



### MASSACHUSETTS WATER RESOURCES AUTHORITY

Deer Island 33 Tafts Avenue Boston, MA 02128

#### Frederick A. Laskey Executive Director

Chair: R. Tepper Vice-Chair: A. Pappastergion Secretary: B. Peña Board Members:

P. Flanagan

J. Foti

B. Swett

L. Taverna

H. Vitale

J. Walsh

P. Walsh

J. Wolowicz

#### **BOARD OF DIRECTORS' MEETING**

Telephone: (617) 242-6000

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Date: Wednesday, August 20, 2025

Time: 1:00pm

Location: Remote, on Webex.

#### Webex meeting link (registration required)

https://mwra.webex.com/weblink/register/rde36bd1c6bb227c6ef99c4735da246af

Meeting number: 2344 257 3159 Password: 082025

#### **AGENDA**

#### I. WATER POLICY AND OVERSIGHT

#### A. Approvals

Approval for Admission of Lynnfield Center Water District to the MWRA
 Water System, waiver of Entrance Fee and Authorization to Execute a Water
 Supply Agreement

#### II. <u>ADJOURNMENT</u>

#### **STAFF SUMMARY**

**TO:** Board of Directors

**FROM:** Frederick A. Laskey, Executive Director

**DATE:** August 20, 2025

SUBJECT: Approval for Admission of Lynnfield Center Water District to the MWRA Water

System, Waiver of Entrance Fee, and Authorization to Execute a Water Supply

Agreement

**COMMITTEE:** Water Policy & Oversight

Rebecca Weidman, Deputy Chief Operating Officer Hillary Monahan, Project Manager, Environmental Permitting Colleen Rizzi, P.E., Director, Env. and Regulatory Affairs Preparer/Title \_ INFORMATION

X VOTE

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Kathleen M. Murtagh, P.E.
Chief Operating Officer

#### **RECOMMENDATION:**

To approve Lynnfield Center Water District's application to become a member of the MWRA waterworks system with a purchase of up to 102 million gallons annually via an interconnection with the Town of Wakefield water system. Further, to waive the entrance fee for the volume of water for said purchase due to water quantity and water quality issues. Lastly, to authorize the Executive Director, on behalf of the Authority, to execute a water supply agreement with Lynnfield Center Water District, substantially in the form shown in Attachment E, stipulating the terms and conditions of service.

#### **DISCUSSION**:

On May 6, 2025, the Lynnfield Center Water District (LCWD) submitted a draft application for admission to the MWRA water system pursuant to MWRA Operating Policy 10, *Admission of New Community to the Water Works System* (OP.10). The draft application was submitted for approval pending enactment of the legislation required to add LCWD to MWRA's Enabling Act. The MWRA Advisory Board voted to approve the application contingent upon the passage of H.972, *An Act authorizing the MWRA to supply water to LCWD within the Town of Lynnfield*, as presented to the Advisory Board. LCWD is seeking approval to withdraw up to 102 million gallons annually from MWRA via an interconnection to the Town of Wakefield (Town) water system. Pursuant to OP.10, MWRA has found that the proposed connection and water withdrawal will not jeopardize the quantity or quality of service that MWRA is committed to providing to existing water service communities. The final application was submitted on August 7, 2025 upon the enactment of the legislation, Chapter 15 of the Acts of 2025.

LCWD supplies drinking water to approximately 8,500 customers, including approximately 70 percent of the Town of Lynnfield's residents, as well as four schools and all municipal facilities. LCWD's water is currently supplied from groundwater through four pumping stations located throughout the service area. LCWD is navigating water supply challenges, including: (1)

maximum day demand values close to or over typical pumping capacity of existing sources; and (2) ongoing efforts to maintain a sustainable water supply. To address the maximum day demand issue, LCWD consistently relies on its two storage tanks to make up the difference. Multiple consecutive high-demand days can exceed the system's ability to provide water and draw down the tanks to unsustainable levels. Even with all four stations online, LCWD is challenged to meet demands during the summer, and the summertime loss of any one of the three largest stations would place LCWD in a water supply emergency, unable to fill its storage tanks or provide sufficient fire protection. The lack of redundancy in LCWD's system impacts its ability to conduct maintenance, provides little operational flexibility, and reduces overall resiliency of the water production. One of LCWD's stations is currently offline because of per- and polyfluoroalkyl substances (PFAS) levels.

Additionally, beyond basic supply production challenges, water quality issues of elevated levels of manganese, PFAS, and nitrate in LCWD's groundwater sources have resulted in a further lack of redundancy and operational flexibility in recent years. Redundancy and operational flexibility are critical to meet applicable regulatory criteria and required maintenance activities. These water quality challenges have impacted LCWD's ability to provide a reliable water supply trusted by its customers and has required the pursuit of an additional, alternative water source. Therefore, LCWD is seeking approval to become a member community of the MWRA and to purchase MWRA water to provide a critical, supplementary source.

The connection and purchase of MWRA water by LCWD is being conducted through an interconnection with the Town's distribution system, which is partially served by MWRA water as a member community. MWRA water will be wheeled through Town's water system and supplied to LCWD through a below-grade interconnection vault.

The Massachusetts Water Resources Commission (WRC) has approved an interbasin transfer from MWRA to LCWD for a maximum volume of 0.83 million gallons per day (mgd) under the Interbasin Transfer Act, M.G.L. Chapter 21 §§ 8B-8D (ITA). At this time, LCWD is applying to MWRA to acquire an average daily demand of 0.28 mgd (equating to 102 million gallons annually), a maximum daily demand (non-emergency) of 0.36 mgd, and up to 0.83 mgd in an emergency condition with prior MWRA approval.

LCWD will routinely use the interconnection as a "fifth source" (in addition to its existing four groundwater pumping stations), and it will operate the same as the other sources – turning on when the distribution system storage tanks drop below a set level and run until the tanks are refilled. Additionally, the interconnection will be used to allow for routine maintenance of the other sources, providing redundancy and flexibility of supply. The level of usage is the basis of the average day demand. However, LCWD requests as part of this application that in the event of a water supply emergency or unusual condition, it may utilize up to the approved ITA amount of 0.83 mgd with appropriate advance notification of MWRA, as feasible.

If approved, LCWD will connect directly to the Town's water system near Bay State Road/Main Street/Vernon Road, which connects the meter vault to the LCWD system. The piping loop benefits the hydraulics of the Town's system and eliminates two dead ends. LCWD contributed to the pipeline costs through their Intermunicipal Agreement.

#### Community Support

On May 10, 2021, members of LCWD's Annual District Meeting voted to approve LCWD's admission to MWRA via an interconnection to the Wakefield water system. Additionally, as noted above, an Intermunicipal Agreement has been executed between LCWD and the Town, as set forth in Attachment A, governing the connection and water supply arrangement. The LCWD will receive MWRA water pursuant to an Intermunicipal Agreement between the LCWD and the Town, which among other things specifies that the Town shall supply up to 0.36 mgd of water, as required by the LCWD. The Intermunicipal Agreement is currently effective April 10, 2023, through April 9, 2043.

#### Regulatory and Other Approvals

All regulatory and other approvals pursuant to MWRA OP.10 have been obtained prior to seeking Board approval.

- On June 28, 2024, the Massachusetts Department of Environmental Protection (MassDEP) Northeast Region approved the connection.
- On November 29, 2024, the Secretary of Energy and Environmental Affairs issued a certificate finding that the connection complies with the Massachusetts Environmental Policy Act (MEPA) and its implementing regulations.
- On March 13, 2025, the WRC approved LCWD's request for an Interbasin Transfer for admission to the MWRA Water Works System under the ITA. This approval authorizes LCWD to withdraw up to 0.83 mgd on a maximum daily basis.
- On May 15, 2025, the MWRA Advisory Board voted to approve LCWD for admission to the MWRA water system via an interconnection with the Town, contingent upon the passage of H.972, An Act authorizing the MWRA to supply water to LCWD within the Town of Lynnfield, as presented to the Advisory Board. Further, on July 16, 2025, the MWRA Advisory Board voted to address the Emergency Preamble that was expected to be added to H.972 after its initial vote and again approved LCWD for admission to the MWRA water system. Advisory Board approval limits withdrawals to an average daily flow of 0.28 mgd, up to 0.36 mgd on a maximum daily basis, and up to 0.83 mgd on an emergency basis with prior MWRA approval.
- On August 5, 2025 the governor signed the enacted legislation creating Chapter 15 of the Acts of 2025, adding LCWD to the MWRA Enabling Act, as set forth in Attachment C.

#### Water Supply Agreement

Subject to approval, the relationship between MWRA and LCWD will be governed by a Water Supply Agreement. The proposed Water Supply Agreement incorporates the provisions of 360 C.M.R 11.00: Continuation of Contract Water Supply. The contract limits are based on up to 102 million gallons annually and annual average daily use of up to 0.28 mgd, and up to 0.36 mgd on a maximum day basis.

MWRA OP.10 specifies that an initial agreement with a new community be for a period of five years in order to monitor the process and status of demand management efforts. Therefore, the term of the Agreement between MWRA and LCWD will be five years.

#### Entrance Fee Waiver

On September 14, 2022, MWRA's Board of Directors approved revisions to MWRA OP.10 to allow a waiver of the entrance fee for communities entering the System that can demonstrate that their local sources are impacted by water quality issues/public health concerns, their water supply is located in a stressed basin, or local economic development is significantly constrained by their existing water supply.<sup>1</sup>

LCWD is requesting a waiver of the entrance fee for the volume of water for the purchase it is requesting under its application (up to 102 million gallons annually) on the basis of water quality of local sources and resulting public health concerns, as well as sources being in a stressed basin.

As stated above, LCWD's water quality issues include elevated levels of manganese, nitrate, and PFAS in the LCWD groundwater sources. LCWD exceeded MassDEP's maximum contaminant level (MCL) of 20 parts per trillion (ppt) for PFAS in source waters for two of their four water sources in 2021 (Stations 1 and 2) and was issued a PFAS MCL Notice of Non-Compliance in 2022. LCWD was required to develop both short-term and long-term corrective actions. LCWD installed temporary treatment at its Station 2: Main Street well in 2023 as a long-term pilot to address exceedance of the PFAS MCL at this source. LCWD's Station 1: Phillips Road Tubular Wellfield has been offline since 2021 due to elevated levels of nitrates and exceedance of the PFAS MCL. A treatment plant to address iron and manganese and PFAS is currently under construction at Station 4: Glen Drive Wells and expected to be online in 2026 and will treat water from both Stations 4 and Station 2. Despite LCWD's attained and ongoing compliance with MassDEP PFAS MCL, Station 2 and Station 4 are expected to exceed the future Federal MCL of 4 ppt. LCWD has also exceeded the Secondary Contaminant Level (SMCL) for manganese at Station 4.

A large portion of LCWD's water supply comes from wells within the Ipswich River Basin which is classified as a highly stressed basin by WRC standards and meets the MWRA evaluation criteria of a "net groundwater depleted subbasin or basin with significant streamflow alteration due to water withdrawals." LCWD's location in the Ipswich River Basin is in an area with net groundwater depletion of greater than 25% according to MassDEP's Sustainable Water Management Initiative tool. LCWD must operate its system subject to conditions of their Water Management Act permit, which places seasonal limits on withdrawals from the basin and requires watering restrictions based on streamflow conditions.

Staff have reviewed information in support of LCWD's request to waive the entrance fee on the basis of water quality and stressed basin issues. It is staff's opinion that LCWD has submitted sufficient documentation through the environmental and regulatory approval process, summarized in submissions to MWRA as part of their admission package, to satisfy the eligibility criteria for an entrance fee waiver. Should LCWD request additional volume from MWRA at a later date

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<sup>&</sup>lt;sup>1</sup> The waiver provision is limited to a maximum total amount of 20 million gallons per day of water by one or more new communities seeking entrance to the MWRA water system, which also seek a corresponding waiver of the entrance fee. For new communities seeking to join the MWRA water system the waiver provision shall terminate on December 31, 2027, or the day such maximum amount has been reached, whichever is sooner. Other provisions apply for certain existing communities that seek a waiver of the additional entrance fee to purchase additional water.

(within the approved ITA approval limits), the contract requires a revision to its terms for said volume and payment of an entrance fee in accordance with the MWRA entrance fee policy at that time.

#### Level of Funding to LCWD under the Local Water System Assistance Program

LCWD is eligible to receive funds (ten-year interest-free loan) under MWRA's Local Water System Assistance Program (LWSAP) consistent with the conditions of the program. The level of funding available to LCWD through this program upon admission is \$764,600, based upon: (1) funding of \$500,000 for partially served communities; (2) funding of LCWD's percent share of unlined water main prorated to the percentage of MWRA water supplied to LCWD (zero miles of unlined water mains and, therefore, no funding under this criterion); (3) funding based on LCWD's percent share of estimated MWRA water assessment; and (4) prorating available funds to the number of years remaining in the Phase 3 LWSAP (two years remaining of ten-year funding allocations FY18-FY27), and the Phase 4 LWSAP (nine years remaining of ten-year funding allocations FY26-FY34).

For the reasons set forth herein, staff recommend the Board's approval: (1) of LCWD's application to become a member of the MWRA waterworks system with a purchase of up to 102 million gallons annually via an interconnection with the Town's water system; (2) of LCWD's request to waive the entrance fee for the volume of water for said purchase due to water quantity and water quality issues; and (3) to authorize the Executive Director, on behalf of the Authority, to execute a water supply agreement with LCWD substantially in the form shown in Attachment E.

#### **BUDGET/FISCAL IMPACT:**

Subject to Board approval, for the remainder of fiscal year 2026 (through June 30, 2026), LCWD will be charged for water supplied at the current prevailing rate of \$5,005.64 per million gallons, and water provided in fiscal year 2027 (July 2026 – June 2027) will be charged at the approved prevailing rate for fiscal year 2027. Beginning in fiscal year 2028 and for the remainder of the term, LCWD will be assessed in accordance with MWRA's *Budget and Assessment Policies and Procedures*, which computes charges for water services on the basis of each community's metered water flows. The MWRA annual water rate revenue requirement is allocated according to each community's prior year's water use relative to the system as a whole. The annual rate revenue requirement is comprised of operation and maintenance (O&M) and capital (debt service) charges.

LCWD is seeking a waiver of the entrance fee associated with their requested withdrawal volume. If not waived, the entrance fee would be approximately \$1.7 million. As explained in the September 14, 2022, staff summary associated with the revisions to MWRA OP.10, the Board may approve a waiver of the entrance fee under certain conditions. The reallocation of the rate revenue requirement as a result of selling additional water is a significant benefit that will offset potential loss of the more limited revenue associated with collection of an entrance fee. The total requested average daily use for LCWD is approximately 0.28 mgd. As noted in the same staff summary, the sale of an additional five mgd of water over a period of 25 years, based on the FY23 rate revenue requirement, would provide approximately \$204.5 million in revenue and reduce other existing communities' percent shares of the system.

#### **ATTACHMENTS:**

LCWD and Town of Wakefield Intermunicipal Agreement (Attachment A) MEPA Certificate (Attachment B)
Chapter 15 of the Acts of 2025 (Attachment C)
WRC Approval (Attachment D)
Draft MWRA Water Supply Agreement (Attachment E)

#### **Attachment A**

#### **AGREEMENT**

This intermunicipal agreement (this "Agreement") is entered into this day of April , 2023 in accordance with G.L. c.40, §4A by and between the Town of Wakefield ("Wakefield"), a municipal corporation with principal offices located at 1 Lafayette Street, Wakefield, Massachusetts 01880, acting by and through its Town Council, the Lynnfield Center Water District ("LCWD"), a municipal water district with principal offices located at 83 Phillips Road, Lynnfield, Massachusetts 01940, acting by and through its Board of Commissioners, and the Town of Lynnfield ("Lynnfield"), a municipal corporation with principal offices located at 55 Summer Street, Lynnfield, Massachusetts 01940, acting by and through its Select Board, and sets forth the terms of agreement between the Parties regarding the installation of water service infrastructure by Wakefield to supply the LCWD system through an interconnection meter on Main Street in Lynnfield near the intersection of Bay State Road.

WHEREAS, in the Summer of 2020, LCWD approached Wakefield about the possibility of obtaining Massachusetts Water Resources Authority ("MWRA") water through the Wakefield system;

WHEREAS, LCWD and Wakefield conducted a hydraulic analysis to evaluate the impact of said connection at various flow rates through the collaborative work of engineering consultants CDM/Smith (on behalf of LCWD) and Environmental Partners (on behalf of Wakefield) and determined that adequate flow is available;

WHEREAS, LCWD, through the work of CDM/Smith, conducted a water quality blending analysis of MWRA water with LCWD water, and determined that no negative impact would result from the interconnection.

WHEREAS, LCWD shall provide funding to Wakefield to execute the scope of work as

identified in this Agreement in order to loop the Wakefield system and bring the two systems to a location on Main Street at the intersection with Bay State Road, Lynnfield, whereby they can be interconnected;

WHEREAS, the Parties desire to establish a formal agreement with respect to the installation of water infrastructure, water supply and usage, including billing for future usage by LCWD of MWRA water supplied by Wakefield;

NOW THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

#### SCOPE OF WORK

The Parties agree that the work to be done hereunder (the "Scope of Work") shall include all of that described below.

- A. The Scope of Work includes the installation and connection of water main infrastructure as proposed in the plans developed by Environmental Partners dated August 2022. Said Plans are attached hereto as Exhibit 1, and an outline of the phases of the proposed Scope of Work is attached hereto as Exhibit 2.
- B. The Scope of Work includes the installation of approximately 1,430 linear feet of new 8" CLDI pipe on Bay State Road from the existing dead end of the Wakefield system, connecting into the 8" water main to be constructed on Main Street in the LCWD system as described in § I.C, below. Once completed, this new section of distribution water main will be the property of Wakefield and included in Wakefield's system The existing water main on Bay State Road will remain the property of and be operated and maintained by LCWD. Construction trenches will be paved in a temporary manner by Wakefield, by and though a contractor engaged

by Wakefield to perform this work, as conditioned in the roadway opening permit, which Wakefield shall obtain from Lynnfield. Final paving and roadway restoration of Bay State Road will be the responsibility of Lynnfield.

- C. The Scope of Work also includes the replacement of 660 linear feet of existing LCWD water main on Main Street from Bay State Road towards Vernon Street, Wakefield. This new main will be installed at an appropriate grade to permit a new crossing of the MassDOT drainage culvert bridge on Main Street. Once completed, this section of water main will be the property of Wakefield and included in Wakefield's system. Construction trenches will be paved in a temporary manner by Wakefield, by and through a contractor engaged by Wakefield, as conditioned in the roadway opening permit, which Wakefield shall obtain from MassDOT. Final roadway restoration of Main Street will be the responsibility of Lynnfield.
- D. The Scope of Work further includes the installation of approximately 185 linear feet of new 8" water main on Vernon Street, Wakefield, including the crossing of this proposed new water main through an existing drainage culvert in Wakefield. The proposed corridor will be within the existing MassDOT right of way. Once completed, this section of new water main will remain property of Wakefield and be included in Wakefield's system Construction trenches will be paved in a temporary manner by Wakefield, by and through a contractor engaged by Wakefield, as conditioned in the roadway opening permit issued by Wakefield. Final roadway restoration of Vernon Street will be the responsibility of LCWD.
- E. The Scope of Work includes the construction of an interconnection vault within the MassDOT right of way in the intersection of Main Street and Bay State Road, Lynnfield. Exhibit 3 illustrates the location of said vault. The interconnection vault will include a flow control valve, meter, above ground cabinet and other appurtenances as required. The

interconnection vault will be designed, constructed, owned and operated by LCWD. With respect to the interconnection vault:

- The master meter will be provided by MWRA and calibrated by MWRA
  in accordance with its regular testing schedule. LCWD will install said
  meter and testing ports and provide access to the meter as needed. The
  master meter will be located permanently in the interconnection vault.
  LCWD will provide Wakefield with access to the meter as necessary.
- LCWD shall construct the interconnection vault and all appurtenances
  related thereto and will be responsible for maintenance, daily operation
  and all expenses associated with operating said interconnection vault.
- At no point in time shall flow through this interconnection exceed 250
   GPM without further evaluation and without an amendment to this
   Agreement.
- Wakefield and LCWD will provide each other with twenty four hour contacts in the event of emergencies related to the Wakefield system located in Lynnfield.
- F. The following shall apply to the Scope of Work to be performed under this Agreement:
  - LCWD shall provide supervision and oversight over the design,
    permitting, procurement and construction of all aspects of the
    interconnection vault referenced in § I.E, above. Wakefield will be given
    the opportunity to review and comment on all designs and specifications
    prior to said work being put out to bid.

- Wakefield will provide supervision and oversight over the design, permitting, procurement and construction of all aspects of the Scope of Work in §§ I.A-I.D, above. LCWD will provide payment to Wakefield for said design and construction in advance of the work in accordance with §II-A below. LCWD will be given the opportunity to review and comment on all designs and specification prior to said work being put out to bid.
- The existing LCWD water account at 26 Main Street, Lynnfield will remain an LCWD account, and Wakefield will bill LCWD directly for it.
- All MassDOT, Wakefield and Lynnfield permit fees applicable to the Scope of Work shall be paid by the LCWD.
- Wakefield and LCWD agree that the proposed connection must be reviewed and approved by the Massachusetts Department of Environmental Protection and the MWRA before Wakefield can supply LCWD with water.
- 6. LCWD will be responsible for all permitting required by the MWRA. LCWD shall become a member of the MWRA and will be billed directly for said water supplied by MWRA through the Wakefield system, or, failing that, be issued its own yearly assessment.
- 7. Wakefield has indicated it intends to move forward with construction in the early Spring of 2023. LCWD intends to commence construction of the interconnection vault in the Summer of 2023. Permitting and work on other applicable MWRA requirements have already commenced and are expected to be completed during the Winter of 2024.

- 8. LCWD shall be deemed to be a Wakefield water user. As such, Wakefield shall provide LCWD with all notices, notifications and public alerts that it provides to its water users, including emergency contact information.
- 9. Lynnfield shall provide reasonable access to LCWD and Wakefield, and their respective contractors and agents, to any affected public ways during construction and for the purposes of performing any future maintenance, inspection, repair or replacement work.
- 10. Water system infrastructure work on Main Street at the Interstate 95 exchange will proceed under conditions found within the permit issued by MassDOT to Wakefield. Said permit shall be attached as Exhibit 4.
- 11. Water system infrastructure work on Main Street at the crossing with the box culvert will proceed under conditions found within the permit issued by the Wakefield Conservation Commission to Wakefield. Said permit shall be attached as Exhibit 5.
- 12. A roadway opening permit will be sought from Lynnfield by the contractor procured by Wakefield. Said permit shall be attached as Exhibit
  6. The contractor shall provide all bonds and insurance as required, but (a)
  LCWD shall pay any costs associated with such bonds and insurance and
  (b) Lynnfield agrees to waive the roadway opening permit fees.

#### II. COMPENSATION STRUCTURE AND CONDITIONS

A. LCWD shall pay to Wakefield the sum of \$853,300 for the construction, engineering, inspection, police details, permitting, temporary paving, and related work associated with §§ I.B-I.D, above. LCWD and Wakefield shall agree on a schedule for said payments based

on the progress of construction, provided that such schedule shall be structured so as to ensure that Wakefield will not have to advance any of its own funds to pay said costs. This payment is intended to cover the cost of all work associated with the three phases of the Scope of Work required to loop the Wakefield system from Bay State Road through the drainage culvert (bridge) on Main Street at the Wakefield/Lynnfield town limits. The following exceptions apply:

- The bridge crossing proposed in § I.C, above assumes that no bridge improvements will be required, including but not limited to the installation of railings.
- The agreed upon payment assumes that a waiver concerning controlled density fill will be granted and that work will occur during normal working hours.
- Lynnfield will be responsible for the costs associated with final paving and permanent roadway restoration of all areas within the Scope of Work in Lynnfield on Bay State Road and Main Street.
- Costs do not include the meter vault or any escalation (if construction occurs in Spring of 2023).
- 5. The Parties agree that notwithstanding the above exceptions and assumptions, LCWD shall be responsible for any additional costs required to complete the Scope of Work with the exception of the costs for final paving and permanent roadway restoration referenced in § II.A.3, above, which shall remain the responsibility of Lynnfield.
- B. LCWD acknowledges that it has established a contingency fund in the amount of \$66,590 (8% of construction costs) for any unanticipated subsurface conditions, including but

not limited to ledge. Any claims for additional compensation submitted by Wakefield's contractor related to the Scope of Work set forth in §§ I.B – I.D, above, shall be submitted by Wakefield to LCWD for review and approval before any such claim is approved by Wakefield.

- C. The wheeling rate shall be fixed at a twenty percent (20%) mark up on MWRA's wholesale rate for the first 7 years during which MWRA water is furnished to LCWD by Wakefield hereunder.
  - D. The effective date of this Agreement shall be April 10, 2023.
  - E. Term:
    - This Agreement shall remain in full force and effect for a period of twenty
       (20) years, from April 10, 2023 through April 9, 2043.
    - 2. The wheeling rate associated with this Agreement may be renegotiated by LCWD and Wakefield during the 7<sup>th</sup>, 12<sup>th</sup> and 16<sup>th</sup> years of this Agreement. Any new agreed upon wheeling rate shall become effective at the commencement of the following fiscal year, unless otherwise agreed to by LCWD and Wakefield.
    - 3. Renegotiation of the wheeling rate shall be based on costs associated with transporting MWRA water through the Wakefield system to the LCWD interconnection. In the event that LCWD and Wakefield are unable to agree on a new wheeling rate, they agree to submit the issue to binding arbitration under the rules of commercial arbitration of the American Arbitration Association. The costs of any arbitrator shall be borne equally by LCWD and Wakefield. Nothing in this Section shall preclude Wakefield and LCWD from engaging in non-binding mediation prior to

- arbitration. If Wakefield and LCWD agree to mediate, the costs of any mediator shall be borne equally by Wakefield and LCWD.
- F. Lynnfield hereby grants Wakefield access to maintain and/or repair the Wakefield water system infrastructure that is located within Lynnfield's rights of way.
- G. Wakefield shall bill LCWD quarterly for water consumed in accordance with readings from the MWRA meter in the interconnection vault.

#### III. MISCELLANEOUS

- A. By entering into this Agreement, the Parties have not waived any governmental immunity or limitation of damages that may be extended to them by operation of law. The Parties are the sole and exclusive beneficiaries of this Agreement. No third-party rights, express or implied, are created. The provisions of this paragraph shall survive termination of this Agreement.
- B. No Party shall assign, sublet or otherwise transfer its rights under this Agreement, in whole or in part, without the prior written consent of the other Parties.
- C. This Agreement shall not be modified or amended except by a written document executed by the authorized representatives of the Parties.
- D. This Agreement shall be governed by, and construed and enforced in accordance with, the laws of the Commonwealth of Massachusetts, and all Parties hereto submit to the jurisdiction of any of its appropriate courts for the adjudication of disputes arising out of this Agreement.
- E. If any term or condition of this Agreement or any application thereof shall to any extent be held invalid, illegal or unenforceable by a court of competent jurisdiction, the validity, legality, and enforceability of the remaining terms and conditions of this Agreement shall not be

deemed affected thereby unless one or more Parties would be substantially or materially prejudiced thereby.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be signed by their duly authorized representives, whose signatures are hereto affixed.

TOWN OF LYNNFIELD

By its Select Board

By its Town Council
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TOWN OF WAKEFIELD

LYNNFIELD CENTER WATER DISTRICT

By its Board of Commissioners

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## BAY STATE ROAD WATER MAIN LOOP

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#### TOWN OF WAKEFIELD, MA

AUGUST 2022

FOR CONSTRUCTION







#### DEPARTMENT OF PUBLIC WORKS

JOSEPH CONWAY, DIRECTOR OF PUBLIC WORKS WILLIAM RENAULT, P.E., TOWN ENGINEER



VICINITY MAP 1"= 500"



### **Lynnfield Center Water District**

83 Phillips Road Lynnfield, Massachusetts 01940 Phone +1.781.334.3901

FAX: +1.781.334.3013

Info@LCWD.US \* www.LCWD.US

Commissioners: Joseph T. Maney, Chairman Anders F. Youngren Jack D. Adelson Superintendent: John V. Scenna

## **MEMORANDUM**

To: Board of Commissioners

From: John V. Scenna, Superintendent, Lynnfield Center Water District

cc. Joe Conway, Director of Public Works, Town of Wakefield

Date: April 20, 2021

Re: Conditions and Scope for Agreement by and between the

Town of Wakefield (Wakefield) and the Lynnfield Center Water District (LCWD)

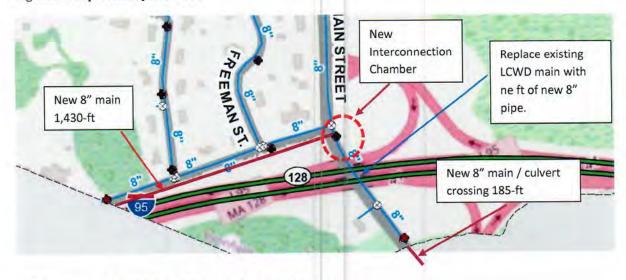
#### PROPOSED SCOPE

This agreement will provide the Lynnfield Center Water District (LCWD) with MWRA supplied and transported through the Town of Wakefield (Wakefield) Water Distribution System. It will also provide the Town of Wakefield with distribution system improvements within their system by connecting existing dead ended segments through the Town of Lynnfield public ways on Bay State Road and Main Street.

The four main components of the work include:

- Installation of approximately 1,430 l.f. of new 8" CLDI pipe on Bay State Road from the existing dead end
  of the Wakefield system, connecting into the existing 8" water main on Bay State Road in the LCWD system.
  The existing water main on Bay State Road will remain property of and be opertaed and maintained by the
  LCWD.
- 2. Replacement of 660 l.f. of existing LCWD water main on Main Street from Bay State Road towards Vernon Street, Wakefield. This new main will be installed at the appropriate grade to permit a new crossing of the MassDOT drainage culvert bridge crossing on Main Street. Once completed, this section of water main will be turned over to the Town of Wakefield Public Works Department for inclusion into their system.
- Installation of approximately 185 l.f. of new 8" water main on Vernon Street, Wakefield including the
  crossing of this proposed new water main through an existing drain culvert in Wakefield. The proposed
  corridor will also be within the existing MassDOT right of way.
- Construction of an interconnection vault within the right of way in the intersection of Main Street and Bay State Road, Lynnfield. Said meter pit will include a flow control valve, meter, above ground cabinet and other appurtenances as required. This will be designed, constructed, owned and operated by the LCWD.

