



Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Department of Environmental Protection

Address: 100 Cambridge Street, Suite 900, Boston MA 02114 | **Phone:** 617-292-5500

Maura T. Healey
Governor

Kim Driscoll
Lieutenant Governor

Rebecca Tepper
Secretary

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Commissioner

September 21, 2026

John Deline, Deputy Commissioner
Fitchburg Water Division
1200 Rindge Road
Fitchburg, MA 01420

City/Town: Fitchburg
Program: Water Management Act (WMA)
WMA Permit #: 9P-2-08-097.01
Action: FINAL Renewed Permit
PWS ID: 2097000

Dear Mr. Deline:

Please find the following attached:

- Findings of Fact in Support of the Water Management Act Permit Decision; and,
- FINAL Water Management Act Permit #9P-2-08-097.01 for the City of Fitchburg's Water Division in the Chicopee River Basin.

The Draft Renewal Permit was posted in the Public Notice section of the July 22, 2026, edition of the Massachusetts Environmental Policy Act (MEPA) Environmental Monitor. Notice of the Draft Renewal Permit was also sent to all WMA Registrants and Permittees in the Chicopee River Basin and to other interested parties offering a 30-day comment period. No comments were received.

The signature on this cover letter indicates formal issuance of the attached documents. If you have any questions regarding this information, please contact Brittany Segill at brittany.segill@mass.gov or me, Duane LeVangie, at duane.levangie@mass.gov or (617) 780-1962.

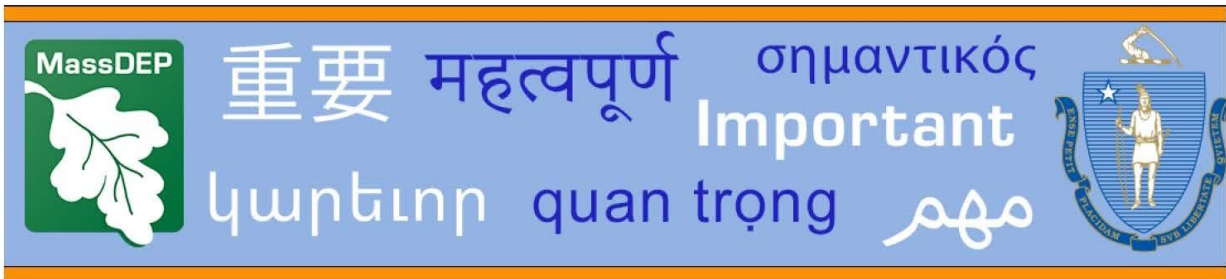
Sincerely,

Duane LeVangie, Chief
Water Management Program
Bureau of Water Resources

Ecc: Ron Rhodes, Connecticut River Conservancy
Lydia Olson & Melissa Shapiro, Massachusetts Rivers Alliance
Jennifer Pederson, Massachusetts Water Works Association

Anne Carroll, Department of Conservation and Recreation-Office of Water Resources
Lauren Thistle, DWP Chief, MassDEP Central Region

Sharepoint:\DWPWMA\Permit Renewals\Chicopee\Fitchburg-2097000-FINAL WMA Permit (09-21-2026)-a11y



Communication for Non-English-Speaking Parties

This document is important and should be translated immediately.

If you need this document translated, please contact MassDEP's Director of Environmental Justice at the telephone number listed below.

Español Spanish

Este documento es importante y debe ser traducido inmediatamente. Si necesita traducir este documento, póngase en contacto con el Director de Justicia Ambiental de MassDEP (*MassDEP's Director of Environmental Justice*) en el número de teléfono que figura más abajo.

Português Portuguese

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繁體中文 Chinese Traditional

本文檔很重要，需要即刻進行翻譯。
如需對本文檔進行翻譯，請透過如下列電話號碼與 MassDEP 的環境司法總監聯絡。

简体中文 Chinese Simplified

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如果您需要翻译这份文件，请通过下方电话与 MassDEP 环境司法主任联系。

Ayisyen Kreyòl Haitian Creole

Dokiman sa a enpòtan epi yo ta dwe tradui l imedyatman. Si w bezwen tradui dokiman sa a, tanpri kontakte Direktè. Jistis Anviwònmanal MassDEP a nan nimewo telefòn ki endike anba a.

Việt Vietnamese

Tài liệu này và quan trọng và phải được dịch ngay. Nếu quý vị cần bản dịch của tài liệu này, vui lòng liên hệ với Giám Đốc Phòng Công Lý Môi Trường của MassDEP theo số điện thoại được liệt kê bên dưới.

ប្រទេសកម្ពុជា Khmer/Cambodian

ឯកសារនេះមានសារៈសំខាន់ ហើយគួរត្រូវបានបកប្រែឆាប់ៗ។
ប្រសិនបើអ្នកត្រូវការអោយឯកសារនេះបកប្រែ សូមទាក់ទងនាយកផ្នែកយុត្តិធម៌បរិស្ថានរបស់ MassDEP តាមរយៈលេខទូរស័ព្ទដែលបានរាយដូចខាងក្រោម។

Kriolu Kabuverdianu Cape Verdean

Es dokumentu sta important i tenki ser tradusidu imediatamenti. Se nho ta presisa ke es dokumentu sta tradisidu, por favor kontata O Diretor di Justisia di Environman di DEP ku es numero di telefoni menxionadu di baixo.

Contact Deneen Simpson 857-406-0738

**Massachusetts Department of Environmental Protection
100 Cambridge Street 9th Floor Boston, MA 02114**

TTY# MassRelay Service 1-800-439-2370 • <https://www.mass.gov/environmental-justice>

(Version revised 8.2.2023) 310 CMR 1.03(5)(a)

Русский Russian

Это чрезвычайно важный документ, и он должен быть немедленно переведен. Если вам нужен перевод этого документа, обратитесь к директору Департамента экологического правосудия MassDEP (MassDEP's Director of Environmental Justice) по телефону, указанному ниже.

العربية Arabic

هذه الوثيقة مهمة وتجب ترجمتها على الفور.

إذا كنت بحاجة إلى ترجمة هذه الوثيقة، فيرجى الاتصال بمدير العدالة البيئية في MassDEP على رقم الهاتف المذكور أدناه.

한국어 Korean

이 문서는 중대하므로 즉시 번역되어야 합니다. 본 문서 번역이 필요하신 경우, 매사추세츠 환경보호부의 "환경정의" 담당자 분께 문의하십시오. 전화번호는 아래와 같습니다.

հայերեն Armenian

Այս փաստաթուղթը կարևոր է, և պետք է անհապաղ թարգմանել այն: Եթե Ձեզ անհրաժեշտ է թարգմանել այս փաստաթուղթը, դիմեք Մասաչուսեթսի շրջակա միջավայրի պահպանության նախարարության (MassDEP) Բնապահպանական հարցերով արդարադատության ղեկավարին (Director of Environmental Justice)՝ ստորև նշված հեռախոսահամարով

فارسی Farsi Persian

این نوشتار بسیار مهمی است و باید فوراً ترجمه شود. اگر نیاز به ترجمه این نوشتار دارید لطفاً با مدیر عدالت محیط زیستی MassDEP در شماره تلفن ذکر شده زیر تماس بگیرید.

Français French

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Deutsch German

Dieses Dokument ist wichtig und muss sofort übersetzt werden. Wenn Sie eine Übersetzung dieses Dokuments benötigen, wenden Sie sich bitte an MassDEP's Director of Environmental Justice (Direktor für Umweltgerechtigkeit in Massachusetts) unter der unten angegebenen Telefonnummer.

