COMMONWEALTH OF MASSACHUSETTS

MIDDLESEX, ss.

LAND COURT DEPARTMENT
OF THE TRIAL COURT
CIVIL ACTION NO. _____

TOWN OF CONCORD,

Plaintiff,

v.

LITTLETON WATER DEPARTMENT,

Defendant.

COMPLAINT

The Legislature authorized the Town of Concord ("Concord") to use Nagog Pond, a surface water body located in the towns of Acton and Littleton, MA, as a public water supply by Chapter 201 of the Acts of 1884 (the "1884 Act"). Pursuant to the 1884 Act, Concord acquired land by eminent domain and constructed a dam, intake pipe, and other water supply infrastructure at the pond in 1909. Concord has continuously operated Nagog Pond as a public water supply since that time, and has devoted substantial financial and management resources to the maintenance and operation of the pond as a reservoir for drinking water, fire protection, and public water supply to residents and businesses in Concord and Acton.

When Massachusetts adopted the Water Management Act, G.L. c. 21G (the "WMA"), in 1985 to "establish one state-wide, uniform system for authorizing and managing water withdrawals," Concord applied for and received a Registration, grandfathering and protecting its rights to withdraw water from Nagog Pond. Despite never being authorized to withdraw water from Nagog Pond and never actually withdrawing water from Nagog Pond, the Littleton Water Department ("Littleton") is demanding that Concord relinquish its rights to Nagog Pond based

on Littleton's assertion that an unexercised provision in Section 10 of the 1884 Act supersedes Concord's Registration under the WMA.

Littleton is also attempting to establish a set of groundwater wells known as the Cobbs Wells, which based on data provided to date has a hydrologic connection to Nagog Pond and will draw water from Concord's registered public water supply.

Littleton's claim of rights under the 1884 Act is invalid, because the WMA effectively repealed the 1884 Act and terminated any rights Littleton may have had to withdraw water from Nagog Pond. Alternatively, even if the 1884 Act has not been repealed, Littleton has not satisfied the criteria in Section 10 of the 1884 Act to exercise rights to Nagog Pond.

This declaratory judgment action seeks a judicial determination on the extent to which the WMA repealed and superseded the 1884 Act and the extent to which Concord's Registration pursuant to the WMA is superior to any assertion by Littleton that it has rights to Nagog Pond.

PARTIES

1. The Plaintiff, Town of Concord ("Concord"), has its principal office at Town House, 22 Monument Square, Concord, MA 01742.

2. The Defendant, Littleton Water Department ("Littleton"), has a principal place of business at 39 Ayer Road, Littleton, MA 01460-3406.

JURISDICTION

3. As an equitable matter involving rights to Nagog Pond and the use of the land Concord obtained through eminent domain and other measures for the purpose of operating and maintaining a public water supply, the Land Court has jurisdiction over the parties and this matter, pursuant to G.L. c. 185, § 1(k), c. 212, § 4, and c. 231A, §§ 1 and 2.

FACTUAL BACKGROUND

A. CONCORD'S RIGHTS TO NAGOG POND UNDER THE 1884 ACT

4. During the late 19th Century, Concord anticipated that it may need more water supply to support its inhabitants, businesses, and the state penitentiary.

5. After diligently investigating opportunities to increase its water supply, Concord petitioned the state legislature for authorization to withdraw water from Nagog Pond, a fresh water pond located along the border of the towns of Littleton and Acton.

6. In 1884, the General Court passed *An Act to Authorize the Town of Concord to Increase its Water Supply*, (the "1884 Act"), which gave Concord authorization to withdraw water from Nagog Pond and undertake land acquisitions by eminent domain to support its water withdrawal efforts. A copy of the 1884 Act is attached as **Exhibit A**.

7. Specifically, Section 2 of the 1884 Act states that Concord "may take and hold the waters of Nagog Pond, so called, in the towns of Acton and Littleton and the waters which flow into and from the same, and may also take and hold by purchase or otherwise all necessary land for raising, holding, diverting, purifying, and preserving such waters and conveying the same to any and all parts of said town of Concord, and may erect thereon proper dams, reservoirs, buildings, fixtures and other structures."

8. To effectuate its rights under the 1884 Act, in 1909, Concord Town Meeting adopted Article 14 authorizing the Concord Water and Sewer Commission "to take and hold the waters of Nagog Pond,...and to also take and hold by purchase or otherwise all necessary land, water rights, rights of water and easement for raising, holding, diverting, purifying and preserving such waters."

9. On July 28, 1909, Concord recorded an Instrument of Taking, in the Middlesex Registry of Deeds, Book 3457, Page 221, which enabled Concord to acquire several parcels along

Nagog Pond for the purpose of "laying out, establishing, operating and maintaining an additional water supply system to be obtained from Nagog Pond."

10. In addition to the initial takings in 1909, Concord periodically obtained other parcels on Nagog Pond to support its water supply infrastructure, limit development along the pond, and ensure water quality.

11. Currently, Concord owns approximately 40 acres of land in Littleton and 60 acres of land in Acton along the southeast shore of Nagog Pond, which it developed for its water supply, pursuant to an authorization from the General Court in the 1884 Act.

12. In 1909, Concord installed a cast-iron intake pipe in Nagog Pond and constructed a dam to hold the water for regulating the volume of the pond to ensure supply.

13. Concord started water withdrawals from Nagog Pond in September, 1909.

14. During its decades of water withdrawal operations, Concord devoted significant resources to the management and maintenance of Nagog Pond as a public water supply, including the construction and maintenance of a pump house and water mains and the pursuit and exercise of best land and water management practices to preserve excellent water quality in the reservoir.

15. As a surface water body, Nagog Pond is a unique and crucial asset in Concord's public water supply system. Having a surface water reservoir gives Concord essential operational flexibility in how it manages its water resources through periods of drought thereby enhancing its long-range resiliency and climate adaptability.

B. MASSACHUSETTS ADOPTS THE WMA

16. In the late 1970's, the Massachusetts Senate Special Legislative Commission of Water Supply (the "Water Supply Commission") was established to address concerns that the availability of the water supply in the Commonwealth could no longer be assumed. The Water

Supply Commission conducted a study to assess what actions, if any, the Commonwealth should take to ensure water needs were met, to establish a definitive water supply policy, and recommend the means to meet the identified needs. As part of its work, the Water Supply Commission issued a study, Senate No. 1826, Report of the Special Commission Established to Make Investigation and Study Relative to Determining the Adequacy of the Water Supply of the Commonwealth, (1983) (the "Water Supply Commission Report). A copy of the Water Supply Commission Report is attached as **Exhibit B**.

17. The Water Supply Commission Report highlighted the interconnection of ground and surface waters as a single hydrologic system, and the consequent inability of local authorities that have geographically limited powers to address issues or remedy problems inherent in the regional span of water sources. The Water Supply Commission Report recommended regulation of water withdrawals at the state level through the adoption of comprehensive new legislation, the WMA.

18. In 1985, Massachusetts adopted the WMA.

19. Pursuant to the WMA, the Massachusetts Department of Environmental Protection ("MassDEP") adopted the regulations it deemed necessary to establish "a mechanism for managing ground and surface water in the commonwealth as a single hydrologic system..." M.G.L. c. 21G, § 3.

20. MassDEP published these regulations at 310 CMR 36.00. These regulations reflect the comprehensive two-tiered scheme of registrations and permits established by the WMA for the management of withdrawals of water in excess of 100,000 gallons per day (gpd) from river basins throughout the Commonwealth.

21. The registration tier acknowledged the established historic withdrawals which were in place before the state set up a state-wide administration to regulate Massachusetts water resources as a "single hydrological system."

22. To accomplish this, the WMA enabled users who consistently withdrew 100,000 gpd or more of water to "file a registration statement" on or before January 1, 1988, setting forth their "existing withdrawal," based on measured withdrawals from January 1, 1981 through December 31, 1985 (the "WMA Registration Eligibility Period").

23. Pursuant to M.G.L. c. 21G, § 5, if a user filed its registration statement prior to the January 1, 1988 deadline and timely renewed its registration, absent a state of emergency, the registrant could continue forever to withdraw water at the rate of the existing withdrawal established in its initial registration.

24. Unregistered uses were relegated to the second tier: permits. For new or increased withdrawals after the close of the WMA Registration Eligibility Period, applicants had to apply for a WMA permit from MassDEP.

25. In contrast to registrations under G.L. c. 21G, § 5, WMA permits issued by MassDEP under G.L. c. 21G, § 7, can be conditioned based on a variety of factors, including the impact of the proposed withdrawal on other hydrologically interconnected water sources and reasonable conservation measures, among other criteria and standards.

C. MASSDEP HAS ARGUED THAT THE WMA REPELAED PRIOR WATER LEGISLATION

26. In an October 8, 1987 letter to address an emerging dispute in which the Town of West Newbury was trying to pursue groundwater wells within the watershed of Newburyport's Artichoke Reservoir – which is located entirely within the Town of West Newbury, the then Water Management Program Manager at the Department of Environmental Quality Engineering,

Steve Roy, provided an assessment of the purpose and operation of the WMA, which was roughly contemporaneous with the adoption and implementation of the WMA. A copy of the letter is attached as **Exhibit C**.

27. In his letter, the Water Management Program Manager issued the following strong opinion that the WMA repealed prior water laws and was intended to provide uniform administration of water management and protection for registered sources:

> The Water Management Act (M.G.L. c. 21 G) was passed by the legislature in 1985 to resolve such disputes and prevent them from occurring and causing a negative impact. All water withdrawals in use between 1981 – 1985 can be registered and grandfathered as protected water rights...All previously granted water rights by the legislature are essentially repealed by the comprehensiveness of the Water Management Act in its establishment of a water allocation program in DEQE.

28. The supremacy of the WMA over prior legislative acts granting water withdrawal rights, was also expressly endorsed by MassDEP in an adjudicatory hearing concerning competing claims of rights to make withdrawals from a system of five interconnected great ponds, known as the Lakeville Pond Complex. In the Matter of Freetown, Docket Nos. 91-103 and 91-112, Ruling on Department's Motion for Summary Decision, 7 DEPR 33 (March 30, 2000).

29. MassDEP's Memorandum in Support of the Department of Environmental Protection's Motion for Summary Decision ("MassDEP's Freetown Memorandum"), attached hereto as **Exhibit D**, provides the agency's own interpretation of this statutory scheme and a strong argument in support of the conclusion that the WMA repealed and replaced the prior acts with respect to authorization for water withdrawals.

30. Based on the legislative history of the WMA, MassDEP's Freetown Memorandum argued that the "legislature clearly adopted the rationale of the [Special

Commission] Report in enacting the Water Management Act which it proposed" and that "[t]here is no doubt that the legislature intended the Act to establish one state-wide, uniform system for authorizing and managing water withdrawals."

31. In MassDEP's Freetown Memorandum, the agency stated that the WMA "does not protect rights accorded under prior statutes, which are unexercised and for which the Department has received no application by the time permit applications were due."

D. CONCORD'S WMA REGISTRATION

32. Prior to the January 1, 1988 deadline in G.L. c. 21G, § 5, Concord filed with MassDEP its registration statement documenting its historic use of Nagog Pond.

33. In its application for registration under the WMA, Concord sought a registration for an aggregate of 2.1 Million Gallons per Day ("MGD") for its six historic water withdrawal resources, including surface and groundwater resources.

34. MassDEP issued Concord its Registration for Nagog Pond on May 30, 1991.

35. Concord has timely renewed its Registration for Nagog Pond, pursuant to the WMA and MassDEP Regulations at 301 CMR 36.00 et seq.

36. Of the 2.1 MGD of approved withdrawal volume for Concord's Registration across several sources, the withdrawals from Nagog Pond accounted for 0.89 MGD. [1] Concord's historic withdrawal of 0.89 MGD at Nagog Pond was determined during the WMA Registration Eligibility Period from 1981 – 1985.

37. In the early 1990s, Concord's cumulative water withdrawal from all sources exceeded 2.1 MGD, to as much as 2.3 MGD.

[1] As permitted in the application instructions, Concord presented its withdrawals from six existing sources in the aggregate. See Form D of Concord's Registration statement. Based on the underlying withdrawal volumes observed by Concord during the WMA Registration Eligibility Period, the volume attributable to Nagog Pond was 0.89 MGD.

38. To address the minor exceedance of its registration volume, MassDEP issued Concord an interim WMA Permit in 1991. This permit included all of Concord's water withdrawal resources, including its surface water withdrawal at Nagog Pond.

39. To address this minor exceedance of its registered volume, Concord intended to establish a new groundwater resource, the Robinson Well, which would have given Concord the ability to withdraw an additional 1.0 MGD. Concord's intent was to have the Robinson Well proceed pursuant to a WMA Permit, while its other resources remained solely registered sources.

40. Concord encountered some difficulties establishing and permitting the Robinson Well. During this period, MassDEP renewed Concord's Interim Permit several times. Eventually, MassDEP instructed Concord to apply for a WMA Permit without the Robinson Well.

41. In 1997, Concord applied for and received a WMA Permit, which, like its interim permit, included Nagog Pond.

42. Once the permitting for the Robinson Well was complete on May 27, 1998, MassDEP issued an Amended Permit to Concord to include the Robinson Well.

43. Even though Nagog Pond is listed in Concord's WMA Permit, there is no specific withdrawal volume attributed to Nagog Pond for the Permit.

44. Though it has not been adopted as a formal condition of Concord's use of Nagog Pond, a recent U.S. Geological Service ("USGS") study estimated the firm yield of Nagog Pond, with no releases, to be 0.86 MGD (Refinement and Evaluation of the Massachusetts Firm-Yield Estimator Model, 2011, Scientific Investigation Report 2011-5125).

45. The volume of water Concord withdrew from Nagog Pond during the WMA Registration Eligibility period, 0.89 MGD, exceeds the 0.86 MGD firm yield estimated by USGS.

46. Using the USGS firm yield estimate, there is no remaining available volume of water for another user to receive a permit for a separate withdrawal volume from Nagog Pond.

47. Under the WMA, Concord is the only entity with authorization to withdraw water from Nagog Pond.

E. ADDITIONAL INVESTMENT IN NAGOG POND BY CONCORD IN RELIANCE ON ITS REGISTRATION RIGHTS UNDER THE WMA

48. On February 20, 1992, DEP issued Concord an "Approval of Waiver from Requirement to Install Filtration at Nagog Pond" in accordance with federally mandated Surface Water Filtration Treatment Rule (SWTR) requirements, enabling Concord to defer a very costly and federally compliant filtration facility.

49. In accordance with the filtration waiver, Concord constructed an ozone treatment facility on its land adjacent to Nagog Pond to provide enhanced disinfection in 1995. The Acton Board of Selectmen issued a Special Permit and Variance for this ozone treatment facility.

50. Concord completed a major renovation of the dam at Nagog Pond in 2012.

51. Concord is in the process of undertaking a major project to replace the 1909 intake pipe and construct a new water treatment plant with state-of-the art water purification processes, in compliance with the federal Safe Drinking Water Act.

52. The 1909 intake pipe is at risk of failure and may jeopardize Concord's ability to provide consistent high quality drinking water to residents and businesses in Concord and Acton.

53. The intake pipe and water treatment plant are important public health and public safety initiatives. There are also examples of Concord's deliberate planning and stewardship of the Nagog Pond.

54. On November 10, 2016, Concord received a Certificate from the Secretary of Energy and Environmental Affairs ("EOEEA") approving the Final Environmental Impact Report under the Massachusetts Environmental Policy Act ("MEPA") for the replacement of the intake pipe and the construction of the new water treatment plant. The Secretary determined that the project "adequately and properly complies with MEPA and its implementing regulations."

55. Following an appeal to the Land Court and two remands to the Acton special permit granting authority, Concord obtained a special permit and a site plan special permit from the Acton Board of Selectmen for the new water treatment plant and intake pipe in April 2018.

56. Concord also received an Order of Conditions from the Acton Conservation Commission for work on the water treatment plant and intake pipe, within the jurisdiction of the Massachusetts Wetlands Protection Act and the Acton Wetlands Protection Bylaw.

57. In addition to the local zoning and Conservation Commission approvals, Concord will seek other state and federal permits for the construction of a water treatment facility.

58. Phase I of this project is fully designed and advertised for bid. The final phases of the project are scheduled to be bid during the winter of 2018.

59. The intake pipe replacement and new water treatment plant are projected to cost Concord in excess of $20 million.

F. LITTLETON'S ALLEGED RIGHTS TO NAGOG POND UNDER THE 1884 ACT

60. Section 10 of the 1884 Act reserved certain rights to Nagog Pond for Littleton. Section 10 of the 1884 Act states:

> Nothing contained in this act shall prevent the town of Acton nor the town of Littleton from taking the waters of said Nagog Pond whenever said towns or either of them may require the same for similar purposes, and in case of such taking by either of said towns or both of them, if for any reason the supply of water in said pond shall not be more than sufficient for the needs of the inhabitants of said towns of Acton and Littleton, then the needs of the inhabitants of said towns shall be first supplied; and if either of said towns of Acton and Littleton shall hereafter be authorized to take and shall take the waters of said Nagog Pond or any part thereof which the town of Concord may have taken under the act, said town so taking shall pay to said Concord a just and proportionate part of whatever sums the said town of Concord shall have paid or become liable to pay for water damages to any persons or corporation for the taking of water rights from said pond or the outlet thereof, to be ascertained, if the parties shall fail to agree, by three commissioners to be appointed upon the application of either party by the supreme judicial court; the report of said commissioners made after hearing the parties, and returned to and accepted by said court shall be final between the said parties.

61. Littleton has never been "authorized to take" the waters of Nagog Pond.

62. Littleton has not taken the waters of Nagog Pond.

63. Littleton did not seek to exercise any water withdrawal rights to Nagog Pond under the 1884 Act, prior to the enactment of the WMA.

64. Littleton did not attempt to exercise any water withdrawal rights to Nagog Pond during the period from 1981 through 1985, which Massachusetts used to establish registration rights under Section 5 of the WMA.

65. Littleton did not submit any comments on Concord's WMA Registration statement to limit or condition Concord's Registration in an effort to preserve rights that Littleton may have had to withdraw water from Nagog Pond.

66. Littleton mentioned the 1884 Act in its own registration statement for four (4) groundwater wells in Littleton, but it did not establish or even assert any active use of Nagog Pond.

67. Littleton's reference to the 1884 Act in its registration statement, did not preserve any rights.

68. With respect to the section of the registration statement application asking about past special acts of the legislature regarding water rights, the instructions in the Water Management Act Registration Guidelines 2 (July 1987), stated that the past legislation information was: "for [MassDEP] information only: the existence of previously legislated water rights does not guarantee you unlimited water rights under the Water Management Act."

69. MassDEP awarded registrations solely on the basis of actual water withdrawals during the WMA Registration Eligibility Period.

70. After Concord received its Registration to withdraw water from Nagog Pond, Littleton did not apply for a Permit under the WMA to withdraw water from Nagog Pond.

71. Littleton did not comment on any of Concord's Registration renewals.

72. Littleton does not have any water withdrawal rights to Nagog Pond under the WMA.

G. LITTLETON'S DEMANDS FOR WATER WITHDRAWAL RIGHTS AT NAGOG POND

73. In a letter to Concord, dated February 20, 2018, Littleton stated, "[p]ursuant to Chapter 201 of the Acts of 1884 (the "1884 Act"), notice is hereby given that the Littleton Water Department intends to exercise the full extent of the rights conferred thereby to withdraw water from Nagog Pond." A true and accurate copy of Littleton's February 20, 2018 letter is attached hereto as **Exhibit E**.

74. The February 20, 2018 letter stated that the 1884 Act "establishes Littleton's right to withdraw water from Nagog Pond, subject to the requirement that Littleton pay the Town of

Concord 'a just and proportionate part of whatever sums...Concord shall have paid...for water damages...for the taking of water rights...'"

75. In its February 20, 2018 letter, Littleton also indicated that it anticipated negotiating for the transfer of Concord's water registration, pursuant to 310 CMR 36.09.

76. Littleton asserted that the "water damages" it would pay to compensate Concord for the transfer of its Registration to withdraw the full safe-yield from Nagog Pond, would be less than $24,388, which Littleton asserts represents the cost for Concord's eminent domain takings in 1909.

77. Littleton also stated it was prepared to initiate the petition process in the Supreme Judicial Court for an assessment of the "water damages" it may owe Concord, as provided in Section 10 of the 1884 Act.

78. On April 17, 2018, Littleton issued a second letter reiterating its demand to take Concord's Registration rights. A true and accurate copy of Littleton's April 17, 2018 letter is attached hereto as **Exhibit F**.

79. Concord responded to Littleton's demands on April 30, 2018. In addition to stating that it held a Registration under the WMA, Concord indicated that it needed to learn more about the nature and extent of Littleton's interest in Nagog Pond.

80. In addition, Concord noted that Littleton's proposed pump test for new bedrock wells near Cobbs Hill (the "Cobbs Wells") had a potential hydrogeologic connection to Nagog Pond, and explained that, to the extent the Cobbs Wells intercept groundwater, which would otherwise supply water to Nagog Pond, Concord would object to the Cobbs Wells for interfering with its Registration rights. A figure showing the proposed Cobbs Wells in relation to Nagog Pond is attached as **Exhibit G**.

81. In a May 10, 2018 response to Concord's April 30, 2018 letter, Littleton explained that the demand for Concord's Registration was not related to the proposed pump test for the Cobbs Wells and that Littleton intended to "exercise its rights to withdraw water from Nagog Pond, which were conferred by Chapter 201 of the Acts of 1884," regardless of the progress of the Cobbs Wells. A true and accurate copy of Littleton's May 10, 2018 letter is attached hereto as **Exhibit H**.

82. On May 23, 2018, Concord agreed to attend a meeting with Littleton to discuss their demand.

83. During the first week of June 2018, Littleton conducted the pump test for the Cobbs Wells.

84. On June 6, 2018, representatives from Concord met with representatives from Littleton to discuss Littleton's demands for Nagog Pond water.

85. During the June 6, 2018 meeting, Littleton expressed its interest in withdrawing water from Nagog Pond to meet increased demands for water within Littleton, including two new businesses which took over previously abandoned industrial resources in Littleton: (1) a PepsiCo affiliate had taken over the abandoned Very Fine bottling plant to operate a commercial water bottling facility; and (2) a new operator who had reopened a concrete batching plant.

86. Following the June 6, 2018 meeting, the towns agreed to meet again on July 24, 2018.

87. In an email from Scott Edwards of Littleton to Rich Reine of Concord outlining the issues for discussion at the July 24, 2018 meeting, Littleton provided the following terms which it believed were essential for an agreement:

- Littleton and Concord agree that Littleton does have water rights to its share of the Nagog Pond water (approximately half).

- Littleton will exercise these rights to withdraw water no sooner than 20 years.
- Littleton and Concord will negotiate a monetary value to the "water damages," as described in the Special Act of 1884. Littleton will pay this amount to Concord on the 20 year anniversary of this agreement.
- Littleton and Concord agree to meet every 5 years, after the signing of the agreement, to share information on water needs and discuss the forecasted need for water from Nagog Pond.
- Littleton will have the right to extend the withdrawal of water past the 20 year deadline in 5 year increments.
- Littleton and Concord shall work together to find a solution to sharing water from a common water treatment plant. This may involve extension of a water main on Great Road in Acton.
- This agreement is null and void if the Cobbs Wells site is not permitted by MassDEP, as the short-term need for water may possibly then shift toward Nagog Pond.

88. Littleton's position during the July 24, 2018 meeting was consistent with these bullet points.

89. Throughout the meeting on July 24, 2018, Littleton continued to claim that its rights under the 1884 Act superseded Concord's Registration under the WMA.

90. Despite Littleton's aggressive posture during the July 24, 2018 meeting, Concord's representatives suggested Littleton continue negotiations and requested Littleton to propose terms of a potential water-sharing agreement for further discussion. Concord specifically requested that any subsequent outline address the proposed Cobbs Wells and recognize Concord's WMA Registration.

91. Littleton composed an agreement outline, which included bullet-points acknowledging Concord's Registration and laid out proposed terms for the Cobbs Wells, in addition to Littleton's interest in a long-term water sharing agreement involving Nagog Pond.

92. The agreement outline stated that the "1884 Act...authorizes Littleton...to exercise water rights in Nagog Pond that (if exercised) would be superior to the water rights of Concord."

93. Littleton asserts that Concord should agree to transfer its water rights to Littleton under the mechanism of the proposed agreement, because Littleton's 1884 rights are superior to Concord's Registration.

94. During August, September, and October of 2018, Concord made a request through legal counsel and the Department of Public Works staff to receive the results of the June 2018 Cobbs Wells pump test.

95. Based on the limited data Littleton has provided, it appears that the June 2018 Cobbs Wells pump test data shows that Littleton's proposed Cobbs Wells would intercept groundwater which would otherwise flow to Nagog Pond and induce flow directly from the Nagog Pond surface water to the Cobbs Wells.

96. Since the Cobbs Wells would intercept groundwater that feeds Nagog Pond, their operation would have a negative impact on Concord's Registration, because the Cobbs Wells would decrease the available amount of water in Nagog Pond.

97. In late October 2018, Littleton demanded that Concord agree to conduct further discussions on its desire to take control of Nagog Pond away from Concord and exercise its rights under the 1884 Act without regard to the Cobbs Wells.

98. Concord met with Littleton on November 7, 2018 to conduct further discussions regarding the impacts from the Cobbs Well and a potential settlement to enable Littleton to operate the proposed groundwater wells.

99. During the November 7, 2018 meeting, Littleton declared that it would not discuss a settlement for the Cobbs Wells.

100. Littleton was adamant that it continues to believe its 1884 Act rights are superior to Concord's WMA Registration, and that it intends to exercise those rights and deprive Concord

of the use of the Nagog Pond reservoir, which Concord has managed as a public water supply for over a century.