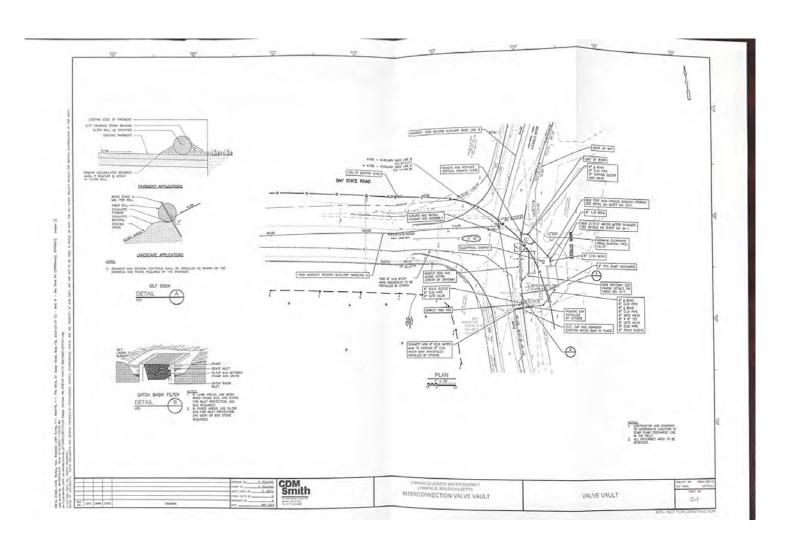
Figure 1: Proposed Scope of Work



#### ADDITIONAL SCOPE CONSIDERATIONS

To date, our conversations have also resulted in the following considerations.

- LCWD will provide supervision and oversight over the design, permitting, procurement and construction of all aspects of the interconnection chamber (Item 4 above). Wakefield will be given the opportunity to review all designs and specification in advance of work going to construction.
- 2. Wakefield Public Works will provide supervision and oversight over the design, permitting, procurement and construction of all aspects of the scope of work in Items 1 through 3. LCWD will provide payment to the Town of Wakefield for said design and construction in advance of the work and under the terms and conditions as agreed upon. LCWD will be given the opportunity to review all designs and specification in advance of work going to construction.
- 3. Once the systems have been reconfigured, the existing LCWD water account at 26 Main Street, Lynnfield will become a Wakefield account.
- All associated MassDOT, Town of Wakefield and Town of Lynnfield permit fees, if applicable, will be paid for by the LCWD.
- 5. Both parties agree that the proposed connection will be reviewed and approved by the DEP in accordance with preliminary conversations and meetings held to date between the three parties.
- 6. LCWD will be responsible for all permitting required by the MWRA. Ultimately, LCWD intends to be considered a member of the MWRA and intends to be billed directly for said water wheeled through the Wakefield system or at a minimum, be issued its own yearly assessment.
- 7. The final scope and the terms and conditions outlined in this correspondence will need to be documented into an intermunicipal agreement between the Town of Wakefield Public Works and the LCWD.
- 8. LCWD plans to seek funding to move forward with this work at the 2021 Annual District meeting which is scheduled for April of 2021. Upon favorable vote, it will execute said intermunicipal agreement. Wakefield has indicated they will move forward with construction in the late summer or fall of 2021. LCWD will follow up with construction of the interconnection in the Spring of 2022. Permitting and all other applicable MWRA requirements will commence immediately by LCWD in July of 2021.







4-2022-0088

# LYNNFIELD/WAKEFIELD Utility: Capital Improvements - Water

Subject to all the terms, conditions, and restrictions printed or written below, permission is hereby granted to TOWN OF WAKEFIELD to enter upon the State Highway known as MAIN STREET, I-95/RTE-128 Underpass BRIDGE L-19-011(2FD) and Saugus River Bridge L-19-012 (8OU) for the purpose of installing 8-inch ductile iron cement lined (DICL) water main and associated appurtenances to serve as a water distribution system interconnection between the Town of Wakefield and Town of Lynnfield Center Water District. The work includes installing 8-inch DICL from the proposed 8-inch DICL located south of the location line at approximate station 0+00, near the intersection of Main Street, Vernon Street, and Indian Lane, continuing north within Main Street layout to approximate station 7+50, near the intersection of Main Street and Bay State Road. Also, crossing the Saugus River with the proposed 8-inch DICL insulated watermain by affixing four (4) 1/2-inch galvanized plates to Bridge L-19-012 (8OU) wingwalls. Abandoning in place the existing 8-inch watermain, after the proposed 8-inch DICL is active and on-line. All work is to be done in accordance and as shown on the plans submitted and on file in the District Four Permit Office by Environmental Partners Group Inc. titled "Bay State Road Water Main Loop" dated January 25, 2022 with plotted date of May 20, 2022.

Prior to commencing work, the Grantee shall compare I-95/RTE-128 Underpass BRIDGE L-19-011(2FD) height clearance with proposed total equipment height.

WORK HOURS: 7:00 A.M. thru 5:00 P.M. Monday thru Friday and ONE LANE ALTERNATING TRAFFIC SETUP (TMP-1) WORK HOURS: 9:00 A.M. thru 3:00 P.M. Monday thru Friday

A copy of this permit must be on the job site at all times for inspection. Failure to have this permit available will result in suspension of the rights granted by this permit until such permit is made available.

No equipment, trucks, workers, etc., shall occupy any part of the traveled way except for an emergency, in no case will operations exceed the specified hours without the prior approval of the District Highway Director or an authorized Representative. This includes the placement of traffic control devices, vehicles, equipment or anything that restricts the flow of traffic through the construction zone. Emergencies must be unexpected situations or sudden occurrences of a serious and urgent nature that demand immediate attention.

No work shall be performed between November 15th and April 15th (winter shutdown) without prior approval from the District Highway Director or an authorized Representative.

No bituminous concrete shall be installed between November 15th and April 15th without prior approval from the District Highway Director or an authorized Representative.

No work shall be done under the terms of this permit on Saturdays, Sundays or Holidays.

No work will be performed on the day before or the day after a holiday or a long weekend which involves a holiday on any highway, roadway or property under the control of the MassDOT Highway Division or in areas where the work would adversely impact the normal flow of traffic on the State Highway System, without permission of the District Highway Director or an authorized Representative.

Provisions shall be made for the safety and protection of Pedestrian Traffic during the construction period.

It shall be the responsibility of the Grantee to provide access to the property of residents and business owners during the progress of the proposed work.

The Trench Permit Rider shall become an integral part of the terms and conditions of this permit. A writable form is uploaded into SHAPS, <a href="https://shaps.massdot.state.ma.us/">https://shaps.massdot.state.ma.us/</a> in the "docs" tab of this permit.

The Grantee(s) must adhere to 520 CMR 14.00; EXCAVATION AND TRENCH SAFETY as promulgated by the Department of Public Safety in conjunction with the Division of Occupational Safety pursuant to the authority granted by M.G.L. Chapter 82A: Section 1.

The Grantee shall not engage in any work under benefit of this Permit until a MassDOT Roadway Work Notification Form is filed with the District Permit Office prior to the start of work. The form must contain the required information and have the proper signatory approval. The form must be submitted no later than 12:00 PM on the Wednesday prior to the week the work will begin. The duration of work approvals shall be limited to one week at a time. If the work exceeds one week, then a new Roadway Work Notification Form is required to be submitted for each additional week. The Grantee can email the completed form to MassDOT at april.s.antonelli@dot.state.ma.us</u>. A writable form is uploaded into SHAPS, <a href="https://shaps.massdot.state.ma.us/">https://shaps.massdot.state.ma.us/</a> in the "docs" tab of this permit.

The Grantee shall notify the District Permit Office at <a href="mailto:april.s.antonelli@dot.state.ma.us">april.s.antonelli@dot.state.ma.us</a>, two (2) working days prior to the start of work. No work shall be authorized without said notification.

The Grantee shall contact the Area Contact Person (7:30 AM to 4:00 PM Monday through Friday) at 617.222.0002, two (2) working days prior to the start of work.

Five working days prior to commencing work, the Grantee shall contact MassDOT District Bridge Engineer, Doug Consentino at <a href="mailto:douglas.consentino@dot.state.ma.us">douglas.consentino@dot.state.ma.us</a>.

Whenever work is to be done within two hundred (200) feet of existing State Highway Traffic Signals, the District Office must be notified by the Grantee at least five (5) working days prior to the start of work by emailing the District Traffic Office at John.Gregg@dot.state.ma.us.

Hand digging shall be required around the traffic conduit.

Care shall be exercised so as not to disturb any existing State Highway Traffic Loops. If said loops are disturbed, they shall be restored immediately after the end of the workday to their original condition. All expenses for restoring conditions shall be borne by the Grantee.

Care shall be exercised so as not to disturb any existing State Highway Traffic Systems including above ground equipment, ducts, loops or any underground structures that exist. If said system is disturbed, it shall be restored immediately to its original condition. Also any damaged Traffic lines shall be restored to their original condition. All expenses for restoring conditions shall be charged to the Grantee. Temporary video detection may be required if traffic congestion/delays become an issue.

The Grantee shall have an approved signal contractor retained to place signals on max recall when loops are cut or traffic is detoured around working loops. The contractor shall replace all disturbed loop detectors in kind. A written report of all new loop detector tests shall be certified and submitted upon completion, at which time the signal timing shall revert to its original settings.

The Grantee's design engineer shall provide electronic as-built drawings. Proposed work will not be accepted until As-Built drawings are submitted to the District Four Permit Engineer in both CAD and PDF format and approved.

If any of the storm drainage pipes at utility crossings are damaged, storm drain pipes be replaced from structure to structure.

Any changes to the construction or traffic management plans impacting State Highway or traffic operations must be submitted for approval prior to implementation.

If it becomes necessary to open the roadway surface in a larger area or relocate the existing work area to a location other than specified in this permit then the Grantee shall apply for an additional permit to cover this project.

If the Grantee elects to use steel plates to protect the excavations, they shall be of sufficient thickness to resist bending and vibration under traffic loads, recessed and set flush with the adjacent roadway surface, and shall be anchored securely to prevent movement. Class I Bituminous Concrete Pavement shall be placed around the steel plates to provide a smooth transition between the plates and the roadway. If these conditions are not met the Grantee will be required to back fill and pave the excavations daily. No trench shall be left open during non-working hours.

No steel plates shall be utilized between November 15th and April 15th without prior approval from the District Highway Director or an authorized Representative.

Steel sheeting, shoring, or bracing shall be driven or placed for all depths over 5 feet. At the discretion of the State Engineer said sheeting shall be left in place and cut off two (2) feet below the surface.

The temporary by-pass water system shall be buried below grade at all roadway and driveway crossings for smooth transitions.

Trenches must be backfilled or plated at the end of each workday.

If the existing sideline fence is removed or damaged it shall be reset or replaced to MassDOT Standards.

The Completion of Work Form shall be emailed to the Permit Engineer at april.s.antonelli@dot.state.ma.us as soon as possible after the completion of the physical work. A writable form is uploaded into SHAPS, <a href="https://shaps.massdot.state.ma.us/">https://shaps.massdot.state.ma.us/</a> in the "docs" tab of this permit.

If the sidewalk/shared use path area is disturbed, it shall be restored, full width, in kind a minimum of five feet beyond any disturbed area.

Sidewalks and Wheelchair ramps shall be constructed in accordance with 521 CMR Rules and Regulations of the Architectural Access Board (AAB) and Americans with Disabilities Act (ADA), (Sections 20.2 and 21.1), and the MassHighway Wheelchair Ramp Standards booklet effective 10/8/97, and the Construction and Traffic Standards Details, 1996 Metric Edition as revised.

The Grantee shall notify Dig-Safe at 1.888.344.7233 at least 72 hours prior to the start of work for the purpose of identifying the location of underground utilities.

Dig-Safe # To be obtained prior to the commencement of work.

No trees shall be cut or removed under this permit.

All work shall be in compliance with the 2022 Edition of the "Massachusetts Highway Department Standard Specifications for Highways and Bridges" and the amended Supplemental Specifications.

Uniformed Police Officers with their official vehicles shall be in attendance at all times while work is being done under this permit.

The furnishing and erecting of all required signs and traffic safety devices shall be the responsibility of the Grantee.

All signs and devices shall conform to the 2009 edition of the Manual on Uniform Traffic Control Devices (MUTCD) with the Commonwealth of Massachusetts Amendments.

Cones and non-reflecting warning devices shall not be left in operating position on the highway when the daytime operations have ceased. If it becomes necessary for this Department to remove any construction warning devices or their appurtenances from the project due to negligence by the Grantee all costs for this work will be charged to the Grantee.

All warning devices shall be subject to removal, replacement and repositioning by the Grantee as often as deemed necessary by the Engineer.

The Contractor is responsible to ensure that all contractor personnel, including all subcontractors, working on the project are issued and are wearing all necessary personal protective safety equipment while working within the project

limits. This equipment shall include, as a minimum, a hardhat and a safety vest, regardless of the type of work being performed. Other safety equipment shall be added as required to perform the work in which they are engaged and in accordance with all local, state and federal requirements in effect.

When in the opinion of the Engineer, this operation constitutes a hazard to traffic in any area, the Grantee may be required to suspend operations during certain hours and to remove his equipment from the roadway.

It is imperative that construction operations are managed so that motorists travel "delay" is minimized. At any time during the operation when a traffic delay of over twelve (12) minutes occurs and the situation is worsening, the Grantee will begin to suspend operations. Continuously increasing "delays" of over twelve (12) minutes are not to be permitted and may result in the termination of this Permit by the Department.

Free flow of traffic shall be maintained at all times.

The Grantee will be responsible for any damage caused by this operation to curbing, structures, roadway, etc.

The Grantee shall be responsible for any settlement which may occur as a result of the work done under this permit.

The Grantee shall assume full responsibility for the structural integrity of any trench described in this Permit.

The Grantee shall respond to maintenance requests by the District Highway Director or an authorized Representative within two (2) working days. Non-response within the specified time will result in the required maintenance work being done by the Grantor, with all the expenses charged to the Grantee.

Failure to respond to trench maintenance shall result in denial of future Permit requests.

Whenever trenches are cut in the traveled way the surface shall be cut in straight lines using a concrete saw or other accepted methods equipped to cut the full depth surfacing and including the reinforcing steel on concrete roadways. The excavation shall only be between these lines. The cutting operation shall not be done with a backhoe, gradall or any type of ripping equipment.

All rocks, boulders and other material and/or debris as a result of the trenching operation shall be removed from the State Highway layout at the end of each workday.

In the area of the open cut the backfill shall be made in six-inch layers and mechanically compacted to the elevation of the adjoining subgrade, then gravel shall be placed and compacted to within two inches of the finished grade. The last two inches shall be bituminous concrete to form a temporary patch. The temporary patch shall remain in place for at least ninety days unless directed by the Engineer.

A permanent patch shall then be installed. The pavement shall be cut in a neat true line one foot outside all limits of the excavation within the roadway surface, then excavated to depth of 7.5-inches and remove material. The permanent patch shall consist of the base course shall be 3-1/2" thick of SUPERPAVE Base Course Pavement - 37.5. The intermediate course shall be 2-1/4" thick of SUPERPAVE Intermediate - 19. Lastly, the surface course shall be 1-3/4"

thick of SUPERPAVE Surface Course - 12.5. If there is more than 7.5 inches of existing HMA, then the existing thickness will be required. The Applicant shall submit a pavement design for approval.

Hot Mix Asphalt pavement samples shall be collected for density and nuclear compaction. For HMA pavement cores all methods used to determine and verify the proper compaction, density, and thickness of HMA shall be in accordance with AASHTO Standards Specifications for sampling and testing of HMA Lots as described in the 2020 Edition of the "Massachusetts Highway Department Standard Specifications for Highways and Bridges"; Specification Section 450, Table 450.17 and Table 450.19a and Supplemental Specifications Dated June 30, 2020. HMA Plant Production and Field Placement test requirements, minimum of one test per 600 tons, when the quantity is less than 600-tons one sample is collected for the day's production and placement. When a test method has been updated or superseded, the superseding specification shall be used. If a test method has been removed from circulation with no replacement, then that test method shall be used until otherwise noted. The Contractor shall hire a MassDOT/NETTCP certified Testing Facility, at their cost, to perform HMA Plant/Field's Inspection, Sampling and Testing according to the Specification and furnish the Reports to MassDOT Permit Section for review and acceptance. The quality of the HMA materials and workmanship shall meet the MassDOT Specification in order to be accepted.

Backfill for conduit or pipe to be installed within the soft shoulder shall be selected from the excavated material free from large lumps, clods, or rock placed between the pipe and the walls of the trench in layers not exceeding 6 inches in depth and thoroughly compacted. Each layer, if dry, shall be moistened and then compacted by rolling or by tamping with mechanical rammers. Special care should be taken to thoroughly compact the fill under the haunches of the pipe or conduit. This method of filling and compacting shall be continued until the material is level with the top of the pipe or conduit. The remainder of the filling shall consist of suitable material placed in successive layers not more than 6" in depth. Each layer shall be thoroughly compacted as specified above.

The Grantee shall be responsible for any ponding of water which may develop within the State Highway Layout, caused by this work.

In the event of inclement weather (snow, ice, dense fog etc.), which lessens the visibility of advanced warning signs, vehicles and workers, the Grantee will suspend all operations. In the event of snow or icing conditions, all vehicles and equipment must be removed from the roadway and/or shoulder area so as not to interfere with snow and ice operations.

No work shall be authorized during inclement weather: fog, rain, snow, sleet, or ice storms and subsequent snow and ice operations.

The State Highway Layout shall be kept clean of debris of any nature at all times and shall be thoroughly cleaned at the completion of this permit.

At the completion of this permit, all disturbed areas shall be restored to a condition equal or better to that which existed prior to the work.

Any grass areas disturbed within the State Highway Layout shall be graded, loamed to a depth of 4" and seeded.

In addition to the conditions and restrictions herein contained, the Grantee is responsible for complying with any relevant Executive Orders or States of Emergencies that may be issued by the Governor's Office while this permit is

active. The Governor may declare a State of Emergency in the event or imminent threat of natural or man-made disasters. A State of Emergency can cover a specific municipality, multiple communities, or the entire Commonwealth.

Detailed Information on States of Emergencies and Executive Orders can be found on the Mass.GOV website. <a href="https://www.mass.gov/service-details/state-of-emergency-infomation">https://www.mass.gov/service-details/state-of-emergency-infomation</a> and <a href="https://www.mass.gov/massachusetts-executive-orders">https://www.mass.gov/service-details/state-of-emergency-infomation</a> and <a href="https://www.mass.gov/massachusetts-executive-orders">https://www.mass.gov/service-details/state-of-emergency-infomation</a> and <a href="https://www.mass.gov/massachusetts-executive-orders">https://www.mass.gov/service-details/state-of-emergency-infomation</a> and <a href="https://www.mass.gov/massachusetts-executive-orders">https://www.mass.gov/massachusetts-executive-orders</a>

It shall be the responsibility of the Grantee to replace all pavement markings which have been disturbed by this permit. These pavement markings shall be restored within ten (10) days after this work is performed or as deemed necessary by the District Highway Director or an authorized Representative.

Any bound marked MHB shall not be removed or disturbed. If it becomes necessary to remove and reset any highway bounds then the Grantee shall hire a Registered Professional Land Surveyor to perform this work. It shall be the responsibility of this land surveyor to submit to this office a statement in writing and a plan containing his stamp and signature showing that said work has been performed.

The Grantee assumes all risk associated with any environmental condition within the subject property and shall be solely responsible for all costs associated with evaluating, assessing, and remediating, in accordance with all applicable laws, any environmental contamination (1) discovered during Grantee's work or activities under this permit to the extent such evaluation, assessment or remediation is required for Grantee's work, or (2) resulting from Grantee's work or activities under this permit. Grantee shall notify Grantor of any such assessment and remediation activities. The Grantee is hereby held solely responsible for obtaining and maintaining any and all environmental compliance permits required by local, state and federal laws and regulations when regular or emergency work is proposed within, or in close proximity to, any wetland area.

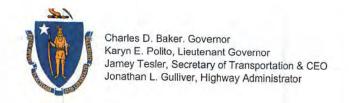
This permit is issued with the stipulation that it may be modified or revoked at any time at the discretion of the District Four Highway Director or an authorized Representative without rendering said Department or the Commonwealth of Massachusetts liable in any way.

The Grantee shall indemnify and hold harmless the Commonwealth and its Highway Division against all suits, claims or liability of every name and nature arising at any time out of or in consequence of the acts of the Grantee in the performance of the work covered by this permit and or failure to comply with terms and conditions of the permit whether by themselves or their employees or subcontractors.

APPLICANT'S REPRESENTATIVE: Sabrina Castaneda, Environmental Partners Group Inc.

TELEPHONE NUMBER: (617) 657-0291 or slc@envpartners.com

ASA/asa July 19, 2023





4-2022-0088

### **Approved Signature**

Paul Stedman by R.R. District Highway Director

Date of Issue: July 21, 2022

Permit Expiration: Wednesday, July 19, 2023

## Town of Lynnfield, Massachusetts

CONSERVATION COMMISSION



55 SUMMER STREET LYNNFIELD, MA 01940 781-334-9495 FAX 781-334-9509

July 21, 2022

Joseph Conway Town of Wakefield 1 Lafayette Street Wakefield MA 01880

RE: ORDER OF CONDITIONS, Bay State Road Water Main DEP #209-0660

Dear Mr. Conway

Enclosed please find the Order of Conditions for the Bay State Road water main project. The original must be recorded at the **Registry of Deeds** with proof of recording bearing the Registry stamp submitted to the Conservation Commission for the files. This permit **expires** on **July 21, 2025**, three years from the date of issuance of your original permit.

It is your responsibility to be aware of all the conditions and requirements contained in this permit. The approved work has been conditioned to prevent adverse impacts to the values of wetland resource areas. The Conservation Administrator will work together with those involved in the project to help ensure that it is completed successfully in compliance with the permit.

Please contact Patrick McDonald to schedule the pre-construction site visit. Any questions, please contact us at (781) 334-9513.

Sincerely,

Emilie Cademartori

Director of Planning & Conservation

cc: DEP, NERO, 205B Lowell Street, Wilmington, MA 01887



### Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands WPA Form 5 - Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: 209-0660 MassDEP File #

eDEP Transaction # Lynnfield, MA City/Town

01880

g. Zip Code

### A. General Information

Please note: this form has been modified with added space to accommodate the Registry of Deeds Requirements

Lynnfield

Conservation Commission

2. This issuance is for (check one):

1 Lafayette Street

d. Mailing Address

Wakefield

e. City/Town

a. Order of Conditions b. Amended Order of Conditions

3. To: Applicant:

1. From:

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

Joseph Conway a. First Name b. Last Name Town of Wakefield c. Organization

Ma

4. Property Owner (if different from applicant):





a. First Name	b. Last Name		
c. Organization	Annear Control		
d. Mailing Address		Marin.	
e. City/Town	f. State	g. Zip Code	

f. State

5. Project Location:

Bay State Rd and Vernon St. ROW Wakefield and Lynnfield a. Street Address b. City/Town N/A N/A c. Assessors Map/Plat Number d. Parcel/Lot Number

Latitude and Longitude, if known:

42d526m700s -71d066m205s d. Latitude e. Longitude



WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: 209-0660 MassDEP File #

eDEP Transaction # Lynnfield, MA City/Town

### A. General Information (cont.)

	Bay St. Road, Main St, & Va. County	Vernon S					
	N/A		b. Certificate Number	b. Certificate Number (if registered land)			
	c. Book		N/A				
			d. Page				
7.	Dates: June 30, 2022  a. Date Notice of Ir	stont Filed	July 19, 2022	July 21, 2022			
8.	Final Approved Plans and as needed):	Other Do	b. Date Public Hearing Close ocuments (attach additional pla	d c. Date of Issuance an or document references			
	Bay State Road Water Ma  a. Plan Title	in Loop					
	Environmental Partners Gr	oup. LLC	Ryan J. Allgrove				
	b. Prepared By	3361	c. Signed and Stampe	nd by			
	June 2022		1" = 20'	d by			
	d. Final Revision Date		e. Scale				
	Stormwater Report		7, 355,6	luna 00 0000			
	f. Additional Plan or Document Ti	tle		June 29, 2022 g. Date			
1.	Following the review of the	above-re	setts Wetlands Protection Act:	hasad on the information			
1.	Following the review of the provided in this application the areas in which work is	above-re and pres	eferenced Notice of Intent and sented at the public hearing, the	in C			
	Following the review of the provided in this application	above-re and pres proposed neck all th	eferenced Notice of Intent and sented at the public hearing, the	is Commission finds that nterests of the Wetlands  Prevention of			
a.	Following the review of the provided in this application the areas in which work is protection Act (the Act). Cr	above-re and pres proposed neck all th	eferenced Notice of Intent and sented at the public hearing, th I is significant to the following in at apply:	is Commission finds that nterests of the Wetlands			
1. a. d.	Following the review of the provided in this application the areas in which work is protection Act (the Act). Cr	above-re and presproposed heck all the b.  e.  h.  h.	eferenced Notice of Intent and sented at the public hearing, the significant to the following in at apply:  Land Containing Shellfish  Fisheries  Storm Damage Prevention i.	is Commission finds that nterests of the Wetlands  Prevention of Pollution Protection of Wildlife Habitat  Flood Control			
a.	Following the review of the provided in this application the areas in which work is protection Act (the Act). Cr	above-re and presproposed heck all the b.  e.  h.  h.	eferenced Notice of Intent and sented at the public hearing, the significant to the following in at apply:  Land Containing Shellfish  f.	is Commission finds that nterests of the Wetlands  Prevention of Pollution Protection of Wildlife Habitat  Flood Control			
a. d.	Following the review of the provided in this application the areas in which work is protection Act (the Act). Cr	above-re and presproposed heck all the b.  e.  h.  h.	eferenced Notice of Intent and sented at the public hearing, the significant to the following in at apply:  Land Containing Shellfish  Fisheries  Storm Damage Prevention i.	is Commission finds that nterests of the Wetlands  Prevention of Pollution Protection of Wildlife Habitat  Flood Control			



### WPA Form 5 - Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: 209-0660
MassDEP File #

eDEP Transaction # Lynnfield, MA City/Town

### B. Findings (cont.)

#### Denied because:

- Buffer Zone Impacts: Shortest distance between limit of project disturbance and the wetland resource area specified in 310 CMR 10.02(1)(a)

Inland Resource Area Impacts: Check all that apply below. (For Approvals Only)

Re	esource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
4.	Bank				· · · · · · · · · · · · · · · · · · ·
		a. linear feet	b. linear feet	c. linear feet	d. linear feet
5.	⊠ Bordering	50	50	50	50
6.	Vegetated Wetland  Land Under	a. square feet	b. square feet	c. square feet	d. square feet
	Waterbodies and Waterways	a. square feet	b. square feet	c. square feet	d. square feet
		e. c/y dredged	f. c/y dredged		
7.	⊠ Bordering Land	230	230	230	230
	Subject to Flooding	a. square feet	b. square feet	c. square feet	d. square feet
	Cubic Feet Flood Storage				
8.	☐ Isolated Land	e, cubic feet	f. cubic feet	g. cubic feet	h. cubic feet
	Subject to Flooding	a. square feet	b. square feet		
	Cubic Feet Flood Storage				
	20,000	c. cubic feet	d. cubic feet	e. cubic feet	f. cubic feet
9.	□ Riverfront Area	1700			
		a. total sq. feet	b. total sq. feet		
	Sq ft within 100 ft	1330			
	= 1	c. square feet	d. square feet	e. square feet	f. square feet
	Sq ft between 100-	370			,, - 4-61 6 1000
	200 ft	g. square feet	h. square feet	i. square feet	j. square feet



### WPA Form 5 - Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: 209-0660

MassDEP File #

eDEP Transaction # Lynnfield, MA City/Town

### B. Findings (cont.)

C	oastal Resource Area Im	pacts: Check all t	hat apply below.	(For Approvals	Only)
		Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
10	<ul> <li>Designated Port Areas</li> </ul>	Indicate size	under Land Und	er the Ocean, bel	
11			and Edita Ond	er the Ocean, bei	OW
	Ocean	a. square feet	b. square feet		
		c. c/y dredged	d. c/y dredged		
12.	Barrier Beaches	Indicate size below	under Coastal Be	eaches and/or Co	pastal Dunes
13.	Coastal Beaches			cu yd	cu yd
		a. square feet	b. square feet	c. nourishment	d. nourishment
14.	☐ Coastal Dunes	a. square feet	b. square feet	c. nourishment	cu yd
15.	☐ Coastal Banks		o. square reet	c. nourishment	d. nourishment
	=	a. linear feet	b. linear feet		
16.	Rocky Intertidal				
		a. square feet	b. square feet		
17.		a. square feet	b. square feet	c. square feet	
18.	Crider Cuit			o. Square leet	d. square feet
	Ponds	a. square feet	b. square feet		
		c. c/y dredged	d. c/y dredged		
19.			,		
	Shellfish	a. square feet	b. square feet	c. square feet	d. square feet
20.	☐ Fish Runs	Indicate size u	inder Coastal Ba	anks, Inland Bank	Land Under
		the Ocean, an Waterways, al	d/or inland Land	Under Waterboo	lies and
		a. c/y dredged	b. c/y dredged		
21.	Land Subject to		o, ory areaged		
	Coastal Storm Flowage	a. square feet	b. square feet		
22.	☐ Riverfront Area				
-	INVOITOR AIGA	a. total sq. feet	b. total sq. feet		
	Sq ft within 100 ft		Seepalli		
	Sq ft between 100-	c. square feet	d. square feet	e. square feet	f. square feet
	200 ft	g. square feet	h. square feet	i. square feet	j. square feet



WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: 209-0660 MassDEP File #

eDEP Transaction # Lynnfield, MA

	B	. Findings (cont.)	City/Town			
* #23. If the project is for the purpose o	23. f	Restoration/Enhancement *:				
restoring or enhancing a		a. square feet of BVW	b. square feet of salt marsh			
wetland resource area in addition to	24.	Stream Crossing(s):				
the square footage that		a. number of new stream crossings	h number of sealesses to			
has been entered in Section B.5.c	C.	General Conditions Under Massacl	b. number of replacement stream crossings nusetts Wetlands Protection Act			
(BVW) or B.17.c (Salt	Th	e following conditions are only applicable	to Approved projects			
Marsh) above,	1	Failure to comply with all conditions at a 11	to Approved projects.			
please enter the additional		and the state of t				
amount here.		authorize any injury to private property or invasion of private rights				
	3.	<ol> <li>This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.</li> </ol>				
	4.	The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:				
		<ul> <li>a. The work is a maintenance dredging project as provided for in the Act; or</li> <li>b. The time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.</li> </ul>				
	<ol> <li>If the work is for a Test Project, this Order of Conditions shall be valid for one year.</li> </ol>					
	5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order. An Order of Conditions for a Test Project may be extended for one additional year only upon written application by the applicant, subject to the provisions of 310 CMR 10.05(11)(f).					
7	<ol> <li>If this Order constitutes an Amended Order of Conditions, this Amended Order of Conditions does not extend the issuance date of the original Final Order of Conditions and the Order will expire on unless extended in writing by the Department.</li> </ol>					
	7.	Any fill used in connection with this project sh refuse, rubbish, or debris, including but not lin paper, cardboard, pipe, tires, ashes, refrigerationegoing.	all be clean fill. Any fill shall contain no trash,			



## WPA Form 5 - Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: 209-0660

MassDEP File #

eDEP Transaction # Lynnfield, MA City/Town

# C. General Conditions Under Massachusetts Wetlands Protection Act

- This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.
- 9. No work shall be undertaken until the Order has become final and then has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to the Conservation Commission on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work.
- A sign shall be displayed at the site not less then two square feet or more than three square feet in size bearing the words,

"Massachusetts Department of Environmental Protection" [or, "MassDEP"]

"File Number

209-0660

- 11. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before MassDEP.
- Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Conservation Commission.
- 13. The work shall conform to the plans and special conditions referenced in this order.
- 14. Any change to the plans identified in Condition #13 above shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.
- 15. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.
- 16. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.