Ελληνική Greek

Το έγγραφο αυτό είναι πολύ σημαντικό και πρέπει να μεταφραστεί αμέσως. Αν χρειάζεστε μετάφραση του εγγράφου αυτού, παρακαλώ επικοινωνήστε με τον Διευθυντή του Τμήματος Περιβαλλοντικής Δικαιοσύνης της Μασαχουσέτης στον αριθμό τηλεφώνου που αναγράφεται παρακάτω

Italiano Italian

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Język Polski Polish

Ten dokument jest ważny i powinien zostać niezwłocznie przetłumaczony. Jeśli potrzebne jest tłumaczenie tego dokumentu, należy skontaktować się z dyrektorem ds. sprawiedliwości środowiskowej MassDEP pod numerem telefonu podanym poniżej.

हिन्दी Hindi

यह दस्तावेज महत्वपूर्ण है और इसका अनुवाद तुरंत किया जाना चाहिए। यदि आपको इस दस्तावेज का अनुवाद कराने की जरूरत है, तो कृपया नीचे दिए गए टेलीफोन नंबर पर MassDEP के पर्यावरणीय न्याय निदेशक से संपर्क करें।

Contact Deneen Simpson 857-406-0738

Massachusetts Department of Environmental Protection

100 Cambridge Street 9th Floor Boston, MA 02114

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(Version revised 8.2.2023) 310 CMR 1.03(5)(a)

**FINAL Finding of Fact in Support of
Water Management Permit #9P-2-08-097.01
City of Fitchburg Water Division**

The Massachusetts Department of Environmental Protection (the Department or MassDEP) has completed its review of the City of Fitchburg Water Division's ("Fitchburg" or the "applicant") Water Management Act (WMA) permit renewal application filed on May 31, 2016. The Department hereby proposes to issue Water Management Permit #9P-2-08-097.01 (the "Permit") in accordance with the Water Management Act (M.G.L. c. 21G) and the regulations promulgated thereunder at 310 CMR 36.00. The Department makes the following Findings of Fact in support of the attached Permit and includes herewith its reasons for issuing the Permit and for conditions of approval imposed, as required by M.G.L. c. 21G, § 11, and 310 CMR 36.00. The Permit is being issued since such action is necessary for the promotion of the purposes of M.G.L. c. 21G. The Department may amend, suspend or terminate the Permit, after notice and hearing, in accordance with the provisions of 310 CMR 36.29(1).

Fitchburg's Water Withdrawal History

Registration: Fitchburg holds Registration Statement 208097.01 in the Chicopee River Basin for an average annual daily withdrawal volume of 0.67 million gallons per day (MGD) from Mare Meadow Reservoir. Pursuant to 310 CMR 36.36(3), Fitchburg's Chicopee River Basin also recognizes normal variation in the operation of its registered surface water source (Mare Meadow Reservoir). With this recognition of normal variation, Fitchburg is authorized to withdrawal up to 2.26 MGD (824 million gallons per year (MGY)) from the Chicopee River Basin with the caveat that Fitchburg's combined registered withdrawals from the Chicopee River Basin and Nashua River Basin, where they are registered (211097.06) to withdraw 6.19 MGD, cannot exceed a combined annual average daily withdrawal of 6.86 MGD.

Original Permit: Fitchburg was issued WMA Permit 9P-2-08-097.01 on February 28, 1994, adding Bickford Pond as an authorized withdrawal location in the Chicopee River Basin. An additional volume of 0.11 MGD was authorized by this Permit bringing the authorized withdrawals up to 0.77 MGD in the Chicopee River Basin, which could be increased to 2.37 MGD when considering the normal variation afforded by Fitchburg's registration in the basin.

Permit Extension Act: The original expiration date for all Water Management permits in the Chicopee River Basin was May 31, 2013. In 2010, this date was extended by two years, to May 31, 2015, by Section 173 of Chapter 240 of the Acts of 2010, the Permit Extension Act. In 2012, the Permit Extension Act was amended by Chapter 238 of the Acts of 2012 and Chicopee River Basin permits were extended an additional two years to May 31, 2017.

On January 4, 2016, MassDEP informed the applicant that MassDEP would need additional time before making a determination on permit renewal applications in order to ensure that all permit renewal applicants fully understood the new Water Management Regulations (discussed below), and to give proper consideration to all permit renewal applications. Pursuant to M.G.L. c. 30A, § 13, and 310 CMR 36.18(7), the applicant's Permit remains in full force and effect until MassDEP issues a final decision on the 2016 permit renewal permit application.

Permit Renewal Application: On May 31, 2016, Fitchburg applied to MassDEP for a permit renewal in the Chicopee River Basin. On January 3, 2025, MassDEP issued a Permit Renewal Order to Complete (OTC) outlining specific information that was required to renew the applicant's permit. The applicant responded on June 30, 2025.

The expiration date for all WMA permits going forward in the Chicopee River Basin will be May 31, 2033, in order to restore the staggered permitting schedule, set forth in the Water Management Regulations.

The Water Management Act (M.G.L.c.21G)

The WMA requires the Department to issue permits that balance a variety of factors including without limitation:

- Impact of the withdrawal on other water sources;
- Water available within the safe yield of the water source;
- Reasonable protection of existing water uses, land values, investments and enterprises;
- Proposed use of the water and other existing or projected uses of water from the water source;
- Municipal and Massachusetts Water Resources Commission (WRC) water resource management plans;
- Reasonable conservation consistent with efficient water use;
- Reasonable protection of public drinking water supplies, water quality, wastewater treatment capacity, waste assimilation capacity, groundwater recharge areas, navigation, hydropower resources, water-based recreation, wetland habitat, fish and wildlife, agriculture, flood plains; and
- Reasonable economic development and job creation.

Water Management Regulation Revisions

In 2010 the Executive Office of Energy and Environmental Affairs (EEA) convened the Sustainable Water Management Initiative (SWMI) for the purpose of incorporating the best available science into the management of the Commonwealth's water resources. SWMI was a multi-year process that included a wide range of stakeholders and support from the Departments of Environmental Protection, Fish and Game, and Conservation and Recreation. In November 2012 the *Massachusetts Sustainable Water Management Initiative Framework Summary* (<http://www.mass.gov/eea/docs/eea/water/swmi-framework-nov-2012.pdf>) was released.

On November 7, 2014, the Department adopted revised Water Management Regulations at 310 CMR 36.00 that incorporate elements of the SWMI framework and the Water Conservation Standards adopted by the Massachusetts WRC. The regulations reflect a carefully developed balance to protect the health of Massachusetts' water bodies while meeting the needs of businesses and communities for water.

Without limitation, the Department has incorporated the following into Water Management permitting:

- Safe yield determinations for the major river basins based on a new methodology developed through SWMI (see the Safe Yield in the Chicopee River Basin section of this document). For

more information on the Safe Yield methodology, go to the November 28, 2012 SWMI Framework Summary and Appendices;

- Water needs forecasts for public water suppliers developed by the Department of Conservation and Recreation, Office of Water Resources (DCR), using a methodology reviewed and approved by the Massachusetts WRC;
- Water supply protection measures for public water supplies including Zone II delineations for groundwater sources, and wellhead and surface water protection measures as required by Massachusetts Drinking Water Regulations (310 CMR 22.00);
- Water conservation and performance standards reviewed and approved by the WRC in July 2018 (Details on the 2018 Massachusetts Water Conservation Standards | Mass.gov); including without limitation;
 - performance standard of 65 residential gallons per capita day or less;
 - performance standard of 10% or less unaccounted-for-water;
 - seasonal limits on nonessential outdoor water use;
 - a water conservation program that includes leak detection and repair, full metering of the system and proper maintenance of the meters, periodic review of pricing, and education and outreach to residents and industrial and commercial water users; and
- Environmental protections developed through SWMI, including without limitation;
 - protection for coldwater fish resources;
 - minimization of withdrawal impacts in areas stressed by groundwater use; and
 - mitigation of the impacts of increasing withdrawals

Safe Yield in the Chicopee River Basin

This permit is being issued under the safe yield methodology adopted by the Department on November 7, 2014, and described in the regulations at 310 CMR 36.13. As of the date of issuance of this permit, the safe yield for the Chicopee Basin is 353.1 million gallons per day (MGD), and total registered and permitted withdrawals, as of the issuance date of this permit, are 203.72 MGD. The maximum withdrawals that will be authorized in this permit, and all other permits currently under review by the Department within the Chicopee River Basin, will be within the safe yield and may be further conditioned as outlined in the regulations. As noted above this permit does not allocate any additional withdrawal volumes, so it will not impact the safe yield of the Chicopee River Basin.