101. In response to the extreme demands from Littleton seeking to usurp Concord's Registration for Nagog Pond, Concord initiated this declaratory judgment action to obtain a judicial determination on the extent to which the WMA repealed and superseded the 1884 Act.

CLAIM FOR RELIEF

COUNT I: Declaratory Relief Pursuant to G.L. c. 231A

1. Concord re-alleges and incorporates by reference herein the allegations of Paragraphs 1- 101 as if they were restated in full.

2. General Laws Chapter 231A, § 1 provides, in part:

> [T]he land court . . . may on appropriate proceedings make binding declarations of right, duty, status and other legal relations sought thereby, either before or after a breach or violation thereof has occurred in any case in which an actual controversy has arisen and is specifically set forth in the pleadings.

3. The facts pleaded above, including Littleton's demand to take Concord's right to withdraw water from Nagog Pond and Littleton's intention to start a damages proceeding pursuant to Section 10 of the 1884 Act, give rise to an actual controversy as to the extent to which the WMA supersedes the 1884 Act, and the extent to which Concord's Registration under the WMA specifically negates Littleton's claim to Nagog Pond under Section 10 of the 1884 Act.

PRAYERS FOR RELIEF

WHEREFORE, Concord requests that this Honorable Court:

1. Issue a Declaratory Judgment stating that the WMA effectively repealed special acts regarding water withdrawals adopted prior to the WMA;

2. Issue a Declaratory Judgment stating that Concord's right to withdraw water from Nagog Pond under its WMA Registration is superior to any rights Littleton purports to hold pursuant to Section 10 of the 1884 Act; and

3. Grant such further relief as this Court deems just and proper.

Respectfully submitted,
Town of Concord
By its attorneys,

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Date: November 8, 2018

EXHIBIT

A

twenty-nine of the Public Statutes and any acts in amendment thereof or in addition thereto so far as the same are applicable.

Section 4. This act shall take effect upon its acceptance by a two-thirds vote of the voters of said town present and voting thereon at a legal town meeting called for the purpose within two years from its passage.

Subject to acceptance by a two-thirds vote.

Approved April 30, 1884.

An Act to authorize the town of Concord to increase its water supply.

Chap. 201

Be it enacted, etc., as follows:

Section 1. The town of Concord, in addition to the powers now conferred upon it by law, is hereby authorized to supply itself and its inhabitants and other persons, towns and corporations on the line of its water works with pure water to extinguish fires, generate steam and for domestic and other purposes, and may establish public fountains and hydrants and regulate their use, and discontinue the same, and may collect rates to be paid for the use of the water.

May increase water supply.

Section 2. Said town, for the purposes aforesaid, may take and hold the waters of Nagog Pond, so called, in the towns of Acton and Littleton and the waters which flow into and from the same, and may also take and hold by purchase or otherwise all necessary lands for raising, holding, diverting, purifying and preserving such waters, and conveying the same to any and all parts of said town of Concord, and may erect thereon proper dams, reservoirs, buildings, fixtures and other structures, and make excavations and embankments, and procure and operate machinery therefor; and for such purposes may construct and lay down, dig up and repair conduits, pipes and other works in, under or over any lands, water courses or railroads, and along any street, highway, alley or other way, in such manner as not unnecessarily to obstruct the same, and may dig up, raise and embank any such lands, street, highway, alley or other way in such manner as to cause the least hindrance to travel thereon.

May take waters of Nagog Pond in Acton and Littleton.

Section 3. Instead of taking the entire waters of said Nagog Pond, said town of Concord may, if it shall so elect, take a part of said waters, such election to be made by a vote of said town declaring the quantity or proportion of said waters to be so taken.

Quantity of water to be taken subject to a vote of the town.

To file in registry of deeds a description of land and water taken.

Section 4. Within ninety days after the time of taking any lands, waters or water courses as aforesaid, otherwise than by purchase, said town shall file in the registry of deeds for the southern district of the county of Middlesex a description thereof sufficiently accurate for identification, with a statement of the purpose for which the same is taken, signed by a majority of the water commissioners of said town; and if said town shall have made the election authorized by section three of this act, said description and statement shall be accompanied by a copy of the vote of said town signifying such election.

May, by vote, take an increased proportion of waters.

Section 5. Said town of Concord, if it shall have made the election authorized by section three of this act, may thereafter from time to time, if it shall so elect, take an increased proportion of said waters, each successive election to be made by a vote of said town declaring the additional quantity or proportion of said waters to be so taken, and upon each such successive election and within ninety days thereafter said town shall file in said registry of deeds a description, statement and copy of the vote therefor as provided for in section four of this act.

Water to be measured.

Section 6. If said town shall make the election authorized by section three of this act, said town shall provide a reliable means or method of measuring and registering the amount of water taken, such register or record to be at all times accessible to any interested parties.

Liability for damages.

Section 7. The said town of Concord shall pay all damages sustained by any person in property by the taking of any land, right of way, water, water source, water right or easement, or by any other thing done by said town under the authority of this act; said damages to be based and proportioned in case of the taking of water or water rights upon the amount of water taken as aforesaid. Any person or corporation sustaining damages as aforesaid under this act, who fails to agree with said town as to the amount of damages sustained, may have the damages assessed and determined in the manner provided by law when land is taken for the laying out of highways, on application at any time within three years from the time when the water is actually withdrawn or diverted, and not thereafter. No application for the assessment of damages shall be made for the taking of any water, water right, or for any injury thereto, until the

Application for damages not to be made until water is actually withdrawn.

water is actually withdrawn or diverted by said town under the authority of this act.

May borrow money and issue bonds, etc.

Section 8. Said town of Concord, for the purposes herein authorized, may from time to time borrow money and issue notes, bonds or scrip therefor to an amount not exceeding fifty thousand dollars in addition to the amount already authorized by law in the manner and under the restrictions provided by section four of chapter one hundred and eighty-eight of the acts of the year eighteen hundred and seventy-two.

Water commissioners to have charge of works.

Section 9. The board of water commissioners of said town of Concord shall execute, superintend and direct the performance of all the works, matters and things mentioned in this act and exercise all the rights, powers and privileges hereby granted to said town and not otherwise specifically provided for herein, subject to the vote of said town. The provisions of sections seven, eight, nine and ten of chapter one hundred and eighty-eight of the acts of the year eighteen hundred and seventy-two shall apply to this act as if inserted herein.

Acton and Littleton not prevented from taking waters of Nagog Pond.

Section 10. Nothing contained in this act shall prevent the town of Acton nor the town of Littleton from taking the waters of said Nagog Pond whenever said towns or either of them may require the same for similar purposes, and in case of such taking by either of said towns or both of them, if from any reason the supply of water in said pond shall not be more than sufficient for the needs of the inhabitants of the towns of Acton and Littleton, then the needs of the inhabitants of said towns shall be first supplied; and if either of said towns of Acton or Littleton shall hereafter be authorized to take and shall take the waters of said Nagog Pond or any part thereof which the town of Concord may have taken under this act, said town so taking shall pay to said Concord a just and proportionate part of whatever sums the said town of Concord shall have paid or become liable to pay for water damages to any persons or corporations for the taking of water rights from said pond or the outlet thereof, to be ascertained, if the parties shall fail to agree, by three commissioners to be appointed upon the application of either party by the supreme judicial court; the report of said commissioners made after hearing the parties, and returned to and accepted by said court shall be final between the said parties.

If water is taken, towns to pay just proportion of damages.

Commonwealth may take water from Nagog Pond.

Section 11. The Commonwealth of Massachusetts shall have the right to take from said Nagog Pond, for use in buildings owned by said Commonwealth in the town of Concord, an amount of water not exceeding two hundred thousand gallons per day, and the said right is hereby reserved. If the said Commonwealth shall take from said pond its waters, or any part thereof, which the town of Concord may have taken under this act, otherwise than by contract with said town of Concord, the said Commonwealth shall pay to said town of Concord a just and proportionate part of whatever sums the said town of Concord shall have paid or become liable to pay for water damages to any persons or corporations for the taking of water rights from said pond or the outlet thereof, to be ascertained and determined as is provided for in section ten of this act. But if upon the expiration of the contract made on the first day of October in the year eighteen hundred and eighty-three between the said town of Concord and said Commonwealth to provide for the delivery of water from the Concord water works for use within the walls of the state prison, said town of Concord by its water commissioners shall renew said contract for five years on the terms named therein, or shall tender to the governor of the Commonwealth a renewal of said contract for five years on the terms named therein, with the option upon the part of said Commonwealth of a further renewal for a term of twenty years upon said terms, then the right of said Commonwealth herein provided for shall cease.

Contract between Concord and the Commonwealth.

Subject to acceptance by town of Concord within one year.

Section 12. This act shall take effect upon its passage, but shall become void unless it is accepted by a vote of said town of Concord at a legal meeting held for the purpose within one year from its passage.

Approved April 30, 1884.

Chap. 202 An Act to incorporate the Highland Congregational Church in Lowell.

Be it enacted, etc., as follows:

Corporators.

Section 1. James G. Buttrick, William L. Davis, Cyrus B. Emerson, John T. Carter, Hamden Spiller, Lucy R. Carter, Almira Sturtevant, Clara S. Spiller and all other members of the Highland Congregational Church in Lowell, and their successors as members of said

EXHIBIT

B

SENATE . . . . . No. 1826

The Commonwealth of Massachusetts

REPORT OF THE SPECIAL COMMISSION ESTABLISHED (UNDER CHAPTER 13 OF THE RESOLVES OF 1977 AND MOST RECENTLY REVIVED AND CONTINUED BY CHAPTER 9 OF THE RESOLVES OF 1982) TO MAKE AN INVESTIGATION AND STUDY RELATIVE TO DETERMINING THE ADEQUACY OF THE WATER SUPPLY OF THE COMMONWEALTH

Senate, January 27, 1983

The Commonwealth of Massachusetts

LETTER OF TRANSMITTAL

To the Honorable Senate and the House of Representatives

We, the undersigned, having voted in the affirmative to accept this report from our consultant on this project, do hereby transmit this report on the results of that investigation and study, together with the attached recommended piece of legislation as our fourth Interim Report of the Commission. The Commission was established by Chapter 13 of the Resolves of 1978, and was most recently received and continued by Chapter 9 of the Resolves of 1980. We believe that this report is of tremendous significance to the Commonwealth of Massachusetts and are proud to submit this to you at this time.

Respectfully submitted,

CAROL C. AMICK
Senate Chairman

JOHN F. CUSACK
House Chairman

JOHN W. OLVER

ANDREW J. ROGERS, JR.

ROBERT C. BUELL

MICHAEL W. MORRISSEY

JOHN A. BEWICK

F. JOHN MONAHAN

DAVID W. STICKEL

SHERMAN W. SALTMARSH,

GEORGE J. O'BRIEN

INTRODUCTION

Massachusetts water law evolved in an era when the availability of an abundant water supply was taken as a given in the water-rich Northeast. But the continued adequacy of the Commonwealth's water supplies can no longer be taken for granted. The Massachusetts Water Supply Policy Statement identified 155 communities as facing probable deficits by 1990. 76 communities suffered critical or potential water shortages at the height of the 1981 drought, and 46 communities remain on the list today, after nearly a year of bountiful rainfall.

One of the first recommendations of the Specal Legislative Commission on Water Supply for the protection and management of the Commonwealth's water resources was that a groundwater law study be undertaken. There were many reasons for this recommendation. First, 55% of Massachusetts' communities are totally dependent on groundwater, and another 24% are served by combined ground and surface water sources. Second, a large percentage, perhaps as high as 76%, of Massachusetts industry depends on groundwater supply. These figures emphasize the importance of protecting groundwater aquifers.

Furthermore, the interconnection of ground and surface water must also be emphasized. Groundwater makes a critical contribution to the surface water system, storing water during wet periods, and slowly releasing it during dry periods to maintain stream flows and reservoir levels. Thus efficient use of the Commonwealth's water resources requires conjunctive management of ground and surface water. For that, to occur, significant changes in groundwater law are necessary.

In addition, water sources around the Commonwealth are meeting increasing pressures from competing uses. In order to protect existing users, a management framework which will enable water allocation in the future must be developed. Because the Commonwealth adheres to the "English" doctrine of absolute ownership, which vests in an overlying landowner the unrestricted rights to all groundwater beneath the confines of his property, it is not possible under existing law either to protect present groundwater users or to allocate water among competing users. Essentially, Massachusetts' legal doctrine encourages unlimited consumption of groundwater, an approach which is

clearly contrary to the Commonwealth's efforts to promote conservation and to integrate management of its water resources.

Because of the complexity of groundwater law and resource management issues, it rapidly became apparent that the expertise of a legal consultant well versed in environmental law was required to insure a comprehensive study and to make the necessary broad-ranging recommendations on legislation to the Commission. Accordingly, a contract was signed with the law firm of Bracken and Baram. The charge to the consultant was to research existing Massachusetts and federal groundwater law to identify gaps which needed to be filled in the Commonwealth, to look at laws of other states, and to make recommendations concerning legislation which would provide a suitable water resources management framework for Massachusetts with regard to identification of water use, protection of existing users, allocation of water among competing demands, and the integration of ground and surface water as a single hydrologic system.

All of these things they have done. The report from Bracken and Baram, with recommended legislation, is attached. As the consultant has said, "Over-all, the [recommended Massachusetts Water Management Act] represents . . . a major improvement in the ability in the Commonwealth to manage its ground and surface water sources. The Act provides DEQE with sufficient flexibility to manage and issue permits for water withdrawals in accordance with the information available to it, and to improve its management processes as new data and new understanding of water sources becomes available. Passage of the Act will place Massachusetts at the forefront of states attempting to grapple wisely with contemporary water use problems."*

* Groundwater: Legal and Institutional Analysis, page 67 Submitted to the Special Legislative Commission on Water Supply by Michael S. Baram and J. Raymond Miyares, November 1, 1982

EXECUTIVE SUMMARY

Groundwater is critical to the economy, the environment and the quality of life in Massachusetts. Dependence on groundwater has risen rapidly and is even more important than statistics indicate because ground and surface water are interconnected in a single hydrologic system.

Problems specific to groundwater include physical threats to the groundwater subsystem and excessive consumption of ground water.

Major problems to overall water resource management, including groundwater, are lack of legal and institutional mechanisms for management of ground and surface water as a single interconnected hydrologic system, and the lack of a program for management of water allocation among competing uses, which must be considered a part of any comprehensive water resource management system.

Administrative structures considered but rejected in analysis of the best management program to address these issues were the creation of a new "super agency", and creation of new regional administrative agencies. The third approach, recommended by the consultant, is that of augmenting specific authority within existing agencies, and relying on networking among the agencies, as best suited to balance the values of efficiency, cost effectiveness, responsiveness to individual, local and state needs, simplicity of institutional format, and due regard for both local home rule traditions and regional attributes of ground and surface water systems.

Analysis of existing Massachusetts legal and institutional mechanisms resulted in the following recommendations:

1) Ground and surface water in the Commonwealth are part of a single interconnected hydrologic system, although in the past this has not been reliably found in case law. Ground and surface water should be managed as a single interconnected hydrologic system.

2) Groundwater management should focus on the groundwater aquifer within river basins as the appropriate unit of analysis. Adequate mechanisms do not now exist to protect groundwater recharge and groundwater percolation, nor to prevent overdrafts of groundwater aquifers. State regulation of the ground-

water system, fully integrated with other state water regulatory programs, appear to be called for.

3) The common law in Massachusetts imposes liability for ground water pollution when activities do not follow patterns of "reasonable use." Outside the common law, ample institutional mechanisms exist among several authorities for protection of groundwater quality.

The Groundwater Steering Committee of the Water Resources Commisson has established a groundwater policy goal which can be used as an organizing principle for coordinating existing authorities through networking.

4) Future management of water supplies must incorporate conservation principles as a policy if sufficient water is to continue to be available to meet demand.

5) The English doctrine of absolute ownership of groundwater, under which Massachusetts operates, presumes the Commonwealth's historically abundant water supply, rather that the currently felt limits. Neither this, nor the American rule of reasonable use, which generally resolves use conflicts by using irrelevant and artificial distinctions, are adequate to resolve conflicts in an era when multiple competing demands put increasing pressure on finite water resources. Nor does either doctrine support water resource planning or management.

6) Because of the need to develop a comprehensive framework for water resource management, new legislation is needed. A "Massachusetts Water Management Act" is recommended.

THE MASSACHUSETTS WATER MANAGEMENT ACT: SUMMARY

A new chapter would be inserted in the General Laws, to be referred to as the Massachusetts Water Management Act. The Act would establish a mechanism for registering existing withdrawals of both ground and surface water in excess of a threshold volume, initially recommended to be set at 100,000 gallons per day, but subject to revision by the Department of Environmental Quality Engineering (DEQE). The Act's requirement of water withdrawal permits for subsequent new users above the threshold amount would not apply to existing withdrawals of water at the time of its effective date. Thus the Act represents the minimum level of allocation regulation consistent with its management

objectives. The resultant data gathering would enable protection of needs of existing users within a framework of comprehensive management of ground and surface water withdrawals in Massachusetts.

Responsibility for the **Water Management Act** would be shared by the Water Resources Commission, given responsibility for adopting principles, policies and guidelines necessary for the effective planning and management of water use and conservation in the Commonwealth, and DEQE, authorized to adopt regulations approved by the Water Resources Commission to implement the principles, policies and guidelines, and to administer the regulations.

DEQE regulations under this Act will establish a mechanism for managing ground and surface waters as a single hydrologic unit, in order to ensure, where necessary, an appropriate balance among competing water uses.

Essential features of the required regulations will be criteria, standards and procedures for registration of existing users and for issuing permits to new users. DEQE will also establish requirements for monitoring and inspection of water withdrawals, and for reporting of withdrawals and use by permitted water users. The Act requires DEQE to set up a program for enforcement of the Act and the regulations adopted thereunder. Additionally, DEQE's regulations will establish a mechanism to manage water in the Commonwealth's suring water supply or water quality emergencies. Finally, the regulations will establish reasonable registration and permit application fees covering a reasonable percentage of the costs of administering the Act.

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GROUNDWATER
LEGAL AND INSTITUTIONAL ANALYSIS

submitted to

The Special Legislative Commission
on Water Supply

by

Michael S. Baram
J. Raymond Miyares

November 1, 1982

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I. *Groundwater Management for Massachusetts*

A. *The Importance of Groundwater*

Groundwater is critical to the economy, the environment and the quality of life in Massachusetts. Residential wells are widely used to meet domestic water needs, and groundwater is also increasingly used for new industrial, commercial and agricultural purposes. Thus, groundwater has a growing significance for the health and welfare of our citizens and for the economy of the Commonwealth.

Dependence on groundwater has risen rapidly in Massachusetts now one of the ten states in the nation which most intensively rely on groundwater withdrawals.[1] In 1980, private and public wells in the Commonwealth provided water to 33% of Massachusetts' population,[2] and the rate is much higher — probably over 90% — on Cape Cod and the islands, and in rural areas of the state.[3]

Groundwater is even more important than such use statistics indicate, however, because ground and surface water are interconnected in a single hydrological system.[4] Thus, the drinking water currently provided to 67% of the population from surface water sources is dependent to a considerable extent on the volume and quality of our groundwater.[5]

Adequate water from the interconnected ground and surface water system is therefore of obvious importance to the future of the Commonwealth. Water availability is one of the key limiting conditions to population and residential growth, and the progress of industrial, agricultural, recreational and commercial interests in the state.[6] In addition, groundwater underlies many important features of the state's natural environment, such as our wetlands and fish and wildlife habitats.[7]

Throughout the Northeast, recently beset by droughts, pollution, depletion of water sources and other supply problems, groundwater is now receiving much attention. Connecticut, New York, New Jersey, and Pennsylvania in particular are developing new policies and programs. Massachusetts has the opportunity to act now, "before the well runs dry."[8]

B. *Groundwater Problems*

Three types of problems threaten the groundwater in Massachusetts, and should be dealt with in a comprehensive water management program:

(1) *Physical threats to the groundwater subsystem:*

These include activities such as excavation, fill and development which interfere with the replenishment of recharging of groundwater aquifers; overdraft or ill-considered withdrawal of groundwater which can interfere with natural percolation processes and may permit salt water or other contaminants to move into aquifers; and pollution from surface and subsurface discharges of household and industrial wastes and road salt. These types of activities threaten both the volume and quality of groundwater.

(2) *Excessive consumption of groundwater:*

Increasing demand for water leads to increases in groundwater withdrawals to satisfy growing consumption rates in existing homes and businesses, as well as new users such as residential housing and industrial park developments. Excessive withdrawals can lead to the depletion of groundwater, while replenishment of the groundwater from rainfall and percolation through the soil takes considerable time. Thus, excessive withdrawals can outstrip supply and outpace the recharge process, leading to exhaustion of groundwater sources, reduction of interconnected surface water sources and, in coastal regions, to salt water intrusion.

(3) *Institutional and legal inadequacies:*

Despite the many state, regional and local authorities whose activities are focused on pieces of water management process, no coherent overall management program exists in Massachusetts. Two shortcomings of particular concern are the failure to manage ground and surface water as a single interconnected system, and the lack of a program for the management of water allocation and use in the areas where aquifer stress may make this necessary. Although some local authority exists to deal with allocation and demand management problems, particularly during water shortage emergencies, local authority is geographically limited and often does not match the regional span of underground aquifers and other water sources. State supervision of local exercises of authority has not always remedied this problem. Although common law affords some protection, it functions only on a case-by-case basis to resolve disputes; it may be

inefficient and costly; and it does not provide for coherent planning and management of water allocation and use.

Studies by federal, state and local officials over the years have repeatedly and consistently identified these three problem clusters and called for state initiatives to solve them. Thus, there is little dispute over the targets and goals of groundwater management reforms.[9] The conflicts arise in translating those targets and goals into a specific proposal for comprehensive water management.

C. *Groundwater Management Options for Massachusetts*

For Massachusetts to develop a coherent water management program, it must address the three broad problem clusters described above. Namely, it must undertake institutional and legal reforms which will assure that water of requisite volume and quality is continuously available from ground and surface water sources to meet the future needs of the citizens and businesses of the Commonwealth.

In functional terms, the legal and institutional reforms must address four essential management problems:

(1) how to maintain the physical integrity and continuing recharge and percolation processes of the state's groundwater subsystems;

(2) how to assure that water quality is protected and maintained at levels which will satisfy various user needs;

(3) how to assure that water is conserved so as to be able to provide what is needed for an increasing number of users of different types; and

(4) how to assure that water is allocated properly among those users.

Several administrative structures were considered in the course of this study which could be adopted by the Commonwealth to achieve a coherent and efficient management program addressing these problems. One approach would be to create a new state "superagency," to be delegated all the powers necessary for comprehensive water management. The regulatory program of this new agency would preempt all present state and local regulatory efforts. A second option would be the creation of regional authorities with similar comprehensive power, but in a geographically limited region of the state. At the other extreme,

would be an approach relying on market forces, without state intervention. A more moderate approach would rely on "networking" the authority of existing state and local bodies. Under this approach, the activities of these bodies would be coordinated so as to achieve unified water management objectives, and new powers would be conferred only where existing authority is inadequate to achieve those objectives.

In considering these approaches, several evaluation criteria can be applied. These include the efficiency and cost-effectiveness of the management approach; its responsiveness to individual, local and state needs and conditions, which may change from time to time; the objectivity of the decision-making processes established and the technical expertise of the decision makers designated; the simplicity of the institutional setup and its requirements; due regard both for local autonomy ("home rule") and for the regional attributes of ground and surface water systems; the need for consistency, fairness and predictability of outcomes so that future development opportunities will not be chilled by risks as to water supply and its costs; limitations on state and local fiscal resources; and, overall, the efficacy of the system in properly managing groundwater.

Those familiar with the state's groundwater systems, problems, infra-structure, constraints, needs and opportunities have consistently selected the option of "networking" existing state and local authorities, although this approach may not best serve all of the criteria enumerated above. For example, from a purely hydrological perspective, it is possible to argue that the regional approach would be optimal. Similarly, from a perspective that gives most weight to efficiency and predictability criteria, a state "superagency" approach would be preferred. However, the "networking" approach appears to balance most of the values enumerated in the listed criteria and is the most practical, durable and acceptable to the diverse interests at stake. Thus, "networking" is the guiding administrative principle which underlies the discussion in this report.

FOOTNOTES

1. "According to 1975 data prepared by the U.S. Geologic Survey, the 10 leading states for intensity of groundwater use . . . [include] . . . Massachusetts . . . It is interesting to note that the water rich eastern states of New Jersey and

Massachusetts, which use substantial quantities of groundwater for urban water supplies, outrank arid western states . . .," testimony, Dr. David Burmaster, in *Ground Water Quality and Quantity Issues,* Hearing, Subcommittee on Department Operations, Research and Foreign Agriculture, Committee on Agriculture, U.S. H. Rep., 97th Congress, 1st Session (July 23, 1981).

2. Massachusetts Water Resources Commission, *Analysis of the Water Resources of the Commonwealth* (June 1982).
3. *Id. See* Map, "Source of Water Supply for Massachusetts Communities — 1982." This estimate coincides with various national studies, e.g. "EPA has estimated that 96 percent of all rural drinking water comes from ground water sources," note 1, *supra,* at p. 4.
4. Massachusetts Executive Office of Environmental Affairs, *Massachusetts Water Supply Policy Statement, Summary Report* (May 1978); Massachusetts Division of Water Resources, *Groundwater and Groundwater Law in Massachusetts,* (1976).
5. *Id.* Many studies depict hydrological and other aspects of the groundwater to surface water relationship; and conversely, the effect of surface waste impoundments and other surface and near surface activities on groundwater. *See for example,* Massachusetts Executive Office of Environmental Affairs, *Surface Waste Impoundments in Massachusetts, A Survey Report* (Nov. 1980).
6. *Policy Statement, supra,* note 4.
7. *Id.*
8. For example, *see* Conn. P.A. 82-402 (1982); and New Jersey c. 58:1A-1 through 11 (1981).
9. *See, e.g.,* Massachusetts Division of Water Resources, *Groundwater and Groundwater Law in Massachusetts* 73-85 (1976); Lowe, Ruedisili & Graham, "Beyond Section 858: A Proposed Groundwater Liability and Management System for the Eastern United States," 8 *Ecology L.Q.* 131 (1979); J.C. Spencer, *Protection of Groundwater Quantity and Quality: Legislation and Administration Alternatives* 27-55 (1980); Commonwealth of Massachusetts, *Third Interim Report of the Special Legislative Commission Relative to Determining the Adequacy of the Water Supply in the Commonwealth* 76-84 (1981); Baram & Miyares, "In Order to Have Water: Legal, Economic and Institutional Barriers to Water Reuse in Northern New England 17 *N. Eng. L. Rev.* 741, 744-56 (1981).