## WPA Form 5 - Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: 209-0660 MassDEP File #

eDEP Transaction # Lynnfield, MA City/Town

# C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

- 17. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission.
- 18. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.
- 19. The work associated with this Order (the "Project")
  (1) ∑ is subject to the Massachusetts Stormwater Standards
  (2) ☐ is NOT subject to the Massachusetts Stormwater Standards

If the work is subject to the Stormwater Standards, then the project is subject to the following conditions:

- a) All work, including site preparation, land disturbance, construction and redevelopment, shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Construction General Permit as required by Stormwater Condition 8. Construction period erosion, sedimentation and pollution control measures and best management practices (BMPs) shall remain in place until the site is fully stabilized.
- b) No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that: *i.* all construction period BMPs have been removed or will be removed by a date certain specified in the Certification. For any construction period BMPs intended to be converted to post construction operation for stormwater attenuation, recharge, and/or treatment, the conversion is allowed by the MassDEP Stormwater Handbook BMP specifications and that the BMP has been properly cleaned or prepared for post construction operation, including removal of all construction period sediment trapped in inlet and outlet control structures; *ii.* as-built final construction BMP plans are included, signed and stamped by a Registered Professional Engineer, certifying the site is fully stabilized; *iii.* any illicit discharges to the stormwater management system have been removed, as per the requirements of Stormwater Standard 10:



## WPA Form 5 - Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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# C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

iv. all post-construction stormwater BMPs are installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure that they are not damaged and that they are in proper working condition;

 $\nu$ . any vegetation associated with post-construction BMPs is suitably established to withstand erosion.

- c) The landowner is responsible for BMP maintenance until the issuing authority is notified that another party has legally assumed responsibility for BMP maintenance. Prior to requesting a Certificate of Compliance, or Partial Certificate of Compliance, the responsible party (defined in General Condition 18(e)) shall execute and submit to the issuing authority an Operation and Maintenance Compliance Statement ("O&M Statement) for the Stormwater BMPs identifying the party responsible for implementing the stormwater BMP Operation and Maintenance Plan ("O&M Plan") and certifying the following:
  - i.) the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and
  - ii.) the future responsible parties shall be notified in writing of their ongoing legal responsibility to operate and maintain the stormwater management BMPs and implement the Stormwater Pollution Prevention Plan.
- d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Multi-Sector General Permit.
- e) Unless and until another party accepts responsibility, the landowner, or owner of any drainage easement, assumes responsibility for maintaining each BMP. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement of record, acceptable to the issuing authority, evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 18(f) through 18(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 18(f) through 18(k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.
- f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the O&M Plan, and the requirements of the Massachusetts Stormwater Handbook.



### WPA Form 5 - Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: 209-0660 MassDEP File #

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## C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

- g) The responsible party shall:
  - Maintain an operation and maintenance log for the last three (3) consecutive calendar years of inspections, repairs, maintenance and/or replacement of the stormwater management system or any part thereof, and disposal (for disposal the log shall indicate the type of material and the disposal location);

 Make the maintenance log available to MassDEP and the Conservation Commission ("Commission") upon request; and

- Allow members and agents of the MassDEP and the Commission to enter and inspect the site to evaluate and ensure that the responsible party is in compliance with the requirements for each BMP established in the O&M Plan approved by the issuing authority.
- All sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.
- i) Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.
- j) The stormwater management system approved in the Order of Conditions shall not be changed without the prior written approval of the issuing authority.
- k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit (as defined in the MassDEP Stormwater Handbook, Volume 3, Chapter 1, Low Impact Development Site Design Credits) shall not be altered without the prior written approval of the issuing authority.
- Access for maintenance, repair, and/or replacement of BMPs shall not be withheld.
   Any fencing constructed around stormwater BMPs shall include access gates and shall be at least six inches above grade to allow for wildlife passage.

Special Conditions (if you need more space for additional conditions, please attach a text document):

20. For Test Projects subject to 310 CMR 10.05(11), the applicant shall also implement the monitoring plan and the restoration plan submitted with the Notice of Intent. If the conservation commission or Department determines that the Test Project threatens the public health, safety or the environment, the applicant shall implement the removal plan submitted with the Notice of Intent or modify the project as directed by the conservation commission or the Department.



#### WPA Form 5 - Order of Conditions

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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: 209-0660 MassDEP File #

eDEP Transaction # Lynnfield, MA City/Town

## D. Findings Under Municipal Wetlands Bylaw or Ordinance

1.	15 0	municipal wetlands bylaw or ordinance ap	pplicable? 🖂 Yes	□ No
2.	The	Lynnfield Conservation Commission	hereby finds (ch	neck one that applies):
	a.	☐ that the proposed work cannot be con- municipal ordinance or bylaw, specifically	ditioned to meet the star:	andards set forth in a
		Municipal Ordinance or Bylaw		2. Citation
		Therefore, work on this project may not go Intent is submitted which provides measu standards, and a final Order of Conditions	res which are adequate	ntil a revised Notice of e to meet these
		that the following additional conditions ordinance or bylaw:	are necessary to comp	oly with a municipal
		Wetland Protection		Ch 240
		Municipal Ordinance or Bylaw		2. Citation

3. The Commission orders that all work shall be performed in accordance with the following conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, the conditions shall control.

The special conditions relating to municipal ordinance or bylaw are as follows (if you need more space for additional conditions, attach a text document):

The Applicant has requested a Variance from the provisions of Regulation 320-2(a) of the Regulations of the Conservation Commission of the Town of Lynnfield established pursuant to the Lynnfield Wetland Protection Bylaw for the following activity within the 25-foot "No-Disturb Zone" and 50-foot "No build Zone":

 Temporary disturbance to bordering vegetated wetland due to the installation of water main at Saugus River bridge crossing.

After holding a Public Hearing and considering written and oral testimony, the Conservation Commission finds that (a.) literal compliance with Regulation 320-2(a) of the Regulations of the Conservation Commission of the Town of Lynnfield would cause substantial hardship because of conditions peculiar to the project location and not shared generally by property owners within the Town of Lynnfield; (b.) the hardship is not being created by the Applicant himself; and (c.) the Variance will only result in temporary harm to the values protected by the Bylaw. The Conservation Commission hereby grants the requested waiver.



## WPA Form 5 - Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: 209-0660

MassDEP File #

eDEP Transaction # Lynnfield, MA City/Town

### E. Signatures

This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.

Please indicate the number of members who will sign this form.

This Order must be signed by a majority of the Conservation Commission.

7/19/2022 1. Date of Issuance

2. Number of Signers

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate Department of Environmental Protection Regional Office, if not filing electronically, and the property owner, if different from applicant.

Signatures:	THO?
Buju Faste	
by hand delivery on	by certified mail, return receipt requested, on
Date	Date 21, 2022

#### F. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate MassDEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request for Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order associated with this appeal will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order, or providing written information to the Department prior to issuance of a Superseding Order.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40), and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.



# WPA Form 5 - Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: 209-0660

MassDEP File #

eDEP Transaction # Lynnfield, MA City/Town

### G. Recording Information

Prior to commencement of work, this Order of Conditions must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Conditions. The recording information on this page shall be submitted to the Conservation Commission listed below.

Lynnfield		
Conservation Commission		
Detach on dotted line, have stamped by the Regis Commission.	stry of Deeds and	
To:		
Lynnfield		
Conservation Commission	11.11	
Please be advised that the Order of Conditions for	or the Project at:	
Bay State Rd and Vernon St.		
Project Location	MassDEP File Nu	mber
Has been recorded at the Registry of Deeds of:		
County	Book	Page
for: Property Owner		
and has been noted in the chain of title of the affe	ected property in:	
Book	Page	
In accordance with the Order of Conditions issued	d on:	
Date		4
If recorded land, the instrument number identifyin	g this transaction	is:
Instrument Number	The state of the s	
f registered land, the document number identifyin	g this transaction	is:
Document Number	****	
Signature of Applicant		



Important:
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

# Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands

# Request for Departmental Action Fee Transmittal Form

Provided by DEP

DEP File Number:

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

#### A. Request Information

Bay State Rd. and Vernon Street					
a. Street Address	Wakefield/Lynnfield MA 01880 b. City/Town, Zip	Wakefield/Lynnfield MA 01880; 01940 b. City/Town, Zip d. Fee amount			
c. Check number	d. Fee amount				
Person or party making request (if appropriate, name the citizen group's representative):					
Ryan Allgrove, Environmental Partne	ers, LLC				
18 Commerce Way					
Mailing Address		- mag from			
Woburn		20200			
City/Town	MA State	01801			
617-657-0281	State	Zip Code			
Phone Number	Fax Number (if applica	ible)			
<ol> <li>Applicant (as shown on Determination (Form 4B), Order of Conditions (Form Non-Significance (Form 6)):</li> <li>Joseph Conway, Wakefield DPW</li> </ol>	A CONTROL OF THE CONT				
Name					
1 Lafayette Street		-			
1100.00		17000			
1 Lafayette Street	140				
1 Lafayette Street Mailing Address	MA State	01880			
1 Lafayette Street Mailing Address Wakefield	State	01880 Zip Code			
1 Lafayette Street Mailing Address Wakefield City/Town	State 781-246-6266	Zip Code			
1 Lafayette Street Mailing Address Wakefield City/Town 781-246-6307	State	Zip Code			
1 Lafayette Street Mailing Address Wakefield City/Town 781-246-6307 Phone Number	State 781-246-6266	Zip Code			
1 Lafayette Street Mailing Address Wakefield City/Town 781-246-6307 Phone Number	State 781-246-6266	Zip Code			
1 Lafayette Street  Mailing Address  Wakefield City/Town 781-246-6307 Phone Number  4. DEP File Number:	State 781-246-6266 Fax Number (if applica	Zip Code			
1 Lafayette Street  Mailing Address  Wakefield City/Town 781-246-6307 Phone Number  4. DEP File Number:	State 781-246-6266 Fax Number (if applica	Zip Code			
1 Lafayette Street  Mailing Address  Wakefield City/Town 781-246-6307 Phone Number  4. DEP File Number:  B. Instructions  1. When the Departmental action reques	State 781-246-6266 Fax Number (if applica	Zip Code			
1 Lafayette Street  Mailing Address  Wakefield City/Town 781-246-6307 Phone Number  4. DEP File Number:  B. Instructions  1. When the Departmental action reques  Superseding Order of Conditions	State 781-246-6266 Fax Number (if applicant is for (check one):  — Fee: \$120.00 (single family house projects) or	Zip Code			

wpaform5.doc • rev. 4/22/2015



Request for Departmental Action Fee Transmittal Form

DEP File Number:

Provided by DEP

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Instructions (cont.)

Send this form and check or money order, payable to the Commonwealth of Massachusetts, to:

Department of Environmental Protection Box 4062 Boston, MA 02211

- On a separate sheet attached to this form, state clearly and concisely the objections to the
  Determination or Order which is being appealed. To the extent that the Determination or Order is
  based on a municipal bylaw, and not on the Massachusetts Wetlands Protection Act or regulations,
  the Department has no appellate jurisdiction.
- Send a copy of this form and a copy of the check or money order with the Request for a Superseding Determination or Order by certified mail or hand delivery to the appropriate DEP Regional Office (see <a href="http://www.mass.gov/eea/agencies/massdep/about/contacts/">http://www.mass.gov/eea/agencies/massdep/about/contacts/</a>).
- A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.



# WPA Form 2 - Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

#### A. General Information Important: From: When filling out forms on the Wakefield computer, use Conservation Commission only the tab key to move To: Applicant Property Owner (if different from applicant): your cursor do not use the Town of Wakefield, Joseph Conway, DPW return key. Name Name 1 Lafayette Street Mailing Address Mailing Address Wakefield MA 01880 City/Town State Zip Code City/Town State Zip Code 1. Title and Date (or Revised Date if applicable) of Final Plans and Other Documents: Bay State Road Water Main Loop June 2022 Date Title Date Title Date 2. Date Request Filed: 2022 B. Determination Pursuant to the authority of M.G.L. c. 131, § 40, the Conservation Commission considered your Request for Determination of Applicability, with its supporting documentation, and made the following Determination. Project Description (if applicable): Install approximately 270 LF of 8-inch water main in Bay State Road and approximately 70 LF in Vernon Street all within the buffer to BVW and the riverfront area. Project Location: Bay State Road and Vernon Street Wakefield

City/Town

Parcel/Lot Number

Street Address

Town Right-of-Way
Assessors Map/Plat Number



# WPA Form 2 - Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

#### B. Determination (cont.)

The following Determination(s) is/are applicable to the proposed site and/or project relative to the Wetlands Protection Act and regulations: Positive Determination Note: No work within the jurisdiction of the Wetlands Protection Act may proceed until a final Order of Conditions (issued following submittal of a Notice of Intent or Abbreviated Notice of Intent) or Order of Resource Area Delineation (issued following submittal of Simplified Review ANRAD) has been received from the issuing authority (i.e., Conservation Commission or the Department of Environmental Protection). 1. The area described on the referenced plan(s) is an area subject to protection under the Act. Removing, filling, dredging, or altering of the area requires the filing of a Notice of Intent. 2a. The boundary delineations of the following resource areas described on the referenced plan(s) are confirmed as accurate. Therefore, the resource area boundaries confirmed in this Determination are binding as to all decisions rendered pursuant to the Wetlands Protection Act and its regulations regarding such boundaries for as long as this Determination is valid. 2b. The boundaries of resource areas listed below are not confirmed by this Determination, regardless of whether such boundaries are contained on the plans attached to this Determination or to the Request for Determination. 3. The work described on referenced plan(s) and document(s) is within an area subject to protection under the Act and will remove, fill, dredge, or alter that area. Therefore, said work requires the filing of a Notice of Intent. 4. The work described on referenced plan(s) and document(s) is within the Buffer Zone and will alter an Area subject to protection under the Act. Therefore, said work requires the filing of a Notice of Intent or ANRAD Simplified Review (if work is limited to the Buffer Zone). ☐ 5. The area and/or work described on referenced plan(s) and document(s) is subject to review. and approval by: Name of Municipality Pursuant to the following municipal wetland ordinance or bylaw:

Name

Ordinance or Bylaw Citation



# WPA Form 2 – Determination of Applicability Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. [	etermination (cont.)
	6. The following area and/or work, if any, is subject to a municipal ordinance or bylaw but <u>not</u> subject to the Massachusetts Wetlands Protection Act:
	1.7.16=11.00=11.00=1
L	7. If a Notice of Intent is filed for the work in the Riverfront Area described on referenced plan(s) and document(s), which includes all or part of the work described in the Request, the applicant must consider the following alternatives. (Refer to the wetland regulations at 10.58(4)c. for more information about the scope of alternatives requirements):
	Alternatives limited to the lot on which the project is located.
	Alternatives limited to the lot on which the project is located, the subdivided lots, and any adjacent lots formerly or presently owned by the same owner.
	Alternatives limited to the original parcel on which the project is located, the subdivided parcels, any adjacent parcels, and any other land which can reasonably be obtained within the municipality.
	Alternatives extend to any sites which can reasonably be obtained within the appropriate region of the state.
De on re at	egative Determination  Ite: No further action under the Wetlands Protection Act is required by the applicant. However, if the partment is requested to issue a Superseding Determination of Applicability, work may not proceed this project unless the Department fails to act on such request within 35 days of the date the quest is post-marked for certified mail or hand delivered to the Department. Work may then proceed the owner's risk only upon notice to the Department and to the Conservation Commission.  Quirements for requests for Superseding Determinations are listed at the end of this document.
	The area described in the Request is not an area subject to protection under the Act or the Buffer Zone.
	2. The work described in the Request is within an area subject to protection under the Act, but w not remove, fill, dredge, or alter that area. Therefore, said work does not require the filing of a Notice of Intent.
M	3. The work described in the Request is within the Buffer Zone, as defined in the regulations, but will not alter an Area subject to protection under the Act. Therefore, said work does not require the filing of a Notice of Intent, subject to the following conditions (if any).
	attached conditions 1 through 5
Ó	4. The work described in the Request is not within an Area subject to protection under the (including the Buffer Zone). Therefore, and work the



# WPA Form 2 – Determination of Applicability Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Determination (cont.)					
5. The area described in the Required described therein meets the requirements the regulations, no Notice of International Control of Internati	uest is subject to protection under the Act. Since the work irements for the following exemption, as specified in the Act and it is required:				
Exempt Activity (site applicable statuatory/regu	Exempt Activity (site applicable statuatory/regulatory provisions)   6. The area and/or work described in the Request is not subject to review and approval by:				
☐ 6. The area and/or work described					
Name of Municipality					
Pursuant to a municipal wetlands ordin	nance or bylaw.				
Name	Ordinance or Bylaw Citation				
C. Authorization	Ordinarios of Bylaw Orlation				
This Determination is issued to the applica	ant and delivered as follows:				
by hand delivery on      8 - 1 - 3 3	by certified mail, return receipt requested on				
Date	Date				
Vogotation Management Flans Which are	from the date of issuance (except Determinations for valid for the duration of the Plan). This Determination does not all other applicable federal, state, or local statutes, ordinances,				
This Determination must be signed by a m the appropriate DEP Regional Office (see by-community) and the property owner (if o	ajority of the Conservation Commission. A copy must be sent to <a href="https://www.mass.gov/service-details/massdep-regional-offices-different">https://www.mass.gov/service-details/massdep-regional-offices-different</a> from the applicant).				



# WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

ignature	Printed Name  Printed Name
igriature	Printed Name
ignature	District Control of the Control of t
Signature	Printed Name
Signature	Printed Name
Signature Color O. O.	Printed Name
Gerature Teva & A Belinite	Printed Name TOUSE A. Belmate
Signature /	Printed Name
Track Trees	FRANK J LUCIANI TR
Signatures: 1	

#### D. Appeals

The applicant, owner, any person aggrieved by this Determination, any owner of land abutting the land upon which the proposed work is to be done, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate Department of Environmental Protection Regional Office (see <a href="https://www.mass.gov/service-details/massdep-regional-offices-by-community">https://www.mass.gov/service-details/massdep-regional-offices-by-community</a>) to issue a Superseding Determination of Applicability. The request must be made by certified mail or hand delivery to the Department, with the appropriate filling fee and Fee Transmittal Form (see Request for Departmental Action Fee Transmittal Form) as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Determination. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant if he/she is not the appellant. The request shall state clearly and concisely the objections to the Determination which is being appealed. To the extent that the Determination is based on a municipal ordinance or bylaw and not on the Massachusetts Wetlands Protection Act or regulations, the Department of Environmental Protection has no appellate jurisdiction.

# Determination of Applicability Town of Wakefield Bay State Road Water Main Loop

## Negative Determination with additional conditions:

- 1) Haybales shall be installed at the edge of the roadway,
- 2) Silt sacks shall be installed in all catch basins within limit of word area,
- 3) There shall be no stockpiling of any material on site,
- 4) All trenches shall be backfilled or covered with plates at the end of the day, and
- 5) There shall be a dewatering plan submitted to the Conservation Commission prior to the commencement of work.



June 28, 2022

Wakefield Conservation Commission Town Hall 1 Lafayette Street Wakefield, MA 01880

RE: Request for Determination of Applicability Bay State Road Water Main Loop MassDEP Transmittal No. X289028

#### Dear Commissioners:

On behalf of the Wakefield Department of Public Works, Environmental Partners (EP) has prepared this cover letter and attachments for a Request for Determination of Applicability (RDA) regarding the proposed Bay State Road Water Main Loop Project. The following documents are attached to this letter:

- Attachment A RDA Application
- Attachment B GIS Locus Maps
- Attachment C Wetland Delineation Report
- Attachment D Design Plans

#### Project Description

The aim of this project is to loop the two dead ends of the Wakefield water system on Vernon Street and Bay State Road to increase available fire flows and improve water quality. The loop will also provide a location for a future interconnection with the Lynnfield Center Water District (LCWD). The work includes installing new 8-inch water main on Bay State Road from the Town line to Main Street in Lynnfield and along Main Street to the intersection of Vernon Street and Indian Road. The total length of installation is approximately 2,250 LF. Approximately 340 LF of installation occurs within Wakefield Town limits (270 LF on Bay State Road and 70 LF on Vernon Street).

The water main alignment and environmental resource areas are included on the locus map within Attachment B and shown on the design plans. Trenches will be backfilled or plated at the end of each day and paved on a weekly basis.

### Impacts to Wetland Resource Areas

Pine Brook Consulting completed a wetland delineation report in June 2021 for EP, which is included in Attachment C. Within Wakefield, the proposed alignment falls within the 200-foot Riverfront Area and the bordering vegetated wetland (BVW) 100-foot buffer zone on Vernon Street and within the BVW 100-foot buffer zone associated with a drainage channel on the south side of Bay State Road.

The water main construction will remain within the Town's right-of-way and shall not affect wetland vegetation. Therefore, no re-vegetation plan is included. Filter sock and catch basin protection shall be required and maintained around environmental resource areas during construction activities as called out on the plans. The above project erosion and environmental controls will be installed and maintained during construction. All staging areas soil stockpiles shall be outside of the 100-foot wetland buffer and the 200-foot Riverfront Area.

#### Proposed Environmental Protection Measures

In order to mitigate impacts to bordering vegetated and isolated wetlands buffer zones during construction activities, the following environmental protection measures will be provided.

- Erosion and sedimentation control devices (i.e. filter sock) will be installed along the roadways
  adjacent to wetland resources as shown on the environmental control plans. These control
  devices will control sedimentation and erosion from the upland areas and also serve to define
  the upland limits of work. Erosion and sedimentation control devices will be inspected daily
  during the construction period. The filter sock will be installed wherever work is performed
  within a buffer zone.
- Silt sacks will be installed in each catch basin to avoid transmission of sediment to downstream wetland resource areas.
- Stockpiles of aggregate materials (sand, gravel, and stone) will not be maintained on-site.
   Materials will be delivered on an as-needed basis.

#### Request for Negative Determination

Environmental Partners requests a negative determination for this project, as it is exempt per the Massachusetts Wetlands Protection Act, 310 CMR, which has minor activities within the wetland buffer, as defined by 10.02(2)(b)2.i;

"Installation of underground utilities (e.g., electric, gas, water) within existing paved or unpaved roadways and private roadways/driveways, provided that all work is conducted within the roadway or driveway and that all trenches are closed at the completion of each workday;"

The proposed project does not extend into the wetlands and will be performed in a manner to reduce the potential for any adverse impacts to the resource area during construction.

Please do not hesitate to contact me with any questions.

Sincerely,

**Environmental Partners Group** 

Ryand. Allgrove, P.E.

Project Manager P: 617.657.0281

E: rja@envpartners.com

CC: Joseph Conway, Director, Wakefield Department of Public Works

William Renault, P.E., Town Engineer, Town of Wakefield

# ATTACHMENT A RDA Application



# **Massachusetts Department of Environmental Protection**

Bureau of Resource Protection - Wetlands

Wakefield City/Town

# WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

#### A. General Information

Important: When filling out 1. forms on the computer, use only the tab key to move your cursor - do not use the return key.





1.	Applicant:					
	Town of Wakefield, Joseph Conway, Director of P	ublic Works iconway@wak	jconway@wakefield.ma.us			
	Name	E-Mail Address				
	1 Lafayette Street					
	Mailing Address					
	Wakefield	MA	01880			
	City/Town	State	Zip Code			
	781-246-6307	781-246-6266				
	Phone Number	Fax Number (if a	oplicable)			
2.	Representative (if any):					
	Environmental Partners Group, LLC					
	Firm					
	Ryan J. Allgrove	rja@envpartne	ers.com			
	Contact Name	E-Mail Address				
	18 Commerce Way					
	Mailing Address					
	Woburn	MA	01801			
	City/Town	State	Zip Code			
	617-657-0281					
B.	Determinations					
1.		e the following determination(s).	Check any that apply:			
	Conservation Commission					
	a. whether the area depicted on plan(s) and jurisdiction of the Wetlands Protection Act.	d/or map(s) referenced below is	an area subject to			
	b. whether the <b>boundaries</b> of resource area(s) depicted on plan(s) and/or map(s) referenced below are accurately delineated.					
	c. whether the work depicted on plan(s) referenced below is subject to the Wetlands Protection Act.					
	d. whether the area and/or work depicted on plan(s) referenced below is subject to the jurisdiction of any <b>municipal wetlands ordinance</b> or <b>bylaw</b> of:					
	Town of Wakefield					
	Name of Municipality					
	<ul> <li>e. whether the following scope of alternational depicted on referenced plan(s).</li> </ul>	ves is adequate for work in the	Riverfront Area as			



Wakefield City/Town

# WPA Form 1- Request for Determination of Applicability Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

^	D		-	- T	4.0
C.	Pro	ect	Des	crir	otion
					201011

Parcel/Lot Number
June 2022
Date
Date
Date



Wakefield City/Town

## WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

#### C. Project Description (cont.)

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

310 CMR 10.02(2)(b)2.i Installation of underground utilities (e.g., electric, gas, water) within existing paved or unpaved roadways and private roadways/driveways, provided that all work is conducted within the roadway or driveway and that all trenches are closed at the completion of each workday;

3.		If this application is a Request for Determination of Scope of Alternatives for work in the erfront Area, indicate the one classification below that best describes the project.
		Single family house on a lot recorded on or before 8/1/96
		Single family house on a lot recorded after 8/1/96
		Expansion of an existing structure on a lot recorded after 8/1/96
		Project, other than a single-family house or public project, where the applicant owned the lot before 8/7/96
		New agriculture or aquaculture project
		Public project where funds were appropriated prior to 8/7/96
		Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
		Residential subdivision; institutional, industrial, or commercial project
		Municipal project
		District, county, state, or federal government project
		Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.
	b.	Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification

above (use additional paper and/or attach appropriate documents, if necessary.)