Findings of Fact for Permit Conditions in Fitchburg's Water Management Act Permit

The following Findings of Fact for the special conditions included in the permit generally describe the rationale and background for each special condition in the permit. This summary of permit special conditions is not intended to and should not be construed as modifying any of the permit special conditions. In the event of any ambiguity between this summary and the actual permit conditions, the permit language shall control.

Special Condition 1, Maximum Authorized Annual Average Withdrawal Volume, specifies the authorized annual average withdrawal volume for the term of this permit. The withdrawal volume for Fitchburg is 0.11 million gallons per day (MGD), or 40.15 million gallons per year (MGY). from its permitted surface water source, Bickford Pond, in the Chicopee River Basin. This permitted volume is in addition to the 6.86 MGD that the applicant is authorized to withdraw from its registered sources. As shown in Table 1, the applicant's annual average daily volume in recent years has been

in compliance with its total authorized volume and the flexibility afforded in withdrawals by its normal variation.

Table 1: Fitchburg's System-Wide Water Withdrawals (all in MGD)

Withdrawal Basin	Registered Rate	Permitted Rate	Total System-Wide Rate	Actual Withdrawals				
				2024	2023	2022	2021	2020
Chicopee	0.67 *	0.11	2.37*	1.89	0.92	2.06	1.40	1.95
Nashua	6.19	-	6.19	3.58	3.89	2.90	3.32	2.95
Total System	6.86	0	6.86	5.47	4.81	5.66	4.72	5.26

**Normal variation authorized in Fitchburg's Chicopee River Basin registration allows the city to withdraw up to an annual daily average of 2.26 MGD from Mare Meadow Reservoir. This permit authorizes another surface water source (Bickford Pond) in the Chicopee River Basin and increases the authorized withdrawals including normal variation up to 2.37 MGD from a combination of withdrawals from Mare Meadow (06S) and Bickford (09S). System-wide total annual daily average withdrawals are not increased by 0.11 MGD as identified in the prior permit. Volumes beyond 6.86 MGD will require that the City of Fitchburg obtain a Water Needs Forecast from the Department of Conservation and Recreation that demonstrates a system-wide demand beyond 6.86 MGD. Volumes beyond 6.86 MGD will also require a new WMA permit or permit amendment.*

Special Condition 2, Firm Yield of Surface Water Supply, reflects the maximum annual average withdrawal rate of 2.19 MGD for Bickford Pond based on the "Safe Yield Analysis for Water Supply Reservoirs, Fitchburg, Massachusetts" prepared by SEA Consultants.

Special Condition 3, Water Level Monitoring, reflects that monitoring required in accordance with the plan submitted by Fitchburg in June 1994. A pair of common loons resides on Bickford Pond who have been consistently successful at breeding over the years. The common loon is listed as a Species of Special Concern pursuant to the Massachusetts Endangered Species Act. There are normally no withdrawals during the nesting window (May 20 to July 8) outlined in the plan.

Special Condition 4, Surface Water Protection, reflects the requirement for Fitchburg to come into compliance with 310 CMR 22.20C of the Drinking Water Regulations within two years of the date of the issuance of this permit.

Special Condition 5, Performance Standard for Residential Gallons Per Capita Day Water Use (RGPCD), specifies that the RGPCD Performance Standard for all PWS's is 65. Permittees that cannot meet this Performance Standard within the timeframe in the permit must meet the Functional Equivalence Requirements outlined in Appendix A. As shown in Table 2, the applicant has consistently met this Performance Standard in recent years.

Table 2: Fitchburg's Residential Gallons Per Capita Day Water Use

Year	2024	2023	2022	2021	2020
RGPCD	40	41	44	46	53

Special Condition 6, Performance Standard for Unaccounted for Water (UAW), specifies that the UAW percentage required for all PWSs is 10% for two out of every 3 years. Permittees that cannot meet this Performance Standard within the timeframe in the permit must meet the Functional Equivalence Requirements outlined in this Special Condition and Appendix B. As shown in Table 3, the applicant has not consistently met this Performance Standard in recent years but has submitted UAW Compliance Plans and is actively working on improving their UAW. In their plan, they've committed to an M36 Water Audit, contracting a 3rd party to conduct an additional leak detection program, adding two additional meters on transmission mains supplying the high and low systems, continue to replace meters as needed, and implement a more adequate water rate structure.

Table 3: Fitchburg's Unaccounted for Water

Year	2024	2023	2022	2021	2020
UAW	24	27	27	26	24

Special Condition 7, Seasonal Limits on Nonessential Outdoor Water Use,

Fitchburg's Nonessential Outdoor Water Use Restrictions ("Restrictions") are based on whether the permittee's reported RGPCD for the previous year met the RGPCD Performance Standard of 65 residential gallons per capita day or less (see Special Condition 5).

An additional consideration in Water Management permitting is whether a permittee has a well in a subbasin¹ that is 25% or more August net groundwater depleted (Aug NGD)². Restrictions for PWSs with well(s) in such subbasins are set to minimize withdrawals from depleted subbasins. Fitchburg's sources are surface water only, so the more stringent nonessential outdoor water use restrictions have not been included in this permit.

Each year, Fitchburg shall choose one of two options for implementing nonessential outdoor water use restrictions:

1. **Calendar triggered restrictions** are in place from May 1st through September 30th. Many public water suppliers find this option easier to implement and enforce than the streamflow triggered approach. Note that restrictions must be reduced to 1 day per week if the 7-day low flow trigger is reached at the stream gage (see below).
2. **Streamflow triggered restrictions** are implemented at those times when streamflow falls below designated flow triggers measured at an assigned, web-based, real-time U.S. Geologic Survey (USGS) stream gage from May 1st through September 30th. At a minimum, restrictions commence when streamflow falls below the trigger for three consecutive days. Once implemented, the restrictions remain in place until streamflow at the assigned USGS local stream gage meets or exceeds the trigger streamflow for seven consecutive days.

If the permittee selects the streamflow trigger approach, it has been assigned USGS Gage 01094400 located on the North Nashua River at Fitchburg, MA. The May-June streamflow trigger is **130** cubic feet per second (cfs), and the July-September streamflow trigger is **67** cfs. Should the reliability of flow measurement at this gage be so impaired as to question its accuracy, the

applicant may request that MassDEP review and approve the transfer to another gage that will trigger restrictions. MassDEP reserves the right to require use of a different gage.

- **The 7-Day Low-flow Trigger**, at which restrictions increase, is incorporated into both Calendar and Streamflow Triggered restrictions in order to provide additional protection when flows are very low. The 7-day low flow trigger is based on the median value of the annual 7-day low flows for the period of record. The 7-day low-flow trigger for USGS Gage 01094400 located on the North Nashua River at Fitchburg, MA and is **29.71 cfs**.

To the extent feasible all summer outdoor water use should take place before 9 a.m. and after 5 p.m. when evaporation and evapotranspiration rates are lower.

The permittee may choose to implement limits on nonessential outdoor water use that are stricter than those required by the permit.

Guidance for Permittees Concerning Enforcement Authority

This permit condition does not confer enforcement authority to the permittee. For permittees that do not have the necessary local enforcement authority, MassDEP has developed a Model Outdoor Water Use Bylaw/Ordinance to help municipalities implement nonessential water use restrictions. The Model Bylaw also includes options for regulating private wells and in-ground irrigation systems. See [Model Water Use Restriction Bylaw/Ordinance Update | Mass.gov](#). DEP strongly advises permittees to consult with Town or City Counsel to ensure adoption of an appropriate, enforceable and legally valid bylaw that will meet municipal/district needs.