II. *Groundwater System Integrity*

A. *Introduction*

The simplest and surest hydrological fact concerning groundwater is that ground and surface waters are part of a single interconnected hydrological system. Nevertheless, the existence of that interconnection has been poorly understood by the public and occasionally denied by the courts. Indeed, it is sometimes asserted that the hydrological interconnection between ground and surface water is not recognized by Massachusetts courts at all. This connection has been assumed, however, in a number of cases. In the 1979 decision in *Kane v. Town of Hudson,*[1] for example,

the Appeals Court stated that a jury could properly find that the effect of the operation of a town well would be to deprive the plaintiffs' land of pond water needed for the operation of a quarry.

A number of older decisions, also recognizing the hydrological interconnection between ground and surface water, were rendered in the 19th century under the "Mill Act," which provided for compensation to landowners injured through the creation of ponds to support mills. In 1834, it was held, in *Monson & Brimfield Manufacturing Co. v. Fuller,*[2] to be appropriate to provide compensation for the decreased agricultural yield of soil resulting from an increase in the water table of land adjacent to a newly created pond. Similarly, in the 1871 decision in *Wilson v. New Bedford,*[3] recovery was allowed under the Mill Act when a newly constructed dam changed the water table and caused flooding in the plaintiff's cellar.

Nevertheless, nothing in Massachusetts' statutory or case law expressly recognizes the existence of a single hydrological system of ground and surface water. The decisions cited here say no more than that a court may accept proof that alterations to groundwater have affected surface water and vice versa. They do not require a court to accept the interconnection as a general proposition. Nor do they indicate that judicial notice of the interconnection can be taken in the absence of proof. Thus, under current case law in Massachusetts, the hydrological interconnection of ground and surface water may still need to be proven each time a court is asked to rely on that interconnection.

One recent case in which the limitations of this rule were illustrated involved Kingsbury Pond, located in the northwestern part of the Town of Norfolk, near its boundary with the Town of Franklin.[4] The pond experienced a drastic drop in its water level during the middle 1960's, which was attributable to pumping from a well, owned by Franklin and located 1300 feet southeast of the pond. A study conducted by the U.S. Geological Survey concluded that increased pumping at the Franklin well had caused expansion of the cone of depression of the well, reversed the natural slope of the water table between the pond and the well and cut the pond off from its natural groundwater recharge source. Nevertheless, in a suit brought against the Town of Franklin, the Superior Court apparently declined to credit the evidence relating

withdrawals at the well to water loss at the pond, and dismissed the action.

In light of the fact that no Massachusetts statute or judicial decision specifically articulates the hydrological system connecting ground and surface water, it is not surprising that water planning and policy in the Commonwealth has tended not to give groundwater the same degree of protection as surface water. In recognition of the importance of groundwater, the state Groundwater Steering Committee, a technical advisory subcommittee of the Water Resources Commission, was established in the summer of 1980, and has provided the first mechanism by which to coordinate groundwater policy. Although the U.S. Geological Survey, in cooperation with the Commonwealth, has undertaken detailed basin assessments and analyses of aquifers and related hydrology in the state, date on groundwater sources, the volume available for withdrawal, and the patterns and direction of its flow are still somewhat less well developed than the comparable data on surface water sources. There is also less experience with analytical techniques for modeling groundwater processes than with surface water modeling techniques.[5]

Nevertheless, it is now widely accepted that water management policy must recognize ground and surface water to be part of a single hydrological system, and that whatever restrictions are imposed on surface water withdrawals and use should be applied equally to groundwater. This is a key finding of this report. While practical limits on data and on analytical capabilities may occasionally restrict application of this ideal, the basic hydrological fact of ground and surface water interconnection is now well understood, and must be the centerpiece of all water management policy.

B. *Key Elements of the Groundwater Subsystem to be Managed*

The fact that ground and surface water are interconnected in a single system is not contradicted by the need to manage particular key elements of the groundwater subsystem which require direct attention. The groundwater portion of the water system has several advantages associated with it which make it especially well suited for supplying many of the Commonwealth's water needs:

> "Most notably, capital and operating costs of groundwater supply systems are far less than for surface reservoirs.

> Furthermore, groundwater supplies can be developed more quickly than surface impoundments, an important consideration in drought contingency planning. And groundwater supply networks occupy a fraction of the land necessary for reservoirs, while protected recharge areas can provide a community with valuable open space. Finally, because of the natural filtration capacity of the soil, water drawn from a properly managed groundwater source is often of better quality than surface water."[6]

Much of the value of groundwater source derives from the natural percolation, purification, collection and storage processes that make groundwater available for withdrawal. A comprehensive water management policy should therefore assure that these natural physical processes are protected and allowed to occur.

For purposes of such a policy, the Massachusetts Water Resources Commission has designated river basins of the Commonwealth as its planning units.[7] Within river basins, an accepted unit of groundwater analysis is the aquifer. An aquifer is a geologic formation that contains sufficient saturated permeable material to yield significant volumes of water to wells or springs.[8] The use of aquifers as a unit of groundwater management has become generally accepted because of the variations in the withdrawals and other stresses placed on each aquifer, and because the physical boundaries of each aquifer, not the political boundaries of the cities and towns in which they are located, define the extent of the impacts of those stresses.

Already some aquifers are overstressed and require special attention in any state water management program. At present, however, the fact that an aquifer is overstressed may have little legal impact on the continuation of the demands made upon it. In a few circumstances, the DEQE has used the fact that excessive groundwater withdrawals may lead to water quality problems — through increased salt water intrusion or other contamination — to restrict withdrawals or close wells in the exercise of its power to approve new sources of public water supply.[9] However, the authority of DEQE to rely on quantity considerations, irrespective of their relation to groundwater quality, in ruling on new public water supply development is uncertain. Moreover, DEQE's jurisdiction clearly extends only to sources of public water supply, and does not include purely private withdrawals. Thus, DEQE

does not have the necessary power to manage even overstressed groundwater aquifers, and certainly does not have the type of comprehensive management authority over aquifers in general that is needed to implement a total water management program.

The essential groundwater process that requires protection in the management of the groundwater subsystem is groundwater percolation. The natural percolation of groundwater can be interfered with either by the capture, through withdrawal, or percolating water otherwise destined naturally to discharge to a surface water body,[10] or by surface alterations that cause groundwater to back up and saturate the land.[11]

With respect to the former situation, the capture of percolating water otherwise destined naturally to discharge to a surface water body, the "absolute ownership" rule, adopted in Massachusetts in 1836 in *Greenleaf v. Francis,*[12] was early interpreted to mean that property owners were free to make withdrawals of groundwater under their land even if they thereby intercepted the flow of water to a neighbor's pond or other discharge area.[13] Thus, owners of groundwater rights may do what owners of riparian rights in a stream may not do: completely disrupt the flow of water to those down-gradient from them, and interrupt or terminate the natural physical processes by which groundwater replenishes surface water. The common law offers no opportunity to protect or manage these natural processes and to preserve the physical integrity of the groundwater system.

The latter situation, the interference with groundwater percolation by surface impoundments, was considered in the 1957 case of *DEYO v. Athol Housing Authority,*[14] where the Town of Athol had built a road on land adjacent to the plaintiffs' property. That land had originally been lower than the plaintiffs', and surface and groundwater had naturally flowed off the plaintiffs' land and onto the lower land adjacent to it. During the town road construction, however, this flow was blocked by fill which raised the surface of the road, retarded the flow of both ground and surface water from the plaintiffs' property and raised the water table. The Supreme Judicial Court ruled that such effects were not actionable in the law:

> " 'The obstruction of surface water or an alteration in the flow of it affords no cause of action in behalf of a person who may suffer loss or detriment therefrom against one who does no act inconsistent with the due exercise of dominion over his

> own soil.' . . . The same rule applies to the subsurface percolation of water from a higher to a lower level."[15]

Thus, mere interference with percolation has not been recognized as actionable in the common law.

How the rule stated in *Deyo* might be modified today is an open question since the Sureme Judicial Court's 1978 ruling in *Tucker v. Badoian.*[16] In that case, the Court considered the "common enemy" rule, quoted approvingly in *DEYO,* which states that all diffuse surface water is the common enemy of all men, and that landowners are thus free to alter the contours of their land irrespective of the impact such alterations will have on diffuse surface water drainage and the water table in adjacent land. Based on this rule, the Court held that the defendant could not be liable for the alteration of the contours of his lot, which increased runoff and raised the water table in the plaintiff's adjacent land so extensively that sewage from an on-site septic tank was seeping into the plaintiff's basement. In a concurring opinion, however, a majority of the Justices stated that this harsh rule would no longer be applied in the future.[17] While the Justices refrained from delineating the precise standards that would govern future diversions of diffuse surface waters, they did state that a "reasonable use" principle will apply.[18]

In its main opinion, the *Tucker* court noted that it had "not distinguished between surface and ground water" in its past application of the common enemy rule,[19] but it did not state in the concurring opinion whether it would continue to adhere to a single rule for ground and surface water in the future. Thus, while it is possible to surmise that the common law today offers some measure of protection to the natural percolation processes of groundwater from impoundments which interfere with those processes, the precise nature of that protection is still quite uncertain. Clearly the common law, by itself, cannot be relied upon to achieve effective management and protection of the percolation process.

Another key element of a groundwater system requiring management is the recharge area associated with the groundwater aquifer. The recharge area is the surface area through which water from precipitation is absorbed into the aquifer.[20] The soils overlying the aquifer filter and purify the infiltrating water, insulate the water table so that the water remains cool, and

prevent direct evaporation from the water table.[21] If a recharge area is paved over as part of a construction development project, the infiltration of water can be virtually stopped and the water lost to surface runoff. In addition, any type of alteration of the aquifer can result in degradation of groundwater quality, a lowered water table due to evaporation, or an increase in groundwater temperature during warm weather months. For this reason, a comprehensive water management program should include some mechanism for protection of recharge areas as a means of preserving the physical integrity of the groundwater system. While some local by-laws seek to do so, no state statute or common law doctrine explicitly addresses recharge area protection at present.

C. *Mechanisms for Maintaining Groundwater Subsystem Integrity*

The existing state agencies and associations which participate in the Groundwater Steering Committee[22] have repeatedly indicated that they are well aware of the need to protect the physical integrity of the groundwater subsystem. Existing statutes, however, have not conferred the necessary power on any of them. Rather, the most readily available techniques that can be used to protect the sensitive groundwater portion of the hydrologic cycle are implemented at the local level. For example, the general laws provide municipalities with authority to develop and maintain public water supply systems.[23] Municipalities and water districts are specifically authorized to acquire (by eminent domain, purchase or otherwise) sources of water, including groundwater sources, within their municipal limits for public water supply.[24] In addition to acquiring the water source itself, they may acquire land necessary to protect and preserve the purity of water supply sources. Municipalities must seek DEQE's advice and approval prior to acquiring either water supply sources or interests in land to protect the purity of public water supplies.[25] In the usual case, DEQE will approve such takings only to a radius of 400 feet around a municipal well,[26] even though the area contributing to the recharge of a well may extend over a mile in one or more directions.[27]

When waters are being used as a source of public water supply, the local police power provides additional authority to impose restrictions upon activities affecting those waters by other par-

ties. Restrictions imposed to protect the purity of a public water supply may cause grievous loss without entitling the burdened party to compensation.[28] In the 1979 decision in *Kane v. Town of Hudson,*[29] for example, the Town located a well for water supply to the public on land adjacent to the plaintiffs. Shortly after the well was located, the town took, by eminent domain, all the plaintiffs' land within 400 feet of the town well (7.12 acres) in an effort to protect the purity of the groundwater supply. Plaintiffs had been using their land in a quarry operation and now claimed that, although the town had not taken their business, it had effectively forced them to cease operations. They argued that they could no longer quarry within 1,000 feet of the town's well without "corrupting" the quality of the municipal water supply in violation of a statutory provision which imposes tort and criminal liability for corruption or pollution of a municipal water supply. The plaintiffs asserted that they were entitled to compensation for their land more than 400 feet but less than 1,000 feet away from the Town's well (23 acres). Assuming, without deciding, that such an injury did exist, the Appeals Court refused to allow the plaintiffs to recover for it. The Court stated:

> "[T]he plaintiffs are entitled to no compensation for their loss; for the loss is not the result of any taking, or of the improvement for which a taking was made, but is rather the result of the restrictions which the law imposes on any person's use of waters which are a source of public supply."[30]

Since the plaintiffs could not have a right to use the land in a manner that would corrupt the public water supply, but were not denied other potential uses of the land, they were not entitled to compensation for the loss of such a right.

Two general types of local restrictions are available to protect the physical integrity of groundwater processes, either in conjunction with, or entirely independent from, the protection of a public water supply. The first of these is aquifer protection zoning. Some 30 communities in Massachusetts have enacted zoning by-laws designed to protect aquifers. The Town of Falmouth, for example, has a zoning by-law which imposes special protection restrictions in a Water Resource Protection District. Within the district, the by-law provides:

> "The following uses are prohibited: junk yard, solid waste disposal, public sewerage treatment facilities with onsite disposal of effluent unless tertiary treated, car washes, coin-

op or commercial laundries, trucking or bus terminals or airports. Subsurface hazardous chemical, gasoline and oil storage in corrodible containers is prohibited.
Any business, commercial or industrial use involving the large scale use, production or storage of chemicals, pesticides, herbicides, fertilizers or other potentially hazardous wastes or materials shall be allowed only upon special permit from the Board of Appeals. Large scale use shall mean any greater use than for ordinary home use. The Board of Appeals shall require demonstration by the applicant that any proposed use will not result in the degradation or the potential degradation of any surface water or groundwater currently used for public water supply or proposed for a future water supply."[31]

It is clear that local governments are free to protect groundwater aquifers through their local zoning by-laws.[32] Authority for local regulation of such lands can be found in the general grant of authority of the *Zoning Act*.[33] The purposes section of the 1975 revision of that Act states:

> "[O]bjectives for which zoning might be established . . . include . . . to conserve health; . . . to facilitate the adequate provision of water, water supply, drainage, . . . open space and other public requirements; to conserve . . . natural resources and [prevent] pollution of the environment; . . . and to preserve and increase amenities by the promulgation of regulations to fulfill said objectives. Said regulations may include but are not limited to restricting, prohibiting, permitting or regulating:
>
> 1. uses of land, including wetlands and lands deemed subject to seasonal or periodic flooding;
>
> * * *
>
> 3. uses of bodies of water, including water courses;
>
> * * *
>
> 5. areas and dimensions of land and bodies of water to be occupied or unoccupied by uses and structures, courts, yards and open spaces;
>
> * * *
>
> 8. the development of the natural scenic and aesthetic qualities of the community."[34]

The Supreme Judicial Court has explicitly held that the protection of groundwater is a valid public interest,[35] and there can be little doubt, therefore, that the zoning power can be exercised for that purpose. Indeed, in the 1980 decision in *Sturges v. Town of Chilmark*,[36] the Court approved stringent development restrictions which were justified because the Town had not yet

determined what precise restrictions were needed to protect groundwater.

When local governments exercise control over development through zoning by-laws, final authority rests with the local community. In exercising such authority, a local government must comply with the procedural requirements of the *Zoning Act,* including preparation of a zoning map reasonably describing the area,[37] a public hearing before the planning board,[38] two-thirds vote of the town meeting or city council,[39] the right of appeal to an impartial board of appeals for obtaining a variance;[40] and the right of review in Superior Court.[41]

The principal restriction on the zoning power is that its exercise cannot amount to a taking of private property. The Supreme Judicial Court has explained:

> "What may be characterized as forbidden takings are those governmental actions which strip private property of all practical value to [its owners] or to anyone acquiring it, leaving them only the burden of paying taxes on it."[42]

Under this standard, governmental regulation may deprive landowners of a beneficial use of their property, even the most beneficial use, without effecting an unconstitutional taking, as long as some beneficial use remains.[43]

Although no reported decision appears to deal specifically with zoning restrictions of groundwater recharge areas, restrictive zoning of land located in a floodplain was upheld in 1972 in *Turnpike Realty Co. v. Dedham,*[44] where the land at issue was restricted to agriculture and recreational uses. Evidence was given that there was an 88 percent resulting reduction in the value of the property, but the restriction was nevertheless upheld because some beneficial uses of the property were still permitted. Similar restrictions on groundwater recharge areas, therefore, seem also to be permissible.

The zoning power can be used effectively to restrict development of groundwater recharge areas, wetlands and other areas of importance to the physical integrity of groundwater aquifers. There also exists specific nonzoning authority for aquifer protection, however. For example, the provisions of the *Wetlands Protection Act*[45] require approval by a local Conservation Commission prior to the removal, drilling, dredging or alteration of any wetland. The Act requires the Conservation Commission to set

forth an "order of conditions" for each proposed project which will protect the seven wetland interests enumerated in the Act. The enumerated interests include both public and private water supply and groundwater supply.

The exercise of power under the *Wetlands Protection Act* is a local matter, and an important supplement to local zoning authority. However, local power under the Act is subject to supervision by DEQE. Within 10 days of the Commission's order of conditions (or failure to act), the applicant, an owner of abutting land, any 10 residents in the city or town where the land is located, or the Commissioner of DEQE can appeal the order to DEQE. DEQE will make an independent determination and issue a superseding order, setting forth its own conditions regulating the work. In this way, DEQE can assure that uniform principles and practices are applied by local commissions throughout the Commonwealth.[46]

It has now been established that local governments are free to adopt wetland regulation ordinances under Home Rule power other than that conferred by the *Wetlands Protection Act.* In 1979 in *Lovequist v. Conservation Commission,*[47] a local ordinance enacted by the Town of Dennis modeled upon the *Wetlands Protection Act* was considered, and approved, despite differences between the ordinance and the Act. On the basis of this decision, it can be concluded that a similar Home Rule ordinance addressed to non-wetland groundwater recharge areas would be regarded as similarly permissible. In judicial review of local decisions under ordinances of this type, the courts will apply the same constitutional standards discussed above, regarding the taking of property by state action.[48]

D. *Mechanisms and Decision-Making Reforms*

The protection of the physical integrity of the groundwater system can be addressed by the types of purely local mechanisms outlined here. Complete aquifer protection is not readily achievable, however, within a single political subdivision of the state. Neither aquifers nor the recharge areas within them respect city and town lines. The *Wetlands Protection Act* allows the state DEQE to supervise local decisions and thus to assure that the local interests of a city or town are not the only ones served in an order of conditions. The *Massachusetts Environmental Policy Act* (MEPA)[49] similarly establishes a procedure by which the state

exercises a review function over local and locally permitted actions with substantial environmental impacts. A mechanism for state supervision of local decisions affecting groundwater recharge areas may also be needed, if interjurisdictional values are to be preserved as well as respect for local control. The use of local power, without such supervision, may fail to achieve comprehensive groundwater subsystem management.

Certainly, however, the various pollution control mechanisms outlined in Part III of this report establish ample precedents for more than mere state supervision of local decisionmaking. Essentially the argument for state level management has five parts:

First, the state goal of protecting the physical integrity of the groundwater system is parallel to similar goals of other water programs. State standards for point and non-point sources of pollution, drinking water quality studies and other aspects of water management have been in effect for a number of years. The inclusion of the groundwater subsystem among those elements of a comprehensive water management program subject to state regulation is thus a reasonable extension of past policy, and offers the best opportunity for integration with existing policies.

Second, the preservation of the physical integrity of the groundwater subsystem through state common law doctrines has failed, and the imposition of state regulatory standards is therefore the only solution available which can effect the desired level of protection in an acceptably positive manner.

Third, while some cities and towns have contributed to past advancements in groundwater subsystem protection, the primary responsibility for managing water systems must fall upon the state government. Necessary uniformity and consideration of regional objectives is improbable if regulation is left primarily to local government.

Fourth, the state has an affirmative duty to protect the integrity of the groundwater subsystem in order to allow continued and sustainable economic growth. This duty requires state regulation of any activity or system that unreasonably threatens the state's economy.

Fifth, the quality and quantity of information available to the local governments concerning groundwater subsystems is often inadequate to foster reasonable decisions concerning the

preservation of system integrity. The state government is in a position to develop an independent capacity to conduct research and disseminate comprehensive information concerning the preservation of the interconnected system of ground and surface water throughout the Commonwealth.

Based on these five considerations, new state management mechanisms, rather than refinements of current local management practices, appear to be called for.

E. *Summary of Findings and Recommendations*

Ground and surface waters in the Commonwealth are part of, and should be managed as, a single hydrologic system. Groundwater management should focus on the groundwater aquifer as the appropriate unit of analysis. Certain key elements of the groundwater portion of the hydrologic cycle require special management attention, however. These include the percolation process and groundwater recharge areas, neither of which are adequately protected today, either by existing regulatory mechanisms or the common law. Nor do adequate mechanisms exist to protect aquifers which are overstressed because of the nature or volume of demands made upon them. Local zoning and non-zoning controls exist and their use to promote water management goals can be supervised by the state, but state regulation of the groundwater system, fully integrated with other state water regulatory programs, appears to be called for.

FOOTNOTES

1. 7 Mass. App. Ct. 556, 560 (1970).
2. 15 Pick. 554, 555 (1834).
3. 108 Mass. 261 (1871).
4. The facts recited here are presented in Massachusetts Division of Water Resources, *Groundwater and Groundwater Law in Massachusetts* 31-32 (1976) (hereinafter cited as "Groundwater Law").
5. *See* J.C. Spencer, *Protection of Groundwater Quantity and Quality: Legislation and Administration Alternatives* 3 (1980) ("Groundwater has traditionally suffered from being a grossly misunderstood substance, endowed with almost mystical qualities").
6. Commonwealth of Massachusetts, *Third Interim Report on the Special Legislative Commission Relative to Determining the Adequacy of the Water Supply in the Commonwealth* 78 (1981) (hereinafter cited as "Third Interim Report).
7. *See* 313 *CMR* 2.0 *et seq.*
8. Groundwater Law, *supra* note 4, at 11.
9. *M.G.L.* c.40, §39C.
10. *Cf. Hollingsworth & Vose Co. v. Foxborough Water Supply District,* 165 Mass. 186 (1896).

11. *See Deyo v. Athol Housing Authority,* 335 Mass. 459, 462 (1957).
12. 18 Pick. 117 (1836). For a discussion of this rule, *see* Part V A of this report.
13. *See Proprietors of Mills v. Braintree Water Supply Co.,* 149 Mass. 478, 485 (1889).
14. *Supra* note 11.
15. 335 Mass. at 462-63 (citations omitted), quoting *Bates v. Westborough,* 151 Mass. 174, 181 (1890).
16. 376 Mass. 907 (1978).
17. 376 Mass. at 916.
18. *Id.* at 918.
19. *Id.* at 912.
20. Groundwater Law, *supra* note 4, at 11.
21. *Id.* at 24.
22. These include:

Core Members

Planning Office of Department of Environmental Quality Engineering
Division of Water Supply
Division of Hazardous Waste
Executive Office of Environmental Affairs
Division of Water Resources
Water Resource Commission
Division of Water Pollution Control

Contributing Agencies and Associations

Bureau of Solid Waste Disposal
Cape Cod Planning and Economic Development Commission
Environmental Protection Agency — Water Division
Department of Community Affairs
Department of Commerce and Development
Department of Food and Agriculture
Department of Public Health
Department of Public Works
Massachusetts Water Works Association
Metropolitan District Commission
Special Legislative Commission on Water Supply
State Geologist
United States Geological Survey
Division of Waterways
Division of Fisheries and Wildlife

23. *M.G.L.* c. 40, §§38-42.
24. *M.G.L.* c. 40, §39B.
25. *M.G.L.* c. 40, §39.
26. 310 *CMR* 22.21(2).
27. S.W. Lohman, *Groundwater Hydraulics,* U.S. Geological Survey Professional Paper 708 (1972).
28. *Kane v. Town of Hudson, supra* note 1.
29. *Id.*
30. 7 Mass. App. Ct. at 561.
31. Falmouth Zoning By-Law §4121.
32. *See Golden v. Selectmen of Falmouth,* 358 Mass. 519 (1970).
33. *M.G.L.* c. 40A.
34. St. 1975, c. 808, §2A.

35. *Lovequist v. Conservation Commission,* 379 Mass. 7, 18-19 (1979), *citing Turnpike Realty Co. v. Dedham,* 362 Mass. 221, 227-229 (1972).
36. 380 Mass. 246 (1980).
37. *M.G.L.* c. 40A, §4.
38. *M.G.L.* c. 40A, §5.
39. *Id.*
40. *M.G.L.* c. 40A, §12.
41. *M.G.L.* c. 40A, §17.
42. *Lovequist v. Conservation Commission, supra* note 35, 379 Mass. at 20, *citing MacGibbon v. Board of Appeals of Duxbury (MacGibbon III),* 369 Mass. 512, 517 (1976) *quoting MacGibbon v. Board of Appeals of Duxbury (MacGibbon II),* 356 Mass. 635, 641 (1970).
43. *Penn. Central Transportation Co., v. New York City,* 438 U.S. 104, 123-128 (1978).
44. *Supra* note 35.
45. *M.G.L.* c. 131, §40.
46. In terms of the constitutional limitations on restrictions that can be placed on the use and enjoyment of land, the fact that local Conservation Commission decisions can be appealed to DEQE is significant. Because the State has final authority when development is regulated under the Wetlands Protection Act, if, as a result of DEQE restrictions, the Superior Court determines that an unconstitutional taking of property had occurred, the State and not the local community will be responsible for damages. *Hamilton v. Conservation Commission,* 1981 Mass. App. Ct. Adv. Sh. 1521. Unlike the procedure regarding restrictions upon coastal wetlands (*M.G.L.* c. 130, §105), inland wetlands (*M.G.L.* c. 131, §40A) and scenic and recreational rivers (*M.G.L.* c. 31, §*17B) where the Superior Court will set aside a Department of Environmental Management order where the restriction deprives a landowner of practical use of his property, the Superior Court will not set aside a DEQE order under the Wetlands Protection Act. Id.*
47. *Supra* note 35.
48. *Id.,* 379 Mass. at 19-20.
49. *M.G.L.* c. 30, §§61-62H.

