71, app. at 74.

²⁷⁶ See *id.*; see also WATER USE, *supra* note 25 (differentiating irrigation from flooding).

²⁷⁷ WATER USE, *supra* note 25 (discussing further that floods may also be used for various other purposes depending on conditions, but will almost certainly be used for harvesting).

²⁷⁸ See 314 MASS. CODE REGS. 3.03, 3.05 (2009).

discharges under the MCWA.²⁷⁹ In fact, many environmental interest groups as well as the general public might also benefit from a similar amendment at the federal and/or state levels.²⁸⁰ Data shows that cranberry bogs are, in fact, a known source of phosphorus in surrounding waterways, and that such phosphorus can result in eutrophic growth, an undesirable condition that decreases water quality and usability.²⁸¹ Furthermore, case history shows two things: attempts at dealing with these problems have been largely unsuccessful and that courts are often uncertain and inconsistent when applying CWA regulations to various types of agricultural waters.²⁸²

It is therefore evident that clarification of the discharge regulations is needed and that upon such clarification, it would be beneficial to include an amendment closing the irrigation return-flow exemption loophole that permits farmers to discharge non-irrigation agricultural waters without regulation.²⁸³ Fortunately, Massachusetts state law allows any citizen to petition for the adoption, amendment, or repeal of any state or agency regulation.²⁸⁴ The Blackmore Pond Homeowners Association could use this valuable tool to propose amendment to the MCWA regulations.²⁸⁵ If successful, the amendment could impose water quality regulations on the discharge of cranberry bog waters and other non-irrigation agricultural waters not only into Blackmore Pond, but other state waterways as well.²⁸⁶

If the state-level petition process does not yield favorable results for the association, the homeowners may utilize judicial review and attempt

²⁷⁹ See DEMORANVILLE & HOWES, *supra* note 71, at 44 (indicating that flood releases from cranberry bogs are major contributors of phosphorus to nearby waterways); ECOLOGICAL ASSESSMENT, *supra* note 2, at 11 (indicating that phosphorus is one of the major causes of eutrophication, such as that founds at Blackmore Pond).

²⁸⁰ See DEMORANVILLE & HOWES, *supra* note 71, at 6 (stating that less phosphorus leaving cranberry bogs is recommended). See generally Hanson & Bender, *supra* note 45 (arguing that regulation of cranberry bog discharges is desirable and would help address water-quality problems caused by cranberry bogs).

²⁸¹ DEMORANVILLE & HOWES, *supra* note 71, at 44; ECOLOGICAL ASSESSMENT, *supra* note 2, at 11.

²⁸² See *Fishermen Against the Destruction of the Env't, Inc. v. Closter Farms, Inc.*, 300 F.3d 1294 (11th Cir. 2002); *Hiebenthal v. Meduri Farms*, 242 F. Supp. 2d 885 (D. Or. 2002); *United States v. Frezzo Bros., Inc.*, 546 F. Supp. 713 (E.D. Pa. 1982), *aff'd*, 703 F.2d 62 (3d Cir. 1983); *State v. Zawistowski*, No. 2006AP1539, 2008 WL 302382, at *1 (Wis. Ct. App. Feb. 5, 2008).

²⁸³ See *supra* Part II.A.2 (illustrating that the loophole has resulted in inconsistent suits under the CWA); Hanson & Bender, *supra* note 45, at 364.

²⁸⁴ MASS. GEN. LAWS ch. 30A, § 4 (2008).

²⁸⁵ See *id.*; 310 MASS. CODE REGS. 2.00 (1994).

²⁸⁶ See 314 MASS. CODE REGS. 3.03, 3.05, 3.08 (2009).

to prove that the respective regulation under the MCWA is unclear and unreasonable.²⁸⁷ Additionally, the homeowners may also commence a very similar petition process at the federal level seeking to amend the federal CWA.²⁸⁸ Finally, it is important to note that citizen petitions for rulemaking at both the federal and state levels are very valuable—though often overlooked—tools for any American seeking change.

²⁸⁷ MASS. GEN. LAWS ch. 231A, § 2; *see* *Chevron U.S.A., Inc. v. Natural Res. Def. Council*, 467 U.S. 837, 842–43 (1984); *U.S. Gypsum Co. v. Executive Office of Env'tl. Affairs*, 867 N.E.2d 764, 770 (Mass. App. Ct. 2007).

²⁸⁸ 5 U.S.C. 553(e) (2006).