Note that if the permittee holds a Water Management registration, **the nonessential outdoor water use restrictions in this permit supersede restrictions in the permittee's registration.**

Special Condition (Old) 8, Water Withdrawals that Exceed Baseline Withdrawal Volumes, was originally included to require Best Management Practices to offset withdrawal increases above its baseline volume. This condition will be removed in lieu of Special Condition 10, as discussed below.

Special Condition 8, Requirement to Report Raw and Finished Water Volumes, ensures that the information necessary to evaluate compliance with the conditions in this permit are accurately reported.

Special Condition 9, Water Conservation Requirements, incorporates the Water Conservation Standards for the Commonwealth of Massachusetts reviewed and approved by the Water Resources Commission in July 2018 (<https://www.mass.gov/doc/massachusetts-water-conservation-standards-2/download>).

Special Condition 10, Mitigation of Impacts for Withdrawals that Exceed Baseline Withdrawals, requires Permittees whose authorized volume exceeds their baseline volume to develop and implement a plan to mitigate the impact of their withdrawals above the baseline volume. Special Condition 1 of the WMA Permit limits the permittee's total authorized volume in the Chicopee River Basin to 2.37 MGD, 0.11 MGD above Fitchburg's baseline volume of 2.26 MGD.

This Special Condition of the Permit requires the permittee to mitigate the impact of its withdrawal above its baseline volume adjusted by the amount of wastewater discharged to the groundwater in the basin, or 0.109 MGD, 109,000 gallons per day (gpd) must be mitigated.

Calculating Mitigation: A Permittee’s mitigation requirement is adjusted downward for the portion of the withdrawal that will be returned to local groundwater through septic systems. Fitchburg reports that 2% of its water is delivered to areas with on-site septic systems and will be discharged to local groundwater. 98% is discharged to Fitchburg’s public sewer system and not returned to local groundwater. The mitigation volume calculation below assumes that Fitchburg’s future withdrawals will be distributed and discharged in the same proportions. After adjusting for withdrawals over baseline that will be returned through septic system discharge (step 2 below), Fitchburg’s mitigation requirement will be up to 109,000 gallons per day (step 3 below).

Table 4: Fitchburg’s Mitigation Volume Calculation

1. Total Authorized Chicopee River Basin Volume above Baseline = 0.11 MGD Total Authorized Volume above Baseline: $2.37 - 2.26 = 0.11$ MGD
2. Adjusted for Wastewater Discharge to Local Groundwater = 0.009 MGD 2% of increased withdrawals are delivered to areas with on-site septic systems: $0.11 \text{ MGD} \times 0.02 \text{ (2\%)} = 0.0022 \text{ MGD}$ 85% of water delivered to areas with on-site septic systems returns to groundwater: $0.0022 \text{ MGD} \times 0.85 \text{ (85\%)} = 0.00187 \text{ MGD}$ 50% adjustment for the return to groundwater in another river basin: $0.00187 \text{ MGD} \times 0.50 \text{ (50\%)} = 0.0009 \text{ MGD}$
3. Amount to be Mitigated after Adjustment for Wastewater Discharge to Local Groundwater 0.109 MGD Total authorized volume above baseline (0.11 MGD) – adjustment for wastewater discharge to local groundwater (0.0009 MGD) = 0.109 MGD (109,000 gpd).

Permittees subject to the mitigation requirement must fully evaluate all direct mitigation options before relying on indirect mitigation strategies. MassDEP has discretion to accommodate existing permittees who may need to withdraw more than their baseline volume before they can provide the required mitigation.

Mitigating the impacts of increasing withdrawals can be through direct or indirect mitigation activities. Direct mitigation activities can be volumetrically quantified and compared to the permittee’s mitigation volume, whereas indirect mitigation activities will improve streamflow and/or fluvial habitat but cannot be volumetrically quantified. Accordingly, MassDEP assigns mitigation credits for indirect mitigation activities, in the amount of 0.01 MGD of mitigation per credit. Pursuant to 310 CMR 36.22(6), permittees shall first evaluate direct mitigation activities, which include, but are not limited to: surface water releases, stormwater recharge, or infiltration and inflow (I/I) removal from sewer systems.

Fitchburg submitted the required documentation for a project completed in 2023 that qualifies for direct mitigation. The construction of the Combined Sewer Overflow (CSO) 007, 001, 039, 048

Separation and Rehabilitation project was completed in 2023. The project involved the separation of approximately 4,800 LF of combined sewers and the investigation/rehabilitation of approximately 22,000 LF of sanitary sewers. The project included manhole frames and covers replacement, catch basin overflow pipe capping, cured-in-place pipe (CIPP) lining, and manhole external grouting and lining. It is estimated that 0.115 MGD of peak removable inflow as well as 0.068 MGD of peak removable infiltration were identified within the project area.

Based on MassDEP's credit scoring criteria, the flow that the Fitchburg can be credited will be 100% of 0.115 MGD + 25% of 0.068 MGD, totaling to 0.132 MGD, which exceeds the required direct mitigation amount.

Other Considerations

Minimization of Groundwater Withdrawal Impacts in Stressed Subbasins

Permittees with groundwater sources in subbasins with a net ground water depletion (NGD) of 25% or more during August to minimize their withdrawal impacts on those subbasins to the greatest extent feasible through water conservation and demand management measures that go beyond standard WMA permit requirement.

Fitchburg's only permitted source is surface water and is located in a subbasin (17044) that has an August NGD of 0.40%. Therefore, the renewed WMA Permit does not require minimization.

Coldwater Fish Resources (CFR) Protection

Water Management Act Permittees with withdrawals that may impact the streamflow of a CFR (identified on subbasin maps) are required to evaluate methods for reducing impacts on CFRs through feasible optimization. Fitchburg's permitted source is in subbasin (17044) that contains a CFR identified by the Department of Fish and Game (downstream of Bickford Reservoir).

The Department inquired about Fitchburg's ability to release water from Bickford Reservoir to help minimize the impact of withdrawals on the CFR downstream of the Bickford Reservoir. Fitchburg identified that to ensure reliable operation of the low-level outlet and dam spillway would require a capital improvement at an estimated cost of \$5 million. Without a better understanding of the water levels in the pond and the frequency of spilling it would be premature to ask Fitchburg to make such improvements. The permit does include revised monitoring and reporting conditions (see Special Condition #3) to help inform such considerations in the future.

Changes from Draft Permit

Table 3 outlining Limits on Nonessential Outdoor Water Use in the draft permit that was released for public comment on July 22, 2026 inadvertently omitted flow values for streamflow triggered restrictions from May 1-June 30 and July 1-September 30. This final permit includes the corrected Table 3 with the flow values that trigger restrictions.



Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Department of Environmental Protection

Address: 100 Cambridge Street, Suite 900, Boston MA 02114 | **Phone:** 617-292-5500

Maura T. Healey
Governor

Kim Driscoll
Lieutenant Governor

Rebecca Tepper
Secretary

Bonnie Heiple
Commissioner

WATER WITHDRAWAL PERMIT
#9P-2-08-097.01
City of Fitchburg

This renewal of Permit #9P-2-08-097.01 is approved pursuant to the Massachusetts Water Management Act (WMA) for the sole purpose of authorizing the withdrawal of a volume of water as stated below and subject to the following special and general conditions. This Permit conveys no right in or to any property.