III. *Groundwater Quality Protection*

A. *Current Institutional Mechanisms*

The traditional common law of the Commonwealth is that, in the absence of malice, landowners can utilize all the groundwater under their land, leaving none for adjacent landowners, without incurring liability. If landowners engage in ultrahazardous activities that pollute groundwater which flows to their neighbors' land, however, they may be subject to strict liability for all injuries resulting from such pollution. Indeed, the first decision in the Commonwealth in which the concept of strict liability for ultrahazardous activities was applied in any context was an 1868 case involving pollution of groundwater. In *Ball v. Nye,*[1] the plaintiff sued for damages resulting from the discharge of "filthy matter" which percolated through the soil from the defendant's

vault under his barn into the plaintiff's cellar and well. In directing that a verdict be entered for the plaintiff, the Court stated:

> "[T]he defendant was bound to so construct his vault that the contents thereof should not percolate into the plaintiff's cellar and well, and, it being conceded that percolations did pass through, to the plaintiff's injury, such percolations were evidence of negligence, upon which the plaintiff was entitled to a verdict."[2]

Fifteen years later, the Supreme Judicial Court imposed liability, in reliance upon the *Ball* decision, on a defendant who had excavated a portion of his oceanfront land in such a manner that salt water intruded to a well on the plaintiff's land. The Court stated that, although "sea-water may not be filthy water, it is effectively destructive to a well for domestic purposes as is such water."[3]

In 1975, the Supreme Judicial Court reaffirmed that Massachusetts law imposes strict liability for ultrahazardous activities. In *Clark-Aiken Co. v. Cromwell-Wright Co.*,[4] the Court traced the origin of strict liability in Massachusetts to the *Ball* case, and stated that the rule in Massachusetts is that strict liability will be imposed when, in light of surrounding circumstances, an unusual or extraordinary use of property creates an unacceptable level of risk.[5] An unacceptable level of risk can be the result of either an activity which itself creates an extraordinary risk or an activity with a more usual level of risk carried out in surroundings where that risk is increased.[6] In the case of groundwater contamination, the case law illustrates that the range of ultra-hazardous activities may include at least the underground storage of polluting material and the excavation of ocean-front property.[7]

Where the defendant is not engaged in an ultrahazardous activity, and application of the strict liability doctrine is therefore not appropriate, plaintiffs have traditionally sought to recover on a negligence theory for injuries resulting from groundwater contamination.[8] In such a negligence action, the plaintiff must bear the burden of alleging and proving negligence on the part of the defendant.[9] To be successful in an action for damages under a traditional negligence theory, the plaintiff will have to show that the defendant "failed to take precautions against a risk apparent to a reasonable man."[10]

However, a 1979 decision of the Massachusetts Appeals Court suggests that, in the future, determination of the extent to which impairment of percolating groundwater quality is unreasonable, and thus actionable, will not be based on the negligence principles of tort law. Rather, such cases will be resolved on the basis of the property law principles that govern the extent to which riparian proprietors may impair surface water quality.[11] Riparian rights are property rights which are appurtenant to land bounded by a watercourse or through which a stream flows.[12] Riparian owners are entitled to have the natural flow of a stream come to their land and to make such use of the water as will be reasonable with respect to similar rights of all other riparian owners.[13] The general rule regarding the quality of surface water is that riparian proprietors have a right to have water come to them in its natural condition, except insofar as it is affected by the reasonable uses of the owners above.[14] A slight impairment of water quality, which is necessarily incident to the use of property, and is properly and carefully regulated, is not unreasonable.[15] However, as early as the 1907 decision in *MacNamara v. Taft,*[16] the Supreme Judicial Court held that:

> "[If the] discharge of a noxious substance into [a] stream is of such quantity as materially to affect the purity of water when it reaches the land of a lower riparian owner, it interferes with his use of the water, is an invasion of his right of property, and as a matter of law is unreasonable."

If the principles of riparian ownership regarding degradation of surface water quality are, in fact, to be applied to cases involving pollution of groundwater, plaintiffs will be allowed to recover damages on the basis of these property principles as an alternative to the negligence principles of tort law. As is clear from the absolute prohibition against rendering surface water unfit for use, application of riparian principles to percolating groundwater may provide a degree of protection otherwise unavailable to the resource. Nevertheless, the continuing uncertainty over the precise requirements of either tort or property principles has meant that the common law cannot be relied on in confidence for the protection of groundwater. The emergence of water pollution control legislation, at both the federal and state levels, was a direct response to the perceived deficiencies in the applicable common law and, today, this legislation, rather than the common law, provides the principal legal protection for water quality.

As a result of this legislation, there exists for groundwater quality an institutional protection mechanism that does not exist for the other values highlighted in this report. DEQE has primary responsibility for the administration and enforcement of several statutory programs that have the protection of groundwater quality as an objective. Within DEQE, the Division of Water Pollution Control (DWPC)[17] has overall authority to administer and enforce the Massachusetts *Clean Waters Act;*[18] to promulgate regulations under that Act, including water quality standards and effluent limitations; to administer the National Pollution Discharge Elimination System (NPDES) permit program, together with the federal Environmental Protection Agency; and to survey, inspect, and clean up oil spills.

The *Clean Waters Act* defines "waters of the Commonwealth" to include groundwater and springs.[19] As a result, the DWPC has statutory responsibility for enhancing the quality and value of groundwater and for preventing and abating its pollution. In particular, DWPC is concerned with groundwater pollution from both direct and indirect sources such as surface impoundments, agriculture, and new construction.

The Act prohibits any person from discharging pollutants into waters of the Commonwealth, without a currently valid permit, unless exempted by regulation.[20] These permits incorporate regulatory effluenct limitations promulgated by DEQE for various types of dischrges. The DWPC does not presently issue permits for all discharges to groundwater, but generally limits itself to discharges in excess of 15,000 gallons per day. The *Clean Waters Act* provides for criminal penalties of up to $25,000 per day of a violation, or up to one year imprisonment, for violations of the Act, the regulations adopted under it or any order or permit issued by the DWPC.[21]

One especially important aspect of the *Clean Waters Act* is its remedial provisions for oil and hazardous spills and discharges that frequently can affect groundwater.[22] Under this Act, anyone who causes or is responsible for such a spill is obligated to report the incident to DWPC and thereafter to contract for its immediate containment and cleanup. All persons responsible for a spill are jointly and severally liable for these costs, as well as for the costs of DWPC's investigation of the spill, of any damage to public resources and of the restoration of the area.[23]

A second regulatory program exists under the Massachusetts act[24] which gives DEQE the authority to oversee and care for all waters, including groundwater, used in a "public water system."[25] This term is defined to include any system with at least 15 connections or serving at least 25 persons. DEQE also has the authority to examine drinking waters to determine their purity and fitness, and to issue regulations and orders necessary to prevent pollution and insure a pure water supply, including orders shutting down water supplies or prohibiting the use of any water which it believes will tend to adversely affect the public health.[26]

If there is a violation of any DEQE standard or regulation governing drinking water quality, DEQE refers the matter to the Department of Public Health (DPH).[27] If the DPH then determines that the violation may endanger the public health it may order the violator to comply and to take appropriate steps to purify the water. Such an order supercedes any DEQE regulation and is enforceable by the Superior Court. DEQE, however, retains its authority, subject to the superceding power of DPH, to order the abatement of any pollution of public drinking water supplies. The orders, rules and regulations of the DEQE, as well as the orders of the DPH, are enforceable by the Superior Court.

The state regulatory program is designed to implement the federal *Safe Drinking Water Act,*[28] which authorizes the establishment of mandatory primary drinking water standards, based on public health considerations.[29] The Act also directs EPA to recommend secondary standards to the states for such factors as water taste, color, odor and turbidity.[30] The statute also regulates discharges by underground injection which might endanger drinking water sources.[31]

Recently the Cape Cod aquifer was designated a sole source aquifer under the *Safe Drinking Water Act,*[32] which means that it is the principal drinking water source for that part of the Commonwealth. Because of this designation, no Federal agency may provide financial assistance to projects which EPA determines may contaminate the aquifer so as to create a significant hazard to public health, without EPA's express authorization and without including precautions in the project design to avoid such contamination.

A third regulatory program was recently established when DEQE issued its first set of hazardous waste management

regulations governing the generation, transportation, treatment, storage and disposal of hazardous waste under the *Hazardous Waste Management Act*.[33] DEQE's Division of Hazardous Waste is charged with developing and enforcing these regulations and has obtained Phase I Interim Authorization from EPA under the *Resource Conservation and Recovery Act*[34] to administer that statute in the Commonwealth. Unlike the other two regulatory programs listed here, the hazardous waste program is not exclusively concerned with water quality, but rather includes water quality impacts as one of its considerations in waste management.

A fourth regulatory program of importance to groundwater quality management is the State Environmental Code promulgated by DEQE.[35] Title 5 of that Code provides minimum requirements for the subsurface disposal of sanitary sewage, and grants to local boards of health the power to issue permits for the installation or repair of sanitary sewage disposal systems. DEQE itself approves the plans for any system designed to accomodate a volume of sewage exceeding 15,000 gallons per day.[36]

The regulations specify the permissable location, design and operation requirements for septic systems and also contain separate standards for disposal of waste pumped from individual septic systems.[37] For septic systems, the regulations require a percolation test,[38] and a deep observation hole designed to demonstrate that the bottom of the proposed facility will be four feet above the ground water table.[39]

Local boards of health are given other significant authority for groundwater protection, in addition to administering the State Environmental Code. They are also empowered to make reasonable health regulations[40] that may include regulations affecting groundwater quality. For example, in 1980, the Town of Bourne Board of Health adopted "regulations to protect ground an surface waters from contamination with liquid toxic hazardous material stored in storage tanks" pursuant to this power.[41] Administration of these regulations is the joint responsibility of the Board and the Fire Department, which has statutory power over the storage of petroleum products.[42]

Boards of health are also responsible for assigning locations for the dumping of solid and liquid waste materials and refuse.[43] DEQE regulations require the solid waste disposal facility to operate as a sanitary landfill and specify standards for its design

and operation. The regulations specify, in particular, that the lowest point of refuse deposition must be at least four feet above the water table.[44]

Boards of health may also, after public hearings, assign locations at which trades or employment attended by "noisome and injurious" odors may be carried on.[45] Such an assignment power may theoretically be used to divert polluting activities from groundwater recharge areas, for example.

Other local officials may also have the requisite power to effect groundwater quality protection. As noted in Part II of this report, the zoning power may be utilized for a variety of aquifer protection purposes,[46] and local building inspectors are thus charged, in the first instance, with the obligation of enforcing zoning provisions of this type.[47] Also as noted in Part II, local water departments and districts have the power and duty to exercise control over the land surrounding public water supply sources, in order to protect the purity of those supplies.[48]

As the foregoing list of authorities illustrates, there already exists ample authority for protecting groundwater quality at both the state and local levels. No glaring gaps in the authority remain. However, the problem of networking the various authorities to serve a comprehensive water management objective does exist. To accomplish this goal, DEQE and the Water Resources Commission established the Groundwater Steering Committee in 1980. The Committee's charge states:

> "The Massachusetts Groundwater Steering Committee is hereby designated as an official advisory body of the Water Resources Commission. It shall be the responsibility of said committee to develop recommendations regarding policies and implementation mechanisms for the protection and management of groundwater in the Commonwealth to be voted on by said commission.
> The Committee shall serve as a standing committee of the Water Resource Commission and shall be available to respond to specific requests from any of the represented agencies on said Steering Commitee."[49]

The Committee has developed, and the Water Resources Commission has approved, a former goal for the protection of groundwater:

> "The goal of the state's groundwater policy is to protect the quality and the quantity of groundwater to the levels necessary for potential uses."[50]

This goal is intended to incorporate eight qualifying tenets:

"The goal should:

1) allow for improvements to water quality.
2) allow for new growth and development.
3) be flexible enough to allow for changes or modifications in the future.
4) discourage reduction in quality of high quality water.
5) permit areas of limited protection.
6) recognize that protection of groundwater is tied to land use.
7) recognize that quantity and quality are of equal importance.
8) recognizes that standards may vary as needs and uses other than drinking water are identified."[51]

This articulation of a policy goal, together with its qualifying tenets, is an important step, and can be used as an organizing principle, in the networking of groundwater protection authorities. An important additional step for the Water Resources Commission and Groundwater Steering Committee will be to develop a mechanism to reach that goal and to assure that all state and local authorities' decision processes incorporate the state policy.

B. *Summary of Findings and Recommendations*

The common law in Massachusetts imposes strict liability for groundwater pollution caused by ultrahazardous activites, but has traditionally required a showing of negligence when such pollution is caused by activities not regarded as ultrahazardous. This rule of negligence has now been abandoned by the Appeals Court in favor of a "reasonable use" rule such as is applied to riparian owners of surface water rights.

Outside the common law, there exists an ample, if somewhat uncoordinated, institutional mechanism for protecting groundwater quality. DEQE has primary responsibility for the administration of the state *Clean Waters Act,* the statutory provisions governing water supply, and the *Hazardous Waste Management Act.* DEQE has also promulgated the State Environmental Code, which includes provisions governing the subsurface disposal of sanitary sewage. At the local level, Boards of Health, Fire Departments, Building Inspectors and Water Commissions may all have power to effect groundwater quality protection.

The Groundwater Steering Committee has established a groundwater policy goal which can be used as an organizing

principle for networking these authorities. An important next step is to develop an institutional mechanism to reach that goal.

FOOTNOTES

1. 99 Mass. 582 (1868).
2. 99 Mass. at 583-84.
3. *Mears v. Doyle,* 135 Mass. 508, 510 (1883).
4. 367 Mass. 70, 77-78 (1975).
5. 367 Mass. at 88-90.
6. The Massachusetts courts will not apply the doctrine of strict liability when the defendant can show that the injury was caused by an act of God or an unlawful act of an intervening third person. *Id.* at 90, n. 21, citing *Gorham v. Gross,* 125 Mass. 231, 238 (1878) and *Bratton v. Rudnick,* 283 Mass. 556, 560-561 (1933). Additionally, strict liability will not be imposed unless the plaintiff is injured as a direct result of the risk created. *Kaufman v. Boston Dye House, Inc.,* 280 Mass. 161, 169 (1933).
7. *But see Gauvreau v. Gulf Refining Co.,* 228 Mass. 54 (1934) (gasoline storage tank).
8. *Clark-Aiken Co. v. Cromwell-Wright Co., supra* note 4, 367 Mass. at 87.
9. *Gauvreau v. Gulf Refining Co., supra* note 7, 228 Mass at The plaintiff in that case was unsuccessful in an attempt to recover in negligence for injuries resulting from the seepage of gasoline from a storage tank into her well.
10. W.L. Prosser, *Handbook of the Law of Torts* §87 at 575 (4th ed. 1971)
11. *Kane v. Town of Hudson,* 7 Mass. App. Ct. 556, 562 (1979).
12. 93 *C.J.S.* "Waters and Water Courses" §8 at 607.
13. *Amory v. Commonwealth of Massachusetts,* 321 Mass. 240, 246 (1947). The rights of riparian owners are however subject to state appropriation for such purposes as may be deemed to be in the public interest. *Id.* at 246.
14. *Macnamara v. Taft,* 196 Mass. 597, 599 (1907). One authority has stated:

    "In determining the reasonableness of a particular use it is proper to consider the character and size of the stream, its location, the nature and condition of the improvements thereon, the uses to which it is subservient, the custom and usage of people in the vicinity and elsewhere with respect to the management of business, the hours of labor, and the use of water of such streams, the nature of the banks, the volume of the water, its full and velocity, the subject matter of its use, its object and extent, the necessity for it and previous usage."

    93 *C.J.S.* "Waters and Water Courses" §11 at 613-14.
15. *Macnamara v. Taft, supra* note 14, 196 Mass. at 600.
16. *Id. See also, Parker v. American Woolen Co.,* 195 Mass. 591 (1907) (Although convenient and economical for a large and important manufacturing plant to discharge noxious substances into a stream, no riparian owner has the right to destroy the purity of water and render it unfit for use by lower riparian owners.)
17. Massachusetts Department of Environmental Quality Engineering, *Surface Waste Impoundments in Massachusetts — 1980: A Survey Report*
18. *M.G.L.* c 21, §§26-53.
19. *M.G.L.* c 21, §26A.
20. *M.G.L.* c. 21, §43.
21. *M.G.L.* c. 21, §26.
22. *M.G.L.* c. 21, §27(14).

23. *Bratcher v. Cirillo Bros. Petroleum Products, Inc.* 1979 Mass. Adv. Sh. 2398. *See also* 314 C.M.R. §6.7.
24. *M.G.L.* c. 111, §§159-160B.
25. *M.G.L.* c. 111, §159.
26. *M.G.L.* c. 111, §160.
27. *M.G.L.* c. 111, §160B.
28. 42 *U.S.C.* §§300f *et seq.*
29. These appear at 40 *C.F.R.* Part 141.
30. These appear at 40 *C.F.R.* Part 141.
31. 42 *U.S.C.* §300h.
32. 42 *U.S.C.* §300h-3(e).
33. *M.G.L.* c. 21C, §57.
34. 42 *U.S.C.* §§6901 *et seq.*
35. 310 *CMR* 15.00 *et seq.*
36. 310 *CMR* 15.02(1).
27. 310 *CMR* 15.19.
38. 310 *CMR* 15.03(4).
39. 310 *CMR* 15.03 (3).
40. *M.G.L.* c. 111, §31.
41. *See* Town of Bourne, Regulations of the Board of Health.
42. *M.G.L.* c. 148, §9.
43. *M.G.L.* c. 111, §143.
44. 310 *CMR* §19.
45. *M.G.L.* c. 111, §143.
46. *See Golden v. Selectmen of Falmouth,* 358 Mass. 519 (1970).
47. *M.G.L.* c. 40A.
48. *M.G.L.* c. 40, §39B.
49. Quoted in Commonwealth of Massachusetts, *Third Interim Report of the Special Legislative Commission Relative to Determing the Adequacy of the Water Supply in the Commonwealth* 63 (1981).
50. *Id.* at 64.
51. *Id.*

IV. *Water Conservation and Use Efficiency*

A. *Incentives for Conservation and Use Efficiency*

Because existing water supplies are already sometimes insufficient to meet present needs, and demand is likely to increase in the future, due to residential, commercial and industrial growth,[1] the need to conserve water is now a major concern. Although Massachusetts has historically enjoyed a plentiful water supply, shortages are now increasingly common and can create critical problems.[2] During the recent water shortage, newspaper headlines proclaimed critical water supply problems for the state, attributing them to drought, increasing demand, the reduced bility of water sources to be replenished, and the contamination f existing sources. In 1980, for example, the University of Massa-

chusetts was temporarily closed because of water shortages.[3] At the peak of the drought, some 61 communities had implemented water use restrictions in order to reduce demand,[4] and such restrictions are now predictable annual occurances in at least 27 cities and towns.[5]

One obvious strategy to overcome actual shortages of water and reduce the threat of future shortages is to introduce methods of water conservation to manage demand and comsumption of existing and new consumers at all times, rather than just when supplies are short. Conservation may be seen as the implementation of any mechanism which reduces water use, loss or waste in order to make existing supplies available for other uses.[6] In any comprehensive water management program, conservation in all sectors — residential, municipal, commercial, industrial and agricultural — must be recognized as a principal method of meeting current and future water supply needs.

The conservation strategy has had the attention of decision-makers at all levels of government and in private industry and agriculture for some time. Nevertheless, no coherent federal, state or local policy presently exists to assure that conservation will be practiced. The lack of an adequate legal framework promoting conservation in Massachusetts has led to an incomplete consideration of conservation in water planning and resource assessments, as well as to conflicting institutional pressures and objectives.[7] For example, the Metropolitan District Commission's (MDC) mandate, under chapter 92 of the *General Laws,* to serve its statutory member cities and towns[8] requires it to furnish a sufficient supply of pure water. This mandate has traditionally been viewed as requiring the MDC to furnish all the water these communities ask for. Thus, the MDC has been constrained in its efforts to impose conservation conditions on that supply. The MDC has instituted a conservation program involving leak detection, system rehabilitation and public education,[9] but the problem of conflicting legal mandates and policy goals must be addressed if conservation is to become an effective water management strategy for the state.

Most water conservation strategies do not pertain specifically to groundwater, since they address water at the time of its use, rather than at the time of its withdrawal. Existing regulatory strategies promoting conservation tend to reduce water con-

sumption and use directly, although they indirectly limit withdrawals as well.

The state plumbing code, for example, is now being implemented as a mechanism for effecting conservation. These regulations,[10] which were issued in response to a legislative initiative of the Commission on Water Supply, require low flow showerheads and faucets and low water using toilets in new or renovated construction. Enforcement of the code is left to the building inspector or building department of the cities and towns, an official whose jurisdiction and expertise may extend to water use but certainly not to withdrawals.

There is, however, at least one regulatory mechanism that can arguably be utilized to restrict withdrawals. DEQE has the authority to approve a declaration, made by a city or town, of a state of water emergency, and thereby to confer on communities the power to take any measures necessary to effect water conservation.[11] Since the spring of 1981, DEQE practice for the approval of the local declaration has included the requirement that a water conservation program be developed and implemented by the community, in addition to the implementation of more traditional measures such as bans on domestic lawn watering and car washing restrictions. The power to restrict withdrawals appears to be within the scope of authority that can be exercised during a water emergency, and this power is presently exercised by Water Superintendents in the internal management of their systems. It has not been utilized, however, on a formal basis by DEQE.

The principal restriction on DEQE's power in emergencies is that it cannot act at all until a local community makes an initial declaration of the state of water emergency. This has led, in the past, to the anomolous situation where DEQE was unable to convince a community of the fact of a shortage or the need for remedial action. In such a circumstance, DEQE has concluded, it is without power to act, and necessary water conservation measures have not been imposed. Since water shortages rarely respect city or town boundaries. A state mechanism for declaring water shortage emergencies and effecting emergency conservation measures is clearly called for.

A comprehensive water management program would promote conservation at all times, and by all water users and withdrawers,

not only during emergencies or by those who initiate new construction or building renovation. An often recommended method of making conservation an integral element of water use and withdrawal decisions is to establish water fees that promote conservation. Since most water users already pay for the volume of water they receive, the mechanism is available to effect conservation of that water.

Traditionally, municipal and private water suppliers have employed a "decreasing block" rate structure, in which the price of water is highest for the first unit of water and lower for subsequent units.[12] The rates for the first blocks are typically set high enough to ensure that demand and customer costs are recovered, despite possible variations in use.[13] In this regard, the decreasing block does reflect the marginal cost of service at each level of demand, and has repeatedly been defended on this ground.[14] In recent years, however, there has been a trend to flat and increasing block rate structures,[15] and a majority of water supply systems now use one of these.

The Department of Public Utilities (DPU) has power to regulate, approve or disapprove of the use rates charged by privately-owned utilities.[16] It lacks authority, however, over the rates charged by municipal water suppliers, who typically are responsible for setting their own rates.[17] The MDC has authority to approve the minimum rates charged for water by its member communities,[18] and recent proposed legislation would provide incentives for the adoption of flat or increasing block rate structures throughout the Commonwealth.[19] Nevertheless, the principal restrictions on municipal suppliers' pricing water to effect conservation are local by-laws or political constraints.

Rate structures designed to promote conservation may have, as their goal, reduction of peak demand, reduction of average demand, or both. Depending on the goal selected, the stragety employed may differ. While the goal of peak demand reduction is attractive to utilities and regulators as a matter of operational efficiency, reduction of average demand appears to be the proper goal where water conservation is the desired objective.

The most obvious mechanism for effecting such a reduction is merely to raise rates across the board.[20] However, such rate increases may be difficult to implement. The total revenue needs of privately owned utilities are monitored by the DPU and only rates

yielding an approved rate of return are allowed. Thus, rates designed to achieve conservation by charging more than what is needed to achieve such a return will not be approved. Municipal water suppliers, while they are not restricted by statute in setting their rates without strict regard for revenue requirements,[21] must still submit their rates to town meetings or city councils for approval, and those bodies are unlikely to endorse water rates greatly in excess of revenue requirements.

Since general rate increases are often legally or politically difficult, the common response has been some type of rate structure change. As noted, most suppliers in Massachusetts who have adopted alternative rate structures have implemented flat or increasing block rates. Unfortunately, there is little evidence that either of these rate structures will significantly reduce total demand in every case.[22] Unlike a general price increase which effectively raises every user's bill and thus encourages demand reduction, a rate structure change does not necessarily alter the total cost paid for water. Some users will pay more for their water, while others will pay less and most may pay about the same. Thus, unless there are other incentives for conservation, average consumption will decline only if those who are paying more can reduce water use to a greater degree than those who pay less can increase their demand to take advantage of their bargain.[23]

The users who will pay significantly more in the case of flat or increasing block rates are the large volume users. The rate structure will thus be effective in promoting conservation only if these users are able to effect use reductions — for example, through reuse or process changes — in response to their increased costs, greater than the use increases likely to be made by low volume users. If they can, the result will be a decline in average consumption.

