

**PETITION**

Of

**The Massachusetts Rivers Alliance**

To The

**The Massachusetts Department of Environmental Protection**

**For the promulgation of Revised and Amended Regulations that impose Conservation Conditions on all Registrants to satisfy the purposes of the Massachusetts Water Management Act, the Water Conservation Standards (June 2012, as amended), and the Public Trust Doctrine.**



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Ian Cooke  
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March \_\_, 2017

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cc:

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Re: Petition to amend current regulations: (1) 310 CMR § 36.02, removing the words “above the threshold volume” from the text of that Section; and (2) 310 CMR § 36.07 to impose water conservation conditions on all registration renewals issued under 310 CMR § 36.10 that are consistent with the requirements of MGL c. 21G, §§ 3, 4, 7 and 11, the Massachusetts Water Policy (2004) established by the Executive Office of Energy and Environmental Affairs (“EOEEA”), and the Water Conservation Standards (2012), as amended, established by the Massachusetts Water Resources Commission (the “Commission”).

### **REQUEST FOR ADOPTION OF RULES**

Massachusetts General Law Chapter 30A, section 4 provides as follows:

*Any interested person may petition an agency requesting the adoption, amendment or repeal of any regulation, and may accompany his petition with such data, views and arguments as he thinks pertinent. Each agency shall prescribe by regulation the procedure for the submission, consideration and disposition of such petitions.*

As prescribed by this section, the Massachusetts Department of Environmental Protection (“Department”) promulgated 310 CMR § 2.00 (Adopting Administrative Regulations) and specifically 310 CRM § 2.02, for the submission of petitions. This Petition complies with the terms of G.L. 30A, § 4 and 310 CMR § 2.00.

Petitioners respectfully request that the Department revise 310 CMR §36.02 to remove the words “above the threshold volume” from this section of the Water Management Act (the Act), thereby eliminating an unnecessary limitation upon the Department’s management of water withdrawals that is inconsistent with the Act and the Water Conservation Standards (2012) (Standards).

Petitioners further request that the Department amend 310 CMR § 36.07 to impose conservation conditions on all registrants upon renewal of their registration statements (See Appendix A for proposed, revised 310 CMR § 36.07). These conditions are:

- a) Preparation of a written water conservation plan that incorporates and achieves the Commission’s Standards, including but not limited to, 65 residential gallons per person per day (RGPCD), 10 percent or less unaccounted for water (UAW), and a seasonal demand management plan restricting outdoor water use, which also considers Recommendations under the current Water Conservation Standards.
- b) Require that the grant of all registration renewals be subject to the completion of the aforesaid plan; and

- c) Require that all annual reports of registrations include all actions taken in accordance with such plan.
- d) Require that all plans be subject to amendment to comply with streamflow standards and/or seasonal withdrawal restrictions as may be imposed by the Department upon further amendment of its regulations.

## **STATEMENT OF REASONS**

### **A. LEGISLATIVE HISTORY AND AUTHORITY**

1. The underlying purposes of the Water Management Act (MGL c. 21G, the “Act”) are expressed in Section 3 of the Act. Basically they are:

A. The effective planning and management of water use and conservation to ensure an adequate volume and quality of water for all citizens of the Commonwealth through the adoption of necessary and proper principles, policies and guidelines; and

B. Ensuring that such principles, policies and guidelines are designed to: protect the natural environment of water; assure *comprehensive* and systematic planning and management of water withdrawals; allow continued and sustainable economic growth; and increase social and economic well-being and safety.

2. To these ends, all regulations adopted by the Department must conform to and implement principles, policies and guidelines established by the Massachusetts Water Resources Commission. [1]

3. For all of the reasons herein, the Petitioners believe that 310 CMR §§ 36.02 and 36.07 improperly insulate withdrawal registrations and renewals from the Water Management Act and its regulations, current Water Conservation Standards and state water Policies issued by the Commission and as such, defeat the underlying purposes of the Act, abrogate the principles of the MA Public Trust Doctrine, fail to protect the Commonwealth and its citizens from the detrimental effects of climate change on water of the Commonwealth, and otherwise violate Massachusetts law and regulations.