PERMIT NUMBER: 9P-2-08-097.01

RIVER BASIN: Chicopee

PERMITTEE: City of Fitchburg- Water Division

EFFECTIVE DATE: September 21, 2026

EXPIRATION DATE: May 31, 2033

NUMBER OF WITHDRAWAL POINTS: 1

Groundwater: 0

Surface Water: 1

USE: Public Water Supply

DAYS OF OPERATION: 365

LOCATION(S):

Table 1: Withdrawal Point Identification

Source Name	Source Code	Location
Bickford Pond	2097000-09S	South St, Hubbardston

SPECIAL CONDITIONS

1. Maximum Authorized Annual Average Withdrawal Volume

This permit authorizes the City of Fitchburg's Water Division ("Fitchburg" or the "Permittee") to withdraw water from the Chicopee River Basin at the rate described below in Table 2. This permitted volume is in addition to the 0.67 million gallons per day (MGD) authorized to Fitchburg under Water Management Act Registration #2-08-097.01 for withdrawals from the Chicopee River Basin. In addition, due to the flexibility afforded by Fitchburg's approved Normal Variation (annual average daily withdrawals of up to 2.26 MGD) in the Chicopee River Basin Registration Statement, Fitchburg may withdraw up to 2.37 MGD in the Chicopee River Basin. This 2.37 MGD is caveated by the fact that total system-wide total annual average daily withdrawals, including the 6.19 MGD authorized through registration (#2-11-097.06) in the Nashua River Basin, are limited to 6.86 MGD.

The Department of Environmental Protection (MassDEP) will use the raw water withdrawal volume from all authorized withdrawal points to assess compliance with the registered and permitted withdrawal volumes.

Table 2: Maximum Authorized Withdrawal Volumes

Permit Periods	Total Water Withdrawal Volumes			
	Permit		Permit + Registration	
	Daily Average (MGD)	Total Annual (MGY)	Daily Average (MGD)	Total Annual (MGY)
09/21/2026 to 05/31/2033	0.11*	40.15	0.77*	284.70*

* Normal variation authorizes Fitchburg to withdraw up to an annual daily average of 2.37 MGD (865.05 MGY) from its surface water sources(s) in the Chicopee River Basin.

2. Firm Yield to Surface Water Supply

Based on the "Safe Yield Analysis for Water Supply Reservoirs, Fitchburg, Massachusetts" prepared by SEA Consultants, the firm yield of Bickford Pond is 2.19 million gallons per day (MGD). Annual average daily withdrawal volumes from Bickford Pond shall not exceed 2.19 MGD without specific advanced written approval from MassDEP. Additionally, Fitchburg's sources in the Chicopee River Basin are grandfathered under the Interbasin Transfer Act (IBT). Any physical increase to the sources over what was in existence in 1984 (e.g. adding new, larger pumps or pipes or otherwise increasing capacity), would require an IBT determination from the Department of Conservation and Recreation prior to commencing the work.

3. Water Level Monitoring

Fitchburg shall monitor and track water levels in Bickford Pond in accordance with the following requirements.

1. Establish a seven-week Common Loon nesting window from May 20 through July 8;
2. Establish a baseline water level as recorded on May 20;
3. During the nesting window do not allow water level to drop more than 12 inches below baseline level;
4. Notify the Massachusetts Division of Fisheries & Wildlife if water level rises by more than 3 inches above baseline level during the nesting window;
5. Maintain adequate water levels year-round to perpetuate existing fish populations and aquatic community. To evaluate this requirement Fitchburg shall:
 - a. Track reservoir levels weekly from May – October, and;
 - b. Provide this information upon request to MassDEP.

4. Surface Water Supply Protection

Within two years from the issuance of this Permit, Fitchburg must develop a Surface Water Supply Protection Plan and a reservoir and watershed public control plan for Bickford Pond in accordance with 310 CMR 22.20C(1)(d)4 and 5 and adopt local zoning or non-zoning land use controls in accordance with 310 CMR 22.20C(2). The Zone A for Bickford Pond extends into the Towns of Hubbardston, Princeton, and Westminster. Fitchburg shall send letters to the governing bodies of those communities requesting that the towns adopt controls that meet 310 CMR 22.20C(2) to protect the Zone A for Bickford Pond within their community. Each request shall include a map depicting the Zone A in the appropriate town. Provide MassDEP with a copy of the letters. Contact program.director-dwp@mass.gov for assistance in meeting this requirement.

5. Performance Standard for Residential Gallons Per Capita Day Water Use (RGPCD)

For all public water suppliers (PWSs), the performance standard for RGPCD is 65 or less. Permittees that cannot comply with the RGPCD Performance Standard are required to develop and implement a functional equivalence program as set forth in Appendix A: Functional Equivalence with the RGPCD Performance Standard. Fitchburg shall report its RGPCD annually in its Annual Statistical Report (ASR).

6. Performance Standard for Unaccounted for Water (UAW)

For all public water suppliers (PWSs), the performance standard for UAW is 10% or less of overall water withdrawal for 2 of the most recent years 3 throughout the permit period. Permittees that cannot comply with the UAW Performance Standard are required to develop and implement the functional equivalence requirements based on the *AWWA/IWA Water Audits and Loss Control Programs, Manual of Water Supply Practices M36*, as outlined in Appendix B. Fitchburg shall report its UAW annually in its Annual Statistical Report (ASR).

Nothing in the permit shall prevent a permittee who meets the 10% performance standard from demonstrating compliance with the UAW performance standard by developing and implementing a water loss control program following the *AWWA M36 Water Audits and Loss Control Programs*.

7. Seasonal Limits on Nonessential Outdoor Water Use

Fitchburg shall limit nonessential outdoor water use through mandatory restrictions from May 1 through September 30, as outlined in **Table 3** below. Fitchburg shall be responsible for tracking streamflow gages and recording and reporting when restrictions are implemented (see Table 4). The permittee shall document compliance with the limits on nonessential outdoor water use annually in its ASR.

Table 3: Seasonal Limits on Nonessential Outdoor Water Use

Restrictions are triggered by USGS Gage 01094400 – North Nashua at Fitchburg, MA (the Gage).
For Permittees Meeting the 65 RGPCD Standard for the Preceding Year When RGPCD was 65 or below as reported in the ASR and accepted by MassDEP, choose either Calendar Triggered Restrictions or Streamflow Triggered Restrictions from this section of the Table.
CALENDAR Triggered Restrictions
Nonessential outdoor water use is allowed before 9 a.m. and after 5 p.m.: a) Seven (7) days per week , and b) One (1) day per week when flow at the Gage falls below 29.71 cfs for three (3) consecutive days. Once implemented, restrictions shall remain in place until streamflow at the Gage meets or exceeds the trigger streamflow for seven (7) consecutive days.
STREAMFLOW Triggered Restrictions
Nonessential outdoor water use is allowed before 9 a.m. and after 5 p.m.: a) Seven (7) days per week when flow at the Gage falls for three (3) consecutive days below: 130 cfs from May 1 – June 30, and 67 cfs from July 1 – September 30; and b) One (1) day per week when flow at the Gage falls below 29.71 cfs for three (3) consecutive days. Once implemented, restrictions shall remain in place until streamflow at the Gage meets or exceeds the trigger streamflow for seven (7) consecutive days.
For Permittees NOT Meeting the 65 RGPCD Standard for the Preceding Year When RGPCD was above 65 as reported in the ASR and accepted by MassDEP, choose either Calendar Triggered Restrictions or Streamflow Triggered Restrictions from this section of the Table.
CALENDAR Triggered Restrictions
Nonessential outdoor water use is allowed before 9 a.m. and after 5 p.m. a) Two (2) days per week , and b) One (1) day per week when flow at the Gage falls below 29.71 cfs for three (3) consecutive days.

Once implemented, restrictions shall remain in place until streamflow at the Gage meets or exceeds the trigger streamflow for seven (7) consecutive days.

STREAMFLOW Triggered Restrictions

Nonessential outdoor water use is allowed before 9 a.m. and after 5 p.m.:

- a) **Two (2) days per week** when flow at the Gage falls for three (3) consecutive days below:
 - **130 cfs** from **May 1 – June 30**, and
 - **67 cfs** from **July 1 – September 30**; and
- b) **One (1) day per week** when flow at the Gage falls below **29.71 cfs** for three (3) consecutive days.