An alternative to flat or increasing block rates is seasonal rates, in which the same use volumes are priced higher in the summer than at other times. The users who will pay significantly more under this scheme are likely to be residential customers who will effect conservation by curtailing or abandoning high use summer activities and thus primarily reduce peak demand (although average demand may also decline.)

For private suppliers, the legal power to design rate structures

to effect conservation is not free of doubt. It can be argued, in support of conservation rate structures that, as a matter of public policy, conservation is to be encouraged and that rate structures which serve so important a public goal ought therefore to be approvable.[24] In a 1978 decision, the Supreme Judicial Court gave some support to this argument when it hinted that it might not require express statutory authority in order to approve rate structures designed to promote conservation.[25]

Alternatively, it can be argued that the costs of producing additional units of service are not so great and increasing so rapidly that water supply is effectively an increasing marginal cost service. Thus, the argument goes, flat increasing block or seasonal rates actually reflect the true marginal cost of providing water service. This justification is more readily accepted if it can be factually supported. In one 1980 decision, the New York Public Service Commission found the necessary factual support for seasonal rates that have the effect of reducing peak demand and thereby improving operational efficiency,[26] but similar factual support for increasing block structures may be more difficult to produce. Nevertheless, such factual support is the shortest path to approval of conservation rate structures.

Municipal water suppliers, in contrast to private utilities, have the legal authority and often the discretion — subject to town meeting or city council approval or other local restrictions, — to implement conservation rate structures. They therefore may be in a uniquely suitable position to use their rate-setting authority to stimulate water conservation, unfettered by the legal restrictions on private suppliers noted above.

B. *Summary of Findings and Recommendations*

The available evidence indicates that large water rate increases can have a significant impact on water conservation, but that moving from a decreasing block rate structure to a flat or increasing block rate structure tends to do little to promote conservation. Privately operated utilities have more legal restrictions and fewer powers than their municipal counterparts and thus may be less well equipped to use their rates to foster conservation. Although municipal suppliers do not share all of the restrictions imposed on private suppliers, their activities may be subject to local political processes and enactments limiting their

discretion. To the extent that suppliers can increase their rates generally to promote conservation or to apply a rate structure modification that will fall most heavily on a class of users with the capacity to conserve, they will maximize the impact of their efforts.

Future management of water supplies in Massachusetts must incorporate conservation principles if sufficient water is to be available to meet demand.

FOOTNOTES

1. *See* Baram & Miyares, "In Order to Have Water: Legal, Economic and Institutional Barriers to Water Reuse in Northern New England," 17 *N. Eng. L. Rev.* 741 (1982).
2. For instance, the New England River Basins Commission found that: "Increased water use and contaminated water supplies, combined with the deterioration of water supply systems in the region's older cities and the high cost of constructing new systems have forced . . . increasing attention to urban water conservation as a water management technique." *New England River Basins Comm'n Ann. Rep.* 22 (1979).
3. "No Water, No Students at U. Mass.", *Boston Globe* (Sept. 15, 1980) at 1 (closing of the University of Massachusetts, Amherst, because of the inability of the Amherst water supply system to provide sufficient supply.)
4. *See* Massachusetts Department of Environmental Quality Engineering, News Release No. 82-25 (November 2, 1981).
5. *Id. See also* "N.E. facing worst drought in 15 years," *Boston Globe* (Sept. 21, 1980) at 29, col. 2.
6. Commonwealth of Massachusetts, *Third Interim Report of the Special Legislative Commission Relative to Determining the Adequacy of the Water Supply in the Commonwealth* 13 (1981).
7. Baram & Miyares, *supra* note 1, 17 *N. Eng. L. Rev.* at 743.
8. *M.G.L.* c. 92, §10(1).
9. "Metropolitan District Commission Water Conservation Program," Internal Memorandum of the MDC (May 1, 1982).
10. 248 *CMR* 2.14 (f) & (g).
11. *M.G.L.* c. 40, §41A.
12. For a discussion of the use of rate structures in demand management *see* 1 New England River Basins Comm'n, *Before the Well Runs Dry: Literature Survey and Analysis of Water Conservation* 66-69 (1980).
13. For a discussion of demand and customer costs, *see* Note, "Energy Conservation through the State Public Utility Commissions," 3 *Harv. Envt'l L. Rev.* 160, 164-66 (1979).
14. *Id.*
15. Commonwealth of Massachusetts, *supra* note 6, at 43-46 (1981).
16. *M.G.L.* c. 165, §2.
17. *M.G.L.* c. 92, §27.
18. *Id.*
19. Senate Bill 1832 (1982).
20. New England River Basins Comm'n, *supra* note 12, 77-78.

21. *Id.* at 77-78.
22. Id. at 110.
23. Note, "Conservation, Lifeline Rates and Public Utility Regulatory Commissions," 19 *Nat. Res. J.* 411, 412-13 (1979). *But see* Zamora *et al.*, "Pricing Urban Water: Theory and Practice in Three Southwestern Cities," 1 *Sw. Rev. Mgmt. & Econ.* 89 (1981).
24. This argument was flatly rejected in one Maine decision, where conservation was held not to be a justification for rate discrimination. *Central Maine Power Co. v. Public Utilities Commission,* 405 A.2d 153, 190 (Me. 1979). ("While conservation . . . is an undisputed goal, it cannot be the justification for [rate] discrimination . . .") The court did concede, however, that utility rates need not be based solely on cost factors. However, at least one commentator has concluded that there has not been one rate design for any type of public utility anywhere in the country that has been legally upheld based on considerations other than economic ones, except where express statutory authority for such a basis is given. *See* Note, *supra* note 23, 19 *Nat. Res. J.* at 420.
25. The Department of Public Utilities may, in a rate proceeding, take into account, "factors which reduce the need as well as those which increase it." *Boston Edison Co. v. DPU,* 375 Mass. 1, 22, 375 N.E. 2d 305, 320, cert. denied, 439 U.S. 921 (1978) *(quoting Alabama-Tennessee Nat. Gas Co. v. Federal Power Comm'n,* 201 F.2d 494, 498 (3d Cir. 1953)).
26. Spring Valley Water Co. — Phase II (Case 27567) Opinion No. 80-22 (N.Y. Pub. Serv. Comm'n, May 30, 1980).

V. *Groundwater Allocation*

A. *Current Authority*

The Massachusetts law relative to individual property owners' withdrawals of groundwater from beneath the surface of their property can be traced to the adoption of the "absolute ownership" rule of groundwater allocation in the 1836 case of *Greenleaf v. Francis,*[1] which first recognized landowners' absolute control over the groundwater on their property, regardless of the effect their use might have on neighboring property owners' rights. The absolute ownership rule regards percolating waters as part of the land in which they are found and therefore provides overlying owners with the right to pump unlimited quantities for use on the land or as a commodity in trade.[2] The rule is sometimes referred to as the "English" Rule, since an early articulation of the rule appeared in the 1843 English case of *Acton v. Blundell,*[3] but, as noted, the rule's origin in Massachusetts preceeded the *Acton* case by seven years.

The standard form of the English Rule states:

> "[T]he owner of land containing underground water . . . has the right to direct or appropriate the percolating water within his own land so as to deprive the neighbor of it; and his

> right is the same whatever his motive may be, whether bona fide to improve his land, or maliciously to injure his neighbor, or to induce his neighbor to buy him out."[4]

As adopted and consistently applied in Massachusetts, however, the rule is not quite so harsh. In *Greenleaf,* involving a dispute between adjoining landowners, the court refused to allow the plaintiff to recover for injuries resulting from the loss of his groundwater supply caused when the defendant dug a well on his land near the plaintiff's well. The Massachusetts Supreme Judicial Court stated that landowners have "absolute dominion of the soil, extending upwards and below the surface as far as each pleases . . ."[5] Nevertheless, the court cautioned landowners that their proper rights "should not be exercised from mere malice."[6] Still, the essence of absolute ownership continues in Masschusetts: Landowners have a virtually unqualified right to withdraw unlimited amounts of groundwater from their land without liability to anyone, even to neighbors whose wells are exhausted as a result. It has been observed:

> "The rule require[s] that groundwater be perceived as a part of the soil, which . . . entitle[s] a landowner to do what he please[s] with groundwater. The owner [can] take out whatever groundwater [is] under his property . . . and his neighbor [can] do likewise. Any interference with the other's supply [is] . . . a nonactionable injury."[7]

From the time of their adoption of the absolute ownership rule, the English courts have been more explicit than those in Massachusetts in recognizing the connection between the rule and the mysterious nature of groundwater. In *Acton v. Blundell,*[8] for example, the court stated:

> "[I]n the use of a well sunk by a proprietor in his own land, the water which feeds it . . . does not flow openly . . ., but through the hidden views of the earth beneath its surface; no man can tell what changes these; it may be, that it is only yesterday's date that they first took the course and direction which enabled them to supply the well; again no proprietor knows what portion of water is taken from beneath his own soil, how much he gives originally, or how much he transmits only, or how much he receives."

Similarly, in another early English case, the court observed:

> "[W]ater percolating through underground strata . . . has no certain course, no defined limits, but . . . oozes through the soil in every direction in which the rain penetrates . . . [T]he right to percolating groundwater is necessarily of a very uncertain description. When does the right commence?

> Before or after the rain has found its way to the ground? . . . It is a process of nature not apparent; and therefore such percolating water has not received the protection which running water in a natural channel on the surface has always received."[9]

Today the hydrology of groundwater is well understood, and most states that followed the absolute ownership rule in the past have modified or abandoned the rule to accomodate the particular scientific facts presented to them.[10]

The process by which courts use improved scientific understanding of groundwater hydrology as a basis for abandoning outmoded common law doctrines was recently illustrated in the Rhode Island Supreme Court's 1982 decision in *Wood v. Picillo.*[11] In that case, the Court overruled a 1934 decision[12] in which it had held that a showing of negligence was required in Rhode Island before a property owner could be held liable for activities on the property which resulted in pollution of a neighbor's groundwater.[13] The Court explained why it was departing from that holding:

> "[In the earlier decision, the] court reasoned that because 'courses of subterranean waters are *** indefinite and obscure,' rights to them are less easily defineable than riparian rights to surface streams [and suggested] that it might be unjust to subject landowners to liability for the unforseeable consequences of legitimate land uses . . . Since . . . 1934, the science of groundwater hydrology as well as societal concern for environmental protection has developed dramatically. As a matter of scientific fact the courses of subterranean waters are no longer obscure and mysterious. The testimony of the scientific experts in this case clearly illustrates the accuracy with which scientists can determine the paths of groundwater flow . . . . Thus, the scientific and policy considerations that impelled the [earlier] result are no longer valid."[14]

There is some reason to believe that the Supreme Judicial Court might alter the Commonwealth's adherence to the "absolute ownership" rule if an appropriate case were presented to it. As noted in Part II of this report, the Court has already proved itself willing to alter ancient common law doctrines when their modern impacts are regarded as unacceptable. In the 1978 decision in *Tucker v. Badoian,*[15] described more fully in Part II, the court announced its intention to abandon the "common enemy" rule, applicable to diffuse surface waters, in favor of some form of "reasonable use" standard. The analogy to groundwater allocation rules is apparent. The absolute ownership rule, like the common enemy rule, is harsh in its application to specific

situations likely to arise today. In both contexts, the modern trend of the case law is toward a reasonable use standard. The Supreme Judicial Court has stated its intention to follow the trend in preference to the common enemy rule, and it may well be willing to take a similar step in an appropriate case arising under the absolute ownership rule.

It would be unwise, however, to rely too heavily on predictions of future changes in the common law. If the Supreme Judicial Court were to abandon the absolute ownership rule, the most likely alternative it would adopt would be the "American" or "reasonable use" rule which exists in many other states. That rule, thought to have originated in the 1869 New Hampshire case of *Bassett v. Salisbury Manufacturing Co.*,[16] limits property owners to groundwater withdrawals for "reasonable uses."[17] However, adoption of this rule would only reduce, not eliminate, the practical difficulties of relying on the common law to manage the allocation of groundwater. Both the English and the American rule reflect the Eastern United States' historically abundant water supply, rather than currently felt supply limits. Where water is uniformly plentiful, only the most egregious misuses of water need be of legal concern. This explains the common law's failure to stipulate priorities or measure water allocation in quantitative terms.[18] Instead, the absolute ownership rule allows unlimited withdrawals by all competing users, regardless of their impacts on each other and without focussing on the overall merit of any particular use.

The American rule, moreover, has proven to be sacrcely more adequate in allocating water. The issue of the reasonableness of a particular water use under the rule has generally been resolved by using artificial distinctions largely irrelevant to the promotion of water management objectives.[19] Thus, the American rule can hardly be regarded as a meaningful contemporary basis for allocation among users of groundwater.

The assumption of plentiful water also explains why the common law system of water allocation is structured so as not to come into play except to resolve conflicts. The fact is, however, that, as water shortages become more common, both the English and the American rule have become inadequate, even to resolve conflicts. A rule that assumes an abundance of water may not be workable when applied to conflicts among the multiple competing demands

of contemporary water users. Since groundwater disputes may involve numerous conflicting and excessive demands on a single supply, they become more frequent and complex as water becomes less plentiful. Neither a rule of allocation which allows each user to withdraw all the water it pleases, nor one that defines each user's allocation by the term "reasonable," can provide an adequate basis upon which to resolve such disputes.

The most telling criticism of the common law, however, is that its doctrines are not designed to support water use planning or management, and certainly do not provide a sufficient framework for allocating water among users.[20] In the context of water abundance, no more planning was considered to be needed than a general directive permitting all reasonable uses, and the American rule (but not the English rule) might have been adequate. However, when multiple "reasonable" water uses, in the aggregate, constitute a total demand for water that approaches or even exceeds the supply, a more precise formulation of the criteria by which competing demands are balanced is needed.

While the preceeding discussion summarizes the common law's allocation of groundwater among private landowners, public entities have generally not been governed by these rules. Rather, specific statutory enactments have established public rights to withdraw or alter the flow of groundwater. In the 1887 case of *Trowbridge v. Brookline,*[21] for example, the installation of a public sewer line caused two wells on the plaintiff's land to be drained and rendered unusable. While nonmalicious activity by a private party which had this effect on a plaintiff's wells would not have been actionable under the common law, the statute which authorized the Town to install the sewers required that all injuries caused by that installation be compensated. This was sufficient, the Supreme Judicial Court ruled, to allow the plaintiff to recover damages for her lost water supply.

A similar statutory provision is found in the *General Laws* today.[22] That provision states that "any person or corporation injured in his or its property by an action of a town under [the statutory provisions which authorize municipalities to develop and operate public water supply systems] may recover damages from said town." In the 1979 decision in *Kane v. Hudson,*[23] this statute was interpreted as requiring the Town of Hudson, which had taken a

parcel of the plaintiff's land by eminent domain for public water supply purposes, to provide the plaintiff with compensation, not merely for the land taken, but for any injury caused by the public improvement for which the taking was made. The Town was thus required to compensate the plaintiff for the diminution in the supply of pond water caused by operation of the Town well.

Thus, a municipality must pay compensation for any damages caused when groundwater is taken for public water supply purposes. In virtually all circumstances, a municipality is allocated only that volume of groundwater which it purchases or takes by eminent domain. Unlike private property owners, municipalities do not acquire, merely by ownership of the surface of the land, an "absolute ownership" of groundwater, entitled them to unlimited withdrawals.

B. *Findings and Recommendations: A Massachusetts Water Management Act*

The proposed bill which appears in the appendix to this report would amend the General Laws by inserting a new chapter to be referred to as the *"Massachusetts Water Mangement Act."* The Act would establish a mechanism for authorizing new withdrawals of both ground and surface water in excess of a threshold volume, initially recommended to be set at 100,000 gallons per day, but subject to revisions by DEQE. The Act's requirement of a water withdrawal permit would not apply to existing withdrawals of water at the time of its effective date, or to withdrawals which are for nonconsumptive uses. Thus, the Act represents the minimum level of allocation regulation consistent with its management objectives. The resulting data gathering, registration and permitting system would enable comprehensive regulation of ground and surface water withdrawals in Massachusetts.

Responsibility for the *Water Management Act* would be shared by DEQE and the Water Resources Commission. The Commission and DEQE are directed by the Act to cooperate in the planning, establishment and management of programs to assess the uses of water in the Commonwealth and to prepare to meet future water needs. The Water Resources Commission would be responsible for adopting principles, policies and guidelines necessary for the effective planning and management of water use and conservation in the Commonwealth. Thereafter, DEQE, with the Water Resources Commission's approval, would adopt the

regulations necessary to implement those principles, policies and guidelines, and would administer the regulations under the Act.

In this manner, the Act will be consistent with other efforts of the Special Legislative Commission on Water Supply to augment the planning responsibilities of the Commission.[24] While DEQE has the organization structure, staff expertise, and regulatory experience necessary to implement a program of this type, the Commission will be authorized under the Act to make a valuable contribution in protecting the natural environment of water in the Commonwealth, assuring comprehensive and systematic planning and management of water withdrawals and use, and allowing continued and sustainable economic growth.

DEQE regulations under the Act will establish a mechanism for managing ground and surface waters as a single hydrologic system, as is recommended elsewhere in this report. It is intended that the regulations be designed to ensure, where necessary, an appropriate balance among competing water withdrawal and uses.

Essential features of the required regulations will be criteria, standards and procedures for issuing permits, and specification of the content and form of permit applications. The regulations will establish procedures and forms for filing registration statements for existing withdrawals, so that DEQE will be able to account for existing withdrawals in allocating water permits, and notifications of nonconsumptive uses which will be exempt from the permit requirements. Under the Act, DEQE will also establish requirements for monitoring and inspection of water withdrawals, and for reporting of withdrawals and use by permitted water users. The Act requires DEQE to set up a program for the enforcement of the Act and the regulations adopted under it. In addition, DEQE's regulations will establish a mechanism to manage water in the Commonwealth during water supply and water quality emergencies. Finally, the regulations will establish reasonable registration and permit application fees for the purpose of reimbursing the Commonwealth for some reasonable portion of the costs of administering the Act.

The initial threshold volume recommended to be applied under the Act is 100,000 gallons per day. This figure was selected as reasonably accomodating two principal objectives of reasonable water withdrawal management. A threshold volume should be

large enough so that most private domestic wells in the state are exempt from regulation under normal circumstances. It can reasonably be presumed that these small withdrawals do not usually stress water sources. Therefore, since virtually all domestic wells withdraw at a rate below 50 gallons per minute,[25] the 100,000 gallon per day threshold (70 gallons per minute) will assure that these wells are excluded.

On the other hand, the threshold should not be set so high as to exclude water withdrawals which do have the potential of stressing water sources. The 100,000 gallon per day figure should assure, in most circumstances, that no withdrawals will take place which have this potential, unless specifically permitted by DEQE. Available data on groundwater withdrawals is limited. It may turn out, therefore, that a threshold volume figure other than 100,000 gallons per day will prove to be necessary and adequate to protect the public health, safety and welfare of the citizens of the Commonwealth. The Act, therefore, authorizes DEQE to raise or lower the threshold volume by regulation, as it deems necessary based on information gathered and experience in managing and balancing withdrawals. The Act directs DEQE to review the existing threshold volume every five years.

For some water sources, which are in need of special protection because of the nature of volume of demands made upon them, withdrawals of less than the applicable threshold volume may require management. When DEQE finds this to be the case with respect to any particular water source, it is authorized by the Act to establish a special lower threshold volume applicable to that water source.

For the purposes of determining whether a particular withdrawal of water is in excess of the threshold volume, the Act provides that any withdrawal for a nonconsumptive use will not be counted in the volume of water withdrawn. Some water uses are nonconsumptive, where water is withdrawn from and returned to the same source and is therefore available for reuse by others. Thus, the fact of withdrawal does not necessarily reduce the overall capacity of the water source to meet the demands place upon it.

The principal difficulty with this argument is that, in many instances, it may be quite difficult to ascertain what portion of water withdrawn is actually returned to a water source after use.

The Act therefore directs DEQE to establish a definition for uses of water which are, in fact, nonconsumptive, and to place on the party asserting that a use is nonconsumptive the burden of proving the volume of water which is returned and the means by which it is being returned, and of demonstrating that it is being returned in substantially unimpaired quality.

The Act contemplates that DEQE will specify in its regulations a schedule of permit expiration dates applicable to each water source. This will enable DEQE to devise a manageable system for considering the merit of all competing withdrawals from a single water source when permits are up for renewal. Registration statements filed under the Act would also have the same expiration date.

The Act directs DEQE to establish procedures and forms for filing permit applications and registration statements. In evaluating permit applications, DEQE would be directed to consider a number of factors which, taken together, comprise a measure of the merit of particular withdrawals, considering their environmental and economic impacts. These factors provide the framework by which DEQE can manage water withdrawals in order to promote the objectives of the Act. They include:

The impact of the proposed withdrawal on other waste sources which are hydrologically interconnected with the water source from which the withdrawal is to be made;

The present and future needs of the applicant;

The anticipated times of year when withdrawals will be made;

The water available within the safe yield of the water source from which the withdrawal is to be made;

Reasonable protection of water uses, land values, investments and enterprises that are dependant on previously permitted withdrawals;

The use to be made of the water proposed to be withdrawn and other existing, presently permitted or projected uses of the water source from which the withdrawal is to be made;

The water resources management plan for the city or town in which the proposed withdrawal is to be made;

Any state water resources management plan adopted by the Water Resources Commission;

Reasonable conservation practices and measures, consistent with efficient utilization of the water;

Reasonable protection of public drinking water supplies, water quality, waste water treatment capacity, waste

assimilation capacity, groundwater recharge areas, navigation, hydropower resources, water-based recreation, wetland habitats, fish and wildlife, agriculture, and floodplains; and

Reasonable economic development and the creation of jobs.

One criticism of any new permitting process is that it will prolong the period of time developers must wait to complete their projects. The Act attempts to respond to this problem by providing a mechanism for speeding the administrative processing of permit applications for which there is no opposition and which comport with existing water resources management plans. The Act establishes a deadline by which such permit applications must be acted upon, and provides that applications not acted upon within that time limit are deemed to be granted. The Act does permit the deadline to be extended in individual cases, however, upon a finding that additional time is necessary to give proper consideration to an application. A somewhat longer period of time is established for more complicated or controversial permit applications, as well as for those seeking authorization for withdrawals large enough to trigger the MEPA environmental impact review process. Again, failure by the Department to rule on an application within the time limit specified, or within the time specified in any extension, will have the legal consequence of granting the application.

Although the *Water Management Act* provides for regulation of water withdrawals at the state level, the need to obtain recommendations from local officials or bodies, and to maximize their participation in the evaluation of permit application, is also recognized. Thus, the Act directs DEQE to establish a "networking" mechanism for obtaining such recommendations. In this way, the Act seeks to achieve a level of state control, somewhat greater than what has been implemented under the *Wetlands Protection Act,* but without eliminating local concerns and local consideration from the permitting process.

The Act also seeks to correct an existing deficiency in DEQE power to declare a state or water emergency. The Act authorizes DEQE to make such declaration upon its own finding that there exists or impends a water supply shortage of a dimension which endangers the public health, safety or welfare of the citizens of the Commonwealth. Thus, DEQE will no longer have to wait until a local community declares an emergency and agrees to take

remedial action. DEQE may limit the applicability of any state of water emergency declared under the Act, to specific categories of water sources, to particular areas of the state or to specific water sources in which a shortage exists or impends. During a water emergency, DEQE may issue orders establishing priorities for the distribution, compelling any person to reduce withdrawals or water use, requiring the implementation of specific water conservation measures, or mandating the denial of new applications for withdrawal permits within the emergency area. Thus, during an emergency, DEQE will have ample authority to take whatever measures are necessary to respond to the emergency conditions.

Part of the funding for the *Water Management Act* will come from a Water Management Fund, a dedicated fund containing moneys collected as registration and permit application fees and civil penalties under the Act. DEQE is directed under the Act to establish reasonable registration and permit application fee schedules, and to collect fees in accordance with those schedules. While it is not the intention of the Act to make the permit and program entirely self-sufficient, permit application fees are intended to defray some portion of the administration of the Act, and thereby to be consistent with the principle that those who benefit from regulatory permits should be responsible for the cost of obtaining them.

Overall, the Act represents a significant departure, and a major improvement, in the ability in the Commonwealth to manage its ground and surface water sources. The Act provides DEQE with sufficient flexibility to manage and issue permits for water withdrawals in accordance with the information available to it, and to improve its management processes as new data and new understanding of water sources become available. Passage of the Act will place Massachusetts at the forefront of states attempting to grapple wisely with contemporary water use problems.

FOOTNOTES

1. 18 Pick. 117 (1836).
2. A.J. Casner (ed.) 6A *American Law of Property* §28.66 at 195 (1954).
3. 12 Mees & W. 324, 152 Eng. Rep. 1223 (1843).
4. Coulson & Forbes, *The Law of Waters* 221 (6th ed. 1952).
5. *Greenleaf v. Francis, supra* note 1, 18 Pick. at 122. This language restates the ancient common law rule: *Cujus est solum, ejus est usque ad caelum et ad inferos* (To whomsoever the soil belongs, he owns also to the sky and to the depths.)