Wakefield City/Town

## WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

#### D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

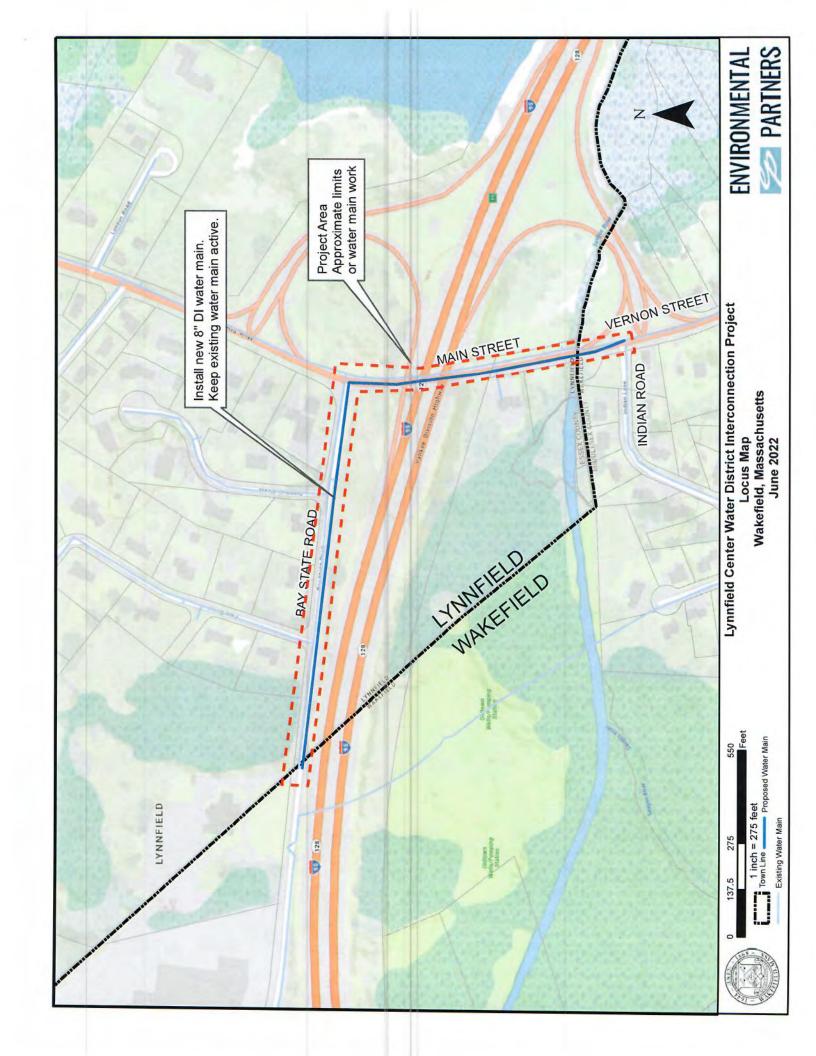
I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

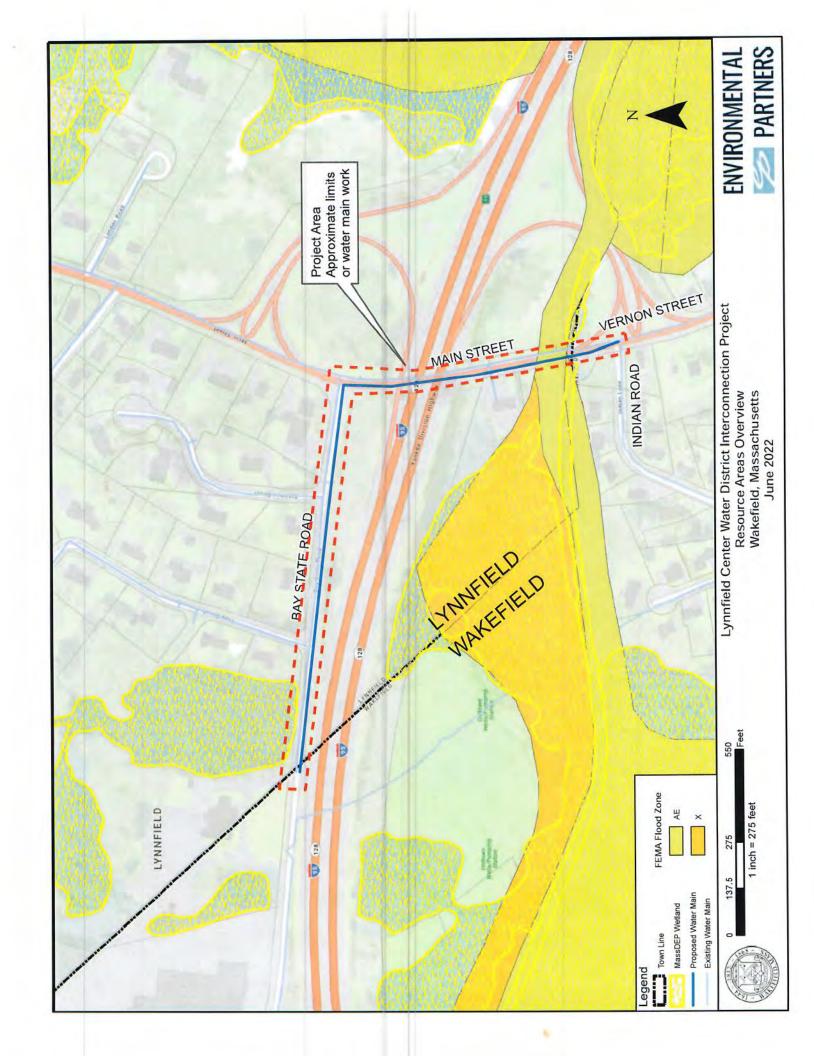
Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

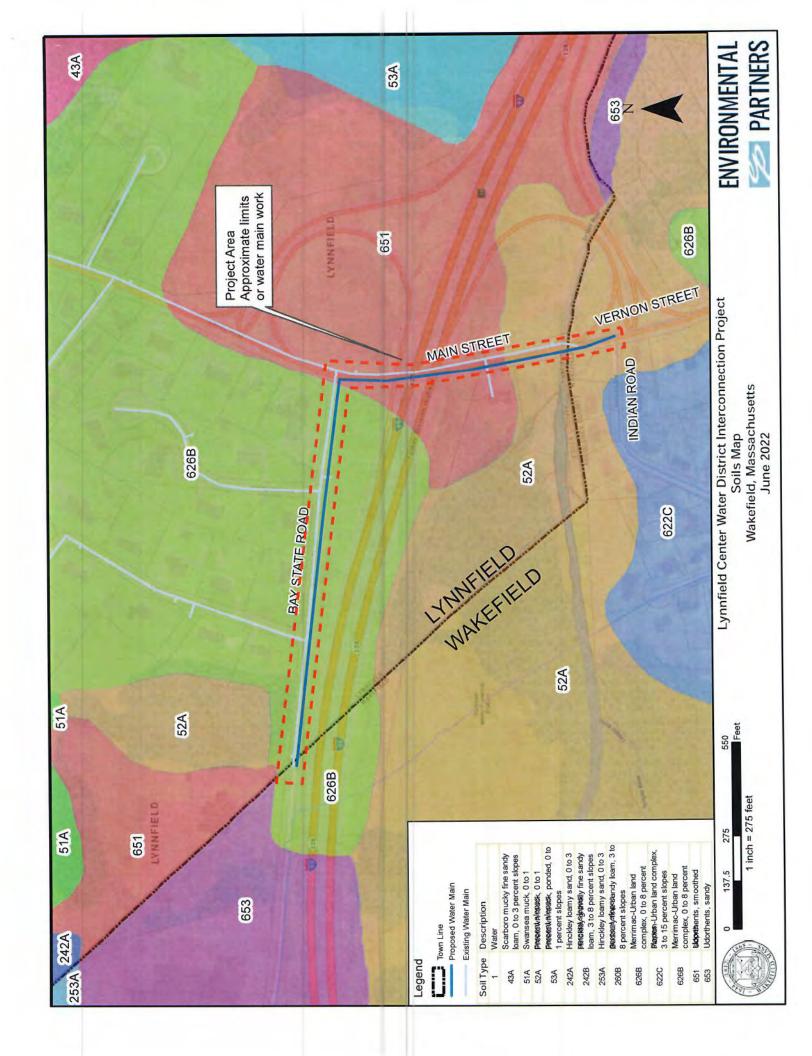
Town of Wakefield	ingrandra de de la constante d
Name	
1 Lafayette St.	
Mailing Address	
Wakefield	
City/Town	
Massachusetts	01880
State	Zip Code
o understand that notification of this Request will cordance with Section 10.05(3)(b)(1) of the Wetla	be placed in a local newspaper at my expense ands Protection Act regulations.
A A .	A SECTION OF THE SECT
Cr. Cimm	6-28-2022
Signature of Applicant	6-88-2072 Date
Signature of Applicant  Signature of Representative (if any)	

# ATTACHMENT B

GIS Locus Map







# ATTACHMENT C

Wetland Delineation Report

# **PINEBROOK**



# **CONSULTING**

September 9, 2021

ENVIRONMENTAL PARTNERS GROUP 18 Commerce Way, Suite 2000 Woburn, Massachusetts 01801 Attention: Sabrina Castaneda, Project Engineer

RE: Wetland Delineation for Lynnfield Water District Interconnection Project Main Street/Bay State Road, Wakefield, Massachusetts

#### Dear Sabrina:

On June 8, 2021; at your request; I identified/delineated the wetland resource areas; as defined under the Massachusetts Wetlands Protection Act (M.G.L. Chapter 131, Section 40) and the associated regulations, 310 CMR 10.00 (Regulations) and the Town of Wakefield Wetlands Protection By-law (By-law); in the vicinity of the above-referenced roadways (Project Area). Specifically, the stretch of Main Street from Vernon Street in Wakefield into Lynnfield to Bay State Road and into Wakefield (Project Area). The purpose of the delineation was to identify the wetland resource areas within the jurisdictional 100 and 200-foot riverfront area and the 100-foot buffer zone of the work to be conducted for the Lynnfield Water District Interconnection Project proposed by the Town of Wakefield Water Department (Project). The following provides a description of my findings.

Four resource areas; defined under Section 10.54, 10.56, 10.58 and 10.55 of the Regulations and under the By-law as bank, land under a waterbody/waterway (intermittent stream), riverfront and bordering vegetated wetland (BVW), respectively were identified within the Project Area. The Saugus River (River); a perennial stream; flows in an easterly direction under Main Street and was identified with orange flags labeled MHWA-1 thru MHWA-6; MHWA-100 thru MHWA-105; MHWB-1 thru MHWB-6; and MHW B-100 thru MHWB-103. In this instance the River is well-defined by top of the bank(s) which is the location from which the 100 and 200-foot riverfront is measured onto the Project Area. The BVW's located at different locations within the Project Area were identified with pink flags labeled WFA-1 thru WFA-4; WFA-100 thru WFA-105; WFB-1 thru WFB-4; WFB-100 thru WFB-104; WFC-1 thru WFC-8; WFD-1 thru WFD-7; WFE-1 thru WFE-14; WFF-1 thru WFF-9; WFG-1 thru WFG-18; and WFH-1 thru WFH-7. The intermittent stream; located on Bay State Road; flows into the WFE series BVW. The stream is a drainage channel that conveys water during rainfall events and is identified by the first few WFE series flags (see the attached sketches for the location of the wetland flags). The boundary of the BVW's is fairly well-defined by

#### Page 2. Lynnfield Water Interconnection Project, Wakefield, MA

the slope and/or the presence of wetland and transitional plant species such as: red maple (Acer rubrum), white pine (Pinus strobus), grey birch (Betula populifolia), black cherry (Prunus serotina) and white oak (Quercus alba) trees/saplings; arrow-wood (Viburnum denatatum), elder (Sambucus canadensis), red osier dogwood (Cornus stolonifera), green brier (Smilax glauca), common buckthorn (Rhamnus frangula), highbush blueberry (Vaccinium corymbosum), grape (Vitus, spp.), multiflora rose (Rosa multiflora) honeysuckle (Lonicera, spp.) and bittersweet (Celastrus orbiculata) in the shrub/vine layer; and cinnamon fern (Osmunda cinnamomea), sensitive fern (Onoclea sensibilis), poison ivy (Toxicodendron radicans), Japanese knotweed (Polygonum cuspidatum), dewberry (Rubus hispidus), spotted jewelweed (Impatiens capensis), skunk cabbage (Symplocarpus foetidus) and cattails (Typha, spp.) in the herbaceous layer. The BVW's are also characterized by other hydrological indicators such as stained/matted leaves, buttressed roots and saturated/hydric soils. It is my understanding that the wetland flags are to be surveyed in the field and put onto a Plan to be submitted with a Notice of Intent (NOI) for the proposed work.

According to the most recent Massachusetts Natural Heritage Atlas (NHESP 14<sup>th</sup> Edition) dated August 1, 2017, it appears that a portion of the Project Area is mapped as estimated and priority habitat for rare wildlife/species. If this is the case, the presence of estimated/priority habitat within the Project Area requires that a copy of the NOI and accompanying Plans be sent to NHESP for their review.

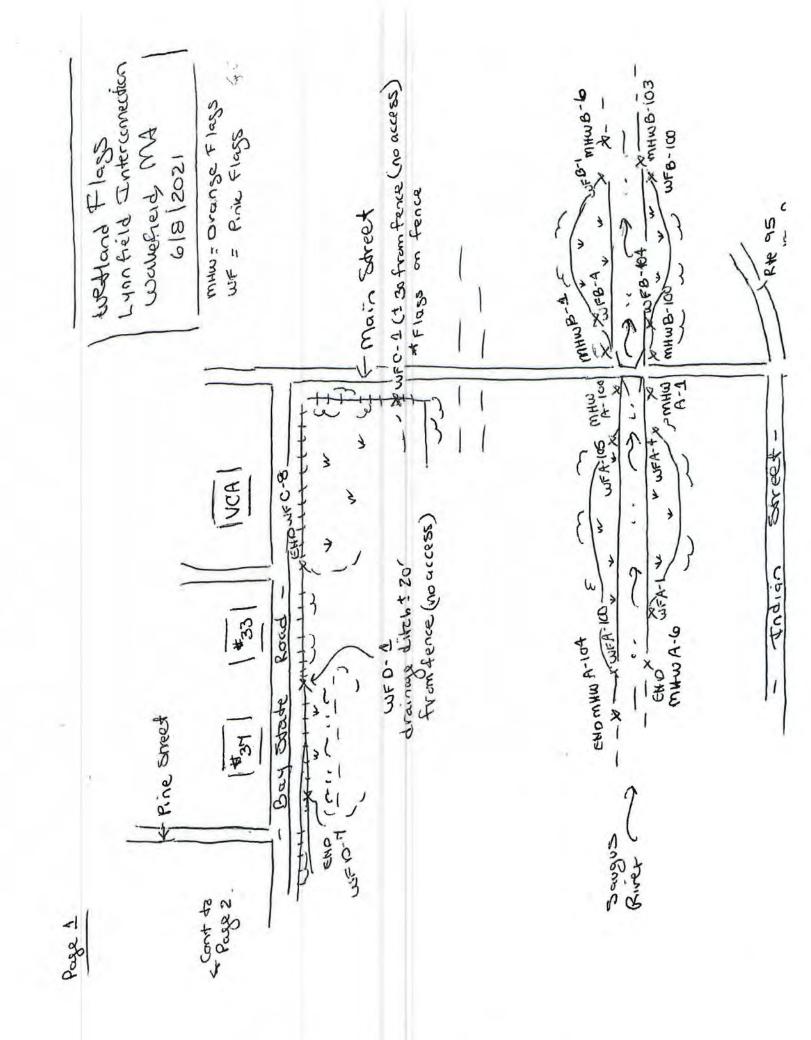
If you have any questions regarding these findings and/or you need additional information, please feel free to call me at any time. I am glad I could assist you with this project and let me know if I can be of any help in the future.

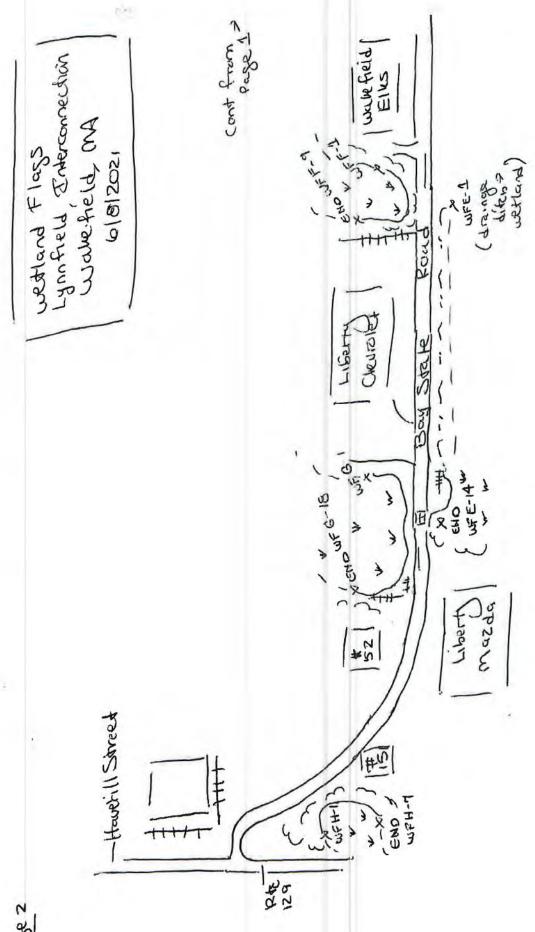
Sincerely,

PINEBROOK CONSULTING

Brooke Monroe

**Environmental Scientist** 





Page 2

# ATTACHMENT D

Design Plans

# BAY STATE ROAD WATER MAIN LOOP

# INDEX OF DRAWINGS

G-1 INDEX OF DRAWINGS AND GENERAL NOTES

C-1 BAY STATE ROAD

C-2 BAY STATE ROAD AND MAIN STREET

C-3 MAIN STREET

CD-1 WATER DETAILS

CD-2 WATER AND ENVIRONMENTAL CONTROL DETAILS

CD-3 PAVING AND RESTORATION DETAILS

TOWN OF WAKEFIELD, MA

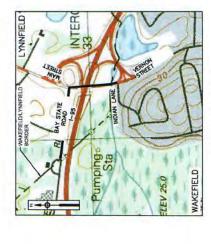
DEPARTMENT OF PUBLIC WORKS

JOSEPH CONWAY, DIRECTOR OF PUBLIC WORKS WILLIAM RENAULT, TOWN ENGINEER

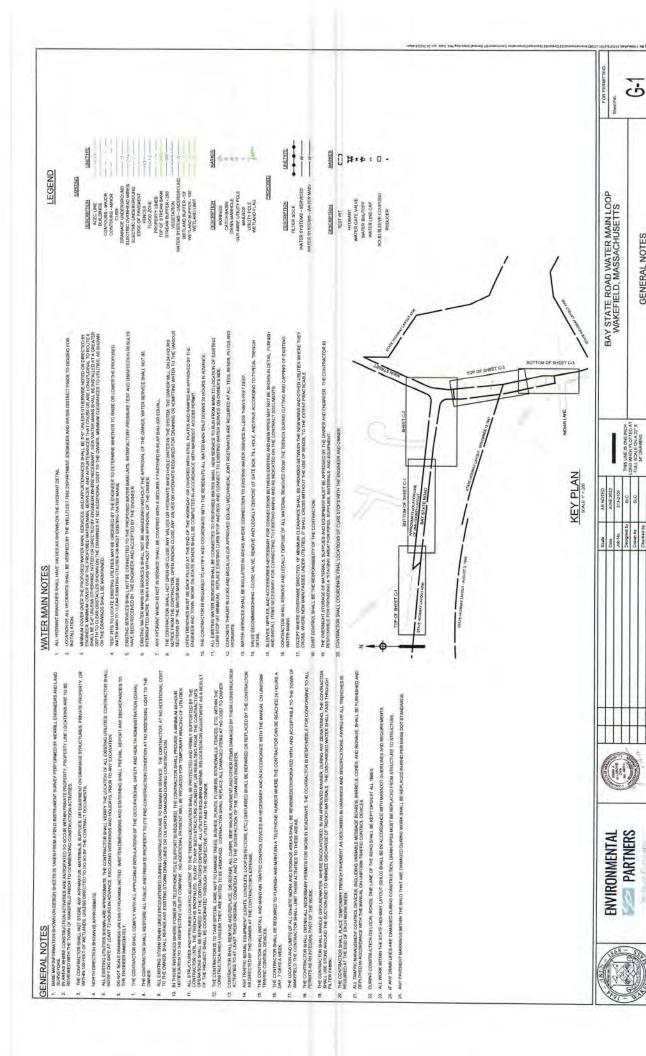
JUNE 2022 FOR PERMITTING





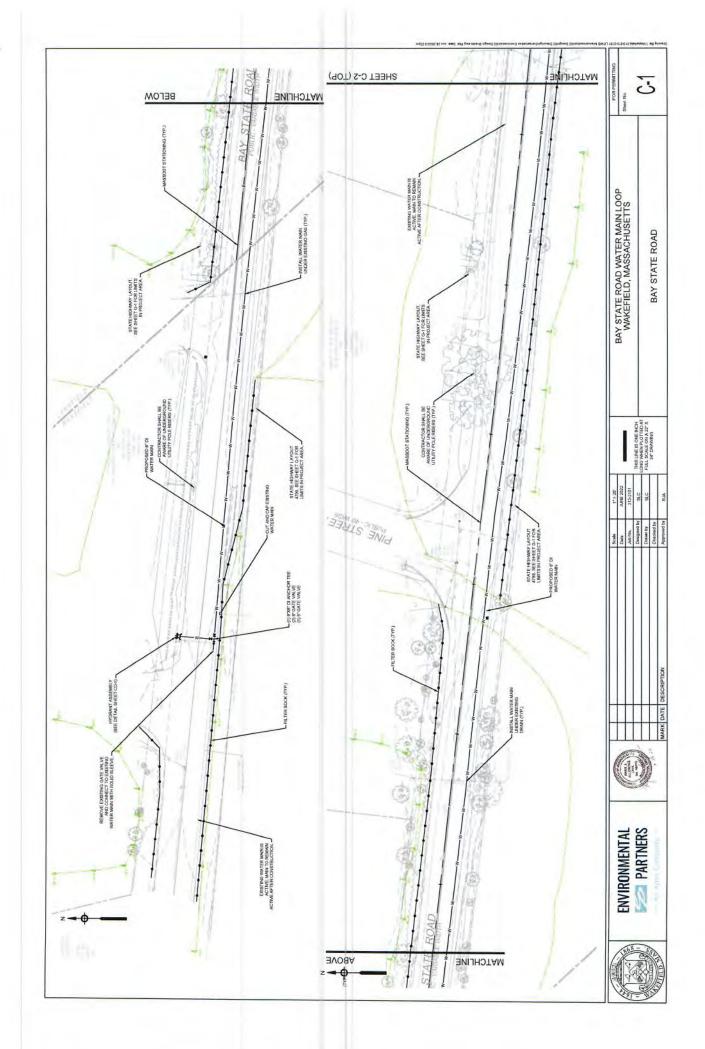


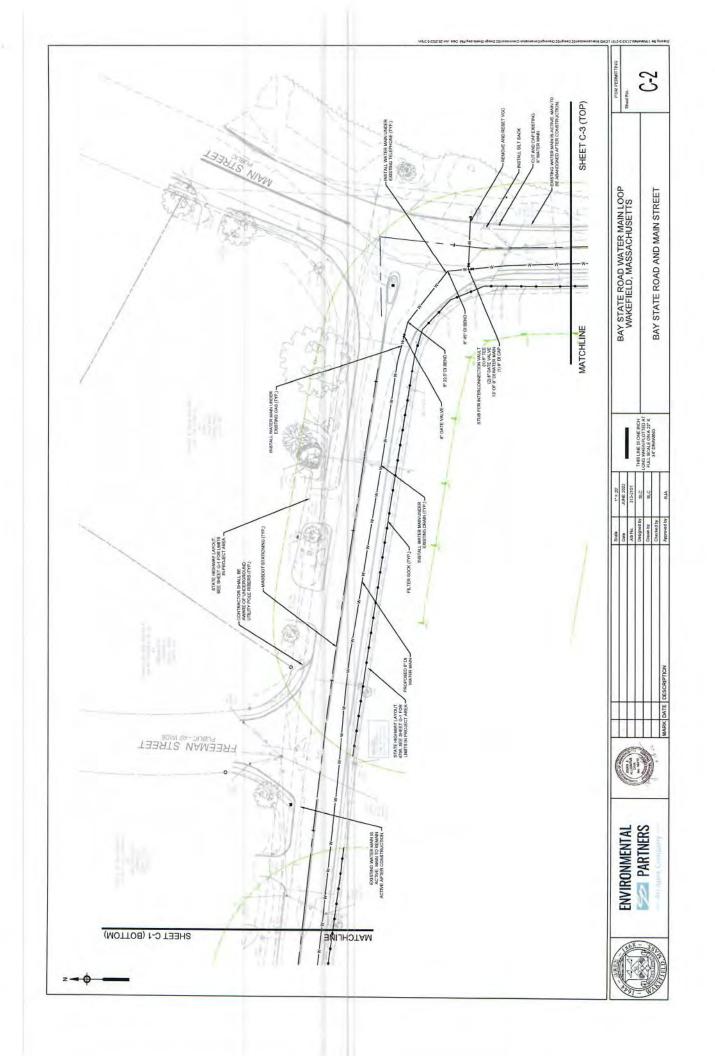
VICINITY MAP 1"= 500'

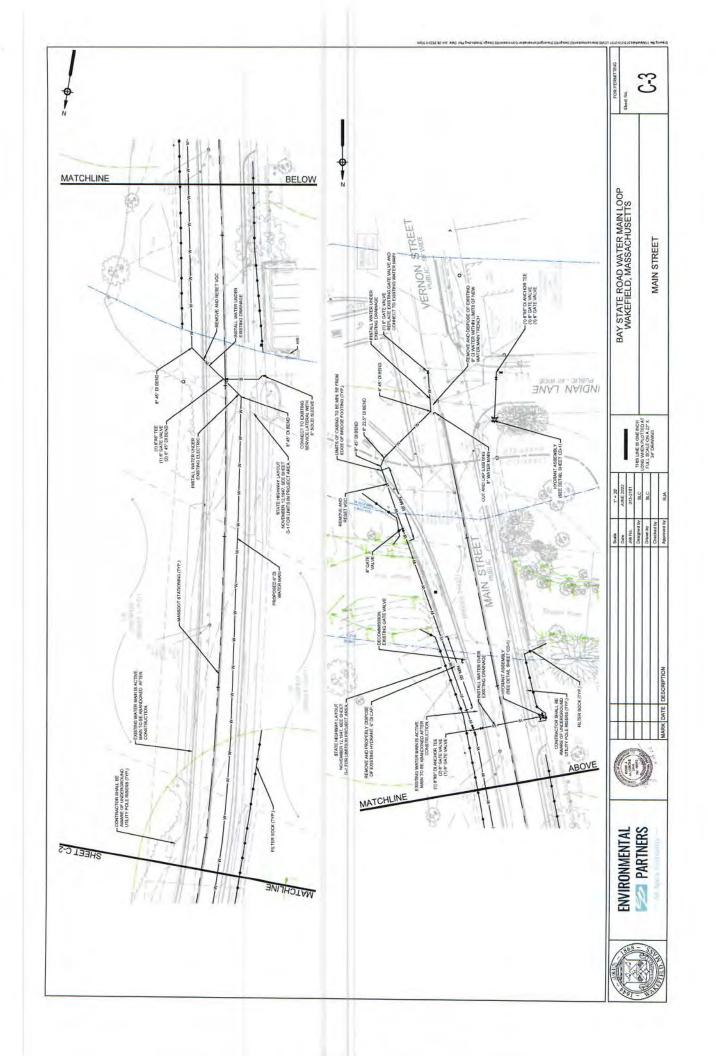


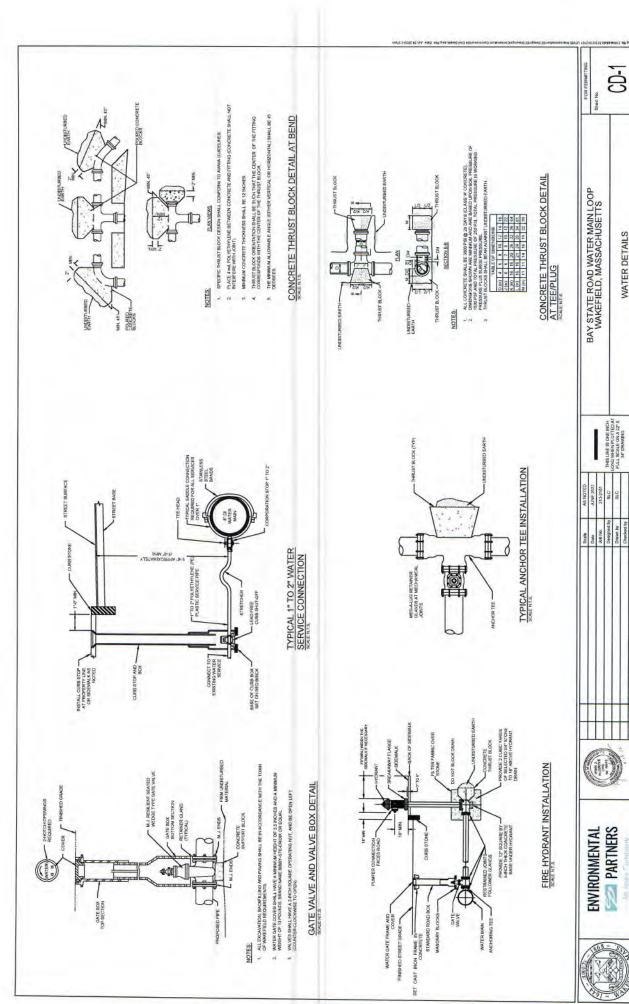
GENERAL NOTES

MARK DATE DESCRIPTION

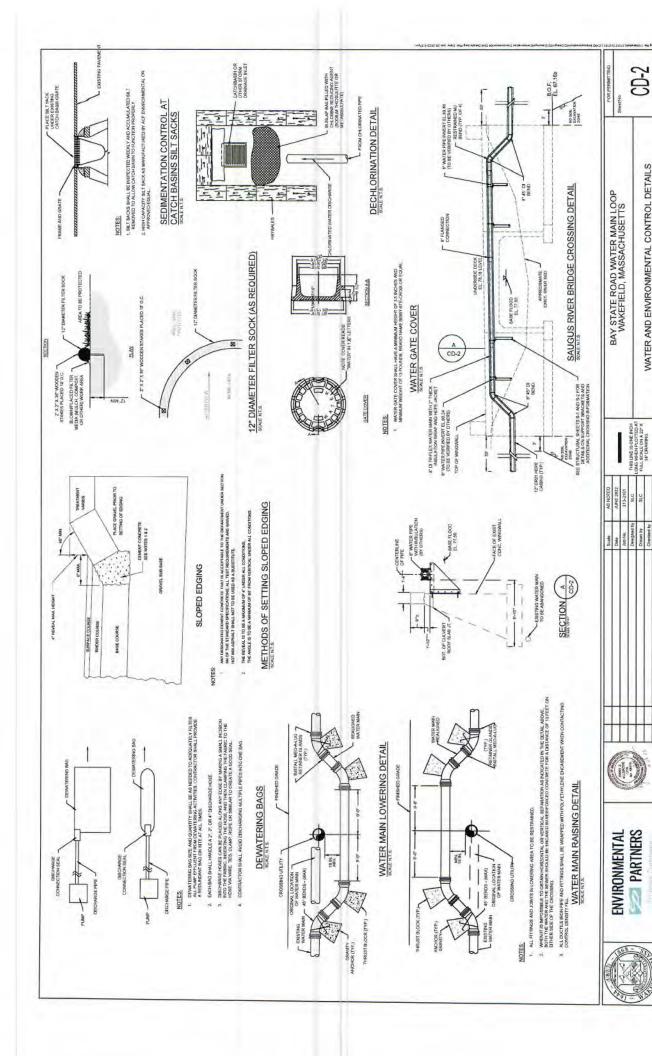




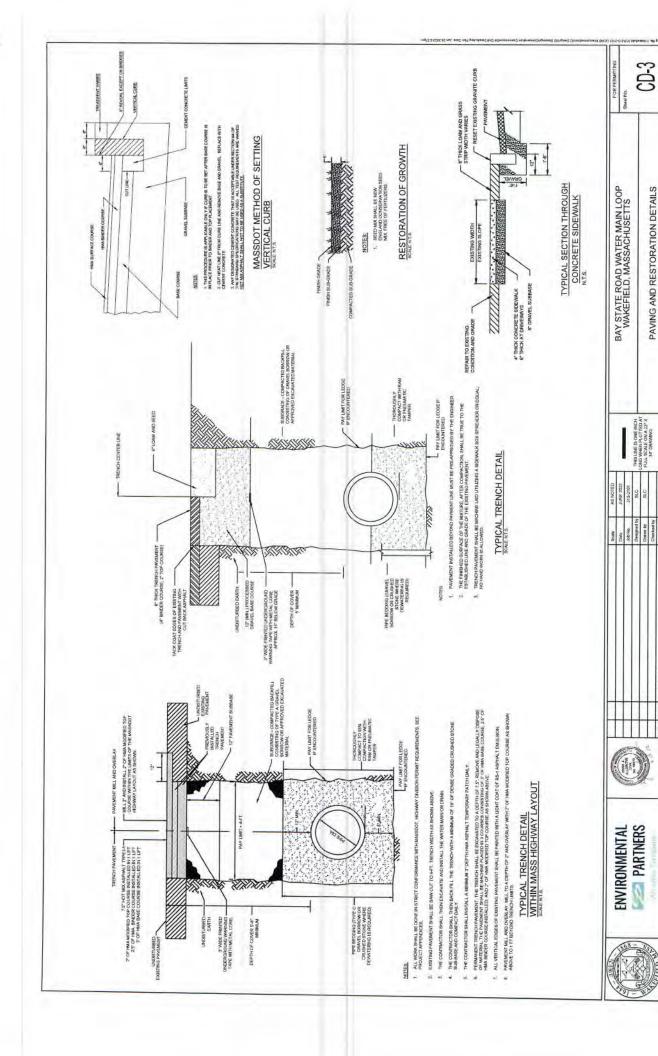




WATER DETAILS



WATER AND ENVIRONMENTAL CONTROL DETAILS



#### Attachment B



Maura T. Healey GOVERNOR

Kimberley Driscoll LIEUTENANT GOVERNOR

Rebecca L. Tepper SECRETARY

# The Commonwealth of Massachusetts

Executive Office of Energy and Environmental
Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Tel: (617) 626-1000 Fax: (617) 626-1081 http://www.mass.gov/eea

November 29, 2024

# CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS ON THE SINGLE ENVIRONMENTAL IMPACT REPORT

PROJECT NAME : LCWD Supplemental Water Interconnection with

Wakefield/MWRA

PROJECT MUNICIPALITY : Lynnfield

PROJECT WATERSHED : Ipswich River/North Coastal

EEA NUMBER : 16722

PROJECT PROPONENT : Lynnfield Center Water District

DATE NOTICED IN MONITOR : October 23, 2024

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62L) and Section 11.08 of the MEPA regulations (301 CMR 11.00), I have reviewed the Single Environmental Impact Report (Single EIR) and hereby determine that it **adequately and properly** complies with MEPA and its implementing regulations.