Once implemented, restrictions shall remain in place until streamflow at the Gage meets or exceeds the trigger streamflow for seven (7) consecutive days.

Table 4: Instructions for Accessing Streamflow Website Information

Instructions for Accessing Streamflow Website Information

If the Permittee chooses Streamflow Triggered Restrictions, the Permittee shall be responsible for tracking streamflows and recording and reporting to MassDEP when restrictions are implemented.

Streamflow information is available at the USGS National Water Information System (NWIS): Web Interface. The USGS NWIS default shows Massachusetts streamflows in real time, i.e., the most recent, usually quarterly hourly, reading made at each USGS stream gage.

Seasonal Limits on Nonessential Outdoor Water Use are implemented when the mean daily streamflow falls below the designated trigger for 3 consecutive days. The mean daily flow is not calculated until after midnight each day when the USGS computes the hourly data into a mean daily streamflow. As a result, the Permittee must use the mean daily streamflow from the preceding day when tracking streamflows.

Mean daily streamflow gage readings are also available by following the instructions on MassDEP's [USGS Stream Gage and Well-Monitoring Data webpage](#).

For additional questions or for additional support, contact the MassDEP Water Management Program at DEP.WMA@mass.gov (preferred), or the WMA Program contact identified in this permit.

Should the reliability of flow measurement at the **USGS Gage 01094400** on the North Nashua River at Fitchburg, MA be so impaired as to question its accuracy, Fitchburg may request MassDEP's review and approval to transfer to another gage to trigger restrictions.

MassDEP reserves the right to require the use of a different gage.

Nonessential Outdoor Water Use means a use that is not required:

- a) for health or safety reasons, including public facilities used for cooling such as splash pads and swimming pools, and for washing of boats, engines, or marine equipment to prevent negative saltwater impacts or the transfer of invasive aquatic species;
- b) by permit, license, statute or regulation;
- c) for the production of food, including vegetable gardens, and fiber;
- d) for the maintenance of livestock;
- e) to meet the core functions (those functions essential to the commercial operations) of a business, including but not limited to:
 - i. plant nurseries as necessary to maintain stock;
 - ii. golf courses as necessary to maintain greens and tees, and limited fairway watering per 310 CMR 36.07(2)(c)2.a. through c.;
 - iii. venues used for weddings or similar special events that limit watering to hand-held hose or drip irrigation as necessary to maintain gardens, flowers and ornamental plants;
 - iv. professional washing of exterior building surfaces, parking lots, driveways and/or sidewalks as necessary to apply surface treatments such as paint, preservatives, stucco, pavement, or cement in the course of construction, reconstruction or renovation work;
- f) for irrigation of public parks before 9:00 a.m. and after 5:00 p.m.,
- g) for irrigation of public and private recreation fields, including those operated by schools, colleges, universities and athletic associations, before 9:00 a.m. and after 5:00 p.m.,
- h) for irrigation of publicly funded shade trees and trees in the public right-of-way; or
- i) to establish a new lawn as necessary to stabilize soil in response to new construction or following the repair or replacement of a Title 5 system.

Public Notice of Seasonal Nonessential Outdoor Water Use Restrictions

The Permittee shall notify its customers of the restrictions and the consequences of failing to adhere to the restrictions.

- **For calendar-triggered restrictions**, customers shall be notified by April 15 each year.
- **For streamflow-triggered restrictions**, when streamflow at the assigned USGS local stream gage falls below a streamflow trigger for three consecutive days, customers shall be notified as soon as possible, but within three days of implementing the restrictions.

Notice that restrictions have been put in place shall be filed each year with MassDEP within 14 days of the restriction's effective date. Filing shall be in writing on the form "Notification of Water Use Restrictions" available on MassDEP's website ([Outdoor Water Use Restrictions for Cities, Towns, and Golf Courses | Mass.gov](#).)

Enforcement Authority

This permit condition does not confer enforcement authority to the permittee. If Fitchburg does not have appropriate enforcement authority, then beginning as soon as possible, but no later than 24 months after issuance of the permit, the permittee shall establish enforceable restrictions limiting nonessential outdoor water use.

Nothing in the permit shall prevent the Permittee from implementing water use restrictions that are more stringent than those set forth in this permit.

8. Requirement to Report Raw and Finished Water Volumes

Permittee shall report annually on its ASR the raw water volumes and finished water volumes for the entire water system and the raw water volumes for individual water withdrawal points

9. Water Conservation Requirements

At a minimum, Fitchburg shall implement the following conservation measures forthwith. Compliance with the water conservation requirements shall be reported to MassDEP upon request, unless otherwise noted in Table 5.

Table 5: Minimum Water Conservation Requirements

Leak Detection
1. At a minimum, conduct a full leak detection survey every three years. The first full leak detection shall be completed no later than 3 years from the date of the last documented leak detection survey.
2. Conduct leak detection of the entire distribution system within one year whenever the percentage of UAW increases by 5% or more (for example an increase from 3% to 8%) over the percentage reported on the ASR for the prior calendar year. Within 60 days of completing the leak detection survey, submit to the Department a report detailing the survey, any leaks uncovered as a result of the survey or otherwise, dates of repair and the estimated water savings as a result of the repairs.
3. Conduct field surveys for leaks and repair programs in accordance with the <u>AWWA Manual 36</u> .
4. The Permittee shall have repair reports available for inspection by the Department. The Permittee shall establish a schedule for repairing leaks that is at least as stringent as the following: ○ Leaks of 3 gallons per minute or more shall be repaired within 3 months of detection. ○ Leaks of less than 3 gallons per minute at hydrants and appurtenances shall be repaired as soon as possible. ○ Leaks of less than 3 gallons per minute shall be repaired in a timely manner, but in no event more than 6 months from detection, except that leaks in freeway, arterial or collector roadways shall be repaired when other roadwork is being performed on the roadway. Leaks shall be repaired in accordance with the Permittee's priority schedule including leaks up to the property line, curb stop or service meter, as applicable. The Permittee shall have water use regulations in place that require property owners to expeditiously repair leaks on their property.
Metering

1. Calibrate all source and finished water meters at least annually and report date of calibration on the ASR.
2. The Permittee shall maintain its system as 100% metered. All water distribution system users shall have properly sized service lines and meters that meet AWWA calibration and accuracy performance standards as set forth in <u>AWWA Manual M6 – Water Meters</u> .
3. The Permittee shall have an ongoing program to inspect individual service meters to ensure that all service meters accurately measure the volume of water used by its customers. The metering program shall include regular meter maintenance, including testing, calibration, repair, replacement and checks for tampering to identify and correct illegal connections. The plan shall continue to include placement of sufficient funds in the annual budget to calibrate, repair, or replace meters as necessary.
Pricing
1. The Permittee shall maintain a water pricing structure that includes the full cost of operating the water supply system. The Town shall continue to evaluate rates annually at a minimum and adjust costs as needed. Full cost pricing factors all costs - operations, maintenance, capital, and indirect costs (environmental impacts, watershed protection) - into prices.
2. The Permittee shall continue to implement an increasing block rate structure.
Residential and Public Sector Conservation
1. The Permittee shall continue to ensure that the standards set forth in the Federal Energy Policy Act, 1992 and the Massachusetts Plumbing Code are met when buildings are constructed or renovated.
2. The Permittee shall continue to meter and bill for water used by contractors using fire hydrants for pipe flushing and construction.
3. The Permittee shall continue to ensure that water conserving fixtures and landscaping practices are incorporated into the design of new municipal capital projects.
Industrial and Commercial Water Conservation
1. The Permittee reports that it has limited industrial or commercial properties.
Public Education and Outreach
1. The Permittee shall implement water conservation and education efforts designed to educate the Permittee's water customers on ways to conserve water. Without limitation, the Permittee's plan may include the following actions: ○ Include in bill stuffers and/or bills, a work sheet to enable customers to track water use and conservation efforts and estimate the dollar savings; ○ Public space advertising/media stories on successes (and failures); ○ Conservation information centers perhaps run jointly with electric or gas company; ○ Speakers for community organizations; ○ Public service announcements; radio/T.V./audio-visual presentations; ○ Joint advertising with hardware stores to promote conservation devices; ○ Use of civic and professional organization resources; ○ Special events such as Conservation Fairs;

○ Develop materials that are targeted to schools with media that appeals to children, including materials on water resource projects and field trips; and ○ Provide multilingual materials as needed.
2. Upon request of the Department, the Permittee shall report on its public education and outreach effort, including a summary of activities developed for specific target audiences, any events or activities sponsored to promote water conservation and copies of written materials.