6. *Id. See also Davis v. Spaulding,* 157 Mass. 431 (1892) (Absent malice, landowners can prevent, without liability, underground percolating water from leaving their domain even though such actions interfere with a neighbor's use or lowers a neighbor's property value).
7. Lowe, Ruedisili & Graham, "Beyond Section 858: A Proposed Groundwater Liability and Management System for the Eastern United States," 8 *Ecology L.Q.* 131, 133 n.13 (1979).
8. *Supra* note 4, 12 Mees & W. at 352.
9. *Chasemore v. Richneds,* 7 H.L. Cas. 349, 361 (1859).
10. *See Sloss-Sheffield Steel & Iron Co. v. Wilkes,* 231 Ala. 511, 165 So. 2d 764 (1936); *Bristor v. Cheatham,* 75 Ariz. 227, 225 P.2d 173 (1953); *Macartor v. Graylyn Crest III Swim Club, Inc.,* 40 Del. Ch. 53, 173 A.2d 344 (1961); *Cason v. Florida Power Co.,* 74 Fla. 1, 76 So. 535 (1917); *Behrens v. Scharringhausen,* 22 Ill. App. 2d 326, 161 N.E.2d 44 (1959); *Gagnon v. French Lick Springs Hotel Co.,* 163 Ind. 687, 72 N.E. 849 (1904); *Barclay v. Abraham,* 121 Iowa 619, 96 N.W. 1080 (1903); *Sycamore Coal Co. v. Stanley,* 292 Ky. 168, 166 S.W.2d 293 (1942); *Finely v. Teeter Stone, Inc.,* 251 Md. 428, 248 A.2d 106 (1968); *Schenk v. Ann Arbor,* 196 Mich. 75, 163 N.W. 109 (1917); *Erickson v. Crookston Waterworks, Power & Light Co.,* 100 Minn. 481, 111 N.W. 391 (1907); *Higday v. Nickolaus,* 469 S.W.2d 859 (Mo. App. 1971); *In re Metropolitan Utilities Dist. of Omaha,* 179 Neb. 783, 140 N.W.2d 626 (1966); *Basset v. Salisbury Mfg. Co.,* 43 N.H. 569, 82 Am. Dec. 179 (1862); *Meeker v. East Orange,* 77 N.J.L. 623, 74 A. 379 (1909); *Erickson v. McLean,* 62 N.M. 264, 308 P.2d 983 (1957); *Hawthorn v. Natural Carbonic Gas Co.,* 194 N.Y. 326, 87 N.E. 504 (1909); *Bayer v. Nello L. Teer Co.,* 256 N.C. 509, 124 S.E.2d 552 (1962); *Volkmann v. City of Crosby,* 120 N.W.2d 18, (N.D. 1963); *Canada v. City of Shawnee,* 179 Okla. 53, 64 P.2d 694 (1937); *Rothrauff v. Sinking Spring Water Co.,* 339 Pa. 129, 14 A.2d 87 (1940); *Evans v. City of Seattle,* 182 Wash. 450, 47 P.2d 984 (1935); *Drummond v. White Oak Fuel Co.,* 104 W.Va. 368, 140 S.E. 57 (1927); *State v. Michels Pipeline Construction, Inc.,* 63 Wis.2d 278, 219 N.W.2d 308 (1974); *Binning v. Miller,* 55 Wyo. 451, 102 P.2d 54 (1940).
11. No. 80-419-Appeal (1982).
12. *Rose v. Socony-Vacuum Corp.,* 54 R.I. 411, 173 A. 627 (1934).
13. The Massachusetts rule, in contrast, has long been that strict liability (without a showing of negligence) will be imposed when "filthy matter" is allowed to percolate to, and contaminate, a neighbor's groundwater. *Ball v. Nye,* 99 Mass. 582 (1868). *See also Mears v. Doyle,* 135 Mass. 508 (1883) (strict liability imposed when sea water from defendant's property contaminated plaintiff's well water).
14. *Ward v. Picillo, supra* note 11, slip op. at 11, 12.
15. 376 Mass. 907 (1978).
16. 43 N.H. 569 (1869).
17. *The Restatement (Second) of Torts* §850A essentially adopts this rule, although its definition of "reasonable use" differs from the usual one applied. Rather than limiting the term to uses made on the property, the *Restatement* balances nine factors in considering whether a use is reasonable:
    (a) the purpose of the use,
    (b) the suitability of the use to the watercourse or lake,
    (c) the economic value of the use,
    (d) the social value of the use,
    (e) the extent and amount of the harm it causes,
    (f) the practicality of avoiding the harm by adjusting the use of method of the use of one proprietor or the other,

(g) the practicality of adjusting the quantity of water used by each proprietor,
(h) The protection of existing values of water uses, land, investments and enterprises, and
(i) the justice of requiring the user causing harm to bear the loss.

An alternative "fair share," rule which is followed in some Western states, uses the concept of "correlative rights" to define an individual's right to groundwater in terms of other competing users' demands.

See A.J. Casner, *supra* note 2, §28.61 at 197.

18. *See* Hanks, "The Law of Water in New Jersey," 22 *Rutgers L. Rev.* 621, 627 (1968).
19. Baram & Miyares, "In Order to Have Water: Legal, Economic and Institutional Barriers to Water Reuse in Northern New England," 17 *N.Eng.L.Rev.* 741, 746 (1982).
20. Lowe, Ruedisili & Graham, *supra* note 7.
21. 144 Mass. 139 (1887).
22. *M.G.L.* c. 40, §39F.
23. 7 Mass. App. Ct. 556 (1979).
24. Senate Bills 1898 and 1902 (1982).
25. Personal communication from Ivan James, U.S. Geological Survey.

The Commonwealth of Massachusetts

In the Year One Thousand Nine Hundred and Eighty-three.

AN ACT RELATIVE TO THE ESTABLISHMENT OF A MASSACHUSETTS WATER MANAGEMENT ACT.

Whereas, The deferred operation of this act would tend to defeat its purpose, which is in part to ensure an adequate volume and quality of water for all citizens of the Commonwealth and to prevent further waste of precious water, therefore it is hereby declared to be an emergency law, necessary for the immediate preservation of the public convenience.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. The General Laws are hereby amended by inserting after chapter 21D the following new chapter, chapter 21E:—

Section 1. This chapter shall be known and may be cited as the "Massachusetts Water Management Act."

Section 2. Unless the context clearly indicates otherwise, when used in this chapter, the following terms shall have the following meanings:—

"Commission," The water resources commission of the executive office of environmental affairs.

"Department," The department of environmental quality engineering.

"Existing withdrawal," The average daily volume of water regularly being withdrawn from a particular water source or shown in a water resources management plan on the effective date of this chapter, plus any additional withdrawal approved by the department pursuant to section 5; provided that no person shall be deemed to have an existing withdrawal of water unless, such person files a registration statement with the department, in accordance with the provisions of section 5 and section 6 and regulations adopted thereunder.

"New withdrawal," Any withdrawal of water which is not an existing withdrawal.

"Nonconsumptive use," Any use of water which results in its being discharged to an appropriate water source in substantially unimpaired quality and which conforms to the definition adopted by regulation pursuant to section 4.

"Permit," A permit issued by the department under section 7 and authorizing the withdrawal of water in excess of the threshold volume.

"Person," Any agency or political subdivision of the federal government or the commonwealth, any state, public or private corporation or authority, individual, trust, firm, joint stock company, partnership, association, or other entity and any officer, employee or agent of said person, and any group of said persons.

"Public water system," A system for the provision to the public of piped water for human consumption, if such system has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least sixty days of the year. Such term includes any collection, treatment, storage, and distribution facilities under control of the operator of such a system and used primarily in connection with such system; and any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system.

"Registration statement," A statement of an existing withdrawal, filed with the department in accordance with section 5 and the regulations adopted thereunder.

"Threshold volume," The volume of water specified in section 4 or the regulations adopted thereunder.

"Water," All water beneath or on the surface of the ground, including all ground and surface water, whether wholly or partly within the Commonwealth.

"Water resources management plan," A local plan to meet water needs within a city or town, submitted by the chief elected official or designee to the commission pursuant to the regulations of the commission.

"Water resources management official," The local official, designated by the chief elected official within a city or town, responsible for submitting and administering the water resources management plan in the city or town.

"Water source," Any natural or artificial body of ground or

surface water; ground and surface water sources are interconnected in a single hydrological system.

"Withdrawal" or "withdrawal of water," The removal or taking of water from a water source; provided that all removals or takings of water from a single water source which are made or controlled by a single person shall be deemed to be a single withdrawal of water.

Section 3. (a) The department and commission shall cooperate in the planning, establishment and management of programs to assess the uses of water in the Commonwealth and to plan for future water needs.

(b) The commission shall adopt principles, policies and guidelines necessary for the effective planning and management of water use and conservation in the Commonwealth and for the administration of this chapter as necessary and proper to ensure an adequate volume and quality of water for all citizens of the Commonwealth, both present and future. Such principles, policies and guidelines shall be designed to protect the natural environment of the water in the Commonwealth; to assure comprehensive and systematic planning and management of water withdrawals and use in the Commonwealth, recognizing that water is both finite and renewable; and to allow continued and sustainable economic growth throughout the Commonwealth and increase the social and economic well being and safety of the Commonwealth's citizens and of its work force.

(c) Pursuant to chapter 30A, the department, with the approval of the commission, shall adopt such regulations as it deems necessary to carry out the purposes of this chapter, establishing a mechanism for managing ground and surface water in the Commonwealth as a single hydrological system and ensuring, where necessary, a balance among competing water withdrawals and uses. Within one year of the effective date of this chapter, the department shall adopt, and thereafter from time to time may amend, regulations establishing procedures and forms for filing notifications and registration statements; reasonable registration fees; a mechanism to control water in the Commonwealth during water supply and water quality emergencies; and a program for the enforcement of the provisions of this chapter and the

regulations adopted thereunder. Within two years of the effective date of this chapter, the department shall adopt, and thereafter from time to time may amend, regulations establishing criteria, standards and procedures for issuing permits; requirements for the content and form of permit applications; reasonable permit application fees; and requirements for monitoring, inspection and reporting of water withdrawals and usage by permitted water users. 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.

Section 4. (a) The withdrawal volume threshold to be applied pursuant to section 5 and section 7 shall be 100,000 gallons per day. The department may, by regulation, raise or lower the threshold volume established in this section upon a finding that such different threshold is necessary and adequate to protect the public health, safety and welfare. The department shall not require any approval, other than that provided for in section 39C of chapter 40, for withdrawals less than such threshold volume; provided that nothing in this chapter shall be deemed to prohibit any local authority, body or district of competent jurisdiction from requiring permits for withdrawals less than the threshold volume.

(b) The department may, by regulation, establish, for any particular water source, a lower threshold volume than that generally applicable in the Commonwealth upon findings that such water source is in need of special protection because of the nature or volume of demands made upon it, and that the reduced threshold is therefore necessary and adequate to protect the public health, safety and welfare.

(c) The department shall, no later than five years after the effective date of this chapter, and no less than every five years thereafter, initiate rulemaking procedures in accordance with chapter 30A, to review and reassess the necessity and adequacy of the volume threshold in effect.

(d) For the purpose of determining whether a withdrawal is in excess of the threshold volume, any withdrawal of water for a nonconsumptive use, as defined by regulation adopted by the department, shall not be counted in the volume of

water withdrawn; provided that any person withdrawing or proposing to withdraw water for a nonconsumptive use shall file, in accordance with regulations adopted by the department, a notification stating the amount being or to be withdrawn and demonstrating that the use is or will be nonconsumptive.

Section 5. (a) Each person making an existing withdrawal in excess of the threshold volume shall file a registration statement, in accordance with the regulations adopted by the department, within two years of the effective date of this chapter; provided that, if the department lowers the threshold volume pursuant to section 4, it shall, by regulation, provide a procedure and deadline for persons making existing withdrawals, in excess of the new threshold volume, from water sources to which the new threshold volume is applicable, to file registration statements. No person shall continue an existing withdrawal in excess of the threshold volume, after the applicable deadline for filing registration statements, unless such person has complied with the requirements of this section and the regulations adopted hereunder.

(b) The department shall, by regulation, specify a schedule of expiration dates applicable to each water source from which there are existing withdrawals for which registration statements can be filed. All initial registration statements filed for existing withdrawals from that water source shall authorize such withdrawals until the next applicable expiration date thus specified; provided that no registration statement shall authorize the continuation of existing withdrawals for a term greater than eight years.

(c) The department shall, by regulation, establish a procedure for approving and incorporating additions to existing withdrawals into registration statements; provided that, except as authorized in section 16, the department shall not approve any addition which itself is in excess of the threshold volume.

(d) Upon the expiration of an initial or renewal registration statement under this section, the registrant shall be entitled, upon the filing of a renewal registration statement, to continue existing withdrawals specified in the

registration statement for a period of five years.

Section 6. The regulations issued by the department shall specify the form and required contents of a registration statement. At a minimum, such regulations shall specify that the registration statement must contain —

(1) The use for which the water is being withdrawn;

(2) A description of the water source from which the withdrawal is being made;

(3) The location of the withdrawal;

(4) The average daily volume of water the registrant is withdrawing; provided that persons whose volume of withdrawals varies seasonally according to a substantially established pattern shall describe that variation;

(5) Conservation measures instituted, or to be instituted, by the registrant; and

(6) The point or points at which the water is to be discharged after use.

Section 7. (a) The department shall, by regulation, specify, for each water source from which withdrawals are to be permitted, a date upon which its regulations establishing criteria, standards and procedures for issuing withdrawal permits shall become effective. No person may, after the effective date thus specified, make a new withdrawal of more than the threshold volume of water from any water source, or construct any building or structure which may require that person to make such a new withdrawal of water, unless such person obtains a withdrawal permit, in accordance with regulations adopted by the department.

(b) In adopting regulations establishing criteria and standards for obtaining permits, the department shall assure, at a minimum, that the following factors are considered:

(1) The impact of the proposed withdrawal on other water sources which are hydrologically interconnected with the water source from which the withdrawal is to be made;

(2) The present and future needs of the applicant;

(3) The anticipated times of year when withdrawals will be made;

(4) The water available within the safe yield of the water source from which the withdrawal is to be made;

(5) Reasonable protection of water uses, land values, investments and enterprises that are dependent on previously permitted withdrawals;

(6) The use to be made of the water proposed to be withdrawn and other existing, presently permitted or projected uses of the water source from which the withdrawal is to be made;

(7) The water resources management plan for the city or town in which the proposed withdrawal is to be located;

(8) Any state water resources management plan adopted by the commission;

(9) Reasonable conservation practices and measures, consistent with efficient utilization of the water;

(10) Reasonable protection of public drinking water supplies, water quality, wastewater treatment capacity, waste assimilation capacity, groundwater recharge areas, navigation, hydropower resources, water-based recreation, wetland habitats, fish and wildlife, agriculture, and flood plains; and

(11) Reasonable economic development and the creation of jobs in the Commonwealth.

Section 8. (a) The regulations adopted by the department shall specify the form and required contents of a permit application. At a minimum, such regulations shall specify that the application must contain:

(1) The need for the proposed withdrawal;

(2) The reasons for the withdrawal and the use of the water to be withdrawn;

(3) A description of the water source from which the withdrawal is proposed;

(4) The location of the withdrawal;

(5) The quantity, frequency and rate of water the applicant proposes to withdraw;

(6) The length of time for which the withdrawal permit is sought;

(7) The effect of the proposed withdrawal on public drinking water supplies, water quality, wastewater treatment, waste assimilation, groundwater recharge areas, navigation, hydropower resources, water-based recreation,

wetland habitats, fish and wildlife, agriculture, and flood plains;

(8) The alternatives, if any, to the proposed withdrawal including a study of cost factors, feasibility and environmental effects of such alternatives; and

(9) Conservation measures instituted, or to be instituted, by the applicant.

(b) The regulations adopted by the department shall allow the applicant to submit, in support of the pemit application, a negotiated agreement with any other owner of property conveying by deed an easement restricting that property owner's right to withdraw from the water source from which the applicant proposes to make withdrawals. The department shall consider such easement in making its findings relative to the sufficiency of the water available within the safe yield of the water source from which the withdrawal is to be made.

(c) The regulations issued by the department may specify the conditions under which the department will approve the transfer of a withdrawal permit.

Section 9. (a) All applications for withdrawal permits shall be submitted to the department in conformance with the rules and on the forms adopted under section 7 and 8 for the processing of permit applications. A copy of the application shall be filed in the office of the water resource management official of the city or town in which the withdrawal is proposed. Thereafter, an applicant shall cause a notice of the proposed withdrawal to be published in a newspaper of general circulation in the city or town in which the withdrawal is proposed, and in other cities and towns where the same water source is located. Such a notice shall state the location of the water source from which the withdrawal is to be made, and the volume of water to be withdrawn, and shall state further that a copy of the application is available for inspection at the office of the water resources management official of the city or town in which the withdrawal is proposed, and that any party wishing to comment on the grant of the withdrawal permit may file a written statement with the water resource management official within 30 days of the date of publication of the notice. Within five days of the

publication of said notice, copies of the notice shall be sent by certified mail, return receipt requested, to the owners of record of all properties abutting the property on which the withdrawal is proposed and all properties abutting such properties. The applicant shall file with the department an affidavit that copies of the notice were sent in accordance with this section.

(b) The applicant may file with the department, in support of the application, certificates from the water resources management official that: — (1) the proposed withdrawal is not inconsistent with the local water resources management plan; and (2) no statement of opposition has been received within 30 days of the date of publication of the notice of the proposed withdrawal. The department shall rule on any completed withdrawal application, for which the requirements of sections 61 through 62H inclusive of chapter 30 and the regulations adopted thereunder have been met, within 30 days of the time such certificates are filed. If such certificates are not filed by the applicant, or if the secretary of environmental affairs issues a certificate, pursuant to section 62A of chapter 30, stating that an environmental impact report is required for the permit application, the department shall rule on any completed withdrawal application within 90 days of the completion of compliance with the requirements of sections 61 through 62H inclusive of chapter 30 and the regulations adopted thereunder.

(c) In order for an application to be considered completed the department may require additional information to be submitted before ruling on the permit application. No application shall be deemed completed unless it contains all information required by regulation or requested by the department.

(d) The deadlines established in this section for ruling on withdrawal applications may be extended for a reasonable period of time, not to exceed nine months, by the department in individual cases upon a finding that additional time is necessary to give proper consideration to an application.

(e) Failure by the department to rule on a completed application within the time specified in this section or within the time specified in any extension made pursuant to this

section shall be deemed to be an approval of the application.

Section 10. The department shall, by regulation, establish a procedure to be followed in obtaining recommendations from local officials or bodies, including any comments received by the water resources management official pursuant to section 9, for use by the department in making findings under section 11; provided that failure of any local official to make timely recommendations in accordance with such procedure shall not bar the department from ruling on any application if it determines that it has an adequate basis for making the findings required by regulation.

Section 11. (a) In accordance with rules adopted under section 7, the department may issue permits for any new withdrawal of water if it determines that the withdrawal will conform to the regulatory standards established. If the department finds that the combined volume of existing, permitted and proposed withdrawals exceeds the safe yield of the affected water source or that existing, permitted or proposed water withdrawals are otherwise in conflict, it may deny a permit application; suspend or revoke permits already issued; condition new withdrawals or modify existing withdrawals or permitted withdrawal conditions as necessary to assure that water supplies are equitably shared and efficiently used. The department may attach to any permit whatever conditions it deems necessary to further the purposes of this chapter or to assure compliance with its regulations.

(b) The department shall make written findings of fact in support of its decision and shall state with specificity the reasons for issuance or denial of the permit and for any condtions of approval imposed. Every permit issued pursuant to this chapter may include provisions: —

(1) Fixing the term of the permit;

(2) Fixing the maximum allowable withdrawal expressed in terms of an average daily volume;

(3) Identifying and limiting the use or uses to which the water may be put;

(4) Requiring the applicant to meter the water being withdrawn and report the amount and quality of the water being withdrawn;

(5) Governing the operations and maintenance of the specific facilities, equipment or premises;

(6) Allowing the department to enter the applicant's facilities or property to inspect and monitor the withdrawal;

(7) Permitting the department to modify, suspend or terminate the permit, after notice and hearing, for violations of its conditions, of this chapter, or of regulations adopted or orders issued by the department, and when deemed necessary for the promotion of the purposes of the chapter.

(c) The department shall, by regulation, specify a schedule of expiration dates applicable to each water source from which withdrawals are to be permitted. All permits for new withdrawals from that water source shall be valid until the next expiration date thus specified; provided that no permit issued under this section shall be valid for a term greater than five years.

(d) No water withdrawal permit shall be issued under this section after eight years after the effective date of this chapter unless the city or town in which the withdrawal is to take place has obtained approval from the commission of its water resources management plan.

Section 12. Any person aggrieved by a decision of the department with respect to a permit application or an addition to an existing withdrawal may request an adjudicatory hearing before the department under the provisions of chapter 30A. Any such decision shall contain a notice of this right to request a hearing and shall specify a time limit of 21 days, within which aggrieved persons may request such a hearing. If no such request is timely made, the decision shall be deemed assented to. If a timely request is received, the department shall, within a reasonable time, act upon the request in accordance with the provisions of chapter 30A. A person aggrieved by a final decision in an adjudicatory hearing held under the provisions of this section shall be entitled to judicial review thereof in the superior court, in accordance with chapter 30A; provided that, in any action seeking judicial review pursuant to this section, the court in which such action is pending may appoint a master, in accordance with its rules and procedure, to investigate and

report on any specific or hydrological issue relevant to a question of law presented in the case.

Section 13. (a) For the purpose of determining compliance with this chapter or any regulations adopted thereunder, the duly authorized agents and employees of the department may at all reasonable times enter and examine any property, facility, operation or activity involving the withdrawal of water. The owner, operator or other person in charge of the property, facility, operation or activity, upon presentation of proper identification and purpose for inspection by the agents or employees of the department shall give such agents and employees free and unrestricted entry and access.

Such agents and employers are authorized to make such inspection, conduct such tests, reviews, studies, monitoring or sampling or examine books, papers and records pertinent to any matter relevant to the administration or enforcement of this chapter as it deems necessary.

(b) Notwithstanding the provisions of any law to the contrary, any information, record, or particular part thereof, obtained by the department pursuant to the provisions of this chapter, shall, upon request, be kept confidential and not be considered to be a public record when it is deemed by the department that such informtion, record or report relates to secret processes, methods of manufacture or production, or that such information, record or report, if made public, would divulge a trade secret.

Section 14. (a) The department may issue such orders as are reasonably necessary to aid in the enforcement of the provisions of this chapter. The orders shall include, but shall not be limited to, orders modifying, suspending or revoking permits and orders requiring persons to cease any activity which is in violation of the provisions of this chapter or any regulation adopted thereunder. The department may, in its order, require compliance with such terms and conditions as are reasonably necessary to effect the purposes of this chapter. If the department finds, after notice and an opportunity for hearing, that any person is not in compliance with any order, issued pursuant to this section, it shall assess civil penalties in an amount not less than $1,000 nor exceeding $10,000 per violation, plus an amount not exceeding $2,500 for

each continuing day of violation. The penalty may be assessed whether or not the violation was willful. In determining the amount of the civil penalty, the department shall consider the willfulness of the violation, damage or injury to the water resources and other water users, the cost of restoration of the water resources, the cost to the Commonwealth of enforcing the provisions of this chapter against such person and other relevant factors. Civil penalties shall be payable to the water management fund established in section 17 and shall be collectible in any manner provided by law for the collection of debts.

(b) In addition to collecting any civil penalties recoverable under this section, the department may request the attorney general to bring an action in the superior court to restrain, prevent or enjoin any conduct prohibited by this chapter or to compel action to comply immediately and fully with any order issued by the department. Except in cases of emergency where, in the opinion of the court, immediate abatement of the unlawful conduct is required to protect the public interest, the court may in its decree fix a reasonable time during which the person responsible for the unlawful conduct may abate and correct the violation. The expense of the proceedings shall be recoverable from the violator in such manner as may now or hereafter be provided by law.

(c) It shall be unlawful for any person to:

(1) Violate or assist in the violation of any of the provisions of this chapter or of any rules and regulations adopted thereunder.

(2) Fail to comply with any order by the department.

(3) Make a water withdrawal contrary to the terms and conditions of this chapter, or of any regulation adopted or permit or order issued thereunder.

(4) Attempt to obtain a permit by misrepresentation or failure to disclose all relevant facts.

Any person who engages in unlawful conduct as defined in this section shall upon conviction, be sentenced, for each separate offense, to pay a fine of not less than $1,000, nor more than $10,000 or to be imprisoned for a period of not more than 180 days, or both. Each day of continued violation of any provision of this chapter or of any regulation adopted or

permit or order issued thereunder shall constitute a separate offense.

Section 15. Upon a finding by the department that there exists or impends a water supply shortage of a dimension which endangers the public health,. safety or welfare in all or any part of the Commonwealth, the department is authorized to declare a state of water emergency. The department may limit the applicability of any state of water emergency to specific categories of water sources or to particular areas of the state or water sources in which a shortage exists or impends. The department may amend the declaration or terminate the state of water emergency upon a finding that the public health, safety or welfare is no longer endangered by a water supply shortage in part or all of the areas or water sources to which the emergency had been made applicable.

Section 16. (a) During a state of water emergency, declared under section 15, the department, to the extent not in conflict with applicable federal law or regulation but notwithstanding any general or special law, local law or contractual agreement to the contrary, shall be empowered to issue orders:

(1) Establishing priorities for the distribution of any water; or quantity of water use.

(2) Directing any person engaged in the operation of a water supply system to reduce or increase by a specified amount or to cease the distribution of that water; to distribute a specified amount of water to certain users as specified by the department; or to share any water with other water supply systems;

(3) Directing any person to reduce, by a specified volume, the withdrawal or use of any water; or to cease the withdrawal or use of any water;

(4) Requiring the implementation of specific water conservation measures.

(5) Mandating the denial, for the duration of the state of water emergency, of all applications for withdrawal permits within the areas of the Commonwealth to which the state of water emergency applies.

(b) The commission shall adopt guidelines for use by the department in issuing orders under this section.

Section 17. (a) To meet the expenditures necessary for carrying out the provisions of this chapter, the department is authorized to make expenditures appropriated from the proceeds of a water management fund, which shall contain the moneys collected as registration and permit application fees and civil penalties under this chapter; provided that there shall be annually appropriated an additional amount equivalent to the amount of authorized annual expenditures under this chapter, less the amount anticipated to be collected as fees and penalties by the department under this chapter.