### **B. REGISTRATION CONDITIONS**

4. In Water Department of Fairhaven v. Department of Environmental Protection, 455 Mass. 740 (2010), the Supreme Judicial Court affirmed the authority of the Department to promulgate regulations conditioning its issuance of 10-year registration renewals with reasonable water conservation measures. The Court recognized water conservation as an “important purpose of the

Act,” citing Section 3 of the Act as well as the goals and recommendations in the Water Conservation Standards. [2]

5. The Court in Fairhaven concluded that the Department “has broad authority under Section 3 to issue regulations to carry out the Act’s purpose of water management, including water conservation, provided that it does not infringe the registrants’ entitlement to existing withdrawals.” [3]

6. The only conditions imposed under current regulations upon registrations and their renewal are set forth in 310 CMR § 36.07(a)-(c). There is no requirement that the registrant meet the Water Conservation Standards, and particularly the RGPCD and UAW performance standards, and seasonal outdoor watering limitations adopted by the Commission (collectively, the performance standards). Registrants are only required to document discretionary “conservation measures instituted or to be instituted, by the registrant” as part of the renewal process. [4]

7. The Fairhaven decision holds that Commission-approved and adopted conservation conditions may only be imposed pursuant to duly promulgated regulations. [5] As a consequence, the only mandatory conditions under § 36.07 are flow metering, accurate recording and reporting of withdrawals, and the timely filing of annual reports. [6]

8. Notwithstanding Section 3’s mandate that management of water withdrawals “shall” be planned in a “comprehensive and systematic” manner; the Fairhaven Court’s recognition of the Department’s authority to regulate to achieve the “important purpose” of water conservation under the Act; and contrary to the Commission’s adoption of the performance standards, post-Fairhaven, the Department abandoned its efforts to impose these basic water conservation standards on registrants. This failure to make registrants subject to the performance standards leads to the result that more than 60 percent of all authorized withdrawals in Massachusetts are unconditioned with respect to water conservation. [7] Instead the Department allows each registrant to determine what, if any, water conservation measures to implement and simply requires the registrant to report these measures at each 10-year renewal. [8]

9. The Department’s Bureau of Water Resources 2016 data indicates that 83.5 percent of all annualized authorized water withdrawals from the Ipswich River Basin are by means of registrations only (28.88MGD Registered /34.581MGD Total Authorized, assuming SBWSB functionally registered). [9] Exacerbating the situation is the fact that the 28.88MGD of registered withdrawals alone almost equals The Department’s SAFE YIELD CALCULATION OF 29.4MGD for the Basin. [10] The lack of basic water conservation standards for the vast majority of Ipswich River Basin withdrawals (and other basins and sub-basins that are dominated by registrations such as the Jones River) is a blatant abrogation of the purpose of the Act and Section 3’s requirement that the Department conform its regulations to the principles, policies and guidelines of the Commission.

10. The conditioning of less than 40 percent of the statewide authorized water withdrawals with the water conservation performance standards is not a “comprehensive and systematic” approach to water management when more than 60 percent of withdrawals are not required to comply with these basic performance standards. [11],

11. The impact of the failure to condition registrations with RGPCD, UAW and seasonal use conditions was painfully demonstrated during the current drought in watersheds where registrations dominate total authorized water withdrawals. The upper Ipswich River, for example, was a dry wasteland during the months of July, August and September (<https://youtu.be/ks3vG3uNfCs>). Even in the lower reaches, the streambed was dry and fish, amphibians, reptiles and macroinvertebrate populations were devastated. In other basins and sub-basins threats to water supplies and agriculture and local water emergencies became everyday occurrences, including in the Parker River, which registered zero flow in September at the Byfield Gauge.

12. In order to fulfill its legal obligations under the Act, the Department must promulgate regulations that mandate that all registrants now and at registration renewal submit for approval a water conservation plan that incorporates and will achieve the performance standards.

### **C. THE PUBLIC TRUST DOCTRINE**

13. The origins of the Act can be traced back to the Commonwealth's Constitution and the Public Trust Doctrine, a principle that protects and serves the collective interest of all citizens of the Commonwealth. [12]

14. In adopting the Water Conservation Standards the Commission affirmed the Commonwealth's continuing "obligation to emphasize water-use efficiency in order to: 1. Preserve the Commonwealth's water resources, *as part of the public trust...*" (Emphasis added). [13]

15. The Commission further recognizes as fundamental the Commonwealth's "interest in protecting water resources as public resources *to be held in trust for current and future generations...*" (Emphasis added)". [14]