# **Project Description**

As described in the Single EIR, the Lynnfield Center Water District (LCWD) (the "Proponent") is challenged to meet existing water demands for its approximately 8,500 customers, including approximately 70 percent of the Town of Lynnfield's ("Town") residents, as well as four schools and the Town's municipal facilities. During the summer months, failure of any one of the Proponent's three largest pumping stations (there are four total), would result in a water supply emergency. The Single EIR states that as the result of water supply challenges created by existing sources, it is critical for the Proponent to establish an additional, independent supply source to provide redundancy and resiliency for its customers. The lack of redundancy in the Proponent's system impacts its ability to conduct maintenance, provides little operational flexibility, and reduces overall resiliency of the water production. Recent water quality challenges (specifically per- and polyfluoroalkyl substances (PFAS)) have further impacted the Proponent's ability to provide a reliable supply system. As described in the Single EIR, the Proponent proposes to construct an interconnection to the Town of Wakefield's water system, which is supplied in part by the Massachusetts Water Resources Authority (MWRA). This will be done in two phases as described below.

Phase 1 of the project will include construction of the interconnection with the Wakefield water system to provide water in an emergency and would not alone exceed any MEPA thresholds. The interconnection requires installation of a 21-foot (ft) by 7.5 ft interconnection vault and 200 linear feet (lf) of new 8-inch (in) cement-mortar lined ductile iron (CLDI) water main (piping), as well as an approximately 200 square foot (sf) parking area. The Town of Wakefield has completed installation of a watermain pipeline on Bay State Road, Main Street, and Vernon Road needed to connect to the interconnection vault in Lynnfield (2,275 lf of pipe/0.43 miles). The pipeline also benefits the Wakefield system and eliminates two dead ends. The new piping system has been online since September 2023. As previously noted in comments from Agencies (the Massachusetts Water Resources Commission (WRC), MWRA, and Massachusetts Department of Environmental Protection (MassDEP)-), this Phase 1 interconnection can only be used during a MassDEP-declared water supply emergency. As noted in the Single EIR, the Phase 1 interconnection design is complete and went to bid August 2024. The contract was awarded in September of 2024, with substantial completion anticipated in February of 2025.

Phase 2 will include an application to the MWRA for approval of a permanent withdrawal of water through the interconnection proposed in Phase 1 to the MWRA system¹ via Wakefield.² Because the interconnection requires an interbasin transfer of water, the Proponent is also requesting approval from the WRC of an interbasin transfer of up to 575 gallons per minute (gpm) (0.83 million gallons per day (mgd)), with admission to the MWRA water supply system at the maximum current needs of 250 gpm (average day demand of 100 gpm). The interbasin transfer will not increase overall water use by the Proponent, as the interconnection provides redundancy that will reduce dependency on its other sources. The Single EIR notes that the capacity of the interconnection to be constructed is currently restricted to 250 gpm (0.39 mgd) due to Wakefield water system infrastructure constraints; however, the Proponent is actively negotiating with Wakefield towards increasing capacity to 0.83 mgd (575 gpm).

# **Procedural History**

An Initial EENF³ was submitted in June 2023 and included a request that a Special Review Procedure (SRP) in accordance with 301 CMR 11.09 be established to allow for phased review of the project. The Initial EENF provided disclosures regarding the limited impacts of Phase 1 and an initial discussion and disclosure of Phase 2 to allow for conceptual review of cumulative impacts. Based on the information in the SRP request and in consultation with Agencies, an SRP was issued on July 31, 2023, to support advancement of the Phase 1 project while facilitating additional consideration of alternatives and measures to avoid, minimize, and mitigate environmental impacts for future phases. A Certificate on the Initial EENF requiring an Amended EENF to fully document Phase 2 was issued concurrently with the SRP. As noted in both documents, construction work of the Wakefield interconnection (Phase 1) was proceeding on the basis of providing an emergency-only mutual aid interconnection, to be used only if necessary and upon issuance of an Emergency Declaration by MassDEP.<sup>4</sup> The Amended EENF was subsequently filed, resulting in a Certificate dated September 15, 2023 requiring the filing of a Single EIR for Phase 2.

<sup>1</sup> The MWRA system draws from the Chicopee and Nashua Basins.

<sup>&</sup>lt;sup>2</sup> The Town of Wakefield Water & Sewer Division's municipal water system receives about 90% of its water from the MWRA and approximately 10% from a local source, Crystal Lake.

<sup>&</sup>lt;sup>3</sup> The Initial EENF was submitted pursuant to MEPA regulations at 301 CMR 11.13 Emergency Action.

<sup>&</sup>lt;sup>4</sup> Pursuant to the Interbasin Transfer Act Regulations at 313 CMR 4.05 Exemptions: the following activities are not considered an increase in the Present Rate of Interbasin Transfer:

<sup>(10)</sup> Using an Emergency Connection provided that the period of occurrence does not exceed six months of any calendar year and the water supplier fulfills the criteria of the Department of Environmental Protection

The Single EIR was originally published on August 23, 2024, and was subsequently withdrawn following a meeting with WRC which revealed concerns over the adequacy of the drought management plan; the need for clarity regarding funding sources for conservation measures and the relationship between LCWD's budget and Town finances; the lack of detail on educational outreach materials and customer engagement with online portals; and incomplete data on tiered water rate applicability and customer distribution across usage tiers. The Single EIR was then resubmitted and published on October 23, 2024, with the additional information requested by WRC to complete their review. According to the Single EIR, there have been no substantive changes to the project since the issuance of the September 15, 2023 Certificate for the Amended EENF. All references to the Single EIR in this document pertain to the resubmitted filing.

As noted above, a component of the Phase 1 work needed to connect the Wakefield distribution system to the LCWD distribution system, was completed in 2023. This work occurred within the Towns of Wakefield and Lynnfield, with portions located with the 100-ft Buffer to Bordering Vegetated Wetlands (BVW) and Riverfront Area (RFA). The work consisted of the installation of a pipeline on Bay State Road, Main Street, and Vernon Road to connect to the proposed meter vault in Lynnfield (2,275 lf of pipe/0.43 miles). The project received an Order of Conditions from the Lynnfield Conservation Commission and a Negative Determination from the Wakefield Conservation Commission in 2022. Impacts associated with the pipeline were not previously disclosed in the Amended EENF filing.

# **Project Site**

As described in the Single EIR and shown on project plans, the Phase 1 project site consists of a grassy area located off of the eastern side of Main Street at the intersection of Bay State Road in the Town where the interconnection vault will be installed. Piping will be installed within portions of Main Street and Baystate Road. According to the Single EIR, the Town of Wakefield constructed a 2,275-foot watermain pipeline to loop its system, and bring the new pipeline adjacent to the interconnection vault location in Lynnfield (2,275 lf of pipe/0.43 miles). This work occurred both in Wakefield and Lynnfield, and received authorizations from each respective conservation commission. The pipeline travels through both the Town of Wakefield and the Town of Lynnfield. Work within Main Street extended from the intersection of Indian Road and continued north to Bay State Road where the pipeline turns west down Bay State Road. The pipeline on Bay State Road continues westward approximately 500 ft past Pine Street. Phase 2 involves an interbasin transfer of water to connect to the MWRA system using the physical watermains and interconnection vault constructed in Phase 1. As Phase 2 does not involve additional physical construction, the only additional impact is the interbasin transfer.

Wetland resource areas located within the project area in Lynnfield include BVW. The Lynnfield site is not located within mapped Federal Emergency Management Agency (FEMA) floodplain and is not within Estimated or Priority Habitat of Rare Species according to the Massachusetts Natural Heritage and Endangered Species Program (NHESP) Atlas (15th Edition). Portions of the pipeline work in Lynnfield occurred within the 100-ft Buffer Zone to BVW and RFA. Portions of the pipeline work in Wakefield occurred within RFA. This work was approved by the Lynnfield Conservation Commission and issued an Order of Conditions on July 21, 2022. A Negative Determination from the Wakefield Conservation Commission was issued on August 1, 2022 for the pipeline work in Wakefield.

As shown in the EEA EJ Mapper, the project site is located within one mile of one Environmental Justice (EJ) Population characterized by Minority.<sup>5</sup> There are 22 EJ Populations within five miles of the site characterized by Minority (16), Income (5), and English Isolation (1). The EENF previously identified the "Designated Geographic Area" (DGA) for the project as 1 mile around EJ Populations.

# **Environmental Impacts and Mitigation**

As described in the Single EIR, potential environmental impacts associated with Phase 1 work are primarily associated with the construction period but also include an increase of 230 sf of impervious area within the 100-foot buffer zone to BVW to construct a small parking area adjacent to the interconnection vault. Additionally, as noted above, watermain piping needed to make the interconnection, within the Towns of Wakefield and Lynnfield, is located within the 100-ft Buffer to BVW and RFA. Phase 2 of the project involves an interbasin transfer of water from MWRA water supply sources including the Quabbin Reservoir and the Ware River, both in the Chicopee basin, as well as the Wachusett Reservoir in the Nashua basin to the Ipswich River and North Coastal watersheds in which the Town is located.

The Single EIR reiterates mitigation measures for Phase 1 including implementing construction best management practices (BMPs); enforcing sediment and erosion controls; managing dust; minimizing noise and emissions from construction equipment; ensuring proper handling of impacted water and materials; enforcing no-idling policies; utilizing low-emission diesel technologies; restoring disturbed areas through reseeding and reuse of topsoil; and coordinating with MassDOT to develop a plan for working within state roadways.

The Single EIR also described mitigating measures for Phase 2 including the requirements for WRC Interbasin Transfer Act (ITA) approval and compliance with the MWRA's admission policy.

For Phase 2, mitigating measures include:

- Maximizing efficiency in current water supply operations;
- Preparing and implementing a drought management plan outlining conditions for operating the LCWD water system and initiating water conservation measures;
- Conducting a water system auditing and meter calibration program to identify system leaks and areas of excessive consumption in public facilities; including ensuring all services are 100% metered and that meters are appropriately sized and accurately measure water volume used by consumers:
- Implementing a leak detection program with an annual budget of \$25,000 to \$35,000 for system leak detection surveys, repair of detected leaks, and unanticipated system repairs;
- Maintaining a comprehensive emergency management/response plan, last updated in January 2024, detailing standard operating procedures (SOPs) for addressing potential emergencies affecting water distribution, treatment, and supply systems;
- Implementing a conservation plan, which includes distribution of educational materials to customers promoting water conservation practices and detailing actions that residents can take to

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<sup>&</sup>lt;sup>5</sup> The EEA EJ Mapper is available at: <a href="https://mass-eoeea.maps.arcgis.com/apps/MapSeries/index.html?appid=535e4419dc0545be980545a0eeaf9b53">https://mass-eoeea.maps.arcgis.com/apps/MapSeries/index.html?appid=535e4419dc0545be980545a0eeaf9b53</a>.

- reduce water use. LCWD provides customers with tools (LCWD WaterSmart portal) to review their current and historical water usage, compare it to average household use, and receive actionable tips with estimated percent water savings. Additional conservation information is included in the annual LCWD Consumer Confidence Report (CCR); and,
- Providing a rebate program for water-saving devices, such as low-flow toilets and eligible
  washing machines, and providing faucet aerators, low-flow showerheads, and toilet displacement
  devices at cost.

# Jurisdiction and Permitting

The project, which includes the two phases described above, is undergoing MEPA review and is subject to preparation of a mandatory Environmental Impact Report (EIR) because the project as a whole requires Agency Action, and is expected to exceed the MEPA review threshold at 301 CMR 11.03(4)(a)2. for a New interbasin transfer of water of 1,000,000 or more gpd or any amount determined to be significant by the WRC. The project is also located within a DGA around an EJ Population, and therefore an EIR is required pursuant to 301 CMR 11.06(7)(b). Phase 1 of the project requires Approval of Distribution System Modifications for more than 3,300 People (BRP WS 32) which was received on June 28, 2024, from MassDEP and a Non-Vehicular Access Permit (issued June 28, 2024) and an easement from the Massachusetts Department of Transportation (MassDOT). Phase 2 will require ITA approval from the WRC.

The Phase 1 work needed to connect the new 8 inch water main to the new vault will be located within the 100-ft buffer zone to BVW and does not require review by the Lynnfield Conservation Commission as the activity is considered a minor activity not otherwise subject to regulation pursuant to 310 CMR 10.02(2)(b)2.i.<sup>7</sup> As noted above, the watermain piping needed to make the interconnection, which was completed in 2023, occurred within the Towns of Wakefield and Lynnfield, with portions located with the 100-ft Buffer to BVW and RFA. This work received both an Order of Conditions from the Lynnfield Conservation Commission on July 21, 2022, and a Negative Determination from the Wakefield Conservation Commission on August 1, 2022.

The project received Financial Assistance (for Phase 1) from the Water Management Act (WMA) grant program and received additional Financial Assistance from the Ipswich River Basin Water Supply and PFAS Grant Opportunity (both administered by MassDEP) to fund the completion of the interconnection vault design, project bidding, and the next phase of the MWRA Admission process. Therefore, MEPA jurisdiction is broad in scope and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment, as defined in MEPA regulations.

#### Review of the Single EIR

The Single EIR included a project description; project plans; updates on permitting, financial assistance, and the project schedule; an update on coordination with agencies; a summary of proposed mitigation measures; an assessment of potential environmental and public health impacts that may affect EJ Populations; a response to comments on the Amended EENF; and draft Section 61 Findings. The

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<sup>6</sup> https://lcwd.us/fees/pay-bill/

<sup>&</sup>lt;sup>7</sup> Installation of underground utilities (e.g., electric, gas, water) within existing paved or unpaved roadways and private roadways/driveways, provided that all work is conducted within the roadway or driveway and that all trenches are closed at the completion of each workday.

Single EIR described the criteria that the project will be required to meet under the ITA, including citations to all sources of information on which a full application to the WRC will be prepared.

# Environmental Justice / Public Health

As noted above, the project site is located within one mile of one EJ Population characterized by Minority. There are 22 EJ Populations within five miles of the site characterized by Minority (16), Income (5), and English Isolation (1). Within the census tracts containing the above EJ Populations within one-mile DGA of the project site, there are no languages identified as those spoken by 5% or more of residents who also identify as not speaking English very well.

The Single EIR was distributed to an updated list of Community Based Organizations (CBOs) and tribes/indigenous organizations provided by the MEPA Office (the "EJ Reference List"). In response to the Scope, the Proponent indicates that project information and status will continue to be provided through project updates on the Town of Lynnfield webpage.8

The Single EIR states that the interconnection vault and the transfer of water will not impact EJ Populations in a negative manner and there are no known health risks. The interconnection vault entrances are watertight to prevent flooding, and its below-grade location provides protection against extreme heat. These measures mitigate climate change impacts. Additionally, the project proposes the distribution of clean drinking water to residents and businesses in Lynnfield, including EJ Populations, through the proposed interconnection with Wakefield and membership in MWRA. This will enhance system redundancy and resiliency while mitigating risks associated with reliance on current water supply sources, particularly those impacted by climate change.

#### Wetlands

As noted above, the project area for the proposed interconnection vault has been previously disturbed and graded. The project location is not within a wetland, waterway or tideland and does not meet the review threshold (as per 301 CMR 11.03(3)). Minor pipeline installation activities to connect the interconnection vault to the new 8 inch waterline will occur within the 100-ft wetland buffer zone to bordering vegetated wetland, for which written approval from the Lynnfield Conservation Commission has been provided to proceed without obtaining an Order of Conditions or Negative Determination.

As noted above, the pipeline work needed to connect to the interconnection vault in Lynnfield, through the Towns of Wakefield and Lynnfield, was completed in 2023. Pipeline work in Wakefield occurred within Vernon Street at the intersection of Indian Road and then extended north to the Lynnfield town line where the road becomes Main Street, then extended north along Main Street to Bay State Road where the water main heads west down Bay State Road. The water main on Bay State Road continued westward approximately 500 feet (ft) past Pine Street back into Wakefield. Portions of this work occurred within the 100-ft Buffer Zone to BVW and RFA. This work was approved by the Lynnfield Conservation Commission which issued an Order of Conditions on July 21, 2022 and the Wakefield Conservation Commission which issued a Negative Determination on August 1, 2022.

8 https://lcwd.us/capital-improvement-projects-and-more/cip-status-and-updates/

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Water Supply/Interbasin Transfer

As described in the Single EIR, LCWD requires ITA approval to address capacity, water quality, and supply reliability issues. Maximum day demands frequently exceed the pumping capacity of LCWD's three largest pumping stations (there are four total), requiring storage tanks to meet demand. Station 1 is not currently in active status due to elevated levels of nitrogen detected. Prolonged high-demand periods risk depleting these tanks, impacting fire protection, life safety, and system pressure. PFAS levels in a critical supply source within the Ipswich River Basin exceed the MassDEP Maximum Contaminant Level (MCP), further reducing reliability. LCWD's water supply is drawn primarily from the Ipswich River Basin, a highly stressed basin, with the remainder from the North Coastal Basin. Withdrawals are managed under the WMA, and summer capacity declines require strict watering restrictions to control demand. The system lacks redundancy, limiting maintenance flexibility and increasing vulnerability to emergencies if a major source is offline during peak demand. LCWD's Capital Program addresses these challenges through PFAS treatment at the Glen Drive Water Treatment Plant (WTP), a pipeline from the Main Street well to the Glen Drive WTP, and an interconnection with the Town of Wakefield. Admission to the MWRA via the Wakefield interconnection will provide a supplemental fifth source, improving system reliability and resiliency.

As described in the Single EIR, the proposed interbasin transfer is to be made via a connection to the Town of Wakefield's local water system. Wakefield is an existing member of the MWRA water system and receives water from MWRA via three meters within MWRA's Northern High and Northern Intermediate High-pressure zones. Wakefield is partially supplied by MWRA, typically using approximately 90% MWRA water and supplementing with approximately 10% water from its local source at Crystal Lake. MWRA's water supply sources include the Quabbin Reservoir and the Ware River, both in the Chicopee basin, as well as the Wachusett Reservoir in the Nashua basin. Wastewater discharge within the LCWD distribution system area is via 100% septic systems, and therefore all wastewater will be indirectly discharged to the North Coastal or Ipswich River Basins. LCWD intends to maintain existing supplies, adding treatment for PFAS, and pursue the Wakefield MWRA interconnection for an additional source for reliability and redundancy.

LCWD is proposing to take 0.28 mgd average day demand and up to 0.83 mgd maximum day demand from the MWRA water system via a connection to the Wakefield's local water system. The limiting factor for the proposed volume of 0.83 mgd will be the agreement with MWRA and the physical capacity of the Wakefield interconnection. LCWD will not be able to request or receive any additional interbasin transferred MWRA water without the construction of an additional interconnection and subject to an additional ITA request. Currently, the capacity of the interconnection to be constructed will be restricted to 0.36 mgd (250 gpm) due to infrastructure constraints within Wakefield's water system. LCWD is actively negotiating with Wakefield to increase this capacity to the proposed maximum day demand of 0.83 mgd (575 gpm).

In response to the Scope, the Single EIR provided the following in response to information requested in the Water Resources Commission's (WRC) comment letter on the Amended EENF:

• Clarified the limiting factor for the proposed volume of 0.83 mgd (575 gpm) as the agreement with MWRA and the physical capacity of the Wakefield interconnection. As noted above, LCWD will not be able to request or receive any additional interbasin transferred MWRA water without the construction of an additional interconnection and subject to an additional ITA request.

- Included maps displaying the current LCWD water supply sources and their locations within the Ipswich River and North Coastal Basins. LCWD is served by four groundwater sources situated across these two basins, and a system map showing source basin boundaries was provided.
- Provided information describing the LCWD's previous efforts that explored and studied the potential for any new surface water supply sources as further described below.
- Provided the following related to the ITA's water conservation criterion:
  - o A signed and dated Water Conservation Questionnaire.
  - O Documentation of annual calibration of master meters and a description of the calibration indicating that LCWD has contracted with a reputable, independent vendor specializing in the field to perform annual testing and calibration services of its master meters. The LCWD Fiscal Year 2025 approved budget includes the master meter auditing services, which will likely be conducted in the 3rd or 4th quarter of 2024.
  - o An example of a water bill sent to customers.
  - O A drought/emergency contingency plan that establishes the conditions and procedures under which LCWD will operate its water system and implement water conservation guidance and requirements for its customers that takes into account local conditions, applicable regulations, and operating parameters and provides LCWD with a tool for monitoring potential drought conditions and develop standard operating procedures to respond to drought conditions as further described below.
  - Records of water audits conducted on public facilities including two elementary schools served by LCWD (Huckleberry Hill School and Summer Street School). Future audit studies will be completed at the remaining schools (Middle School and High School) in fiscal year 2025. Additional public facilities served by LCWD are largely limited to buildings currently undergoing a complete renovation (e.g. Town Hall and Public Safety), which will include new, efficient plumbing and fixtures as further described below.
- As further described below, the Single EIR provided the information needed to evaluate the impacts of this transfer on the donor basins, in particular, providing up-to-date information to address 313 CMR 4.09(3)(e) and (g) Criterion 5: Reasonable Instream Flow and Criterion 7: Cumulative Impacts. The Single EIR included reservoir operation information and a drought management plan.
- Updated time series and flow duration curves were provided for the Swift River flow, Ware River flow, and Nashua River releases and flow. Effects on flood flows, intermediate flows, and low flows for the Swift, Nashua, and Ware Rivers were included, along with effects on the frequency and duration of uncontrolled releases from the Quabbin and Wachusett Reservoirs.
- Updated demand and withdrawal information were provided, including updated system withdrawals, 5-year average demand, Quabbin Reservoir levels, an analysis of the impact of the community's demands together with recent approvals (e.g., Ashland and Burlington), and the long-term demand of existing member communities and potential future users during drought scenarios that reflects updated increased usage during drought.

The Single EIR also addressed specific criteria for ITA approval as follows:

#### Criterion 2: Viable Sources

To address this criterion, the Single EIR described LCWD's efforts that evaluated the feasibility of developing a new surface water source within its district boundaries. LCWD, in the mid-1970s, proposed plans for a surface water reservoir and filtration plant north of Glen Drive, which would have

required flooding a significant wetland area, including what is now the Glen Drive wellfield. While land for the reservoir was acquired, the funding article for a new surface water source was rejected at a LCWD, and the reservoir was not constructed. Additionally, LCWD notes that given the current stressed condition of the Ipswich River and its tributaries, the incompatibility of a surface water source with LCWD's existing groundwater well fields and production infrastructure, and the regulatory challenges associated with permitting new surface water impoundments, any new surface water source within LCWD's district boundaries is no longer feasible and not a viable option.

The Single EIR also describes LCWD's efforts to purchase supplemental water through an interconnection with adjacent water systems including North Reading, Peabody, Lynnfield Water District (LWD) and Wakefield as well as a direct connection with MWRA. Three of the four interconnections (LWD, Wakefield and Peabody) are with systems fully or partially served by MWRA. North Reading is the only system not partially served by MWRA. The LWD option was deemed hydraulically viable but required costly upgrades to LWD's pump station, transmission mains, and an above-ground metering station, making it cost-prohibitive. The Peabody interconnection required new booster pumps and significant system reconfiguration, which were determined to be infeasible due to high costs and limited capacity. North Reading's connection via Andover has reliability issues during peak summer demands and required substantial infrastructure upgrades. A direct MWRA connection was evaluated but rejected due to significantly higher costs compared to other options. The Wakefield interconnection was selected as the preferred alternative, as it offers a cost-effective and feasible solution, initially supplying 25% of LCWD's demand (0.36 mgd (250 gpm)) with potential to expand to 50% (0.83 mgd (575 gpm)) following infrastructure upgrades.

The Single EIR states that LCWD previously investigated new groundwater sources but found them unfeasible to address demand and redundancy needs. Efforts in the 1970s to locate additional sand and gravel wells were unsuccessful. From 1991 to 1996, studies led to the development of the Glen Drive Wellfield, and new bedrock wells for Station 3 were permitted in 2013. However, these wells underperformed, and additional wells would likely reduce overall capacity due to interference. The Ipswich River Basin's designation as a High Stress Basin imposes regulatory and hydrogeological constraints. Studies, including the 2017 Ipswich Basin WMA Study, cite limited aquifer yields and climate change impacts, rendering increased groundwater withdrawals impractical.

#### Criterion 3: Water Conservation

The Single EIR addressed Criterion 3: Water Conservation by providing additional details pertaining to water conservation, in particular details on unaccounted-for water, M36 water audits, water loss control efforts, land protection in drinking water supply areas, a water conservation plan, drought management plan (DMP), sources of funding, public education and outreach, and water rates.

The Single EIR notes that LCWD has completed the MWRC "Water Conservation Questionnaire for Public Water Suppliers. In addition to the questionnaire, LCWD has developed multiple conservation and demand management programs that demonstrate efficient and effective use of its existing water sources within its system. These include the DMP, a Water Audits and Meter Calibration program, and system leak detection surveys, the last of which was most recently performed in December of 2023 with results of the program either immediately addressed or incorporated into the watermain replacement/repair program. Additionally, as noted in the Single EIR, LCWD maintains a comprehensive emergency management and response plan, updated in January 2024, to ensure preparedness for a range of potential emergencies. While the full plan is confidential due to its sensitive

nature, it includes detailed Standard Operating Procedures (SOPs) for addressing various scenarios, such as power outages, water main and service line breaks, equipment or pump failures, microbial and chemical contamination, vandalism or terrorist attacks, and environmental events like droughts, floods, and earthquakes.

LCWD's DMP, outlined in the Single EIR, provides site-specific monitoring and response measures tailored to local conditions. The DMP aligns with the American Water Works Association's M60 Manual and the Massachusetts Drought Management Plan (December 2023), using triggers like state-declared drought levels and Ipswich River streamflow data. It establishes six drought levels with escalating water use restrictions, culminating in a prohibition on nonessential outdoor water use during severe droughts.

Additionally, LCWD also promotes water conservation through educational materials, rebates for water-saving devices, and the WaterSmart portal, which tracks usage and offers personalized tips to encourage efficient water use and reduce overall consumption.

# Criterion 4: Forestry Management Plan

As per the WRC ITA criteria guidance, compliance with this criterion is not required for LCWD as the district does not have surface water supply source watershed lands currently serving LCWD.

#### Criterion 5: Reasonable Instream Flow

The Single EIR addressed Criterion 5: Reasonable Instream Flow by providing an instream flow analysis for LCWD that builds upon prior analyses conducted for the admission of Ashland and Burlington to the MWRA system. The Town of Ashland was approved by the WRC under the ITA in 2018 for a withdrawal of up to 1.6 mgd maximum day demand, and the Town of Burlington was approved in 2020 for up to 6.5 mgd maximum day demand. Both approvals were based on a donor basin analysis that accounted for up to 10 mgd of additional withdrawals from the MWRA system for new communities. This analysis demonstrated that such withdrawals would not impact MWRA's existing water system or operations. The combined withdrawals for Ashland, Burlington, and LCWD total 8.93 mgd, remaining below the 10 mgd threshold previously approved by the WRC. While Burlington has begun utilizing MWRA water, Ashland has not yet required it. According to the Single EIR, the current analysis for LCWD confirms the viability of a 10 mgd increase in withdrawals from the MWRA system, reflecting updated system yield data through December 2023 and accounting for ongoing decreases in MWRA demand.

Additionally, according to the Single EIR, the analysis confirms that the proposed interbasin transfer will not impact MWRA's system operation and or its ability to reliably supply high-quality water to existing customers. The analysis shows minimal drought action impacts at demand levels that account for projected growth and the addition of 10 mgd to include LCWD, additional demand from the recently admitted communities of Burlington and Ashland, and other potential future communities. As described in the Single EIR, MWRA water system demand is considerably below safe yield and historic levels of demand. According to the Single EIR, not only is water supply more than adequate, robust infrastructure exists to serve LCWD and other new communities at the level of demand contemplated.

# Criterion 6: Impacts of Groundwater Withdrawals

As per the WRC ITA criteria guidance, Criterion 6: Impacts of Groundwater Withdrawals - conducting a pump test on the groundwater withdrawals which are proposed to be transferred to another basin is not applicable as the sources of water or Phase 2 are surface waters including the Quabbin Reservoir in the Chicopee River Basin and the Wachusett Reservoir in the Nashua River Basin

#### Criterion 7: Cumulative Impacts

The Single EIR addressed Criterion 7: Cumulative Impacts by demonstrating that MWRA's existing withdrawals and the proposed interbasin transfer for LCWD are consistent with historic practices authorized under state law and within the capacity of the established system. Chapter 488 of the Acts of 1895 and subsequent legislative acts provide the legal framework for MWRA's rights to withdraw water from the Swift, Ware, and Nashua rivers for use within its system, including infrastructure expansions such as the Quabbin and Wachusett reservoirs. These laws, enacted prior to the ITA, authorized the development of a system capable of serving additional communities as part of the metropolitan water supply.

The Single EIR included analysis that detailed MWRA's Water Management Act registrations, which permit withdrawals of up to 312.82 mgd from the Nashua and Chicopee River Basins based on historical averages from 1981 to 1985. The cumulative demands of existing communities and those approved for interbasin transfers, including Bedford, Stoughton, Wilmington, Reading, Ashland, and Burlington, were evaluated. These approvals by the WRC confirm that the MWRA system has consistently accommodated additional communities without adversely impacting its operations, system reliability, or instream flows.

The Single EIR also reaffirmed that MWRA's system demand remains well below its registered withdrawal limits and historical peak demand of 330 mgd. By adhering to its Enabling Act and Operating Policy #10, MWRA ensures a robust process for managing new interbasin transfers, mitigating cumulative impacts, and maintaining compliance with the ITA. According to the Single EIR, addition of LCWD to the system will not adversely affect water supply reliability, system infrastructure, or the ecological health of donor basins.

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Comments from the WRC indicate that the Single EIR is adequate to serve as the ITA application and that the information provided to address the ITA criteria is sufficient to allow the WRC to perform a full review of the ITA application. WRC notes that it does not require additional information at this time regarding Criteria 1, 4, 5, 6, or 7. WRC notes that WRC staff may seek clarification or additional details during its review process.