(b) The department shall, by regulation, establish reasonable registration and permit application fee schedule, which shall be based upon, and not exceed, a reasonable portion of the estimated cost of processing, monitoring, administering and enforcing the registration statements and permits. The department shall collect registration and permit application fees in accordance with the fee schedule adopted pursuant to this section.

Section 18. Nothing in this chapter shall limit the authority of the department of public utilities to rule on the propriety of any rates charged by any public water system subject to its jurisdiction; provided that in making such a ruling the department of public utilities may consider any fees required by regulation adopted pursuant to section 17; and provided further than such ruling shall not impose any condition inconsistent with the provisions of any order issued by the department or the terms and conditions of a permit issued under this chapter or the regulations adopted thereunder. Compliance with any requirement imposed by the department of public utilities shall not exempt any public water supply systems from the requirements of this chapter or the regulations adopted hereunder.

SECTION 2. If any part of this act shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, or invalidate the remainder thereof, but shall be confined in its effect to that part of this chapter declared to be invalid.

EXHIBIT

C

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Department of Environmental Quality Engineering
Division of Water Supply
One Winter Street, Boston, Mass. 02108

S. RUSSELL SYLVA
COMMISSIONER

October 8, 1987

Mr. Richard Jones, Esq.
P.O. Box 190
Newburyport, MA 01950

Dear Mr. Jones:

You have requested that I document the implications of the Water Management Act as it pertains to a water rights issue between the city of Newburyport and the town of West Newbury. The situation, as I understand it, consists of a dispute by Newburyport as to West Newbury's current plans and rights to withdraw water from a groundwater withdrawal point in the same watershed as Newburyport's Artichoke Reservoir.

The Water Management Act (M.G.L. c. 21 G) was passed by the legislature in 1985 to resolve such disputes and prevent them from occurring and causing a negative impact. All water withdrawals in use between 1981 - 1985 can be registered and grandfathered as protected water rights. A distinction is made here between water withdrawn and used and previously granted legislative water rights. All previously granted water rights by the legislature are essentially repealed by the comprehensiveness of the Water Management Act in its establishment of a water allocation program in DEQE.

Increase in withdrawals above registered volumes and all new withdrawals which occur after January 1, 1986 must obtain a permit from the Department. A permit applicant must demonstrate that the proposed withdrawal will not negatively impact any existing "registered" withdrawals or have any negative environmental impact on nearby natural resources. It is my understanding that the town of West Newbury will have to obtain a permit under the Act.

Permits will be issued by river basins. The schedule for permitting in the Merrimack River Basin, where the watershed is situated, is June 30, 1994. Up and until this time anyone may make a withdrawal at their own risk knowing the criteria upon which their permit application will be judged. Given the availability of water and the individual circumstances of a withdrawal, the Department may or may not issue a permit. The specific hydrogeologic effects of the withdrawals will be the basis for the issuance or denial of a permit.

All permit requests require notice to abutters and must conform to local water management plans. There is a twenty-one (21) day appeal period following a decision on a permit by DEQE. An adjudicatory hearing may be requested during this period. A person aggrieved by a final decision of the Commissioner may seek judicial review of that decision in Superior Court, in accordance with M.G.L. c. 30 A.

The Water Management Act establishes an objective procedure for the allocation of water in Massachusetts, and hopefully can keep water disputes out of the courts. Please feel free to call me if you have any additional questions.

Sincerely,

Steven P. Roy

Steven P. Roy
Water Management
Program Manager

cc: P. Anderson, NERO
perreg2/srjones/SPR/ldl

file copy

EXHIBIT

D

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of:	)	
	)	Docket No. 91-112
The City of New Bedford	)	File Nos. 9P-4-25-293-04
and	)	9P-4-25-201.01
The City of Taunton	)	
	)	Town: Lakeville

MEMORANDUM IN SUPPORT OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S MOTION FOR SUMMARY DECISION

I. INTRODUCTION

This memorandum is filed in support of the request of the Department of Environmental Protection (the "Department") for summary decision, and a finding that the Department adequately reviewed and addressed relevant concerns in its review of the permit applications of New Bedford and Taunton ("the Cities") and did not act unreasonably in issuing water withdrawal permits to the Cities pursuant to M.G.L. c. 21G, the Water Management Act (the Act) and the regulations promulgated thereunder at 310 CMR 36.00 et seq. The permits authorize the Cities to withdraw specific volumes of water from a group of five great ponds located in the Taunton River Basin for a period of twenty years ending in 2010.

Two of the towns that abut the great ponds, Lakeville and Freetown, have filed claims for an adjudicatory hearing challenging the validity of both permits on various grounds. The Freetown appeal is to be heard under a separate docket number 91-103. Two other towns that abut the great

ponds, Rochester and Middleborough, have filed motions to intervene. Those motions have not yet been decided.

This Motion for Summary Decision addresses only the issues raised by the Town of Lakeville ("Lakeville" or "Petitioner"). Lakeville seeks to have the Department revoke the water withdrawal permits it issued to New Bedford and Taunton in June, 1991, because it claims that the Department issued those permits without:

1) assuring that the Cities will supply water to Lakeville, the host town;

2) providing for equal access to the water supply by Petitioner's residents and business owners; and

3) detailing the impact of protection of the watershed in and around the ponds of the host town.

Lakeville claims that the Department's decision, by failing to adequately address the above concerns was not in keeping with its best interests.

The Department submits that Petitioner's claims raise no disputed issues of material fact, that such claims fail as a matter of law and that summary decision is warranted in favor of the Department.

II. STATUTORY AND REGULATORY LEGAL BACKGROUND

In the late 1970s, the Massachusetts Senate Special Legislative Commission on Water Supply ("the Commission") was established to address concerns that the availability of the supply of water in what had been the water-rich Northeast could no longer be assumed. The Commission

was to conduct a study relative to actions the commonwealth must take to assure current and future water needs are met, establish a definitive water supply policy, and recommend means to meet the identified needs. A report of that study, Senate No. 1826, Report of the Special Commission Established to Make Investigation and Study Relative to Determining the Adequacy of the Water Supply of the Commonwealth, (1983) (the "Report") (attached as Exhibit A) highlighted, for the first time, the interconnection of ground and surface waters as a single hydrologic system and the consequent inability of local authorities that have a geographically limited powers to address issues or remedy problems inherent in the regional span of water sources. It focused groundwater management on aquifers within river basins, and recommended regulation of water withdrawals at the state level through an amendment to the General Laws. That amendment, the Water Management Act, M.G.L. c.21G, ("the Act"), was enacted, in 1985, substantially as proposed[1].

The Act, required the Department to adopt regulations it deemed necessary to establish "a mechanism for managing ground and surface water in the commonwealth as a single hydrological system. . .." M.G.L. c. 21G, §3. The Department published such regulations at 310 CMR 36.00. These regulations reflect the comprehensive two-tiered scheme established by the Act for the management of withdrawals of water in excess of 100,000 gallons per day (gpd) ("the threshold volume") from river basins throughout the commonwealth.

The regulations define an existing withdrawal as "the average volume of water withdrawn from a particular water source during the five years prior to January, nineteen hundred and eighty

[1] According to the Report, the statute was to assure "comprehensive and systematic planning and

six . . .". and protects such withdrawals through a system of registration. 310 CMR 36.01-36.11. A withdrawal that is not an existing withdrawal, but will remove more the threshold volume of water from a source, including any threshold volume increase above an existing or registered withdrawal, is a "New withdrawal" and requires a permit unless the Department agrees that the volume is for a non-consumptive use. 310 CMR 36.17.

Section 7 of the Act required the Department to specify the effective date of its permit regulations for each basin. Permit applications for water withdrawals in the Taunton River Basin, were due to be filed on February 28, 1990. 310 CMR 36.18. Criteria to be considered for issuing permits under the Act[2], are set forth in 310 CMR 36.26(1). In addition, the regulations set out requirements for notification of persons potentially affected by an applicant's proposed withdrawal. These include notice to "the location of the water source from which the withdrawal is to be made."

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management of water withdrawals and use . . .." (p. 51).

[2] M.G.L. c. 21G, § 7 provides that in adopting regulations establishing criteria and standards for obtaining permits, the department shall assure, at a minimum, that the following factors are considered:-
(1)The impact of the proposed withdrawal on other water sources which are hydrologically interconnected with the water source from which the withdrawal is to be made;
(2) The anticipated times of the year when withdrawals will be made; (3) The water available within the safe yield of the water source from which the withdrawal is to be made; (4) Reasonable protection of water uses, land values, investments and enterprises that are dependent on previously allowable withdrawals; (5) The use to be made of the water proposed to be withdrawn and other existing, presently permitted or projected uses of the water source from which the withdrawal is to be made; (6) any water resources management plan for any city or town in which the affected water source is located; (7) Any state water resources management plan adopted by the commission; (8) Reasonable conservation practices and measures, consistent with efficient utilization of the water; (9) Reasonable protection of public drinking water supplies, water quality, wastewater treatment capacity, waste assimilation capacity, groundwater recharge areas, navigation, hydropower resources, water-based recreation, wetland habitat, fish and wildlife, agriculture, and floodplains;

310 CMR 36.22.

The permit regulations prohibit any withdrawal, which together with all existing consumptive withdrawals exceed the safe yield of a water source. "For the purposes of safe yield calculations and (permit) application review only, a water source may be determined by the Department to be either a river basin, or a hydrologically distinct portion thereof, dependent on information satisfactory to the department for the establishment of safe yield." 310 CMR 36.03. The Department considers the to be a water source. Finally, the regulations provide a right to request an adjudicatory hearing before the Department in accordance with the provisions of chapter 30A to any person aggrieved by a decision of the Department with respect to a permit application. 310 CMR 36.40.

III. STATEMENT OF FACTS

1. Five great ponds comprise the Lakeville Pond complex ("the Complex"), which is located in the Taunton River Basin:

1. Assawompset Pond (bordered by Lakeville and Middleborough);
2. Pocksha Pond (bordered by Lakeville and Middleborough);
3. Long Pond (bordered by Lakeville and Freetown);
4. Little Quittacas Pond (bordered by Lakeville and Rochester); and
5. Great Quittacas pond (bordered by Lakeville, Rochester, and Middleborough).

Lakeville abuts each of the ponds [U.S.G.S. map attached as Exhibit B].

2. The City of New Bedford (New Bedford") has withdrawn water from the Lakeville since 1899 [New Bedford Permit Application #9P-4-25-201.01, Form A at 2, attached as Exhibit C]. The

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and (10) reasonable economic development and the creation of jobs on the commonwealth.

is the sole source of New Bedford's public water supply [Taunton River Basin: Inventory Analysis of Current and Projected Water Use, prepared by the Department of Environmental Management, Division of Water Resources (DEM Report) at 129 (1989) attached as Exhibit D]. Pursuant to § 5 of the Act, New Bedford timely registered an existing withdrawal of 18.27 million gallons per day (mgd) with the Department (registration statement # 42520101, June 10, 1989). New Bedford withdraws its registered volume from a single withdrawal point located at Little Quittacas Pond in the town of Rochester.

3. In February 1990, New Bedford applied for a permit to withdraw additional water from Little Quittacas Pond. The volume it sought ranged from 3.9 mgd in years one through five, and gradually reached 7.2 mgd in years sixteen through twenty. New Bedford justified the increase as being necessary to supply water to the New Bedford and to Acushnet, Dartmouth, and Freetown [Exhibit C, Form A at 3].

4. The City of Taunton ("Taunton") has withdrawn water from the since 1892 [Taunton Permit Application # 9P-4-25-293.04, , Form A at 2, attached as Exhibit E.]. Like New Bedford, the Complex is the sole source of Taunton's public water supply [Exhibit D, at 154]. By January 1, 1988, Taunton registered an existing withdrawal volume of 5.87 mgd with the Department. Taunton withdraws its registered volume from a single withdrawal point located at Assawompset Pond in Lakeville (registration statement # 42529301, June 10, 1987).

5. In February 1990, Taunton applied for a permit to withdraw an additional 1.72 mgd of water in years one though five to 2.67 mgd in years sixteen through twenty Assawompset Pond. In its

application, Taunton stated that the additional water would be necessary to supply residential and commercial customers in Taunton, the towns of Dighton and North Dighton, Great Pond Industrial Park in Lakeville, the Massachusetts Correctional Institute in Bridgewater, industrial parks in Middleborough, Lakeville Hospital, certain residences in Berkley and Lakeville, and the town of Raynham on an emergency basis [Exhibit E, Form A at 3].

6. Lakeville did not register an existing water use pursuant to §5 of the Act nor did it apply later for a permit, pursuant to §7 of the Act. (Affidavit of Duane LaVangie). All of Petitioner's water needs are met by private on-site wells [Exhibit D, at 16].

7. In January 1988, Lakeville submitted a "Municipal Water Resources Plan for Towns Without a Central Supply"[3] [attached as Exhibit F] to the Department of Environmental Management. In that plan Lakeville said, "[i]t is quite possible that a portion of the town will have a water supply in the future (1995-2000)." It listed "potential sources" of that supply as local groundwater or connection with the city of Taunton or both [Exhibit F, at 2]. The surface waters from the complex were not indicated as a potential source of any future central supply in that plan.

8. During the public comment period for the Taunton and New Bedford permit applications, the Lakeville Office of Selectmen represented in a letter to the Department on April 3, 1990 [attached as Exhibit G] that "Lakeville's growth will include increased demand of the public water

[3] "Water Resources Management Plan" is defined in 310 CMR 36.03 as "a local plan to meet water needs within a city or town...."

source managed by the city of Taunton". Lakeville asked the Department not to issue a permit to Taunton unless the permit terms included an agreed upon allocation projection for Lakeville.

9. Investigations of Surplus Safe Yield Available to New Bedford, published by Camp Dresser and McKee in June 1988 [attached as Exhibit H] reported the estimated safe yield for the Complex to be 27.5 mgd. [Exhibit G, at 2]. The total of the volume of withdrawals requested in the Cities' permit applications [Exhibit B, Form A at 1 and Exhibit D, Form A at 1], and their registered withdrawals exceed the safe yield of the Complex.

10. On June 24, 1991, the Department issued water withdrawal permits to New Bedford authorizing the city to withdraw an additional 2.52 mgd of water from June 1991 through February 2010 [permit # 9P-4-25-201.01, attached as Exhibit I], and to Taunton, authorizing it to withdraw a additional volume ranging from 0.42 mgd in years one through five to 1.42 mgd in years sixteen through twenty (ending on February 28, 2010) [permit # 9P-4-25-293.04, attached as Exhibit J]. Neither city was authorized to withdraw the full amount of water that it requested in its permit application.

11. The sum of the volume of withdrawals authorized by the permits and the volume previously registered by New Bedford and Taunton, equals 27.5 mgd, 100% of the estimated safe yield of the Complex.

12. On June 24, 1991, Lakeville submitted a Notice of Claim for an Adjudicatory Hearing to the Department in which it challenged the Department's issuance of WMA permits authorizing Taunton and New Bedford to withdraw the remainder of the Complex safe yield.

IV. ARGUMENT

A. SUMMARY DECISION IS APPROPRIATE BECAUSE THE ISSUES RAISED ARE QUESTIONS OF LAW THERE ARE NO DISPUTED ISSUES OF MATERIAL FACT.

Pursuant to 310 CMR 1.01(11)(f),

> [a]ny party may move with or without supporting affadavits for a summary decision in the moving party's favor upon all or any of the issues that are the subject of the adjudicatory appeal . . .. The decision sought shall be made if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affadavits, if any, show that there is no genuine issues as to any material fact and that the moving party is entitled to a final decision in its favor as a matter of law.

None of the material facts relevant to this appeal are in dispute, thus, in accordance with 310 CMR 1.01(11)(f), the Department is entitled to summary decision in its favor as to all issues raised in Lakeville's notice of Claim for an Adjudicatory Hearing as a matter of law

B. THE WATER MANAGEMENT ACT DOES NOT REQUIRE THE DEPARTMENT TO PROVIDE ASSURANCES THAT NEW BEDFORD AND TAUNTON WILL SUPPLY LAKEVILLE WITH WATER

The Petitioner, claims that the town has a right to water taken from the by New Bedford and Taunton. In making its claim, Petitioner, appears to rely on language in a letter that it submitted to the Department during the public comment period for the Cities' permit applications. The language is from St. 1924 c. 400, § 5, (Chapter 400). It provides: "[If the waters of] Assawompset and Pocksha ponds are taken by the Cities of New Bedford and Taunton, or either of them, the Town of Lakeville . . . may draw at the source water from said ponds, or upon application filed with said cities, may be furnished with such water by either of said cities."

Chapter 400 was enacted to further allocate the waters of Long, Assawompset, and Pocksha ponds among the towns of Fall River, New Bedford, and Taunton. It granted to Lakeville and sixteen other towns certain withdrawal or supply rights or both. Whether the Chapter 400 establishes a right or a mere authorization to be supplied is not an issue for the Department. The Department had no authority to deal with subsidiary uses of water allocated under Chapter 400 nor does the Act give it authority to interfere with local issues. The Act as suggested to the legislature in 1984 by the Report proposed to give such authority to the Department in the extraordinary case of a water emergency.[4] The legislature, although adopting the proposed legislation substantially as proposed, changed that language to allow the Department only a right to permit a water supply system "to distribute a specified amount of water to certain users as specified by the Department". M.G.L. c. 21G, §17(2). The Act does not provide the Department a right to require such action, not even in the extraordinary condition of an emergency.

Even if Chapter 400 were read to provide a right to Petitioner, it would not control this issue. As set out more fully below, to the extent that Chapter 400 authorized Lakeville to withdraw water from Assawompset and Pocksha ponds or any water source in the future, it has been superseded by the Act. The Act deals with withdrawals not consensual rights to a supply. It does not protect rights accorded under prior statutes, which are unexercised and for which the

[4] Section 16 of the proposed act provided that "[d]uring a state of water emergency. . . the department . . . shall be empowered to issue orders: . . . (2) Directing any person . . . to distribute a specified amount of water to certain users as specified by the Department; or to share any water with other water supply systems; . . .". The legislature refused to grant such authority choosing instead to empower the Department to issue orders in such situations to permit any person engaged

Department has received no application by the time permit applications were due. Thus the Department has no authority to provide Petitioner with assurances that New Bedford or Taunton or both will supply Petitioner with water.

C. THE ACT SUPERCEDES AND REPEALS PREVIOUSLY ENACTED GENERAL AND SPECIAL LAWS CONCERNING WATER WITHDRAWAL AUTHORIZATIONS

1. Chapter 400, section 5 of the Acts of 1924 is a general law and its provisions authorizing water withdrawals are superceded by the Act.

Section 1 of Article 89 of the Amendments to the Constitution of the Commonwealth (the so-called Home Rule Amendment, hereinafter "art. 89") confers the right of self governance in local matters on people of every city and town. The potential for that right to be constrained is clear, as that same section subjects it to other provisions of the article "and to such standards and requirements as the general court may establish by law . . . " in accordance therewith.

Section 8 of art. 89, preserves in the Legislature the power to act in relation to cities and towns, "but only by general laws which apply alike to all cities, or to all towns, or to a class of not fewer than two and by special laws enacted " in accordance with procedures specified. Where, however, the predominant purpose of a bill is a matter of state, regional, or general concern, the Legislature is not precluded from acting, even when such action may have special effect upon one or more individual cities or towns. When it does the enactment is a "general law". *See* Opinion of the Justices, 258 N.E.2d 731, 733 (Mass. 1970) (hereinafter "the 1970 Home Rule Opinion"). As in the analysis of the case upon which 1970 Home Rule Opinion was based, Chapter 400 "relates to

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in the operation of a water supply system to distribute a specified amount of water.

water supply and the allocation of water resources, matters of general state and regional concern." Thus, it is a "general law". As such, it is well settled that it is subject to repeal by implication or to being superceded in whole or in part by a later general law where the prior statute is so inconsistent with and repugnant to the later enactment that effect cannot be given to both. Dedham Water Co. v. Town of Dedham, 395 Mass. 510, 480 N.E.2d 1016, 1021 (1984).

2. Even if Chapter 400 is a special law, provisions of that statute that conflict with the Act are necessarily repealed.

"Although ordinarily the repeal of a statute by implication is not favored by law . . . it is a recognized principle that the enactment of a statute which seems to have been intended to cover the whole subject to which it relates, impliedly repeals all (emphasis added) existing statutes touching the subject . . .." Homer v. City of Fall River, 96 N.E.2d 152, 154 (1951); *see also* Rennert v. Board of Trustees, 297 N.E.2d 60, 62 (1973); Hersch v. Police Com'r of Boston, 66 N.E.2d 195, 198 (1946). A statute which is manifestly designed to deal with a state-wide problem, and expressly identifies uniformity in law governing the administration of the subject as one of its goals, displays on its face an intent to supersede local and special laws and to repeal inconsistent special statutes. *See* McDonald v. Justices of Superior Court, 13 N.E.2d 16, 17 (1937).

The legislature clearly adopted the rationale of the Report in enacting the Water Management Act[5] which it proposed. In fact, it is argued that. It is equally as clear that the Report

[5] Although Massachusetts usually does not preserve the history leading to the enactment of a statute, in the case of the Act, the senate twice established a special commission to make an

intended the Act to occupy the field regarding withdrawals of water in the commonwealth. It states:

> The Act would establish a mechanism for registering existing withdrawals . . .. The Act's requirement of water withdrawal permits for subsequent new users...would not apply to existing withdrawals of water . . . The resultant data gathering would enable protection of needs of existing uses within a framework of comprehensive management of ground and surface water withdrawal in Massachusetts (emphasis added).

Moreover, section 3 of the Act charges the water resources commission with

> adopting principles, policies, and guidelines necessary for the effective planning and management of water use and conservation in the commonwealth . . .. Such principles, policies, and guidelines shall be designed . . . to assure comprehensive and systematic planning and management of water withdrawals and use in the commonwealth (emphasis added)....

There is no doubt that the legislature intended the Act to establish one state-wide, uniform system for authorizing and managing water withdrawals. While the act is comprehensive as to the regulation of withdrawals from both ground and surface waters, however, the Report expressly limited the reach of the Act to "the minimum level of allocation regulation consistent with its management objectives". Report, at 50. Thus it is only in the area of water allocation that the Act supercedes Chapter 400.

Chapter 400 is just one of hundreds of general and special acts passed by the legislature prior to enactment of the Act, which authorized certain cities, towns and districts to withdraw water from specific sources. If each of the prior acts were construed as an exception to the Act, the

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investigation and study relative to determining the adequacy of the water supply of the Commonwealth.

exceptions would swallow the Act and the Act could not be administered consistently on a statewide basis effectively. For this reason, conflicting provisions in prior statutes that authorized withdrawal of water from sources in the Commonwealth were necessarily repealed by the enactment of the Water Management Act which now makes rights to withdraw large volumes of water subject to the permitting and registration requirements of the Act.

D. THE ACT DOES NOT SUPERCEDE PROVISIONS IN PREVIOUSLY ENACTED LAWS, WHICH ALLOW A TOWN TO BE SUPPLIED WITH WATER BY ANOTHER.

As argued above, an earlier act is repealed by a later inconsistent act by implication only to the extent necessary. W.L. Mead, Inc. v. International Broth. of Teamsters, etc., Local Union No. 25, A.F.L., 125 F. Supp. 331 (D. Mass.), aff'd 217 F.2d 6 (1st Cir. 1954). When an act expressly provides for the repeal of all existing laws or parts of existing laws in conflict or inconsistent with the new statute, former acts cease to be operative only so far as they are clearly inconsistent with the new act. Ryan v. City of Marlborough, 63 N.E.2d 902, 904, 318 Mass. 610 (1945).

The provisions in Chapter 400 providing that Taunton and New Bedford may supply Lakeville with water are not in conflict with the Water Management Act. Nothing in Chapter 400 or in the Act makes the existence or nonexistence of Lakeville's option or opportunity to be supplied with water by the Cities a condition of action by the Department. Contracting issues relative to Lakeville and Taunton raised by Lakeville's claim are not within the Department's jurisdiction. Rather they are local issues between the towns. The Department's issuance of withdrawal permits to Taunton and New Bedford does not interfere with any preexisting rights,

options or opportunities that Lakeville may have to contract with other towns for a supply of water at some time in the future. Moreover, neither M.G.L. c. 21G nor 310 CMR 36.00 require the Department to consider the possible existence of unexercised rights to supply arising under other law before issuing a withdrawal permit. It certainly does not require the Department to set aside or reserve unapplied for volumes of water for future use. The matters on which the Department is to act are the immediate rights of current users and applicants. Accord Inhabitants of Town of Salisbury v. Salisbury Water Supply Co., 181 N.E. 194, 196 (1932).

E. THE DEPARTMENT IS NOT REQUIRED TO PROVIDE EQUAL ACCESS TO THE WATER IN THE POND COMPLEX WHERE LAKEVILLE DID NOT APPLY FOR A PERMIT.

The objective of the Act is to promote the management and conservation of water in the Commonwealth. M.G.L. c. 21G, § 3. Any person who intends to withdraw water in excess of 100,000 gallons per day and who has not registered an existing use pursuant to § 5 of the Act must apply to the Department for a withdrawal permit. M.G.L. c. 21G, § 7. Potential withdrawers have equal opportunity to apply for a permit. If Lakeville intended to withdraw water from the Complex, nothing in the Act or 310 CMR 36.00 prevented it from applying for a permit.

The purpose of the permit program is to assist the Department in the comprehensive management of the Commonwealth's water resources. Permit applications and registrations are the sources of the Department's information about competing withdrawals in a water source. Applications are required to include, among other things, the reasons for the proposed withdrawal the use of the water to be withdrawn, the location of the water source, and the specific location of

the withdrawal point. M.G.L. c. 21G, § 8(1)-(4); 310 CMR 36.20(1)(a), (b) &.(c). neither speculative future needs of water nor special legislative rights were not identified by the legislature as information that the Department is required to review in issuing permits, nor would such a review be consistent with the purpose of the Act.