16. These pronouncements, expressed as part of the underpinnings of the Standards, invoke principles of common law that date back in the Commonwealth to the Colonial Ordinances of 1641-1647 as well as the more recent Massachusetts Public Waterfront Act [15] and Article 97 of the state Constitution. As such, the Standards recognize surface and groundwater as integrated components of the public trust of the Commonwealth, a concept that is clearly incorporated in Section 3 of the Act which mandates that groundwater and surface water be managed as a "single hydrological system". [16]

17. To avoid the application of the Commission's performance standards to registered water withdrawals undermines and defeats the collective interest of the public in public trust property and fails to carry out the Commission's stated implementation objective that "The standards . . . should be used in all programs affecting the planning and management of the Commonwealth's water resources, including the Water Management Act..." [17]

#### **D. THE EFFECTS OF CLIMATE CHANGE**

18. The inevitability of climate change and its impacts on water resources in the Commonwealth of Massachusetts is critical to a comprehensive water management program. Water conservation is a compelling, cost-effective strategy for resilience to climate change and protection of this vital natural resource.

19. Winters in the Northeastern states are expected to be much shorter with fewer cold days (frost days) per year. The number of extreme heat days in summer is expected to increase with the general warming trend. Currently, Northeastern states experience few days above 100° F, but this is expected to increase to an average of 20-30 days each summer. [18]

20. The Northeastern states will experience more frequent short-term droughts lasting from one to three months. It is predicted that this region will experience these conditions once each summer across the New England states by the middle of the current century. [19]

21. Predictions are that by 2050, hot summer conditions will arrive in the Northeastern states three weeks earlier than over the previous century, and will extend three weeks later into the fall. [20]

22. With snowpack depleted earlier in the year, the summer and fall months will experience low flow conditions, exacerbated by increased water use and evaporation. Degraded water quality will worsen, and pollutants will become more concentrated as more surface water is both depleted and lost to evaporation. [21]

23. The extreme drought conditions this past summer and drought conditions in 2015 made it clear that drinking water, ground water and surface waters are in jeopardy. In the case of the Ipswich River, flow levels dropped to a historically low level of 0.24 cfs in August 2016. [22] Flow rates then fell to zero in parts of the River in August-September 2016, with headwater sources (Martins Brook and Lubbers Brook) completely dry from July to October. Groundwater withdrawals are proven to have the most significant impact on flows during periods of drought, including the loss of the moderating effects of lower groundwater temperatures on aquatic organisms. [23] This compounds the impacts of climate change particularly when effective water conservation measures are not being imposed nor implemented.

#### **E. INACTION IS ILLEGAL AND AN ABUSE OF DISCRETION**

24. The Department cannot continue to avoid requiring through regulations that registrants comply with the performance standards. The clear need for such regulation has only escalated in the six years since the Court in Fairhaven affirmed the Department's ability to promulgate

regulations to condition registrations. Its failure to do so is violates the Act, the Water Conservation Standards and water policy.<sup>1</sup>

25. While the Department may assert that any decision to condition registrations through regulation is purely discretionary, and not arbitrary and capricious or an abuse of discretion, insulating 60 percent of authorized water withdrawals from these reasonable, necessary and “important” water conservation conditions is in fact arbitrary and capricious and an abuse of the Department’s discretion.

26. Agency discretion that remains unexercised in the midst of compelling circumstances that demand action, is discretion clearly abused. [24]

27. Failing to address these deficiencies in its 2014 regulatory amendments to the Act the Department without any rationale stated that “MassDEP has decided not to extend permit conditions to registrations in these regulatory changes, but may revisit this issue in the future.” The future is now and the Department has an obligation to act rather than allow the status quo to continue for another ten-year renewal of registrations. Registrations are slated to be renewed in 2018.

#### **F. INACTION VIOLATES THE WATER MANAGEMENT ACT AND CURRENT REGULATIONS**

28. Having integrated Water Conservation Standards into the permitting process, the Department’s failure to extend these Standards to the registration process directly violates the Act.

29. Under Section 3 of the Act, the Department is to “...establish a mechanism for managing ground and surface water in the commonwealth *as a single hydrological system*...” (Emphasis added). This mechanism fails where more than 60 percent of withdrawals are not required to meet the water conservation performance standards.

30. In addition, Section 3 of the Act mandates that the Department promulgate regulations that “conform to, and implement, the principles, policies and guidelines established by the Commission under this section.” Although the Commission has established performance standards, the Department has failed to apply them to registered withdrawals.