10. Mitigation of Impacts for Withdrawals that Exceed Baseline Withdrawals

Fitchburg is required to mitigate up to 0.109 MGD for its permitted withdrawals over its 2.26 MGD baseline withdrawal rate. The mitigation requirement was met for withdrawals of up to 2.37 MGD from the Chicopee River Basin through the Direct Mitigation activities outlined in Appendix C.

GENERAL PERMIT CONDITIONS (applicable to all permittees)

No withdrawal in excess of 100,000 gallons per day over the registered volume (if any) shall be made following the expiration of this permit, unless the Department has received a timely permit renewal application pursuant to 310 CMR 36.00.

- 1. Duty to Comply:** The permittee shall comply at all times with the terms and conditions of this permit, the Act, the Water Management Act regulations at 310 CMR 36.00, and all other applicable State and Federal statutes and regulations.
- 2. Operation and Maintenance:** The permittee shall at all times properly operate and maintain all facilities and equipment installed or used to withdraw water so as not to impair the purposes and interests of the Act.
- 3. Entry and Inspections:** The permittee or the permittee's agent shall allow personnel or authorized agents or employees of the Department to enter and examine at reasonable times any property, facility, operation, equipment or activity involving the withdrawal of water, and to inspect and copy any relevant records, for the purpose of determining compliance with this permit, the Act or the regulations published pursuant thereto, upon presentation of proper identification and an oral statement of purpose.
- 4. Water Emergency:** Withdrawal volumes authorized by this permit are subject to restriction in any water emergency declared by the Department pursuant to M.G.L. c. 21G, §§ 15-17, M.G.L. c. 111, §§ 160, or any other enabling authority.
- 5. Transfer of Permits:** This permit shall not be transferred in whole or in part unless and until the Department approves such transfer in writing, pursuant to the submittal of a transfer application in accordance with 310 CMR 36.33 on forms provided by the Department requesting such approval and received by the Department at least thirty (30) days before the effective date of the proposed transfer. No transfer application shall be deemed filed unless it is accompanied by the applicable transfer fee as set forth in 310 CMR 4.00.

- 6. Duty to Report:** The permittee shall complete and submit annually, on a form provided by the Department, all of the information required by said form including, without limitation, a certified statement of the withdrawal. Such report shall be received by the Department by the date specified on the form each year. For public water supplier permittees, the report form is the MassDEP Drinking Water Program Public Water Supply Annual Statistical Report.
- 7. Annual Compliance Fee:** The permittee shall submit any applicable annual compliance fee as established in 310 CMR 4.00.
- 8. Duty to Maintain Records:** The permittee shall maintain withdrawal records and other information in sufficient detail to demonstrate compliance with this permit.
- 9. Metering:** All withdrawal points included within the permit shall be metered. Meters are to be calibrated annually. Meters shall be maintained and replaced as necessary to ensure the accuracy of the withdrawal records.
- 10. Amendment, Suspension, or Termination:** The Department may amend, suspend or terminate the permit in accordance with M.G.L. c. 21G and 310 CMR 36.29.

NOTICE OF APPEAL RIGHTS

Any person aggrieved by this decision may request an adjudicatory hearing by timely filing a Notice of Claim for an Adjudicatory Appeal ("Notice of Claim") in accordance with 310 CMR 36.37 and 310 CMR 1.01 within twenty-one (21) days of receipt of this Permit. The Notice of Claim shall state specifically, clearly, and concisely the facts that are grounds for the appeal, the relief sought, and any additional information required by applicable law or regulation. A copy of this Permit shall be included with the Notice of Claim. No request for an appeal of this permit shall be validly filed unless a copy of the request is sent at the same time by certified mail, or delivered by hand, to the local water resources management official in the community in which the withdrawal point is located; and for any person appealing this decision, who is not the Permittee, unless such person notifies the Permittee of the appeal in writing by certified mail or by hand within five (5) days of mailing the appeal to the Department.

The Notice of Claim and supporting documentation, including a copy of the fee transmittal form and a copy of the check, must be sent by certified mail or hand delivered to:

Case Administrator
Office of Appeals and Dispute Resolution
Department of Environmental Protection
100 Cambridge Street, Suite 900
Boston, MA 02114

In addition, the Department's fee transmittal form, together with a valid check or money order made payable to the Commonwealth of Massachusetts in the amount of \$100 for the appeal filing fee, if required, must be mailed to:

Commonwealth of Massachusetts Lock Box
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

The Notice of Claim may be dismissed if the filing fee is not paid unless the appellant is exempt or granted a waiver. The filing fee is not required if the appellant is a city, town (or municipal agency), county, district of the Commonwealth of Massachusetts, or a municipal housing authority. The Department may waive the adjudicatory filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, along with the hearing request, an affidavit setting forth the facts believed to support the claim of undue financial hardship.



Duane LeVangie
Water Management Program Chief
Bureau of Water Resources

September 21, 2026

Date

Attachments:

1. Endnotes
2. Appendix A: Functional Equivalence with the 65 Residential Gallons Per Capita Day Performance Standard
3. Appendix B: Functional Equivalence: 10% Unaccounted for Water Performance Standard
4. Appendix C: Fitchburg's I/I removal summary table for DIRECT mitigation credit

ENDNOTES

- [1] Subbasins used for WMA permitting are the 1,395 subbasins delineated by the U.S. Geological Survey in Indicators of Streamflow Alteration, Habitat Fragmentation, Impervious Cover, and Water Quality for Massachusetts Stream Basins (Weiskel et al., 2010, USGS SIR 2009-5272).
- [2] The Water Management Regulations, 310 CMR 36.03, define August net groundwater depletion to mean the unimpeded median flow for August minus 2000-2004 groundwater withdrawals plus 2000-2004 groundwater returns described by U.S. Geological Survey in Indicators of Streamflow Alteration, Habitat Fragmentation, Impervious Cover and Water Quality for Massachusetts Stream Basins.

Appendix A

Functional Equivalence with the 65 Residential Gallons Per Capita Day Performance Standard

MassDEP will consider public water supply permittees who cannot meet the 65 RGPCD performance standard to be functionally equivalent, and in compliance with their permit, if they have an on-going program in place that ensures “best practices” for controlling residential water use as described below.