Comments from MassDEP's Water Management Act (WMA) program support LCWD's application to join the MWRA, contingent on commitments to complete an M36 Audit and Report with Level 1 validation by December 31, 2024, and to develop a Water Loss Control Program for 2025, including ranked action items and target completion dates, with annual updates thereafter. Comments from MassDEP also recommend the adoption and enforcement of an Outdoor Water Use Restrictions Bylaw as a requirement of MWRA admission and is available to discuss Unaccounted-for Water (UAW) Plan requirements in greater detail.

Comments from MassDEP note that upon ITA approval, and to move forward with Phase II, LCWD will be required to submit a new application for a BRP WS32 permit for modification of the interconnection to allow the transfer of water to be increased to 575 gpm (0.83 mgd). The interconnection may not be modified in any way to allow transfer of the higher volume until MassDEP has received and approved in writing the BRP WS32 permit application for Phase II.

Comments from MWRA indicate support for LCWD's construction of the interconnection with Wakefield as an emergency backup supply while pursuing formal admission to the MWRA water system. Comments also note that LCWD is well-positioned to meet the requirements outlined in Operating Policy #10 (OP.10), which governs admission and includes compliance with MEPA, the ITA, and other regulatory approvals. MWRA confirms that it has sufficient capacity to serve LCWD without compromising system reliability, water quality, or environmental protections. More specifically, MWRA notes that the Single EIR provides information on the effects of LCWD's demand as well as cumulative demands of other communities recently admitted to the MWRA water system, on the safe yield of the watershed and donor basin, as well as MWRA system reliability. MWRA states that analysis included in the Single EIR demonstrates that reasonable instream flow in the Chicopee and Nashua Rivers basins from which water will be transferred will be maintained and that existing MWRA water communities will not be negatively affected by admission of LCWD to the system. MWRA notes that the Single EIR also provides information and figures, which demonstrate that LCWD's additional demand on the MWRA water system will not impact water released to the Swift and Nashua Rivers. Comments also confirm that any emergency use of the interconnection before LCWD's formal admission would require a MassDEP emergency declaration under MWRA's Operating Policy #5 (OP.05).

# Mitigation and Section 61 Findings

The Single EIR provided final mitigation commitments and draft Section 61 Findings for use by Participating Agencies, which are summarized below. The Section 61 Findings should be provided to Participating Agencies to assist in the permitting process and issuance of final Section 61 Findings.

# Environmental Justice

- Provide an additional water source to improve the resiliency and redundancy of LCWD's water supply system and reliability of LCWD's water quality.
- Provide an additional water source to reduce reliance on the Ipswich River Basin, a highly stressed basin projected to experience seasonal streamflow depletion from evapotranspiration exacerbated by climate change.
- Provide public outreach, documents, and project updates on the Town of Lynnfield webpage.
- Monitor all construction vehicles to reduce idling, and require compliance with the MassDEP's Diesel Retrofit Program to reduce emissions from diesel engines and vehicles to protect construction workers and the general public.
- Minimize construction noise impacts by using quieter equipment, equipping machinery with silencers or mufflers, and adhering to state, federal, and Town of Lynnfield noise regulations.

#### Wetlands

• Restore work areas to pre-construction contours and re-seed, except for new impervious areas within the 100-foot Buffer Zone to BVW.

- Establish staging areas located on cleared portions of the site, outside jurisdictional resources and buffer zones, with prior approval from the engineer.
- Surround stockpiles in sensitive areas by compost socks and regularly inspect and maintain.
- Install silt fences, mulch, and compost logs to control sediment and stabilize disturbed areas.
- Develop dewatering plans to include treatment methods, such as settling basins and filtration, to remove sediment before water is discharged.
- Divert offsite surface water around the site and backfill and restore disturbed areas upon project completion.
- Clean spills immediately and report reportable spills to the appropriate authorities.
- Dispose debris and excess material in compliance with local, state, and federal regulations.
- Inspect sediment control measures weekly and after storms, with repairs and sediment removal performed as needed. Remove controls once the site is stabilized.

# Water Supply/Interbasin Transfer

- Maintain access to drinking water to Wakefield residents during construction.
- Evaluate multiple alternatives for supplemental water sources, including surface reservoirs, additional wells, and interconnections with neighboring communities and MWRA-supplied systems.
- Demonstrate that the development of a new surface water source within LCWD's district boundaries is neither feasible nor viable.
- Develop a drought management plan outlining specific triggers and actions for conservation during drought conditions.
- Conduct annual water system audits and leak detection programs with a budget of \$25,000 to \$35,000 for surveys, repairs, and system improvements.
- Maintain a 100% metering program, including source meters and large system meters, with a replacement program to ensure accurate measurement.
- Promote water use efficiency programs, rebates, and incentives for residential, public, and commercial/industrial users.
- Provide educational materials promoting water conservation practices and tools like the LCWD WaterSmart portal for users to track water usage and savings.

# Climate Change

#### Adaptation and Resiliency

- Incorporate resilient design features to mitigate climate risks, such as waterproof manhole structures and a watertight interconnection vault equipped with a sump pump and durable materials to handle extreme weather.
- Construct interconnection vault below ground to provide protection from extreme temperatures.
- Restore project sites with native, pollinator-friendly plantings to enhance climate resilience.

# Greenhouse Gas (GHG) Emissions

• Comply with Massachusetts laws to minimize idling and reduce GHG emissions from construction activities.

- Maintain project schedule to reduce the number of days on site.
- Maintain the flow of water from Wakefield to LCWD by gravity, requiring no pumping and minimizing operational CO2 emissions.

#### Construction Period

- Implement sedimentation and erosion controls at the limits of work, including treating impacted water on-site with filtration or settling basins.
- Minimize clearing, grading, and alteration of natural topography during construction.
- Manage excavated material by segregating for reuse, storing off-site if necessary, and disposing of surplus material with Engineer approval in designated areas.
- Strip, stockpile, and reuse topsoil, reseeding disturbed areas with pollinator-friendly plants or approved topsoil as needed.
- Protect and restore trees, shrubs, and other landscape features, ensuring they are not damaged during construction and repairing any that are affected.
- Execute dust control measures using approved methods and regularly sweep and clean paved streets near work areas.
- Refuel and maintain equipment in designated areas outside sensitive zones, inspecting equipment daily to prevent fluid leaks.
- Prohibit vehicle idling for more than five minutes, use ultra-low sulfur diesel fuel (ULSD), and equip diesel construction equipment with emission control devices, such as diesel oxidation catalysts (DOC) or diesel particulate filters (DPF), on all diesel equipment, in compliance with the Massachusetts Diesel Retrofit Program.
- Develop a traffic management plan, approved by the Engineer, Police Department, and MassDOT, showing phased setups and detours if needed.
- Follow the Manual on Uniform Traffic Control Devices (MUTCD) for all traffic control work.
- Plate all streets at night, ensuring no open excavations remain after working hours.
- Cover dump trucks with tarpaulins and ensure tailgates are tightly sealed.

# Conclusion

Based on a review of the Single EIR and in consultation with Agencies, I find that the Single EIR adequately and properly complies with MEPA and its implementing regulations. No further MEPA review is required, and the project may proceed to permitting. Participating Agencies should forward copies of the final Section 61 Findings to the MEPA Office for publication in accordance with 301 CMR 11.12.

November 29, 2024
Date Rebecca L. Tepper

#### Comments received:

11/21/2024 Massachusetts Water Resources Commission (WRC)

EEA# 16722	Single EIR Certificate	November 29, 2024
11/22/2024 11/22/2024	Massachusetts Department of Environmental Protection (MassDEP) Massachusetts Water Resources Administration (MWRA)	

RLT/MJS/mjs



# THE COMMONWEALTH OF MASSACHUSETTS WATER RESOURCES COMMISSION

100 CAMBRIDGE STREET, BOSTON MA 02114

November 21, 2024

Rebecca L. Tepper, Secretary
Executive Office of Energy and Environmental Affairs
Attention: Matthew Sokop, MEPA Office
EOEA #16722
100 Cambridge Street
Boston, MA 02114

### Dear Secretary Tepper:

The Water Resources Commission (WRC) staff has reviewed the Single Environmental Impact Report (SEIR) and the Supplemental Information MEPA filings for the Lynnfield Center Water District's Supplemental Water Interconnection through the Town of Wakefield to obtain a supplemental water supply from the Massachusetts Water Resources Authority (MWRA). As this action represents a transfer of water across a river basin boundary and a change in operating rules by MWRA, it requires review and approval under the Interbasin Transfer Act (ITA). Lynnfield Center Water District (LCWD) has land area and its sources in the North Coastal and Ipswich River Basins and MWRA's sources are in the Chicopee River and Nashua River Basins. I submit the following comments on behalf of the WRC in its role as the entity entrusted with reviewing and approving interbasin transfers.

The WRC uses the Environmental Impact Report (EIR), required under the MEPA Regulations (301 CMR 11.00), as its application. WRC staff has reviewed the SEIR and Supplemental Information provided to address the ITA criteria for approval of an increase in the present rate of interbasin transfer pursuant to 313 CMR 4.09, as summarized below, and has determined that sufficient information has been provided to allow staff to perform a full review of the ITA application.

- Criterion 2 Viable Sources: the proponent has submitted information detailing the efforts that have been made to identify viable sources of water supply in the receiving basins. WRC staff has sufficient information to complete the review of this Criterion.
- Criterion 3 Water Conservation: the proponent's SEIR and Supplemental Information
  provided additional details pertaining to water conservation, in particular details on
  unaccounted-for water, M36 water audits, water loss control efforts, land protection in drinking
  water supply areas, a water conservation plan, drought management plan, sources of funding,
  public education and outreach, and water rates. WRC staff has sufficient information to
  complete the review of this Criterion.

The WRC does not require additional information at this time regarding Criteria 1, 4, 5, 6, or 7.

In summary, the proponent has provided all of the information required for WRC staff to review an application for an increase in the present rate of interbasin transfer pursuant to 313 CMR 4.09. WRC staff may seek clarification or additional details during the review process. Once the MEPA process is complete, and the WRC has voted to accept the Proponent's interbasin transfer application as complete, WRC staff will initiate the process for review and approval of the project in accordance with the ITA, Chapter 21 Section 8D, and 313 CMR 4.00, including holding of public hearings. Please contact Vanessa Curran, staff to the WRC, at <a href="mailto:vanessa.curran@mass.gov">vanessa.curran@mass.gov</a> with any questions.

Thank you for the opportunity to comment.

Sincerely,

Vandana Rao, PhD

Nawagh

Executive Director, MA Water Resources Commission

cc: Water Resources Commission
Purvi Patel, EEA
Anne Carroll, DCR
Vanessa Curran, DCR
Erin Graham, DCR
Colleen Rizzi, MWRA
Anne Malenfant, CDM Smith

John Scenna, LCWD



# Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs

# Department of Environmental Protection

Northeast Regional Office • 150 Presidential Way Woburn, MA 01801 • 978-694-3200

Maura T. Healey Governor

Kimberley Driscoll Lieutenant Governor Rebecca L. Tepper Secretary

> Bonnie Heiple Commissioner

November 22, 2024

Rebecca L. Tepper, Secretary Executive Office of Energy & Environmental Affairs 100 Cambridge Street Boston MA, 02114

Attn: MEPA Unit

RE: Lynnfield LCWD Supplemental Water Interconnection with Wakefield/MWRA EEA# 16722

Dear Secretary Tepper:

The Massachusetts Department of Environmental Protection Northeast Regional Office (MassDEP-NERO) and the Water Management Act (WMA) Program in Boston has reviewed the Single Environmental Impact Report (SEIR) for the proposed LCWD Supplemental Water Interconnection with Wakefield/MWRA in Lynnfield. MassDEP provides the following comments.

# **Drinking Water**

The Lynnfield Center Water District (LCWD) is seeking admission to the Massachusetts Water Resources Authority (MWRA) water supply system, PWS ID# 6000000, to withdraw approximately 0.28 MGD average day demand and up to 0.83 MGD maximum day demand through an interconnection with Wakefield. LCWD will not be connecting directly to an MWRA water main; instead, the water will be received via an interconnection with the Town of Wakefield Water & Sewer Division's municipal water system, PWS ID# 3305000, which receives about 90% of its water from the MWRA system. LCWD is proposing to conduct the project in two phases with the Phase 1 component as an emergency-only connection and Phase II intending to obtain approval from the MWRA to purchase water on an ongoing basis at a later date, so that the emergency-only restriction will be lifted, and the water may be used by LCWD at any time to supplement its own supply. Admission to the MWRA supply system requires an Interbasin Transfer Act (ITA) approval from the Massachusetts Water Resources Commission (WRC).

The LCWD has water sources in two basins, the North Coastal Basin and the Ipswich River Basin. The registration volume for the Ipswich River Basin is 0.29 million gallons per day (MGD) and the registration volume for the North Coastal Basin is 0.32 MGD. Each basin may exceed its registration volume by the 0.10 MGD permitting threshold before requiring a permit with additional volume, which brings the total allowed withdrawal volume up to 0.81 MGD. LCWD has multiple water quality challenges including manganese, nitrate, and PFAS in their sources. To address these challenges, LCWD is planning on connecting several sources to the currently-underdesign Glen Drive Water Treatment Plant (WTP) to treat for iron, manganese and PFAS.

In addition to water quality issues, LCWD would like to improve the resiliency and redundancy of its water supply system. LCWD is facing challenges with their water supply, including: (1) maximum day demands values close to or over typical pumping capacity of existing sources; and (2) ongoing efforts to maintain a sustainable water supply. To address the maximum day demand issue, LCWD consistently rely on their two storage tanks to make up the difference. Multiple consecutive high-demand days can exceed the system's ability to provide water and draw down the tanks to unsustainable levels. Even with all sources online, LCWD is challenged to meet summer daily demands, and the summertime loss of any stations would place LCWD in a water supply emergency.

In FY23, LCWD was awarded a Water Management Act (WMA) Grant for the design of the Wakefield Interconnection, as well as completion of a portion of the MWRA Admission process. In FY24, LCWD was awarded a WMA Grant under the Ipswich River Basin Water Supply and PFAS Grant Opportunity. A portion of the FY24 grant covered completion of the vault design and bidding of the project, as well as the next phase of the MWRA Admission process (MEPA SEIR).

According to their Annual Statistical Reports (ASRs) for 2019-2023 LCWD has been operating above its registered volume in the Ipswich River Basin, but within the 0.1 MGD permitting threshold ever year except 2023, when the buffer was also exceeded. LCWD's 2004 permit requires the submission to MassDEP and implementation of a water bank program. MassDEP does not have a record of such a program being submitted for 2023 and would require that it be prepared and submitted by December 31, 2024. In the North Coastal Basin, LCWD has been operating below its registered volume. LCWD has met the Residential Gallons Per Capita Day (RGPCD) Performance Standard from 2019-2023 with the exception of 2020, where residential use was generally higher across the state due to the COVID lockdown. LCWD has exceeded the 10% Unaccounted-for Water (UAW) Performance Standards in 2022 (17%) and 2023 (21%). The MassDEP WMA program supports LCWD's MWRA application, which includes a commitment to complete an M36 Audit and Report, including Level 1 validation, by December 31, 2024, in addition to developing a Water Loss Control Program for 2025, with ranked action items and target completion dates, and to repeat the process annually. WMA Program staff is happy to discuss the UAW Plan requirements with LCWD in more detail. WMA Program Staff would also request that an Outdoor Water Use Restrictions Bylaw be passed by the District and enforced as a requirement of MWRA admission.

MassDEP approved a BRP WS32 permit (Distribution System Modification for System Serving Over 3,300 People) for the construction design of the Phase I interconnection on June 28,

2024. During Phase I of the project, LCWD is required to utilize a venturi tube to limit the amount of water that can pass through the interconnection from the MWRA to 250 gallons per minute (gpm), which is equivalent to 0.36 million gallons per day (MGD). Until the ITA approval is granted by the WRC, the interconnection may only be used during a MassDEP-declared State of Water Supply Emergency and with the consent of the MWRA.

Upon ITA approval, and to move forward with Phase II, LCWD will be required to submit a new application for a BRP WS32 permit for modification of the interconnection to allow the transfer of water to be increased to 575 gpm (0.83 MGD). The interconnection may not be modified in any way to allow transfer of the higher volume until MassDEP has received and approved in writing the BRP WS32 permit application for Phase II.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

John D. Viola Deputy Regional Director

cc: Brona Simon, Massachusetts Historical Commission, Eric Worrall, Kristin Divris, Jim Persky, MassDEP-NERO



# MASSACHUSETTS WATER RESOURCES AUTHORITY

Deer Island 33 Tafts Avenue Boston, MA 02128

Frederick A. Laskey Executive Director Telephone: (617) 242-6000

Fax: (617) 788-4899 TTY: (617) 788-4971

November 22, 2024

Rebecca Tepper, Secretary Executive Office of Energy and Environmental Affairs 100 Cambridge St, Suite 900 MEPA Office, Matthew Sokop Boston, MA 02114

Subject: EOEEA # 16722 Single Environmental Impact Report

LCWD Supplemental Water Interconnection with Wakefield/MWRA

Lynnfield, MA

# Dear Secretary Tepper:

The Massachusetts Water Resources Authority ("MWRA") appreciates the opportunity to comment on this Single Environmental Impact Report ("SEIR") submitted by the Lynnfield Center Water District (the "Proponent" or "LCWD") for LCWD Supplemental Water Interconnection with Wakefield/MWRA (the "Project"). The Project consists of LCWD's plan to construct an interconnection with the Town of Wakefield ("Wakefield") water system and to pursue admission to the MWRA water system. MWRA previously commented on the Project Expanded Environmental Notification Form (EENF) on July 25, 2023 and the Project Amended EENF on September 8, 2023.

LCWD is seeking approval under the Interbasin Transfer Act to withdraw up to 0.83 million gallons per day (mgd) of water from MWRA. As noted in MWRA's previous comments on the EENF, LCWD's proposal is consistent with MWRA's goal to advance reasonable water system expansion. MWRA is in a position to serve additional communities given that its current use over the last five years has averaged approximately 200 mgd, 100 mgd less than the MWRA system safe yield of 300 mgd, without impairing the ability of MWRA to operate its water system to optimize water quality and to assure customers a reliable and continuous water supply now and in the future. The MWRA's supply to LCWD will have a positive effect on local water sources. Use of MWRA's large multi-year reservoirs to reduce or replace withdrawals from local sources can be part of an effective regional water management approach to reduce or alleviate low-flow conditions in highly altered river basins or river reaches.

MWRA has a policy for admission of new communities to its water system, *Operating Policy* #10, *Admission of New Community to MWRA Water System* (OP.10), which builds on the requirements described in Section 8 (d) of MWRA's Enabling Act. OP.10 requires a host of regulatory approvals and requirements including MEPA, review under the Interbasin Transfer Act, and enacted legislation. Admission to the MWRA water system is ultimately subject to approval by the MWRA Advisory Board and MWRA Board of Directors. LCWD is well positioned to satisfy MWRA's requirements.

EOEEA #16722 – SEIR November 22, 2024

The SEIR provides documentation that MWRA has adequate capacity to serve LCWD as well as other communities that have recently joined the MWRA water system. The SEIR provides further evidence that LCWD's withdrawals will not impair the ability of MWRA to operate its water system to optimize water quality without negatively affecting the environment and to assure customers a reliable and continuous water supply now and in the future. MWRA is in coordination with and will continue to work closely with LCWD as it continues to work through the admission process outlined in OP.10 including MEPA, review under the Interbasin Transfer Act, and other requirements.

The SEIR provides information on the effects of LCWD's demand as well as cumulative demands of other communities recently admitted to the MWRA water system, on the safe yield of the watershed and donor basin, as well as MWRA system reliability. The analysis demonstrates that reasonable instream flow in the Chicopee and Nashua Rivers basins from which water is transferred will be maintained and that existing MWRA water communities will not be negatively affected by admission of LCWD to the system. The SEIR also provides information and figures, which demonstrate that LCWD's additional demand on the MWRA water system will not impact water released to the Swift and Nashua Rivers.

MWRA supports LCWD proceeding with construction of the interconnection with Wakefield, while concurrently pursuing admission to the MWRA water system pursuant to OP.10. The proposed interconnection to the Wakefield water system would provide a critical source of emergency backup supply for LCWD prior to admission under OP.10. Interconnections between communities generally support redundant and resilient water systems by ensuring fire protection, sanitation, and potable water in emergency situations.

MWRA's Operating Policy #5 (OP.05) Emergency Water Supply Withdrawals (OP.05) governs requests for emergency water withdrawals from non-MWRA water system communities. Pursuant to OP.05, any emergency water withdrawal from a non-MWRA water community requires an emergency declaration from the Massachusetts Department of Environmental Protection (MassDEP). If LCWD uses the interconnection to withdraw water from the MWRA water system via Wakefield prior to admission pursuant to OP.10, a MassDEP emergency declaration will be required.

On behalf of the MWRA, thank you for the opportunity to provide comments on this Project. Please do not hesitate to contact Hillary Monahan of my staff at (857) 324-0554 or Hillary.Monahan@mwra.com with any questions or concerns.

Sincerely,

Colleen Rizzi, P.E.

Collen C. T.

Director

Environmental and Regulatory Affairs

cc: John Scenna, Lynnfield Center Water District Vandana Rao, MA Water Resources Commission John Viola, MassDEP Chapter 15 of the Acts of 2025

THE COMMONWEALTH OF MASSACHUSETTS

In the One Hundred and Ninety-Fourth General Court

AN ACT AUTHORIZING THE MASSACHUSETTS WATER RESOURCES AUTHORITY TO SUPPLY WATER TO THE LYNNFIELD CENTER WATER DISTRICT WITHIN THE TOWN OF LYNNFIELD.

Whereas, The deferred operation of this act would tend to defeat its purpose, which is to forthwith supply water to the Lynnfield Center Water District, 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. Paragraph (d) of section 8 of chapter 372 of the acts of 1984, as most recently amended by section 1 of chapter 274 of the acts of 2024, is hereby further amended by inserting after the word "Lynn" the following words:-, Lynnfield Center Water District within the town of Lynnfield.

SECTION 2. Notwithstanding section 1, the provision of water services by the Massachusetts Water Resources Authority to the Lynnfield Center Water District, established in chapter 336 of the acts of 1939, within the town of Lynnfield shall commence only after the board of directors of the authority has voted to approve the provision of such services after having first made the findings as required by clauses (1) to (6), inclusive, of paragraph (d) of section 8 of chapter 372 of the acts of 1984 and having made such other determinations in accordance with applicable policies of the authority and after all required approvals have been received including, as applicable, approval from other regulatory bodies, where required, and the advisory board of the authority; provided, however, that section 71 of said chapter 372 shall not apply to the provision of water services pursuant to this act.

House of Representatives, August  $\frac{4}{3}$ , 2025.

Preamble adopted,

Tail Donks, Speaker.

In Senate, August 4, 2025.

Preamble adopted,

, President.

House of Representatives, August H , 2025.

Bill passed to be enacted,

In Senate, August 4 , 2025.

Bill passed to be enacted,

, President.

Approved,
at 5 o'clock and // minutes, /. M.



# THE COMMONWEALTH OF MASSACHUSETTS WATER RESOURCES COMMISSION

100 CAMBRIDGE STREET, BOSTON MA 02114

Report of the Findings, Justifications and Decision of the Water Resources Commission Relating to the Approval of the Lynnfield Center Water District's Request for an Interbasin Transfer Pursuant to M.G.L. Chapter 21 Sections 8B through 8D

#### **Decision**

On March 13, 2025, in a vote unanimous of those present, the Water Resources Commission (WRC) approved, with Conditions, the Lynnfield Center Water District's request to obtain supplemental water supply from the Massachusetts Water Resources Authority, which will facilitate an interbasin transfer of 0.83 million gallons per day (MGD). This vote was taken after review of the facts provided by the applicant, analysis of the associated data, and consideration of public and agency comments received concerning this application.

#### Introduction

On October 23, 2024, the WRC received a request from the Lynnfield Center Water District (LCWD) for approval of an action to increase the present rate of interbasin transfer under the Interbasin Transfer Act (ITA) as part of a Single Environmental Impact Report (SEIR) and supplemental filing submitted to the Massachusetts Environmental Policy Act (MEPA) Office. The proposed project aims to connect LCWD to the Massachusetts Water Resources Authority (MWRA) Water System through the Town of Wakefield. The Secretary's Certificate on the SEIR was issued on November 29, 2024. The WRC accepted LCWD's application as complete at its December 12, 2024 meeting.

LCWD is proposing to purchase an average day demand of 0.28 million gallons per day (MGD) with a maximum day demand of 0.83 MGD of water from MWRA to supplement its existing water supply sources which will provide redundancy and resiliency to its system as well as help relieve stress on the Ipswich River and North Coastal Basin sources. The capacity of the interconnection to be constructed is currently restricted to 0.36 MGD due to water system infrastructure constraints in Wakefield. However, LCWD is actively working and negotiating with Wakefield towards increasing the capacity to 0.83 MGD. The limiting factor for the proposed maximum interbasin transfer volume of 0.83 MGD will be the agreement with MWRA and the physical capacity of the Wakefield interconnection. LCWD has its sources and service area in the Ipswich River and North Coastal Basins. This interconnection requires review under the ITA because MWRA's sources are located in the Chicopee River and Nashua River Basins.

A summary of the facts described in the application is as follows:

1. LCWD's sources are located in the Ipswich River and North Coastal Basins (Figure 1).

- 2. LCWD's existing sources consist of four groundwater sources.
- 3. Two of LCWD's sources are in the stressed Ipswich River Basin and several sources are experiencing water quality issues due to the presence of PFAS, manganese, iron, and nitrate. The Phillips Road tubular wellfield (Station 1) in the North Coastal Basin is currently offline due to elevated levels of nitrate.
- 4. LCWD is applying for admission to the MWRA Waterworks System, which has its sources in the Chicopee River and Nashua River Basins.
- 5. A MEPA environmental review, pursuant to M.G.L. c. 30, §§ 61-62I, was required for this proposed action. The ITA application was submitted as part of the SEIR for this project (EOEEA #16722) and supplemental filing with MEPA.
- 6. The Secretary's Certificate on the SEIR was issued on November 29, 2024, stating that no further MEPA review was needed.
- 7. Two required public hearings were held virtually via Zoom to take comment on this application, for the donor basin on January 14, 2025 and for the receiving basin on January 15, 2025. Written public comments were accepted until January 22, 2025. Comments received at the receiving basin public hearing and in writing were in favor of the project and requested a formal water conservation plan.
- 8. A Staff Recommendation to approve the request was presented to the WRC on February 13, 2025.
- 9. A public hearing on the Staff Recommendation was held virtually via Zoom on February 26, 2025. Written public comments were accepted until March 5, 2025 and none were received.

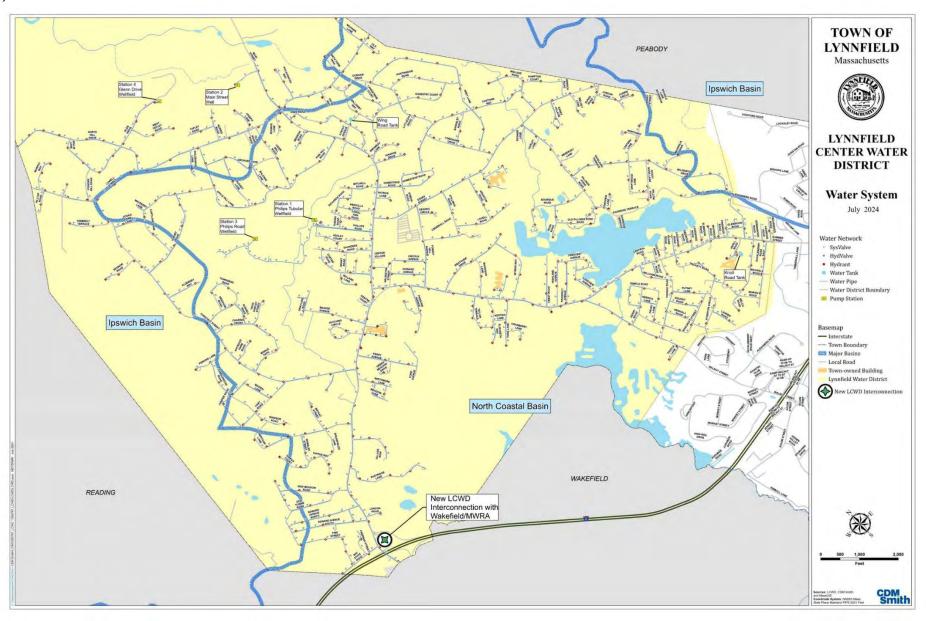
# **Evaluation of the Proposed Interbasin Transfer**

This interbasin transfer application was reviewed on its own merits and is applicable solely to LCWD's purchase of water supply from MWRA in the amount of 0.83 MGD. This Decision is made based on facts contained in LCWD's MEPA submissions and additional information submitted at the WRC's request during the MEPA process and during staff review. The application was evaluated against the seven Criteria outlined in the ITA regulations (313 CMR 4.09), as well as the ITA Performance Standards and with consideration of comments received from the agencies and through the public comment process.

# Synopsis of the Evaluation Criteria (313 CMR 4.05)

Criteria	<b>Application Meets?</b>
Criterion 1: MEPA Compliance	Yes
Criterion 2: Viable In-Basin Sources	Yes
Criterion 3: Water Conservation	Yes, with conditions
Criterion 4: Forestry Management	Not applicable
Criterion 5: Reasonable Instream Flow	Yes
Criterion 6: Impacts of Groundwater Withdrawals	Not applicable
Criterion 7: Cumulative Impacts	Yes

Figure 1: LCWD's Sources



#### **Basis for the WRC Decision**

This application was reviewed by Executive Office of Energy and Environmental Affairs (EEA), WRC staff at the Department of Conservation and Recreation's (DCR) Office of Water Resources, Department of Environmental Protection (MassDEP), and Department of Fish and Game's (DFG) Division of Fisheries and Wildlife (MassWildlife). This Decision was made after an evaluation of LCWD's application and compliance with the five applicable Criteria of the ITA regulations and the ITA Performance Standards. The following sections describe in detail compliance with the Criteria.

# **Criterion 1: Compliance with MEPA**

An environmental review, pursuant to MEPA (M.G.L. Chapter 30, Sections 61 through 62I) and the MEPA regulations, 301 CMR 11.00, was required for this proposed transfer. The ITA application was submitted as part of the SEIR for this project (EOEEA #16722) and a supplemental filing with MEPA. The SEIR and supplemental filing were submitted in October 2024. The Secretary's Certificate on the SEIR was issued on November 29, 2024 and stated that no further MEPA review is required.

#### **Criterion 2: Viable In-Basin Sources**

LCWD was required to demonstrate that all reasonable efforts have been made to identify and develop all viable sources in the receiving area (LCWD). Over several decades, LCWD has evaluated multiple alternatives to develop supplemental water supply sources. Previous efforts to explore potential additional water supply sources resulted in two formal supplemental supply studies, the Ipswich River Basin Water Management Act (WMA) Study (2017 and 2018) and the Supplemental Water Modeling Evaluation Report (2021). Following is a summary of all issues considered relating to viability.