31. The regulations at 310 CMR § 36.02 (Purpose) affirm the underlying statutory and regulatory purpose to “comprehensively manage” water withdrawals. This “Purpose” also includes the Department’s “appropriate balancing among competing water withdrawals and uses and the

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<sup>1</sup> Pursuant to Section 3 of the Act, the Department must conform its regulations to the principles, policies and guidelines of the Commission. The Commission’s Water Conservation Standards do not distinguish registrations from permitted withdrawals, as to do so would undermine the effectiveness of the Standards on the integration of ground and surface waters as a hydrological system.

preservation of the water source.” This requires the development of sustainable water management “that balances human and ecological water needs...” Water withdrawals under unconditioned registrations do not serve any of these objectives.

“The Commonwealth's water resources are public resources that require sustainable management practices for the well-being and safety of its citizens, protection of the natural environment and for economic growth.” 310 CMR 36.02. The double standard of failing to impose the performance standards on registrations while requiring them for permitted withdrawals defeats this very purpose. The Department is in violation of its own regulations.

**G. UNLESS ADEQUATELY CONDITIONED WITH THE PERFORMANCE STANDARDS, THE 2018 REGISTRATION RENEWALS WILL VIOLATE THE MASSACHUSETTS ENVIRONMENTAL POLICY ACT**

32. The Massachusetts Environmental Policy Act (“MEPA”), G.L. c. 30, § 61, provides that when an agency considers and issues “administrative approvals and decisions” it “shall also consider reasonably foreseeable climate change impacts . . . “Additionally, it must also “review, evaluate, and determine the impact on the natural environment of all works, projects or activities conducted by them and shall use all practicable means and measures to minimize damage to the environment.” *Id.* Conditioning registration renewals with the performance standards will minimize damage to the environment.

33. Should the Department fail to promulgate regulations enabling it to require the performance standards in registrations and registration renewals, it will violate the plain language and intent of G.L. c. 30, § 61.



## FOOTNOTES

[1] The final sentence of MGL c. 21G, §3, states: “All regulations adopted by the department pursuant to this chapter shall **conform to, and implement**, the principles, policies and guidelines established by the commission under this section (emphasis added).” The “commission” as defined under Section 2 of the Act is “the water resources commission of the executive office of environmental affairs.”

[2] Water Department of Fairhaven vs. Department of Environmental Protection, 455 Mass. 740, 747 (2010).

[3] *Id.* at 748.

[4] 310 CMR §§ 36.06(2)(f), 36.10(3).

[5] Fairhaven at 749.

[6] 310 CMR § 36.07.

[7] The Department’s Bureau of Water Resources Safe Yield and its Components by Major Basin, March 2016, a copy of which table is attached to this Petition. On its face the table reflects total authorizations for all Basins of 1273.40MGD of which 1090.62MGD are registered withdrawals, or 85.64 percent. However, certain Registrations have been supplemented by the addition of permitted volumes, thereby subjecting these Registrations to permitting requirements, including water conservation standards. As a consequence, 60 percent of all authorized withdrawals are Registrations that escape any requirement to comply with water conservation standards. If other unregulated withdrawals including private wells and withdrawals below the 100,000GPD regulatory threshold were taken into account, this 60 percent figure would increase significantly.

[8] 310 CMR § 36.06(2)(f).

[9] The Department’s Bureau of Water Resources Safe Yield and its Components by Major Basin, March 2016, Ipswich Basin authorized withdrawal calculations. While attempts are being made to reallocate a portion of authorized water withdrawals from the current Ipswich River Basin calculations, such modification is not reflected in the DEP’s table as that change has not yet been implemented and is likely to be contested.

[10] *Id.*, Ipswich Basin SAFE YIELD calculation. Reference to the DEP’s calculation of Safe Yield under current regulations should not be interpreted as an acceptance by the Petitioners of those calculation or the applicable regulations.

[11] 310 CMR §§ 36.18-36.24. See also footnote [7].

[12] Constitution of the Commonwealth of Massachusetts, Article 97 adopted in 1972, which provides: “The people shall have the right to clean air and **water**, freedom from excessive and unnecessary noise, and the natural, scenic, historic, and esthetic qualities of their environment;

and the protection of the people in their right to the conservation, development and utilization of the agricultural, mineral, forest, **water**, air and other natural resources **is hereby declared to be a public purpose**. The general court shall have the power to **enact legislation necessary or expedient to protect such rights** (emphasis added).”

[13] Commonwealth of Massachusetts Water Conservation Standards (June 2012) at p. 3.

[14] *Id.*, page 4.