If the permittee fails to document compliance with the RGPCD performance standard in its Annual Statistical Report (ASR), or in any ASR thereafter, then the permittee must file with that ASR a Residential Gallons Per Capita Day Compliance Plan (RGPCD Plan) which shall include, at a minimum:

1. A description of the actions taken during the prior calendar year to meet the performance standard;
2. An analysis of the cause of the failure to meet the performance standard;
3. A description of the actions that will be taken to meet the performance standard which must include, at a minimum, at least one of the following:
 - a) a program that provides water saving devices such as faucet aerators and low flow shower heads at cost;
 - b) a program that provides rebates or other incentives for the purchase of low water use appliances (washing machines, dishwashers, and toilets), or
 - c) the adoption and enforcement of an ordinance, by-law, or regulation to require the installation of moisture sensors or similar climate related control technology on all automatic irrigation systems;

and may include, without limitation, the following:

- d) the use of an increasing block water rate or a seasonal water rate structure as a tool to encourage water conservation;
- e) a program that provides rebates or other incentives for the installation of moisture sensors or similar climate related control technology on automatic irrigation systems;
- f) the adoption and enforcement of an ordinance, by-law, or regulation to require that all new construction include water saving devices and low water use appliances;
- g) the adoption and enforcement of an ordinance, by-law, or regulation to require that all new construction minimize lawn area and/or irrigated lawn area, maximize the use of drought resistant landscaping, and maximize the use of topsoil with a high water- retention rate;
- h) the implementation of a program to encourage the use of cisterns or rain barrels for outside watering;
- i) the implementation of monthly or quarterly billing.

4. A schedule for implementation; and
5. An analysis of how the planned actions will address the specific circumstances that resulted in the failure to meet the performance standard.

If the permittee is already implementing one or more of these programs, it must include in its RGPCD plan the continued implementation of such program(s), as well as implementation of at least one additional program. All programs must include a public information component designed to inform customers of the program and to encourage participation in the program.

RGPCD plans may be amended to revise the actions that will be taken to meet the performance standard. Amended RGPCD plans must include the information set forth above.

If an RGPCD plan is required, the permittee must:

1. submit information and supporting documentation sufficient to demonstrate compliance with its RGPCD plan annually at the time it files its ASR, and
2. continue to implement the RGPCD plan until it complies with the performance standard and such compliance is documented in the permittee's ASR for the calendar year in which the standard is met.

Appendix B

Functional Equivalence: 10% Unaccounted for Water Performance Standard

MassDEP will consider PWS permittees who cannot meet the 10% UAW performance standard to be functionally equivalent, and in compliance with their permit, if they have an on-going program in place that ensures “best practices” for controlling water loss. The water loss control program will be based on annual water audits and guidance as described in the *AWWA/IWA Manual of Water Supply Practices – M36, Water Audits and Loss Control Programs* (AWWA M36).

If the permittee fails to document compliance with the Unaccounted for Water performance standard (UAW of 10% or less for 2 of the 3 most recent years throughout the permit period), then the permittee shall develop and implement a water loss control program following the *AWWA M36 Water Audits and Loss Control Programs* within 5 full calendar years of failing to meet the standard as follows:

1. Conduct an annual “top down” water audit, calculate the data validity level/score using AWWA Water Loss Control Committee’s Free Water Audit Software, and submit the AWWA WLCC Free Water Audit Software: Reporting Worksheet and data validity score annually with its Annual Statistical Report (ASR).
 - a) If a PWS’s data validity level/score is less than Level III (51-70), steps recommended through the audit(s) shall be taken to improve the reliability of the data prior to developing a long-term program to reduce real and apparent water losses.
 - b) Data with a validity score of 50 or less are considered too weak to be used to develop a component analysis or for infrastructure planning and maintenance.
 - c) Developing data with an acceptably strong validity score can be a multi-year process.
2. When the data validity score meets the Level III (51-70) requirement, conduct a component analysis to identify causes of real and apparent water loss and develop a program to control losses based on the results of the component analysis.
3. Within 5 full calendar years of failing to meet the standard, submit the component analysis and water loss control program with a proposed implementation schedule to the Department.
4. Continued implementation will be a condition of the permit in place of meeting the 10% UAW performance standard.
5. Upon request of the Department, the permittee shall report on its implementation of the water loss control program.

A PWS permittee may choose to discontinue the water loss program implementation if UAW, as reported on the ASR and approved by the Department, is below 10% for four consecutive years, and the water audit data validity scores are at least Level III (51-70) for the same four years.

NOTE FOR SMALL SYSTEMS: For small systems with less than 3,000 service connections or a service connection density of less than 16 connections per mile of pipeline, the Unavoidable Annual Real Loss (UARL) calculation and the Infrastructure Leak Index (ILI) developed as the final steps of the top down water audit may not result in valid performance indicators, and may not be comparable to the UARL and ILI calculations for larger systems.

However, these small systems can benefit from developing reliable data and conducting an annual top down water audit. Small systems can rely on the real losses (gallons per mile of main per day) performance indicator developed in the water audit as a measure of real water loss when developing a water loss control program. The M36 Manual discusses the audit process for small systems, and includes a chapter to guide small systems in understanding the results of their audits and in developing a water loss control program (*Manual of Water Supply Practices – M36, Fourth Edition, Chapter 9: Considerations for Small Systems*, pp. 293-305).

MassDEP UAW Water Loss Control Measures: If the permittee is required to develop a Functional Equivalence Plan for the 10% Unaccounted for Water Performance Standard, and the permittee does not have a MassDEP-approved Water Loss Control Program in place within 5 full calendar years of failing to meet the standard, the permittee will be required to implement the MassDEP UAW Water Loss Control Measures outlined below:

- a) An annual water audit and leak detection survey, as described in the AWWA M36 Manual, of the entire system.
 - Within one year, repair 75% (by water volume) of all leaks detected in the survey that are under the control of the public water system;
 - Thereafter, repair leaks as necessary to reduce permittee's UAW to 10% or the minimum level possible.
- b) Meter inspection and, as appropriate, repair, replace and calibrate water meters:
 - Large Meters (2" or greater) – within one year
 - Medium Meters (1" or greater and less than 2") – within 2 years
 - Small Meters (less than 1") - within three years
 - Thereafter, calibrate and or replace all meters according to type and specification.
- c) Bill at least quarterly within three years.
- d) Water pricing structure sufficient to pay the full cost of operating the system.

Hardship - A permittee may present an analysis of the cost-effectiveness of implementing certain conservation measures included in the MassDEP UAW Water Loss Control Measures and offer alternative measures. Any analysis must explicitly consider environmental impacts and must produce equal or greater environmental benefits.

A permittee's hardship analysis shall:

- a) Document economic hardship and present an analysis demonstrating that implementation of specific measures will cause or exacerbate significant economic hardship;
- b) Present reasons why specific measures are not cost-effective because the cost would exceed the costs of alternative methods of achieving the appropriate standard; and
- c) Propose specific conservation measures that would result in equal or greater system-wide water savings or equal or greater environmental benefits than the conservation measures included in the MassDEP UAW Water Loss Control Measures.

MassDEP will review a permittee's detailed, written analysis to determine whether unique circumstances make specific Best Management Practices (BMPs) less cost-effective than alternatives, or infeasible for the permittee.

Appendix C

Fitchburg's I/I removal summary table for DIRECT mitigation credit

Major Basin	Year Completed	Data Source(s)	Activity Type (infiltration or inflow)	Activity	Method	Identified Mitigation (mgd)	Measured or Removable I/I?	Peak or Average Annual Flow?	Notes
North Nashua River	2023	SSES Reports	Inflow	Manhole Repairs	Replace 4 manhole frames and covers	0.06255	Removable	Peak	Part of the CSO 007, 011, 039 and 048 Separation and Rehabilitation Construction Project
North Nashua River	2023	SSES Reports	Inflow	Catch Basin Repair	Cap 1 catch basin overflow pipe to sewer	0.052609	Removable	Peak	Part of the CSO 007, 011, 039 and 048 Separation and Rehabilitation Construction Project
North Nashua River	2023	SSES Reports	Infiltration	Pipeline Rehabilitation	CIPP Lining (approx.. 1,260 linear feet)	0.066528	Removable	Peak	Part of the CSO 007, 011, 039 and 048 Separation and Rehabilitation Construction Project
North Nashua River	2023	SSES Reports	Infiltration	Manhole Rehabilitation	Externally grout and line 6 manholes	0.001512	Removable	Peak	Part of the CSO 007, 011, 039 and 048 Separation and Rehabilitation Construction Project