#### Alternatives Analysis

An alternatives analysis was performed to identify, evaluate, and select potential water supply alternatives. The alternatives evaluated in the receiving basin include surface reservoir sources, additional wells in district territory, and interconnections with non-MWRA neighboring systems and with partial- or fully-MWRA supplied neighboring systems.

#### Alternative 1: Reservoir/Surface Water Source

In the mid-1970s, LCWD developed plans for a surface water reservoir and filtration plant. The reservoir would have been located north of Glen Drive, flooding a large area of wetlands, including what is now the Glen Drive wellfield (Station 4). Much of the land for the reservoir was acquired by LCWD. However, the funding article for the reservoir and filtration plant was voted down at District Meeting. Given the current stressed nature of the Ipswich River and its basin tributaries, the incompatibility with the current groundwater source well fields and production infrastructure, as well as the regulatory environment for permitting new surface water impoundments, it has been determined that any new surface water source within LCWD's district boundaries is no longer feasible.

# Alternative 2: Additional Wells in District Territory

In the 1970's, LCWD explored possible sand and gravel well sites to expand supply, resulting in the conclusion there were no additional sites for that type of well. Over the past few decades,

LCWD has continued to look at the potential of adding new bedrock wells in its territory. Previous investigations led to the construction of the Glen Drive wellfield (Station 4) in 1997 in the Ipswich River Basin. The 2017 Ipswich Basin WMA Study stated that "In general, the Ipswich River Basin has limited extents of medium and high-yielding aquifers..." and "... it appears that the towns searching for new groundwater sources within the Ipswich Basin have not been able to easily identify any feasible sources." LCWD asserts this is the case within the district boundaries located in the Ipswich River Basin. The 2017 report concluded that "Given the physical and hydrogeological constraints of the Basin, increased groundwater withdrawal is probably not the solution..." and "Studies predict climate change will further exacerbate seasonal streamflow depletion by evapotranspiration in the Basin." Therefore, new sources within the Ipswich River Basin are not being considered by LCWD.

LCWD also previously experienced challenges with supply from existing wells in the North Coastal Basin at Station 3 (Phillips Road wells) and assessed the possibility of additional wells in this basin as well. As a result, in 2013 LCWD was formally permitted to construct new bedrock wells for Station 3 in the North Coastal Basin. Based on the comprehensive testing associated with production of those new and existing North Coastal Basin wells, and the area of LCWD's service territory within the basin, LCWD believes it has maximized withdrawals from these sources. In the decade since the new wells went online for Station 3, LCWD has not been able to achieve the expected volume. The wells pump as a single well field, with yield impacted when another one of the well pumps comes on. Therefore, it is expected that even if more wells were installed, they would impact the existing wells and not yield any additional capacity.

Based on the review of both the North Coastal Basin and Ipswich River Basin, LCWD does not consider supplemental groundwater sources in its territory to be a viable alternative to address its demand challenges and redundancy constraints.

MassDEP has noted that it would be extremely difficult to allocate any additional water volume, ground or surface, in the Ipswich River Basin at this time. Long-standing concerns exist about the allocation of any additional volumes in the Ipswich River Basin due to safe yield issues. While the MassDEP WMA Program cannot speak to the availability of sources in the North Coastal Basin for LCWD, there are limited high-yield aquifers in Lynnfield, and in LCWD specifically, since the District is small and has limited area for well placement. The highest yield aquifer is already the location of LCWD's Phillips Road wells. Placing additional sources in the North Coastal Basin would not provide LCWD with the redundancy it is seeking.

#### Alternative 3: Interconnection for Additional Water

In the 2021 Supplemental Water Report, LCWD evaluated multiple scenarios to purchase supplemental water through an interconnection with adjacent water systems. In the supplemental filing submitted to MEPA, a table was provided which summarized the feasibility of obtaining water supplies from all communities located wholly or partially in the Ipswich River and North Coastal Basins. The result of this analysis indicated that obtaining water supply from the other in-basin communities is not feasible or is less feasible than the Wakefield interconnection as proposed in the SEIR.

LCWD has the following system interconnections which could possibly serve as point of a permanent supply of alternative source water: North Reading, Peabody, Lynnfield Water District (LWD) and Wakefield. Three of the four interconnections (LWD, Wakefield and Peabody) are with systems fully or partially served by MWRA. This alternative is also known as "wheeling" water from MWRA through an interconnected neighboring community. North Reading is the only system not partially served by MWRA. A direct connection with MWRA was also evaluated.

#### Interconnection with Lynnfield Water District

LWD (a separate entity and public water supply than Lynnfield Center Water District, LCWD) sources all its drinking water from MWRA. Analysis indicated that wheeling water through existing LWD interconnections would be a hydraulically viable option for LCWD. However, preliminary cost estimates were much higher than other interconnection alternatives scenarios considered and described in the 2021 Supplemental Water Report. Based on this, the LWD interconnection alternative was not pursued further by LCWD.

#### *Interconnection with Peabody*

The City of Peabody sources its drinking water from two reservoirs and supplements its supply with water from MWRA during periods of higher demand. Both of Peabody's reservoirs are located within the Ipswich River Basin, a stressed basin subject to withdrawal limits and restrictions. Peabody receives water from MWRA through a meter located in Lynn. The water from the meter located in Lynn would not be able to transport water from MWRA through Peabody into LCWD without new booster pumping capabilities and significant system reconfiguration. Peabody does not have excess capacity at its existing water treatment plant, and therefore to provide local surface water to LCWD would need to expand the facility, which would come at significant expense.

#### Interconnection with North Reading

North Reading receives water supply from the Town of Andover, the sources for which are Haggetts Pond, Fish Brook, and the Merrimack River and are all in the Merrimack River Basin. Transmission mains located in North Reading connect LCWD to Andover's distribution system and would potentially allow LCWD to "wheel" water from Andover through North Reading. Based on coordinated discussions, Andover was interested in the prospect of selling drinking water to LCWD, however, there was concern about supplying supplemental water during June and July, when the systems historically have experienced increased demands. There is also the potential need for significant transmission system reconfiguration. This option is not recommended by LCWD for two reasons: the unreliability of Andover to provide water during peak summer demands, and the extensive distribution upgrades that may be required.

### Direct MWRA Interconnection

Possible routes for a connecting pipeline to MWRA include a route to Wakefield that is approximately 17,500 feet or 3.3 miles long, and a route to Saugus that is approximately 10,000 feet or 1.9 miles long and includes construction of a new pipeline along Route 1. A direct interconnection with MWRA is possible, but at a greater cost than the interconnection through Wakefield.

#### Interconnection with Wakefield

The Town of Wakefield sources the majority of its drinking water through three MWRA connections. A hydraulic evaluation showed that no booster station is needed for Wakefield to supply LCWD with water. Two supply scenarios that were evaluated both maintain LCWD's tank levels over an extended period of maximum day demand. The Wakefield interconnection to wheel water from MWRA as a supplemental source for LCWD was identified as the preferred approach in the 2021 Supplemental Water Report.

In conclusion, the basic requirement of the ITA is that an applicant shows that local water supply sources are used to the maximum extent possible and that other sources cannot be reasonably developed prior to the applicant obtaining permission to transfer water from out of basin. Given the above-described conditions, the WRC determined that all reasonable efforts have been made to identify and develop all viable sources in the receiving area of the proposed interbasin transfer.

# **Criterion 3: Water Conservation**

LCWD was required to demonstrate that all practical water conservation measures have been implemented. The WRC water conservation performance standards are numbered below, followed by a bulleted narrative of LCWD's actions.

- 1) Water Conservation Program A long-term water conservation program should be in place for the receiving community, which, to the extent feasible, is customized based on the specific water use patterns and supply constraints of the system.
  - a) Data Analysis Determining where to focus water conservation efforts and resources should begin with data collection, management, and analysis. To the extent feasible, the system's water conservation programs should be developed using relevant data analysis.
    - According to the SEIR, LCWD supplies drinking water to approximately 70 percent
      of the Town of Lynnfield residents, as well as four schools and all the Town's
      municipal facilities. The residential service population as reported in LCWD's 2023
      Annual Statistical Report (ASR) was 8,403. LCWD's customers are primarily
      residential, with approximately 2,692 residential service connections and 18
      commercial/business accounts.
    - The proponent demonstrated an understanding of its water use profile, acknowledging that approximately 95% of LCWD's total volume is used within the residential sector. LCWD also acknowledges its municipal/institutional customers as the second-largest water-using sector in the system. LCWD's water conservation program is reflective of this profile and targeted toward the residential sector, with additional efforts made toward maximizing efficiency at public facilities through an ongoing water audit program, as described below.
  - b) Water Conservation Plan Documentation A water conservation/water efficiency plan should outline the system's water use profile, assessment of water savings potential, conservation measures for applicable customer categories, water efficiency-related policies, and measurable performance goals. While a formal water conservation plan is not required, applicants should submit a summary of existing water conservation efforts to help facilitate evaluation and guidance on the system's water conservation program.

- LCWD provided an updated Water Conservation Questionnaire that documents the majority of its water conservation program. LCWD does not have a formal water conservation plan beyond the information listed in the Questionnaire and its Drought/Emergency Contingency Plans.
- The proponent provided descriptions and attachments in the SEIR and through subsequent communications that adequately outlined a water conservation program and plans for program enhancement.
- LCWD's 2004 MassDEP WMA Permit for its Ipswich River Basin sources requires the implementation of a water bank program if the authorized withdrawal volume of 0.29 MGD (on an average annual daily basis) is exceeded. At a minimum, this water bank shall provide for conserving at least two gallons of water for every gallon of water demand added to the system. The authorized volume of 0.29 MGD was exceeded in 2023. MassDEP has no record of receiving documentation of such a program.
- LCWD is encouraged to develop a formal written water conservation plan to most effectively implement its water conservation program. As noted in its comment letter dated January 14<sup>th</sup>, 2025, the Ipswich River Watershed Association and its partners at the Greenscapes North Shore Coalition have offered to support the Lynnfield community in implementing its water conservation goals.
- LCWD must implement a water bank program and provide documentation to MassDEP.
- c) Residential Water Use Efficiency The scope of a residential water efficiency program will be specific to circumstances in each community and should be informed by relevant data analyses. Applicants must meet the residential performance standard of 65 gallons per capita per day (gpcd). This is a system-wide average (including indoor and outdoor use) that represents a minimum level of efficiency. If local environmental or operational conditions warrant higher efficiency (e.g., during times of drought), applicants should strive to achieve year-round residential water use of less than 65 gpcd by implementing indoor and outdoor efficiency measures.
  - LCWD's average residential gpcd (rgpcd) from 2019-2023 is 62.6 and has been trending down for the past four years, most recently reaching 56 in 2023.
  - LCWD promotes water conservation and recommendations for residents through regular bill stuffers, copies of which were provided for review.
  - LCWD also maintains a customer portal using WaterSmart software, which 50% of its customers are signed up to use. The WaterSmart portal allows customers to review their current and historical usage, compares their use to average household use, and provides suggestions on ways to reduce water use and the estimated percent of water saving if water reduction actions are taken.
  - LCWD contacts customers with high use to alert them to any issues and prevent long term excessive water usage. LCWD is also in the process of updating water meters to allow for reads at 15-minute intervals, further optimizing the use of the WaterSmart portal and opportunities to alert customers to possible leaks.
  - In 2019, LCWD joined the Greenscapes North Shore Coalition, which provides benefits such as water quality/conservation workshops and education/outreach plans for developers and residents.

- LCWD has a bylaw requiring all automatic underground irrigation systems to be equipped with a moisture-sensing device or mechanism that will automatically shut off the system's water flow during and following a period of precipitation.
- LCWD offers an ongoing rebate program for water-saving fixtures including toilets and washing machines. However, details on applying for rebates are not listed on its website, and water conservation information in general is limited on the site.
- In its comment letter on the SEIR, MassDEP WMA Program staff requested that an outdoor water use restriction bylaw be passed by LCWD and enforced as a requirement of MWRA admission. During the ITA review process, LCWD provided information about its existing outdoor water use restriction bylaw and enforcement actions.
- Additional information regarding rebates and links to additional resources such as the state water conservation website (<u>Massachusetts Water Conservation Toolkit</u>) must be added to LCWD's website to more effectively reach customers not signed up for the WaterSmart portal.
- d) Non-Residential Water Use Efficiency Water conservation measures for the non-residential sector should incorporate the relevant components of residential water use efficiency described above. In addition, all government and other public buildings under the control of the applicant should have been constructed or retrofitted with water fixtures meeting EPA's WaterSense standards and/or the current MA plumbing code, or the applicant should establish a timeline to transition to such fixtures. A program should be in place that identifies, ranks, and conducts outreach to commercial, industrial, and institutional customers based on water usage to determine areas where the greatest potential for water savings exists. The program should include regular contact with the highest users to promote water conservation, including the promotion of water reuse as per 314 CMR 20.00: Reclaimed Water Permit Program and Standards, where appropriate. Refer to the EPA's WaterSense guidance for the commercial, industrial, and institutional sector at EPA's WaterSense page for Commercial Buildings.
  - LCWD has initiated a water audit program that will be conducted at all public facilities to which it supplies water, with two schools receiving audits so far. Future audits will be completed at the remaining schools in LCWD's fiscal year 2025.
  - Additional public facilities served by LCWD are largely limited to buildings currently undergoing complete renovation (e.g. Town Hall and Public Safety), which will include new, efficient plumbing and fixtures.
  - LCWD must continue to actively monitor the ICI customers in its system for excessive use and conduct outreach/provide assistance as necessary. LCWD should also more proactively reach out to the top 10 users to direct them to resources that can help facilities manage water use, such as <a href="EPA's WaterSense">EPA's WaterSense</a> page for commercial and institutional facilities.
- 2) Water Loss Control Program A water loss control program should be in place and actively implemented. Guidance on water loss control programs can be obtained from the U.S. Environmental Protection Agency (EPA), American Water Works Association (AWWA), and the Water Research Foundation (WRF).

- LCWD does not currently have a formal water loss control program but does have most of the elements of such a program as detailed in the ITA Performance Standards. LCWD has agreed to use the results of an M36 audit projected to be completed by December 31, 2024, to further develop a water loss control program for the subsequent year, with ranked action items and target completion dates.
- LCWD plans to continue conducting annual M36 audits with at least Level 1 validation as defined by the WRF Level 1 Water Audit Validation Guidance Manual 2<sup>nd</sup> edition or latest (i.e., a validator audit review, validator interview of auditor, and validation documentation). The audit and data validation should focus on reducing real and apparent losses and improving data validity scores to at least 71 (if below).
- LCWD dedicates funding each year for leak detection and repairs and utilizes industry standard practices to estimate water loss from leaks.
- As of the submission of the SEIR, the most recent leak detection was performed in 2023 and the report from the survey was provided for review. Forty-eight miles of water main were surveyed, resulting in the identification and repair of five leaks.
- A leak detection survey was also conducted in 2022, with 48 miles of water main surveyed, resulting in the identification and repair of two leaks.
- The proponent will continue conducting annual leak detection surveys to reduce real losses as leaks are identified and repaired.
- Average unaccounted-for water (UAW) for the LCWD system from 2019-2023 was 12.2%. However, UAW has been increasing over the last two years, most recently reaching 21%.
- The proponent acknowledged the recent increase in UAW in the SEIR and provided details on efforts to reduce UAW to 10% or less, which in addition to annual M36 audits and leak detection surveys, includes the following steps:
  - o The LCWD Board of Commissioners approved a bylaw in 2016 which requires property owners to repair leaks or replace water services within 14 calendar days of being notified of the leak. A fine of \$75 per day will be incurred by the property owner until the leak is fixed.
  - o A long-term capital improvement program is in place, which was informed by a distribution study completed in 2017.
  - o LCWD has the authority to issue penalties and/or fines for stealing water.
- LCWD must submit the 2024 M36 audit report once it is available.
- LCWD must continue to conduct annual\_M36 audits, leak detection surveys at least every three years, implement water loss control activities as needed, and provide documentation to the WRC annually for the first five years after approval, and upon request thereafter.
- LCWD will use the results of its 2024 M36 audit to inform its water loss control program and submit documentation of the program to WRC staff. The program will be updated based on the results of future M36 audits. The proponent should refer to the EPA, AWWA, and WRF for guidance on water loss control program development. The program should include, at a minimum, the elements outlined in Section III.A.2.a-h of the ITA Performance Standards.

# 3) Metering

- a) Full System Metering The water supply system should be 100% metered.
  - LCWD's system is 100% metered, including public facilities.
- **b) Properly Size Meters** To handle required water flow rate and ensure a high level of metering accuracy.
  - LCWD has a longstanding distribution system meter maintenance program, consistent with AWWA standards, which includes ensuring that meters are appropriately sized and accurately measure the water volume used by consumers.
- c) Metering Actual Use Meter reading should be done in a manner that allows for collection of actual data instead of use of estimated data.
  - Meters are read monthly, and billing occurs quarterly. Information obtained from metering and LCWD's WaterSmart portal is evaluated internally by LCWD.
- **d) Meter Repair/Replacement Program** Implement a water meter repair/replacement policy and program, including a budget for the calibration, repair, and replacement of all sources of supply and distribution network water metering systems.
  - LCWD consistently secures dedicated funding in its annual budget to calibrate, repair, or replace meters as necessary.
  - LCWD replaces 200 to 300 meters per year at a cost of \$40,000. With approximately 2,800 customer accounts, this represents full replacement every 10-14 years.
  - LCWD has hired a contractor to perform annual testing and calibration services of its master meters, which was scheduled to begin in the 3<sup>rd</sup> or 4<sup>th</sup> quarter of 2024.
  - LCWD must continue to implement its meter repair/replacement program, with updates made to the program as needed per M36 audit results and its ongoing water loss control program.
  - LCWD must continue meter replacements at least at the current rate.
  - Master meter calibration services will continue on an annual basis.
  - LCWD must provide documentation of the above actions to the WRC annually for the first five years after approval, and upon request thereafter.

### 4) Water Rates and Billing Practices

- a) Full-Cost Pricing Applicants should demonstrate that water system revenues, including rates, fees, and other charges collectively reflect the full cost of water service including operation, maintenance, capital needs, source protection, debt service, administration, regulatory compliance, and water conservation or establish a timeframe for transitioning to full-cost pricing. At a minimum, applicants must demonstrate that total revenue sources, including any from outside the water system, are sufficient to cover these costs. Budgets used to establish costs should use a 10-year or longer planning horizon.
  - LCWD and its consultants provided descriptions and attachments in the SEIR and subsequent communications that confirmed that LCWD's revenues cover all costs of the system, including operation, maintenance, capital needs, source protection, debt service, administration, regulatory compliance, and water conservation. Revenue is derived from a tax levy added to customer property taxes (35%) and a combination of

- water bills, antenna leases on its tanks, and service, repair, and connection permits (65%). LCWD uses a 3 to 5-year planning horizon in its capital planning.
- It is recommended that the planning horizon is increased to at least 10 years to ensure longer-term capital expenditures are reflected in rates to avoid the need for sudden substantial increases.
- b) Enterprise Fund or Equivalent Segregation of Utility Accounting Municipal suppliers other than independent districts should demonstrate the use of an enterprise fund or equivalent mechanism to segregate water utility accounting from other municipal government activities.
  - LCWD is an independent district with a budget segregated from the Town of Lynnfield. While a portion of its revenue is levied on customers through a property tax line item, all proceeds from this line item go directly to LCWD and the levy is set by the LCWD Board of Commissioners.
- c) Conservation Pricing The rate structure must encourage water conservation.
  - LCWD uses the same two-tier volumetric pricing structure for all categories of use except municipal. The tier 1 volume threshold of 24,000 gallons per quarter was established by estimating the usage for a family of 4, including a "small factor for some outdoor water use." For a family of 4, this equates to an rgpcd of approximately 65. For the average household in Lynnfield (2.8 people), it equates to an rgpcd of approximately 94. As a result, 75% of customers stay within the first tier, even during the summer watering season.
  - The per-unit charge in tier 1, when ranked against all pricing structures captured in the most recent Tighe and Bond Water Rate Survey, ranged from the 93<sup>rd</sup> to the 99<sup>th</sup> percentile. The second tier more than doubles this unit price.
  - The only affordability assistance available to customers are 6-month payment plans.
  - The volumetric charges component of the LCWD rate structure sends a very strong conservation signal.
  - With volumetric charges at the 99<sup>th</sup> percentile for households using as little as 35 rgpcd, this rate could present affordability challenges to some customers.
  - It is recommended that LCWD explore expanding protections for customers facing affordability challenges, such as implementing a lifeline rate for customers who qualify based on income.
- **d) Monthly Billing** Applicants should bill customers monthly or establish a timeframe for transitioning to monthly billing. At a minimum, customers must be billed quarterly, in which case utilities should monitor usage monthly and utilize timely mechanisms to notify customers when abnormal water use is detected.
  - LCWD bills customers quarterly. LCWD is a small system with one administrative staff and communicated that moving to monthly billing is not financially viable.
  - LCWD reads meters monthly and contacts customers if data show unusually high use.
  - Additionally, the WaterSmart customer portals can be used by customers to closely track usage and set water use notifications. LCWD is in the process of upgrading meters to deliver reads to the portals in 15-minute increments.

- It is recommended that customer outreach is increased to maximize enrollment in WaterSmart, which is currently used by approximately 50% of customers.
- e) Billing Practices Bills should be based on actual usage, be easily understandable to the customer, indicate the rate structure clearly, and provide water use in gallons.

  Additionally, bills or customer portals should help customers evaluate their usage trends.
  - LCWD bills provide water use in gallons and clearly explain the billing tiers.
  - LCWD also includes educational materials with bills, guiding customers toward water conservation practices and habits.
  - As mentioned above, 50% of LCWD customers have signed up for access to WaterSmart portals which enable them to track and monitor their use.

# 5) Protection of Existing Sources in the Receiving Area

- a) Local Drought Management Plan Applicants should provide a local drought management plan in accordance with Section 8 (Guidance for Communities) and any other relevant section(s) of the state's Drought Management Plan.
  - LCWD revised its Drought Management Plan (DMP) in August 2024.
  - LCWD's revised DMP does not adequately define its "operational conditions triggers." These are critical triggers that should be source- and/or system- specific, which are necessary to extend supplies during droughts. The proponent should refer to Section 4 of the MA Local Public Water Supply Drought Management Plan Guidance and revise its "operational conditions triggers" accordingly.
  - The outdoor water use restrictions included in Table 5.1 of LCWD's DMP do not currently follow the state's DMP restriction guidelines. The proponent should refer to the 2023 Massachusetts DMP, Section 7.2.1, and revise the nonessential outdoor water use restrictions accordingly.
  - In addition to following the Massachusetts DMP's outdoor water use restrictions for droughts as declared by the Secretary of EEA for the Northeast Drought Region (in which Lynnfield is located), LCWD should also update its DMP to incorporate compliance with any water use restrictions as set forth by MWRA.
  - LCWD must revise its DMP as described above and submit it for WRC review and approval.
  - It is recommended that LCWD work with the Town of Lynnfield to implement a private well bylaw to regulate private well use during droughts.
- **b) Emergency Response Plan** An emergency response plan, as described in 310 CMR 22.04, should be in place. This plan should establish operating procedures for adequately handling water supply emergencies, such as contamination of water supply sources or seasonal/drought related shortages of water supply.
  - LCWD provided documentation of an emergency response plan that was updated in December 2023.
- c) Local Surface Water Supply Plan A written local surface water supply protection plan should be in place for all surface water sources in the Receiving Area under the control of the applicant in accordance with regulations outlined in 310 CMR 22.20 B and C.
  - LCWD does not have any surface water supplies.

- **d)** Wellhead Protection Areas Land in the receiving area located in Zones I, II, III or Interim Wellhead Protection Areas (IWPA) of public drinking water wells must be protected in accordance with regulations outlined in 310 CMR 22.21.
  - LCWD provided a copy of the Lynnfield Zoning Bylaws, Section 9.0 Special Districts, which details the Special Groundwater Protection District that meets the Massachusetts Wellhead Protection Regulations (310 CMR 22.21).

Notwithstanding the above assessment, the WRC recognizes that in certain cases, local conditions may prevent a proponent from meeting or exceeding the "yardstick" that has been described in the ITA performance standards, even after a substantial effort has been made. In these cases, the proponent should explain why that standard cannot be met, demonstrate an alternate method of meeting the intent of the standard, and document any efforts that have been undertaken in order to comply with the standard.

# Summary of Water Conservation Criterion

Based on the information evaluated in performance standards 1 through 5 above, the WRC finds that the water conservation Criterion of the ITA will be met upon implementation of conditions.

# **Criterion 4: Forestry Management Program**

This Criterion requires that a comprehensive forestry management program has been implemented on any watershed lands with surface water sources serving the receiving area (LCWD) and under the control of the receiving area. LCWD does not have any surface water sources; therefore, this Criterion is not applicable to this proposal.

# **Criterion 5: Reasonable Instream Flow and Criterion 7: Cumulative Impacts**

Criterion 5 requires that "reasonable instream flow in the river from which the water is transferred is maintained." In addition, per Criterion 7 the WRC must consider the "cumulative impacts of all past, authorized or proposed transfers on streamflows, groundwater, lakes, ponds, reservoirs or other impoundments in the Donor Basin and relevant sub-basins."

The ITA regulations (313 CMR 4.09(3)(e)) direct the WRC to consider "the impact of the proposed action to increase the Present Rate of Interbasin Transfer on the streamflow dependent ecosystems and water uses and the potential to affect instream values" in making its decision to approve or deny an interbasin transfer request.

### **Background**

The first community that the WRC approved under the ITA for admission to MWRA was Bedford in 1992. Since then, donor basin analyses and updates have been written for five communities. Reference is made to the previous donor basin analyses found in WRC Decisions for Stoughton (2002), Reading (2005, partial membership), Wilmington (2007), Reading (2007, full membership), Ashland (2018), and Burlington (2020). Dedham-Westwood Water District, admitted to MWRA in 2005, was not subject to the ITA per MWRA's Enabling Act. Also

consulted in this donor basin analysis update for LCWD is the LCWD 2024 SEIR and other resources and documents<sup>1</sup>.

LCWD is seeking approval for an interbasin transfer of 0.28 MGD average day demand and up to 0.83 MGD maximum day demand from the MWRA Waterworks System. The sources that supply the MWRA Waterworks System are the Quabbin Reservoir, Ware River, and Wachusett Reservoir (Quabbin-Ware-Wachusett system). The Quabbin Reservoir and Ware River are in the Chicopee River Basin, and the Wachusett Reservoir is in the Nashua River Basin. The MWRA Waterworks System consists of aqueducts, tunnels, and other transmission facilities (refer to Figure 2 below) and about 285 miles of pipe that distribute water to MWRA communities.

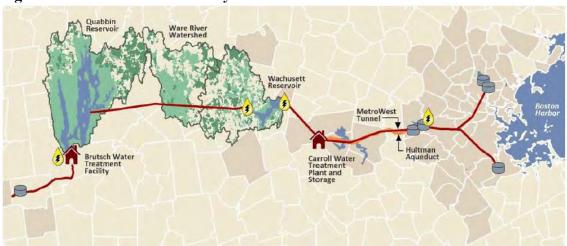


Figure 2: MWRA Waterworks System

The Quabbin-Ware-Wachusett system is operated to optimize both the quality and quantity of water available to MWRA for water supply purposes and to meet statutory and regulatory requirements for downstream releases and other legal obligations. Secondary operational objectives include maintaining an adequate flood protection buffer.

Water can flow into each reservoir from inflows or transfers. Flow out of the reservoirs consists of withdrawals for water supply, required controlled releases, voluntary controlled releases, and uncontrolled overflows ("spills") when the reservoirs are full. Refer to Figure 3 for a schematic of reservoir inflows and outflows.

Water is discharged from the Quabbin Reservoir primarily through the Quabbin Aqueduct which ultimately discharges into the Wachusett Reservoir and constitutes more than half of the average annual inflow to the Wachusett Reservoir. Withdrawals from the Quabbin also occur through the Chicopee Valley Aqueduct to supply three communities southwest of the Quabbin and the

<sup>&</sup>lt;sup>1</sup> MWRA NPDES Demand Report 2024; MWRA Board of Directors Staff Summaries and vote extracts June 2015, January 2017, January 2018, September 2022; Division of Fisheries and Wildlife Annual Report 2016, MWRA Master Plan 2018, MWRA Long Range Water Supply Planning May 2006, The National Study of Water Management During Drought- The New England Drought Study: Trigger Planning 1994, MWRA Drought Management Plan 1989, MWRA website MWRA water system's reservoirs and watersheds webpage

McLaughlin Fish Hatchery. Additional outflow from the Quabbin includes releases and overflows to the Swift River at the Winsor Dam.

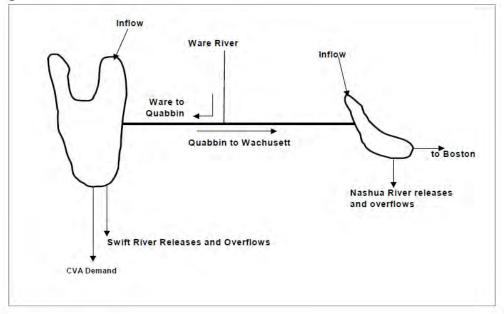


Figure 3: Reservoir Flow Schematic

Reasonable Instream Flow

Quabbin Reservoir and the Swift River

The Quabbin Reservoir has a maximum storage capacity of 412 billion gallons, equivalent to about five to six years' worth of supply. It is fed by a well-protected watershed of 186 square miles and contributes about 53% of the total Quabbin-Ware-Wachusett system safe yield.

Flow in the Swift River was significantly impacted when the Quabbin Reservoir was built (completed in 1939). Minimum release requirements are governed by Massachusetts law and a 1929 War Department permit. Chapter 321 of the 1927 Acts of Massachusetts requires that sufficient water must be discharged from the Quabbin Reservoir to provide at least 20 MGD in the Swift River at the Village of Bondsville (in the Town of Palmer) located five miles downstream of the Winsor Dam. According to the LCWD 2024 SEIR, at least 18 MGD is released from the Winsor Dam each calendar day. This satisfies the 20 MGD requirement since the intervening watershed between Winsor Dam and Bondsville is estimated on average to contribute 4 MGD. In the summer months the watershed contributes less and approximately 25 MGD is released. The 1929 War Department permit, now overseen by the U.S. Army Corps of Engineers, requires releases based on the flow in the Connecticut River at the Montague gage in order to maintain navigability. From June 1 to November 30, if the average daily flow is less than 4,900 cubic feet per second (cfs), 45 MGD must be released, and if the flow is less than 4,460 cfs, 70 MGD must be released.