The first round of permit applications for each river basin were required to be filed by a specific date. 310 CMR 36.18. Registration before that date gave the Department the ability to document baseline use of the water source. The ability to have all applications for basin use before it at one time allowed the Department to ensure an appropriate balance among the competing water withdrawals proposed and to craft appropriate permit conditions for the preservation of the resource as it is required to do by 310 CMR 36.02. Both New Bedford and Taunton supplied this information in their permit applications. In its permit application, New Bedford indicated that in addition to its own needs, the water for which it applied is needed to supply Acushnet, Dartmouth, and Freetown. Taunton indicated in its application that it needed additional water to supply Dighton, North Dighton, an industrial park and certain residential customers in Lakeville, Massachusetts Correctional Institute in Bridgewater, industrial parks in Middleborough, Lakeville Hospital, Raynham (on an emergency basis only), and itself. The cumulative need the Cities identified in their applications exceeded the safe yield of the Complex.

Lakeville's Water Resources Management Plan, reflects its intent to supplement its existing water supply with ground water or a connection with the city of Taunton. The plan does not indicate any intention to withdraw water directly from the Complex. Lakeville's letter to the

Department during the public comment period merely stated that the town was experiencing growth and that, as a result, additional supply from Taunton would be needed.

The Act authorizes the Department to "issue withdrawal permits for any new withdrawal of water if it determines that the withdrawal will conform to the regulatory standards established." M.G.L. c. 21G, § 11. Those standards, at 310 CMR 36.26, require consideration of the factors set forth in § 7 of the Act. Section 7(5) of the Act and 310 CMR 36.26(1)(e) state that when the Department issues a permit, it must consider "the use to be made of the water proposed to be withdrawn and other existing, presently permitted or projected uses of the water source from which the withdrawal is to be made." A "projected use" is one for which an application is pending. The Act does not provide for consideration of speculative uses. The safe yield of a basin, within which permit withdrawals may be made, is ascertained through the permit process by assessing the effect of the withdrawal on the specified receptors and uses specified in 310 CMR 36.20(2)(b) which permit applicants are required to evaluate. Persons who do not apply for a permit are not able to supply the information that such an evaluation provides. Without such information, the Department cannot adequately assess the cumulative impact of proposed new withdrawals nor can it ascertain their effect on the overall available yield of the source.

In their applications, both Taunton and New Bedford indicated that the water for which they sought permits would supplement their previously registered withdrawals and serve as the sole source of water for their central supplies. Lakeville, because it did not register an existing use, is assumed by the Department to have had none. The Department has no knowledge of any intent by

Lakeville to withdraw a quantity of water for which a permit would be required. In fact Lakeville has indicated a contrary intention. The Department's duty to allocate water within the safe yield of a single source among competing users is triggered when at least one applicant makes timely application to withdraw water from that source. New Bedford and Taunton were the sole applicants for water from the . Given that Lakeville did not apply for a permit, the Department had no obligation and indeed no authority to set aside water for its future use. The Department's issuance of permits authorizing New Bedford and Taunton to withdraw the safe yield of the was entirely proper, as the volume applied for exceeded the safe yield of the and it had before it no other competing application. Lakeville's argument that it is entitled to equal access to the water in the and that the Department failed to provide such access is without merit.

F. THE DEPARTMENT IS NOT REQUIRED TO DETAIL THE IMPACT OF PROTECTION OF THE_WATERSHED WHERE THE ISSUANCE OF THE WITHDRAWAL PERMITS HAD NO SUCH IMPACT

Petitioner claims that the Department did not consider the impact on the town of Lakeville of the protection of the watershed around the ponds.[6] The Act and the concept of regulating the quantity of water withdrawn from ground or surface water is relatively new in the Commonwealth. The regulation of water quality and related requirements for watershed protection of drinking water sources, however, is not. When water as here is to be used as a drinking water source of supply, the Department has been authorized to make rules and regulations to protect that supply so as to ensure

[6] The department assumes that by "the impact of protection of the watershed", Lakeville is raising concerns about prohibited and permitted land uses surrounding the .

the delivery of fit and pure water to all consumers since before 1977. G. L. c 111, §.160. To implement this authority, the Department adopted health based regulations that combine monitoring for contaminants in the water, treatment, and watershed protection. 310 CME 22.00 [7]

The Department's protective requirements for surface waters are found at 310 CMR 22.20B. These apply to all land and watercourses used as sources of drinking water supply and are independent of the volume of water withdrawn. Thus, although it is conceivable that the regulatory protections for a surface water source, may impact development and land use around the ponds, those protections (for example, a requirement that no burial be made within 100 feet of the high water mark of a source of public water supply), are in the nature of prohibited activities and setbacks from the edge of the water and are independent of the volume of water withdrawn. Where the source of water is not a new source, the restriction does not derive from and is not changed by the issuance of the withdrawal permit. The Cities' applications report that the Lakeville ponds have been in use as a water supply source for at least 100 years.

Special Acts that establish the right of water suppliers to withdraw from a source in a neighboring community often establish in the water supplier-withdrawer the right to protect its

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[7] Where the source of supply is groundwater that is extracted by pumping from wells, the pumping develops a volume-dependent zone of influence, which is identified in the water supply source approval process. See 310 CMR 22.21. In newly constructed or expanded uses, to the extent determined to be necessary, the zone of influence as well as the larger zone of contribution, or any part thereof is subject to regulation to control potential pollution from existing or proposed land uses. 310 CMR 22.21(1)(b). Conditions of approval of a groundwater source of drinking water generally require land use restrictions to protect the water supply from any direct or indirect discharge of pollutants. In large part, these restrictions are in the nature of zoning bylaws restricting certain activities or setting back certain structures.

source.[8] Even when they do, local regulations to protect a surface water source from the discharge of polluting matter are generally not made dependent on the volume of water withdrawn. Thus, the Department in issuing a withdrawal permit under the Act was not required to "detail the impact of protection of the watershed" in and around the ponds in Lakeville which constitute the source of the withdrawal that it permitted.

CONCLUSION

For the foregoing reasons, the Commissioner should dismiss Lakeville's claim and grant Summary Decision in the Department's favor, finding as to all claims raised by Lakeville, that the Department acted reasonably and followed proper regulatory procedures in the issuance of Water Management Act Permits to New Bedford and Taunton, in June 1994.

Respectfully submitted,

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[8]In fact Chapter 400 of the Acts of 1924, the act under which Lakeville may be furnished water by the Cities or either of them, provides: ". . . nothing herein shall prevent the adoption of reasonable regulations prohibiting the discharge into such . . . watersource . . . of polluting matter of such kind and amount as will corrupt of impair the quality of the water flowing into any of said ponds subsequent to the time when the waters of such pond have been taken under this act."

Respectfully submitted,

Elizabeth L. Dorsey DATE: 6/16/99

Elizabeth L. Dorsey, Esq.

Department of Environmental
Protection
One Winter Street, Third Floor
Boston, MA 02108
(617) 292-5921

Clare Blancke, Intern

EXHIBIT

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LITTLETON LWD WATER DEPARTMENT

39 Ayer Road, P.O. Box 2406
Littleton, MA 01460-3406
978.540.2222
fax: 978.742.4903
www.lelwd.com

Scott Edwards, General Manager

February 20, 2018

By Certified Mail #70150640000453526921
Concord Public Works Commission
133 Keyes Road
Concord, MA 01742

Re: Nagog Pond

Dear Commissioners,

Pursuant to Chapter 201 of the Acts of 1884 (the "1884 Act"), notice is hereby given that the Littleton Water Department intends to exercise the full extent of the rights conferred thereby to withdraw water from Nagog Pond.

The 1884 Act, a copy of which is attached hereto, establishes Littleton's right to withdraw water from Nagog Pond, subject to the requirement that Littleton pay to the Town of Concord "a just and proportionate part of whatever sums...Concord shall have paid...for water damages...for the taking of water rights...." Littleton is willing to negotiate terms agreeable to both Towns regarding the exercise of that right and the required payment to Concord.

In 2011, the Town Clerk of Concord and Concord public Works provided Littleton with documentation that appears to show that the total amount paid by Concord in water damages for the taking of water rights since 1909 has been $24,388. Littleton is certainly prepared to pay a just and proportionate share of this amount.

Pursuant to Section 10 of the 1884 Act, Littleton is prepared to apply, after August 1, 2018, to the Supreme Judicial Court to determine the specific amount due to Concord. Before that becomes necessary, however, Littleton is hopeful that an agreement with Concord can be worked out. Specifically, Littleton hopes to negotiate terms upon which Concord's water registration under the *Water Management Act* can be transferred to Littleton pursuant to 310 CMR 36.09. Whether or not such negotiations are successful, however, Littleton intends to move ahead with the exercise of its rights.

I look forward to hearing from you regarding this matter.

Littleton Water Commissioners

DocuSigned by:
Tom Rauker
Thomas Rauker, Chair

Scott Edwards, General Manager

Cc: Concord Board of Selectmen (By Certified Mail #70150640000453536938)
Alan Cathcart, Concord Water and Sewer Superintendent
(By Certified Mail #70150640000453526914)
Littleton Board of Selectmen
Keith A. Bergman, Littleton Town Administrator

twenty-nine of the Public Statutes and any acts in amendment thereof or in addition thereto so far as the same are applicable.

SECTION 4. This act shall take effect upon its acceptance by a two-thirds vote of the voters of said town present and voting thereon at a legal town meeting called for the purpose within two years from its passage. Subject to acceptance by a two-thirds vote.

Approved April 30, 1884.

AN ACT TO AUTHORIZE THE TOWN OF CONCORD TO INCREASE ITS WATER SUPPLY. *Chap.* 201

Be it enacted, etc., as follows:

SECTION 1. The town of Concord, in addition to the powers now conferred upon it by law, is hereby authorized to supply itself and its inhabitants and other persons, towns and corporations on the line of its water works with pure water to extinguish fires, generate steam and for domestic and other purposes, and may establish public fountains and hydrants and regulate their use, and discontinue the same, and may collect rates to be paid for the use of the water. May increase water supply.

SECTION 2. Said town, for the purposes aforesaid, may take and hold the waters of Nagog Pond, so called, in the towns of Acton and Littleton and the waters which flow into and from the same, and may also take and hold by purchase or otherwise all necessary lands for raising, holding, diverting, purifying and preserving such waters, and conveying the same to any and all parts of said town of Concord, and may erect thereon proper dams, reservoirs, buildings, fixtures and other structures, and make excavations and embankments, and procure and operate machinery therefor; and for such purposes may construct and lay down, dig up and repair conduits, pipes and other works in, under or over any lands, water courses or railroads, and along any street, highway, alley or other way, in such manner as not unnecessarily to obstruct the same, and may dig up, raise and embank any such lands, street, highway, alley or other way in such manner as to cause the least hindrance to travel thereon. May take waters of Nagog Pond in Acton and Littleton.

SECTION 3. Instead of taking the entire waters of said Nagog Pond, said town of Concord may, if it shall so elect, take a part of said waters, such election to be made by a vote of said town declaring the quantity or proportion of said waters to be so taken. Quantity of water to be taken subject to a vote of the town.

To file in registry of deeds a description of land and water taken.

SECTION 4. Within ninety days after the time of taking any lands, waters or water courses as aforesaid, otherwise than by purchase, said town shall file in the registry of deeds for the southern district of the county of Middlesex a description thereof sufficiently accurate for identification, with a statement of the purpose for which the same is taken, signed by a majority of the water commissioners of said town; and if said town shall have made the election authorized by section three of this act, said description and statement shall be accompanied by a copy of the vote of said town signifying such election.

May, by vote, take an increased proportion of waters.

SECTION 5. Said town of Concord, if it shall have made the election authorized by section three of this act, may thereafter from time to time, if it shall so elect, take an increased proportion of said waters, each successive election to be made by a vote of said town declaring the additional quantity or proportion of said waters to be so taken, and upon each such successive election and within ninety days thereafter said town shall file in said registry of deeds a description, statement and copy of the vote therefor as provided for in section four of this act.

Water to be measured.

SECTION 6. If said town shall make the election authorized by section three of this act, said town shall provide a reliable means or method of measuring and registering the amount of water taken, such register or record to be at all times accessible to any interested parties.

Liability for damages.

SECTION 7. The said town of Concord shall pay all damages sustained by any person in property by the taking of any land, right of way, water, water source, water right or easement, or by any other thing done by said town under the authority of this act; said damages to be based and proportioned in case of the taking of water or water rights upon the amount of water taken as aforesaid. Any person or corporation sustaining damages as aforesaid under this act, who fails to agree with said town as to the amount of damages sustained, may have the damages assessed and determined in the manner provided by law when land is taken for the laying out of highways, on application at any time within three years from the time when the water is actually withdrawn or diverted, and not thereafter. No application for the assessment of damages shall be made for the taking of any water, water right, or for any injury thereto, until the

Application for damages not to be made until water is actually withdrawn.

water is actually withdrawn or diverted by said town under the authority of this act.

May borrow money and issue bonds, etc.

Section 8. Said town of Concord, for the purposes herein authorized, may from time to time borrow money and issue notes, bonds or scrip therefor to an amount not exceeding fifty thousand dollars in addition to the amount already authorized by law in the manner and under the restrictions provided by section four of chapter one hundred and eighty-eight of the acts of the year eighteen hundred and seventy-two.

Water commissioners to have charge of works.

Section 9. The board of water commissioners of said town of Concord shall execute, superintend and direct the performance of all the works, matters and things mentioned in this act and exercise all the rights, powers and privileges hereby granted to said town and not otherwise specifically provided for herein, subject to the vote of said town. The provisions of sections seven, eight, nine and ten of chapter one hundred and eighty-eight of the acts of the year eighteen hundred and seventy-two shall apply to this act as if inserted herein.

Acton and Littleton not prevented from taking waters of Nagog Pond.

Section 10. Nothing contained in this act shall prevent the town of Acton nor the town of Littleton from taking the waters of said Nagog Pond whenever said towns or either of them may require the same for similar purposes, and in case of such taking by either of said towns or both of them, if from any reason the supply of water in said pond shall not be more than sufficient for the needs of the inhabitants of the towns of Acton and Littleton, then the needs of the inhabitants of said towns shall be first supplied; and if either of said towns of Acton or Littleton shall hereafter be authorized to take and shall take the waters of said Nagog Pond or any part thereof which the town of Concord may have taken under this act, said town so taking shall pay to said Concord a just and proportionate part of whatever sums the said town of Concord shall have paid or become liable to pay for water damages to any persons or corporations for the taking of water rights from said pond or the outlet thereof, to be ascertained, if the parties shall fail to agree, by three commissioners to be appointed upon the application of either party by the supreme judicial court; the report of said commissioners made after hearing the parties, and returned to and accepted by said court shall be final between the said parties.

If water is taken, towns to pay just proportion of damages.

Commonwealth may take water from Nagog Pond.

SECTION 11. The Commonwealth of Massachusetts shall have the right to take from said Nagog Pond, for use in buildings owned by said Commonwealth in the town of Concord, an amount of water not exceeding two hundred thousand gallons per day, and the said right is hereby reserved. If the said Commonwealth shall take from said pond its waters, or any part thereof, which the town of Concord may have taken under this act, otherwise than by contract with said town of Concord, the said Commonwealth shall pay to said town of Concord a just and proportionate part of whatever sums the said town of Concord shall have paid or become liable to pay for water damages to any persons or corporations for the taking of water rights from said pond or the outlet thereof, to be ascertained and determined as is provided for in section ten of this act. But if upon the expiration of the contract made on the first day of October in the year eighteen hundred and eighty-three between the said town of Concord and said Commonwealth to provide for the delivery of water from the Concord water works for use within the walls of the state prison, said town of Concord by its water commissioners shall renew said contract for five years on the terms named therein, or shall tender to the governor of the Commonwealth a renewal of said contract for five years on the terms named therein, with the option upon the part of said Commonwealth of a further renewal for a term of twenty years upon said terms, then the right of said Commonwealth herein provided for shall cease.

Contract between Concord and the Commonwealth.

Subject to acceptance by town of Concord within one year.

SECTION 12. This act shall take effect upon its passage, but shall become void unless it is accepted by a vote of said town of Concord at a legal meeting held for the purpose within one year from its passage.

Approved April 30, 1884.

Chap. 202 AN ACT TO INCORPORATE THE HIGHLAND CONGREGATIONAL CHURCH IN LOWELL.

Be it enacted, etc., as follows:

Corporators.

SECTION 1. James G. Buttrick, William L. Davis, Cyrus B. Emerson, John T. Carter, Hamden Spiller, Lucy R. Carter, Almira Sturtevant, Clara S. Spiller and all other members of the Highland Congregational Church in Lowell, and their successors as members of said

EXHIBIT

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LITTLETON
LWD
WATER DEPARTMENT

39 Ayer Road, P.O. Box 2406
Littleton, MA 01460-3406
978.540.2222
fax: 978.742.4903
www.lelwd.com

Scott Edwards, General Manager

April 17, 2018

By Mail Certified Mail #70150640000453526761
Concord Public Works Commission
133 Keyes Road
Concord, MA 01742

Re: Nagog Pond

Dear Commissioners:

The Littleton Water Commissioners are disappointed that you have failed to respond to (or even acknowledge receipt of) our letter of February 20, 2018, in which we requested a meeting to discuss the Littleton Water Department's rights to withdraw water from Nagog Pond pursuant to Chapter 201 of the Acts of 1884.

In our February 20 letter, we explained that we expected to wait until after August 1 to petition the Supreme Judicial Court to determine the specific amount due to Concord upon Littleton's exercise of its rights to the waters of Nagog Pond. That date was selected to allow ample time for the parties to engage in necessary negotiations. However, if Concord's lack of response is an indication that you have no interest in negotiating, we see no need to wait in silence.

Therefore, if we do not hear from you by May 1, we will proceed to prepare our petition to the Court.

Of course, we remain optimistic that the parties can come to a mutually agreeable solution without the involvement of the Supreme Judicial Court and, if negotiations are progressing satisfactorily, we will continue to honor our original timeframe. However, we are not prepared to sit idly by while our request for a meeting is ignored. We therefore request that you provide a response to our original request no later than May 1.

Thank you for your continued attention to this important matter.

Sincerely,

Littleton Water Commissioners

Thomas Rauker, Chair

Scott Edwards, General Manager

Cc: Concord Board of Selectmen (By Certified Mail #70150640000453526945
Alan Cathcart, Concord Water and Sewer Superintendent
(By Certified Mail #70150640000453526952
Littleton Board of Selectmen
Keith A. Bergman, Littleton Town Administrator

EXHIBIT

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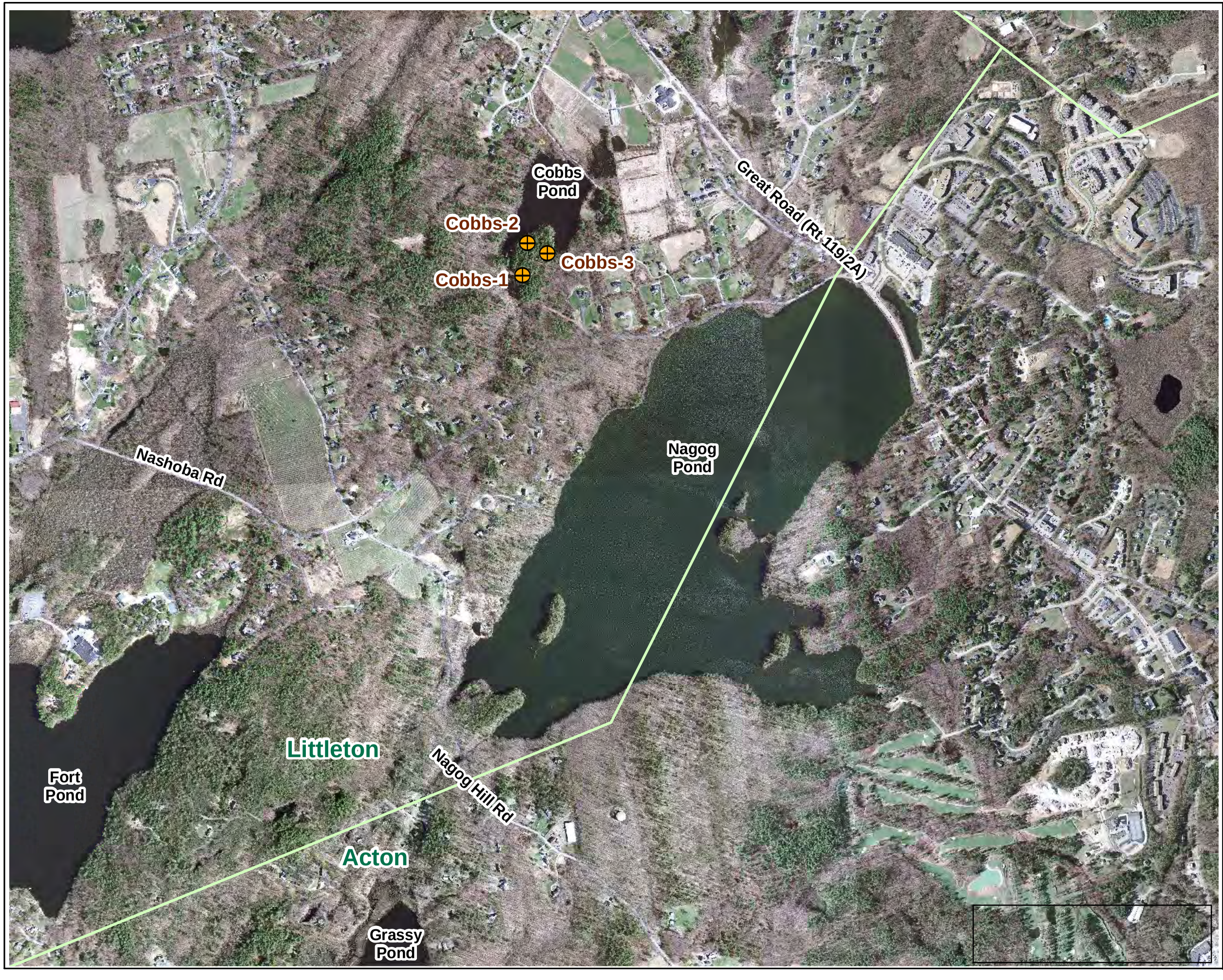
FIGURE 1:
COBBS WELL LOCATION MAP

Cobbs Pond Wells
Littleton, Massachusetts



Cobbs Pond Wells

Municipal Boundary

Notes:
Cobbs Pond Well locations digitized/georeferenced from "BRP WS-17 Permit Application for Approval Request for Site Exam and Pumping Test Proposal for a New Source 70 gpm or Greater" by Geosphere, dated 05/08/2017.

Sources:
2014 Orthoimagery
2017 MassDEP Municipal Boundaries

PROJECT NO.:	6587/6587A
DRAWN:	JUN 2017
DRAWN BY:	ELD
CHECKED BY:	RAF
FILE NAME:	S:\Concord HydroGeo GIS Support\GIS\Figures\Figure_Aerial.mxd

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Feet

KLEINFELDER
Bright People. Right Solutions.
321 Wall Street, Princeton, NJ 08540
Tel: 609-924-8821 ▪ www.kleinfelder.com

EXHIBIT

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LITTLETON
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WATER DEPARTMENT

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978.540.2222
fax: 978.742.4903
www.lelwd.com

Scott Edwards, General Manager

May 10, 2018

By Mail Certified Mail
Concord Public Works Commission
133 Keyes Road
Concord, MA 01742

Re: Nagog Pond

Dear Commissioners,

Thank you for your April 30 reply to our letters of February 20 and April 17. To the extent that the purpose of our previous communications was unclear, we will attempt to clarify: Our intent was to provide Concord with notice that Littleton intends to exercise its rights to withdraw water from Nagog Pond, which were conferred by Chapter 201 of the Acts of 1884. Just to be clear, the Littleton Water Department considers the waters from Nagog Pond and Cobbs Wells two distinct and separate water sources, and thus this notice is specifically for the waters of Nagog Pond. The outcome of the pumping test and permitting of the Cobbs Well has no influence on our decision to exercise our rights to the waters of Nagog Pond.

As a sign of good faith, we sent the February 20 letter to you to initiate a discussion, and hopefully to seek an amicable resolution of the issue of the payment due to Concord pursuant to the 1884 Act. While we stand ready to initiate the procedure set forth in Section 10 of that statute to determine the amount of that payment, our preference would be for this determination to be made by agreement reached after discussion and compromise.

In your letter, you state that Concord derives its right to withdraw water pursuant to its registration issued by DEP under Section 5 of the *Water Management Act* (WMA). In our opinion, this is incorrect. Section 5 merely provides a mechanism for Concord to establish grandfathering protection of its historic withdrawals from the regulatory requirements of the WMA. That Section does not confer or authorize DEP to confer any property interests in water. In contrast, the 1884 Act clearly does establish procedures that enable our Towns to secure such property interests.

We would very much like to set up a meeting to discuss the just and proportionate sum of Concord's water damages paid that Littleton must now reimburse to Concord in order to exercise its rights. To that end, we propose May 30, 2018 at 10 AM at the Littleton Water Department. If you are unavailable then, please suggest another date and time. If we do not hear from you regarding a meeting by May 23, 2018, we will assume that Concord is not interested in discussing this matter prior to the time that Littleton files its petition with the Supreme Judicial Court.

Thank you for your continued courtesy in attending to this matter.

I look forward to hearing from you regarding this matter.

Littleton Water Commissioners

Thomas Rauker, Chair

Scott Edwards, General Manager

Cc: *via electronic mail*
Concord Board of Selectmen
Alan Cathcart, Concord Water and Sewer Superintendent
Christopher Whelan, Town Manager, Concord
Richard Reine, Town of Concord, Public Works Director
Littleton Board of Selectmen
Keith A. Bergman, Littleton Town Administrator
Susan Connors, MassDEP CERO