[15] MGL c.91 and 310 CMR § 9.00 et seq.

[16] MGL c.21G, § 3, para. 6, line 4.

[17] Commonwealth of Massachusetts Water Conservation Standards (June 2012) at p. 5.

[18] US Global Change Research Program, Regional Climate Impacts: Northeast. 2009, Union of Concerned Scientists, Climate Change Impacts: Northeast (2006), Northeast Climate Impacts Assessment, Massachusetts (2007); USEPA Office of Policy, Planning and Evaluation, Climate Change and Massachusetts. Pub No. 230-F-97-008u (1997), US Global Change Research Program, Regional Climate Impacts: Northeast. 2009, Union of Concerned Scientists, Climate Change Impacts: Northeast (2006), Northeast Climate Impacts Assessment, Massachusetts (2007), Massachusetts Executive Office of Energy and Environmental Affairs, Climate Change Adaptation in Massachusetts (2009).

[19] US Global Change Research Program, Regional Climate Impacts: Northeast. 2009, Northeast Climate Impacts Assessment, Massachusetts (2007), Massachusetts Executive Office of Energy and Environmental Affairs, Climate Change Adaptation in Massachusetts (2009).

[20] US Global Change Research Program, Regional Climate Impacts: Northeast. 2009, Union of Concerned Scientists, Climate Change Impacts: Northeast (2006).

[21] USEPA Office of Policy, Planning and Evaluation, Climate Change and Massachusetts. Pub No. 230-F-97-008u (1997), Northeast Climate Impacts Assessment, Massachusetts (2007), Massachusetts Executive Office of Energy and Environmental Affairs, Climate Change Adaptation in Massachusetts (2009).

[22] USGS Report, Ipswich River Basin Flow Rates (2016). These readings should be compared to a streamflow of 52.5 CFS identified by USGS and MADFG as required for aquatic habitat protection. See Assessment of Habitat, Fish Communities, and Streamflow Requirements for Habitat Protection, Ipswich River 1998-99 by David S. Armstrong, Todd A. Richards, Gene W. Parker (USGS Water Resources Investigations Report 01-4161).

[23] A Precipitation-Runoff Model for Analysis of the Effects of Water Withdrawals on Streamflow, Ipswich River basin, Massachusetts, Water-Resources Investigation Report 00-

4029, Phillip J. Zarriello and Kernell G. Reis, III, U.S Department of Interior, U.S Geological Survey, pages 70-72 (2000).

[24] Boston Gas Co. vs. Department of Telecommunications & Energy, 436 Mass. 233, 763 N.E. 2<sup>nd</sup> 1045 (2002); Brockton Power Co., LLC v. Energy Facilities Siting Board, 469 Mass. 215, 13 N.E. 3<sup>rd</sup> 955 (2014).

## APPENDIX A

### PROPOSED AMENDED 310 CMR §36.07

#### 36.07 Registration Conditions

(1) The registrant shall comply at all times with the requirements and conditions imposed by the Department, M.G.L. c. 21G and 310 CMR 36.00, and all other applicable state and federal statutes and regulations.

(2) The following conditions shall apply to all registered withdrawals and registrants:

- a. Flow meters shall be installed which accurately reflect withdrawal volumes;
- b. The quantity of water that is being withdrawn shall be accurately recorded and reported to the Department on an annual basis as provided in 310 CMR 36.11; and
- c. Each annual report shall include a disclosure of the registrant's water conservation plan and actions taken during the prior twelve months to implement and enforce the plan, addressing those items specified in 310 CMR 36.07(3)(c).

(3) All renewal requests submitted under 310 CMR 36.10 shall include and address the following requirements. Compliance with these requirements shall be a condition of all renewals:

A written water conservation plan that includes (i) system-wide leak detection audits to be conducted every two years; (ii) annual field survey for leaks and expeditious repair of leaks; (iii) actions to be taken to achieve 10 percent unaccounted for water as defined under current Water Conservation Standards; (iv) verification of water metering accuracy and water meter repair; (v) public education of residents on water conservation measures for registrations involving public water use; (vi) water conservation measures taken or to be taken for registrations involving agricultural, commercial, industrial or institutional water use; and (vii) to the extent withdrawal restrictions are imposed by the Department through regulation on withdrawals from stressed basins, water conservation measures to be taken to accommodate such restrictions.

(4) All registrants wishing to renew registration statements shall file a renewal registration request as specified in 310 CMR 36.10.