No impact to the Swift River 95% exceedance flow duration is expected from the proposed transfer compared to existing conditions because of the mandated 20 MGD flow at Bondsville.

Previous WRC Decisions on past requests by other communities joining MWRA have concluded that impacts to high flows and flow velocity will be minimal.

# Impacts to Fisheries and Other Uses, Swift River

According to MassWildlife, the Swift River below Winsor Dam and downstream to the confluence of the Ware River contains significant fisheries habitat. The required flow releases are beneficial to the fishery as they provide a continuous source of cold water. An instream flow study of the Swift River was done by Normandeau Associates in 1997 for MWRA. MWRA initiated the study after a 1991 fire damaged the turbines at Winsor Dam and MWRA was considering reactivating the facility. The study found that the current flow releases were adequate to protect the Swift River trout fishery.

Over the years MWRA, MassWildlife, and DCR have worked to improve flow and habitat conditions in the Swift River through changes in how releases are done (e.g., continuous instead of over 5-7 hours, slower ramp-ups during the summer, cooling warm water spills). More recently, collaboration between MWRA and MassWildlife resulted in a pipeline to the McLaughlin Fish Hatchery from the Chicopee Valley Aqueduct. Completed in 2017, the pipeline provides a 6 MGD supply of consistent and reliable cold, well-oxygenated water to the Hatchery. Previously the Hatchery withdrew water directly from the Swift River making the Hatchery vulnerable to warm water spills from the Quabbin. The Hatchery discharges the water to the Swift River effectively supplementing flows in the river.

The proposed additional withdrawal for LCWD will have no effect on anadromous fisheries, searun brook and brown trout, smelt, and American shad. There are numerous downstream barriers to fish passage on the Swift and Chicopee Rivers. In addition, the proposed additional withdrawal will have no effect on hydropower or other instream uses.

#### Ware River

The Ware River at the diversion to the Quabbin Aqueduct has a watershed area of 96.8 square miles. The Ware River contributes approximately 13% of the total Quabbin-Ware-Wachusett system safe yield. Under the Acts of Massachusetts State Legislature Chapter 375, Acts of 1926, Ware River diversions are only allowed when flows in the Ware River are above 85 mgd (131 cfs) and limited to the period from October 15 to June 15. In addition, permission must be obtained from the U.S. Army Corps of Engineers to transfer water during the periods of June 1 through June 15 and October 15th through November 30th.

As water use has decreased in MWRA communities since the 1980's, less water has been typically diverted from the Ware River during normal to wet years. Under the "limited Ware" operating approach currently implemented by MWRA, transfers from the Ware River are made only on a limited basis for flood control (when requested) or to help fill the Quabbin when Quabbin Reservoir is below Normal as defined in the MWRA Drought Management Plan.

Low flow impacts on the Ware River as a result of the additional demand posed by LCWD are not expected. Ware River diversions are limited to non-low-flow months and to periods when flow exceeds 85 MGD. As mentioned above, diversions from the Ware River to the Quabbin Reservoir are typically only made when the reservoir level is below Normal or the U.S. Army

Corps of Engineers requests them for flood control. Previous Decisions have summarized that the frequency and magnitude of intermediate and high flows appear nearly normal/near natural. It is acknowledged that Ware diversions are limited per MWRA's operating practices. This could change in the future, especially if MWRA service area demand increases.

There are no other impacts expected on other Ware River instream uses with the addition of LCWD.

#### Wachusett Reservoir and Nashua River

Wachusett Reservoir has a maximum capacity of 65 billion gallons and has drainage area of 107 square miles. The watershed is slightly more developed than the Quabbin watershed. The Wachusett Reservoir contributes about 34% of the total Quabbin-Ware-Wachusett system safe yield. Wachusett Reservoir is managed for continuous water availability, optimal water quality, release requirements, and flood control.

Chapter 488 of the Acts of 1895 requires that not less than 12 million gallons per week be discharged into the South Branch of the Nashua River. This release is typically made via a continuous release into the basin at the base of the Wachusett Dam and is typically higher than the minimum required.

While the Quabbin Reservoir's level fluctuates, the Wachusett Reservoir's level is maintained within a narrow operating band. The range of elevations was established because it provides adequate supply to meet demands, minimizes shoreline erosion, provides adequate freeboard to minimize downstream flooding, and improves water quality. This operating band is maintained by Wachusett watershed yield, transfers from the Quabbin Reservoir, and additional releases as needed.

MWRA has historically maintained water quality by mixing Wachusett water with higher quality Quabbin water. During the summer stratification of the Wachusett Reservoir, water transferred from the Quabbin can establish an "interflow" layer in which higher quality Quabbin water can move through the Wachusett to the intake. When Wachusett watershed yields are sufficient to maintain reservoir elevations within the normal operating band, and transfers of Quabbin water for water quality purposes are made, higher volumes of releases through or over the Wachusett Dam may be required to maintain adequate freeboard to minimize flooding potential. With the decrease of MWRA system demand, it has become increasingly necessary to release more Wachusett water. This has resulted in higher releases during the summer in recent years.

The 95% exceedance flow is not likely to be affected by LCWD's proposed additional transfer request as it will not affect MWRA's ability to meet minimum releases. Since high flows from the Wachusett Reservoir are generally uncontrolled spills, and the reservoir level is intended to be managed to a narrow range of levels, the proposed LCWD interbasin transfer is not expected to have an impact on high flows in the Nashua River.

#### Other Uses and Values

There are no other impacts expected with the addition of LCWD on other Nashua River instream uses. The Central Nashua River Valley ACEC is located downstream of the Wachusett

Reservoir, but will not be affected by this transfer as current operating procedures and required discharges will not change.

# Cumulative Impacts

In the 1992 Bedford ITA Decision, the WRC expressed agreement with concerns about incremental impacts, whether from adding new communities to the MWRA Waterworks System or increasing demand from communities already served, potentially resulting in long-term cumulative reductions in supply available within the Quabbin Reservoir system safe yield. However, the WRC expected that water conservation efforts, the requirements for admission to MWRA, the MEPA review process, and the ITA process, as well as the various costs of MWRA entry, including the entrance fee, pipeline costs, and supply costs, would all work in concert to minimize the cumulative impacts by reducing existing demand and limiting new demand.

Since the 1992 Bedford WRC Decision, demand continued its downward trend from the high of 343 MGD in 1980 to about 2011 when the 5-year running average of reservoir withdrawals leveled off around 200 MGD (Figure 4).

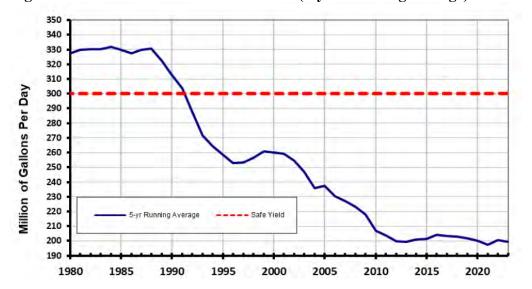


Figure 4: MWRA Reservoir Withdrawals (5-year running average)

This decrease has been due to MWRA demand management, especially in the years directly following its creation in 1984, and due to other likely factors such as consumer response to higher rates and improved metering, shifts in the commercial base away from water-intensive manufacturing, changes in the plumbing code, and industry trends towards more efficient fixtures. While the MWRA Board has waived the water system entrance fee through 2027, the other factors mentioned in the Bedford Decision still remain including the ITA and the recently updated ITA performance standards, which will work towards minimizing the transfers.

Table 1 lists the communities that have received WRC approval and the approved amounts, the year of MWRA admission, and the 5-year average reservoir withdrawals at the time of admission.

Table 1: Communities That Have Received WRC Approval to Join the MWRA

Year Admitted to MWRA	Community	WRC Approved Amount in MGD, Average Day Demand	WRC Approved Amount in MGD, Max Day Demand	Reservoir Withdrawals (5 Year Running Average) at Date of MWRA Admission, MGD
1993	Bedford	1.75	Not specified	271
2002	Stoughton	1.15	2.5	254
2005	Reading*	2.27	Not specified	237
2009	Wilmington	1.7	3.25	218
2018	Ashland	Not specified	1.6	203
2020	Burlington	3.5	6.5	200

<sup>\*</sup>Reading received WRC approval for partial MWRA supply in 2005 and full MWRA supply in 2007

As previously mentioned, the Dedham-Westwood Water District was admitted to MWRA for up to 2 MGD in 2005. This was not subject to ITA review, as the District had prior rights to obtain water supply from MWRA. In addition, MWRA signed a Memorandum of Agreement (MOA) with MassWildlife and DFG to provide 6 MGD to the McLaughlin Fish Hatchery (excluding periods when drought restrictions are required). Note that Wilmington did not join the MWRA Waterworks System for the full ITA approved amount, and, according to the SEIR, while Burlington has begun to use water provided by MWRA, Ashland has not. The 2023 5-year average reservoir withdrawal is 199 MGD and is used as a baseline in the following analysis.

# Cumulative Impacts and Adequacy of the Safe Yield Analysis

The analysis presented in the SEIR considers existing, projected, and potential demand of the existing MWRA water service area. By comparing the Quabbin-Ware-Wachusett system safe yield and modeled performance with a conservative projection of future demand, the reliability of supply can be assessed for both existing MWRA member communities and new members. Additional demand was projected from 2010 to 2040 and uses volumes from the latest available MWRA Water Master Plan (dated 2018). Table 2 "MWRA Demand Projections, 2040" provides a summary of these volumes.

Table 2: MWRA Demand Projections, 2040

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Use Categories	Demand
Existing service area 2019-2023	199 MGD
Additional residential use, 362,000 population increase* at 65 rgpcd	23.6 MGD
Additional non-residential use, 9.8 %* increase	5.9 MGD
Contingency for partially supplied and emergency-only, 25% increase	17 MGD
Total	245 MGD

<sup>\*</sup> calculated using MassDOT population and employment projections 2010-2040

The conservative projection of future demand used for analysis includes the proposed demand of LCWD along with new cumulative demand of recently joined or soon-to-join communities of up to 10 MGD for a total of **255 MGD**. This is similar to the last WRC Decision for a new MWRA community, Burlington, which used 260 MGD.

Using its reservoir model, MWRA evaluated the impact of varying withdrawal rates on "performance measures" developed as part of *The National Study of Water Management During Drought- The New England Drought Study: Trigger Planning* (also known as "The Trigger Planning Study") dated 1994. The withdrawal rates analyzed ranged from 190 MGD to 300 MGD and the analysis used historical data from October 1948 through December 2023, which includes the 1960's drought of record. The model incorporates incrementally increasing demand during drought from partially supplied and emergency communities. The modeling assumed full compliance with mandated releases to the Swift and Nashua Rivers and assumed current operating procedures for the Ware River. Results of analysis against three of the MWRA "performance measures" are summarized below.

Safe Yield: (The quantity of water that can be supplied on a continuous basis during a critical drought.) The Quabbin-Ware-Wachusett system has a calculated safe yield of about 300 MGD (studies done in 1922, 1950, and several in the 1980's and 1990's).

Maximum Pool Descent: (The maximum deviation of the water level at Quabbin Reservoir below a specific target pool level at a specific water demand.) The Trigger Planning Study recommended that the Quabbin pool should not fall below 470' Boston City Base elevation (BCB) at which point the reservoir no longer functions as a single unit. At the analyzed demand of 255 MGD, the Quabbin's maximum pool descent is still above 500' BCB, above the level at which performance could be affected, and within the reservoir's normal operating range. Even at demands of 280 MGD, Quabbin would stay above elevation 490' BCB (38% full) which, according to MWRA's 1989 Drought Plan, is the minimum pool elevation at which there is an increased risk of poor water quality. Modeling shows that over the historical record of 1948-2023, at a demand of 300 MGD, the lowest level the Quabbin would drop to is to about 488' BCB.

Drought Actions: (The number of months that the reservoir level at Quabbin Reservoir remains in each of the MWRA Drought Management Plan stages.) Table 3 shows the number of months in MWRA drought plan stages associated with varying levels of demand using the historical record of 1948-2023. Modeling shows that had the demand been 255 MGD during the drought of the 1960's, the system would not have reached Drought Emergency Stage 1. Comparing demands of 245 MGD and 255 MGD (refer to asterisked rows in Table 3), there would be an additional 12 months at the Below Normal stage, an additional 34 months at the Drought Warning stage, and no months at Drought Emergency Stages (1-3). In the MWRA drought plan, mandatory water use restrictions only start at the Drought Emergency Stages.

Table 3: Number of Months in Each Stage of MWRAs Drought Management Plan over 904 months from October 1948 to December 2023

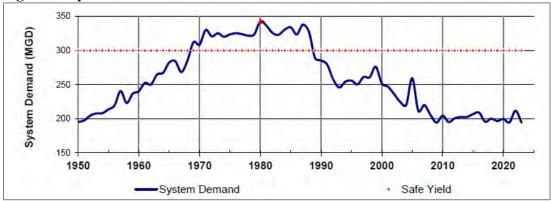
Demand	Below	Drought	Drought	Drought	Drought
MGD	Normal	Warning	Emergency	Emergency	Emergency
			Stage 1	Stage 2	Stage 3
190	19	0	0	0	0
200	26	0	0	0	0
210	39	3	0	0	0
220	44	4	0	0	0

Demand	Below	Drought	Drought	Drought	Drought
MGD	Normal	Warning	Emergency	Emergency	Emergency
			Stage 1	Stage 2	Stage 3
230	53	11	0	0	0
240	69	15	0	0	0
245*	68	21	0	0	0
250	81	26	0	0	0
255*	80	55	0	0	0
260	85	54	2	0	0
270	87	51	12	0	0
280	95	62	28	0	0
290	125	44	51	0	0
300	167	40	65	0	0

<sup>\*245</sup> MGD represents MWRA's projected 2040 demand for current uses. 255 MGD includes demand from communities that have recently joined or are anticipated to join MWRA.

Quabbin Reservoir Levels - Performance during past droughts
Figures 5 and 6 below show system demand from 1950 through 2023 and the Quabbin Reservoir levels for 1948 through 2023.





The lowest Quabbin Reservoir levels occurred in the late 1960's, near the end of a prolonged and severe drought-of-record period resulting in low watershed yields. While demands were below 300 MGD during the 1960's drought, they were still above 250 MGD. The lowest level Quabbin Reservoir reached was 45% full in March 1967. During the periods 1950-1960 and 2000-2010 when demands varied between 200 and 250 MGD, the Quabbin reservoir was typically more than 80% full and only briefly below Normal as defined by the MWRA drought plan. Since 2010, when demand has been around 200 MGD, there have been two times the Quabbin has been below Normal - in 2002 and 2016-2017. Note that during the 2016-2017 drought, the Quabbin yield for calendar year 2016 was the second lowest on record with the 1965 calendar year being the lowest.

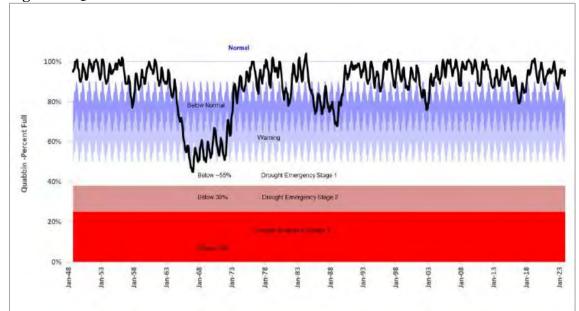


Figure 6: Quabbin Reservoir Levels 1948 to 2023

# *Summary*

The LCWD SEIR indicates that in general, given the very small size of the LCWD transfer in comparison to the capacity of the reservoirs and the magnitude of discharges over the spillways, and the discharges governed by regulatory requirements, the effects on hydraulic characteristics from LCWD's withdrawals will be imperceptible. There will be no change in the operation of the Reservoirs in response to the proposed LCWD transfer and downstream flows will continue to meet all applicable regulatory requirements. Current resources will be unaffected by the transfer. Intended downstream releases at the Quabbin Reservoir, Ware River, and the Wachusett Reservoir will not change.

# **Criterion 6: Impacts of Groundwater Withdrawals**

MWRA's sources are surface water sources. This Criterion is not applicable to this proposal.

### **Conditions for Approval**

Based on the analyses of this project, the approval of LCWD's application under the ITA to obtain supplemental water supply from MWRA is subject to the following conditions. LCWD must commit in writing within 45 days of the approval to abide by all conditions required by the approval of this transfer.

- 1. This approval is limited to no more than 0.83 MGD on a maximum daily basis to be transferred from the MWRA Waterworks System to LCWD. Any increase in the rate of interbasin transfer is subject to ITA review and will require WRC approval. LCWD staff must contact WRC staff if any increases in the rate of transfer from the MWRA Waterworks System are anticipated.
- 2. To attain compliance with water conservation performance standard 1, LCWD must:

- a. Implement a water bank program and submit documentation to MassDEP by December 31, 2025.
- b. Add additional information regarding rebates and links to additional resources such as the state water conservation website (<u>Massachusetts Water Conservation Toolkit</u>) to LCWD's website to more effectively reach customers not signed up for the WaterSmart portal.
- c. Actively monitor the ICI customers in its system for excessive use and conduct outreach/provide assistance as necessary. LCWD should also more proactively reach out to the top 10 users to direct them to resources that can help facilities manage water use, such as <u>EPA's WaterSense page for commercial and institutional facilities</u>.
- 3. To attain compliance with water conservation performance standard 2, LCWD must:
  - a. Submit the 2024 M36 audit report once it is available.
  - b. Continue to conduct annual\_M36 audits, detection surveys at least every three years, implement water loss control activities as needed, and provide documentation to the WRC annually for the first five years after approval, and upon request thereafter.
  - c. Use the results of its 2024 M36 audit to inform its water loss control program and submit documentation of the program to WRC staff within one year. The program will be updated based on the results of future M36 audits, with updates submitted to WRC staff. The proponent should refer to the EPA, AWWA, and WRF for guidance on water loss control program development. The program should include, at a minimum, the elements outlined in Section III.A.2.a-h of the <a href="ITA PerformanceStandards">ITA PerformanceStandards</a>.
- 4. To attain compliance with water conservation performance standard 3, LCWD must:
  - a. Continue to implement its meter repair/replacement program, with updates made to the program as needed per M36 audit results and its ongoing water loss control program.
  - b. Continue meter replacements at least at the current rate.
  - c. Continue master meter calibration services on an annual basis.
  - d. Provide documentation of the above actions to the WRC annually for the first five years after approval, and upon request thereafter.
- 5. To attain compliance with water conservation performance standard 4, LCWD must revise its DMP to adequately define its "operational conditions triggers," match its nonessential outdoor water use restrictions to the state DMP guidelines, agree to follow the restrictions for droughts as declared by the Secretary of EEA for the Northeast Drought Region and also as set forth by MWRA, and submit the revised DMP to WRC staff within one year for review and approval.

#### **Executive Order 385**

This Decision is consistent with Executive Order 385 - Planning for Growth, which has the dual objective of resource protection and sustainable development. This Decision does not encourage growth in areas without adequate infrastructure nor does it cause a loss of environmental quality or resources.

#### Attachment E

# WATER SUPPLY CONTINUATION AGREEMENT BETWEEN THE MASSACHUSETTS WATER RESOURCES AUTHORITY AND THE LYNNFIELD CENTER WATER DISTRICT

### **PARTIES**

This Water Supply Continuation Agreement ("Agreement") is entered into by and between the Massachusetts Water Resources Authority, a body corporate and politic and an instrumentality of the Commonwealth of Massachusetts established pursuant to Chapter 372 of the Acts of 1984, as amended, having an address of Deer Island, 33 Tafts Avenue, Boston, MA 02128 ("MWRA") and the Lynnfield Center Water District, having an address of 83 Phillips Road, Lynnfield, MA 01940 ("District"), (hereinafter jointly referred to as "the Parties" and each individually as a "Party"). This Agreement documents the understanding of the Parties regarding the arrangement whereby MWRA will supply a portion of the District's water supply through the Town of Wakefield to the District's local distribution system.

# RECITALS

- R1. Whereas, the Massachusetts Legislature created MWRA in December 1984 to use, operate, maintain, and improve the waterworks and sewerage systems serving the greater metropolitan area. Operating pursuant to its enabling act under chapter 372 of the Acts of 1984, as amended ("Act"), MWRA provides water supply and distribution services and wastewater collection and treatment services, to certain cities, towns, and special services districts ("Communities") within MWRA's service area;
- R2. Whereas, Section 8(d) of the Act authorizes the MWRA to extend its waterworks system to a new community and to provide the continued delivery of water to a community under reasonable terms as determined by MWRA provided that specific requirements are met;
- R3. Whereas, a regulation entitled "Continuation of Contract Water Supply," promulgated by the MWRA at 360 C.M.R. § 11.00, and most recently revised on November 18, 1994, ("Regulation"), defines more specifically the requirements of Section 8(d) of the Act and govern the continued delivery of water by the MWRA to the Communities purchasing water from the MWRA;
- R4. Whereas, Chapter 15 of the Acts of 2025 authorized MWRA to supply water to the District;
- R5. Whereas, on August 7, 2025, the District made a formal application to the MWRA to: (1) become a permanent member community of the MWRA water supply system with a purchase of up to 102 million gallons annually via an interconnection with the Town of Wakefield, in order to supplement its local sources due to challenges supplying an adequate quantity of water during summer months and a lack of redundancy in their existing water sources; and (2) waive the entrance fee for the volume of water for said

- purchase due to water quantity (*i.e.*, stressed basin) and water quality issues (*i.e.*, elevated level of manganese, PFAS, and nitrate in the District's groundwater sources);
- R6. Whereas, the District has fulfilled the requirements for membership found in the Act at Section 8(d), as more fully described in 360 CMR §§ 11.07 and 11.08 of the Regulations, and has submitted a Supply Analysis Report, a Demand Analysis Report, and a Water Management Plan that has been approved by the Water Resources Commission ("WRC") and has further submitted a detailed description of a local user charge system and accounting system, which meet the Regulations' requirement for conservation based rates;
- R7. Whereas, based upon its review of the application materials submitted by the District, the MWRA has determined that the applicable requirements of Section 8(d) of the Act have been substantially met, as follows:
  - (1) the safe yield of the watershed system as of the date of this Agreement and as projected for the term hereof is sufficient to meet the projected demand of the District:
  - (2) no existing or potential water supply source for the District has been abandoned;
  - (3) effective demand management measures have been developed by the District;
  - (4) a local water supply source feasible for development has not been identified by either the District or the DEP; and
  - (5) a water use survey has been completed, which identifies all users within the District that consume in excess of twenty million gallons a year;
- R8. Whereas, the admission to MWRA's water system was approved by a majority vote at the District's Annual Meeting on May 10, 2021;
- R.9. Whereas the MWRA Advisory Board voted to approve LCWD for admission to the MWRA water system on May 15, 2025 and on July 16, 2025;
- R.10. Whereas, on \_\_\_\_ the MWRA Board of Directors approved the District's application to become a member of the MWRA waterworks system with a purchase of up to 102 million gallons annually;
- R.11. Whereas, the Entrance Fee for the District's admission pursuant to MWRA OP#10 Admission of a New Community to the Waterworks System ("OP.10") would be approximately \$1.7M;
- R. 12. Whereas, on September 14, 2022, MWRA's Board of Directors approved revisions to OP.10 to allow a waiver of the entrance fee for communities entering the water system that can demonstrate that their local sources are impacted by water quality issues, their water supply is located in a stressed basin, or local economic development is significantly constrained by their existing water supply;
- R. 13. Whereas, on \_\_\_\_\_ the MWRA Board of Directors approved the waiver of the entrance fee of approximately \$1.7M;

- R14. Whereas, the District is not directly connected to the MWRA water distribution system and has constructed an interconnection with the Town of Wakefield ("Town"). The Town is a partially supplied MWRA community. The District will receive MWRA water pursuant to an Intermunicipal Agreement with between the District and the Town, which among other things, specifies that the Town shall supply up to 0.36 million gallons per day ("mgd") of water as required by the District. The Intermunicipal Agreement is currently effective until April 9, 2043;
- R15. Whereas, the District undertook the required series of actions related to regulatory review under the Massachusetts Environmental Policy Act and the Interbasin Transfer Act and received the approval of the WRC on March 13, 2025, to purchase from the MWRA up to 0.83 mgd;
- R16. Whereas, the District now requests 102 million gallons of water annually, or 0.28 million mgd on an annualized average basis and up to 0.36 mgd on a maximum day basis from MWRA, but may in the future request an additional volume of up to 201 million gallons annually for a total of 303 million gallons annually, or 0.83 mgd, as permitted through regulatory reviews. Should LCWD request such additional volume from MWRA at a later date, and such request is approved by the MWRA, this Agreement must be amended pursuant to the terms of 360 C.M.R. 11.11 and OP. 10 then in effect, and the entrance fee recalculated pursuant to the terms of OP.10, then in effect;
- R17. Whereas, the District, having received approval of the Legislature and of the Governor, the MWRA Advisory Board and the MWRA's Board of Directors, and having met the conditions of Section 8(d) of the Act, and the conditions of OP .10, and having been duly admitted to the MWRA waterworks system effective the date of the MWRA Board of Directors' approval, thereby acquiring certain rights and obligations conferred by that admission; and
- R15. Whereas, the MWRA and the District wish to formalize their rights and obligations regarding the supply of water to the District and therefore enter into this Agreement.

# **AGREEMENT**

NOW, THEREFORE, in consideration of the mutual promises contained herein and for other good and valuable consideration, the receipt and sufficiency is hereby acknowledged, the MWRA and the District agree to the following:

- 1. The term ("Term") of this Agreement shall end at midnight on \_\_\_\_\_\_, 2030.
- 2. The District agrees that during the Term it will operate its local water supply system in such a manner so as to make maximum use of local water supply sources.
- 3. The MWRA shall, during the Term, provide the District with water on a maximum annual water volume basis, stated in millions of gallons, as follows:

# Maximum Annual Volume 102 million gallons

MWRA will supply the District with up to 0.36 mgd on a maximum daily basis, and up to 0.83 mgd in an emergency situation with prior MWRA approval, consistent with the hydraulic capabilities of MWRA's distribution system, any hydraulic limitation in the Town's water system and subject to any applicable terms of the Intermunicipal Agreement between the District and the Town. In the event of extraordinary water demand or supply conditions and upon written notice to the MWRA disclosing and explaining such conditions, MWRA agrees that it will use its best efforts to supply the District with those quantities of water to meet its legitimate needs in excess of the maximum annual water volume stated above so as to make up for unexpected shortfalls in the available yield of available local sources.

- 4. In the event revised circumstances (*i.e.*, not related to an extraordinary event in Section 3., above) regarding local demand and/or supply should occur and the District determines that the maximum annual volume of 102 million gallons per year designated in this Agreement to be supplied from the MWRA system is insufficient to meet the District's new demand, the District may petition the MWRA to amend this Agreement pursuant to 360 C.M.R. 11.11 and OP.10, then in effect. Notwithstanding the above, the Parties agree that if the District's water use regularly exceeds the maximum annual volume of 102 million gallons per year, this Agreement must be amended. If this Agreement is amended to increase the volume of water to be supplied, then the entrance fee shall be recalculated pursuant to the terms of OP.10, then in effect.
- 5. The District agrees that the MWRA will not be liable for any disruption of water service to the District attributable to the District's or the Town's water distribution systems.
- 6. The MWRA shall bill the District, which shall in turn remit payment to the MWRA charges for all water supplied under this Agreement at the MWRA's applicable prevailing rate. All billing procedures, due dates, and interest charges for late payments shall be in accordance with the MWRA's *Budget and Assessment Policies and Procedures* (Exhibit A).
- 7. The District agrees to maintain the water meter at the interconnection (point of delivery). The meter shall be inspected, tested, and calibrated at least once each year by a third party technician. Upon completion of the inspection, testing, and calibration, the technician shall submit calibration reports to the MWRA. All calibration reports shall include, but not be limited to, the following: (a) an assessment of the condition, accuracy, and functioning of the meters and associated equipment; (b) method of calibration; (c) calibration ranges; and (d) calibration settings.
- 8. The District agrees to continue a user charge system and an accounting system, which meets the Regulation's requirement to: (a) incorporate a uniform rate or an alternative structure, which provides incentives for water conservation and/or is designed to ensure

- the affordability of water services to low and/or fixed income persons; and (b) prohibit rate structures that incorporate descending or declining block rates.
- 9. The District agrees to continue in effect a full cost pricing system for water received from the MWRA water supply system.
- 10. The District agrees that during the Term it shall continue the implementation of its current and proposed local demand management programs, including the following: (a) participation in MWRA conservation programs; (b) distribution of MWRA-provided materials to all water users; (c) compliance with the MWRA's regulations for District-wide leak detection and repair (360 CMR § 12.00); (d) maintaining metering in 100 percent of the District's distribution system, including all municipal facilities; and (e) maintenance of efficient water fixtures in all public buildings, together with promotion of their use in industrial, commercial, and residential areas.
- 11. The District agrees that during the Term it shall not abandon any local source and substitute water from MWRA sources unless DEP has declared that the local source is to be or has been abandoned, is unfit for drinking, and cannot be economically restored for drinking purposes.
- 12. The District agrees to continue in full force and effect during the Term its local bylaw for the protection of local water sources.
- 13. Any dispute arising between the MWRA and the District concerning the calculation of the annual assessment shall be resolved in accordance with the Review and Dispute Resolution Process as outlined in MWRA's *Budget and Assessment Policies and Procedures* (Exhibit A). Any other dispute between MWRA and the District under terms of this Agreement shall be resolved in accordance with the dispute resolution process set forth at 360 CMR § 11.14 and the administrative procedures set forth at 360 CMR § 1.00.
- 14. For the remainder of fiscal year 2026 (*i.e.*, through June 30, 2026), the District will be charged for water supplied at the current prevailing rate of \$5,005.64 per million gallons, and water provided in fiscal year 2027 (*i.e.*, July 1, 2026 June 30, 2027) will be charged at the approved prevailing rate for fiscal year 2027. Beginning in fiscal year 2028 and for the remainder of the Term, the District will be assessed in accordance with MWRA's *Budget and Assessment Policies and Procedures* (Exhibit A), which computes charges for water services on the basis of each community's metered water flows. The MWRA annual water rate revenue requirement is allocated according to each community's prior year's water use relative to the system as a whole. The annual rate revenue requirement is comprised of operation and maintenance (O&M) and capital (debt service) charges.

	VITNESS WHEREOF, the Parties have caused this Agreement to be executed on day of, 2025, by their duly authorized representatives.
MAS	SACHUSETTS WATER RESOURCES AUTHORITY
By:	Frederick A. Laskey Executive Director
Lynn	field Center Water District
By:	Steven Walsh Chairman, Board of Water Commissioners

Exhibit A: MWRA Budget and Assessment Policies and Procedures