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

September 16, 2026

Colin Stokes, Superintendent
Groveland Water and Sewer Department
23 School Street
Groveland, MA 01834

PWS Number: 3116000
WMA Permit #9P2-3-13-116.01
Action: FINAL Renewed Permit

Dear Mr. Stokes:

Please find the attached documents:

- Findings of Fact in Support of the Renewed Permit #9P2-3-13-116.01; and
- Final Water Management Act Permit #9P2-3-13-116.01 (Merrimack River Basin) for the Groveland Water Department.

The DRAFT Renewed 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 Merrimack River Basin and to other interested parties offering a 30-day comment period. No comment was received.

The signature on this cover letter indicates formal issuance of the attached document. If you have any questions regarding this information, please contact Shi Chen at 857-360-0042 or via e-mail at shi.chen@state.ma.us.

Very truly yours,

Duane LeVangie,
Chief, Water Management Program
Bureau of Water Resources

mass.gov.sharepoint.com/W:\DWPWMA\Permits Renewals\Merrimack\Groveland-3116000-Groveland Water Deparment-9P231311601-Final Permit -2026-09-16-a11y

Ecc: Sean Griffin, MassDEP NERO
Jen Pederson, MWWA

Lydia Olson, Massachusetts Rivers Alliance
Anne Carroll, DCR-Office of Water Resources
Catherine Sarafinas-Hamilton, MassDEP

重要 महत्वपूर्ण σημαντικός Important կարեւոր quan trọng مهم

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 EJ at the telephone number listed below.

Español Spanish

Este documento es importante y debe ser traducido de inmediato. Si necesita este documento traducido, comuníquese con la Directora de Diversidad de MassDEP al número de teléfono que aparece más abajo.

Português Portuguese

Este é um documento importante e deve ser traduzido imediatamente. Se precisar de uma tradução deste documento, entre em contato com o Diretor de Diversidade da MassDEP nos números de telefone listados abaixo.

繁體中文 Chinese Traditional

本文件非常重要，應立即翻譯。如果您需要翻譯這份文件，請用下面列出的電話號碼聯絡 MassDEP 多元化負責人。

简体中文 Chinese Simplified

本文件非常重要，应立即翻译。如果您需要翻译这份文件，请用下面列出的电话号码与 MassDEP 的多元化主任联系。

Ayisyen Kreyòl Haitian Creole

Dokiman sa-a se yon bagay enpòtan epi yo ta dwe tradwi l imedyatman. Si ou bezwen dokimar sa a tradwi, tanpri kontakte Direktè Divèsite MassDEP la nan nimewo telefòn endike anba.

Việt Vietnamese

Tài liệu này rất quan trọng và cần được dịch ngay lập tức. Nếu quý vị cần dịch tài liệu này, xin liên lạc với Giám đốc Đa dạng của MassDEP theo các số điện thoại ghi dưới đây.

ប្រទេសកម្ពុជា Khmer/Cambodian

ឯកសារនេះគឺសំខាន់ហើយគួរត្រូវបានបកប្រែភ្លាមៗ។ ប្រសិនបើអ្នកត្រូវការឱ្យគេបកប្រែឯកសារនេះ
សូមទាក់ទងមកនាយកផ្នែកពិពិធកម្មរបស់ MassDEP តាមលេខទូរស័ព្ទខាងក្រោម។

Kriolu Kabuverdianu Cape Verdean

Kel dukumentu li é inpurtánti y debe ser traduzidu imidiatamenti. Se bu meste di kel dukumentu traduzidu, pur favor kontakta Diretor di Diversidádi di MassDEP na numeru abaxu indikadu.

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 4.21.2023) 310 CMR 1.03(5)(a)

Русский Russian

Это важный документ, и он должен быть безотлагательно переведен. Если вам нужен перевод данного документа, пожалуйста, свяжитесь с директором по вопросам многообразия (Diversity Director) компании MassDEP по указанному ниже телефону.

العربية Arabic

هذه الوثيقة مهمة ويجب ترجمتها على الفور. اذا كنت بحاجة الى هذه الوثيقة مترجمة، يرجى الاتصال بمدير التنوع PMassDE على أرقام الهواتف المدرجة أدناه.

한국어 Korean

이 문서는 중요하고 즉시 번역해야 합니다. 이 문서의 번역이 필요하시다면, 아래의 전화 번호로 MassDEP 의 다양성 담당 이사에 문의하시기 바랍니다.

հայերեն Armenian

Այս փաստաթուղթը կարևոր է և պետք է անմիջապես թարգմանվի:
Եթե Ձեզ անհրաժեշտ է այս փաստաթուղթը թարգմանել, դիմեք MassDEP-ի բազմազանության տնօրենին ստորև նշված հեռախոսահամարով:

فارسی Farsi Persian

این سند مهم است و باید فورا ترجمه شود.
اگر به ترجمه این سند نیاز دارید، لطفا با مدیر بخش تنوع نژادی MassDEP به شماره تلفن ذکر شده در زیر تماس بگیرید.

Français French

Ce document est important et devrait être traduit immédiatement. Si vous avez besoin de ce document traduit, veuillez communiquer avec le directeur de la diversité MassDEP aux numéros de téléphone indiqués ci-dessous.

Deutsch German

Dieses Dokument ist wichtig und sollte sofort übersetzt werden. Sofern Sie eine Übersetzung dieses Dokuments benötigen, wenden Sie sich bitte an den Diversity Director MassDEP unter der unten aufgeführten Telefonnummer.

Ελληνική Greek

Το παρόν έγγραφο είναι σημαντικό και θα πρέπει να μεταφραστεί αμέσως. Αν χρειάζεστε μετάφραση του παρόντος εγγράφου, παρακαλούμε επικοινωνήστε με τον Διευθυντή Διαφορετικότητας του MassDEP στους αριθμούς τηλεφώνου που αναγράφονται παρακάτω.

Italiano Italian

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Język Polski Polish

Dokument ten jest ważny i powinien zostać natychmiast przetłumaczony. Jeśli potrzebujesz przetłumaczonej wersji dokumentu, prosimy o kontakt z dyrektorem ds. różnorodności MassDEP pod jednym z numerów telefonu wymienionych poniżej.

हिन्दी Hindi

यह दस्तावेज महत्वपूर्ण है और इसका तुरंत अनुवाद किया जाना चाहिए. यदि आपको इस दस्तावेज़ का अनुवाद करने की आवश्यकता है, तो कृपया नीचे सूचीबद्ध टेलीफोन नंबरों पर मासडेप्स डाइवर्सिटी के निदेशक से संपर्क करें.

Contact Deneen Simpson 857-406-0738
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Findings of Fact in Support of
Water Management Act Permit # 9P2-3-13-116.01
Groveland Water Department

The Department of Environmental Protection (the Department) makes the following Findings of Fact in support of the attached Water Management Act (WMA) Permit #9P2-3-13-116.01 and includes herewith its reasons for issuing the Permit and for conditions of approval imposed, as required by M.G.L. c. 21G, § 11. The issuance of this permit is in response to a water withdrawal permit renewal application submitted on November 16, 2017 by the Groveland Water Department (Groveland) for the purpose of public water supply.

Groveland`s Withdrawal History

Registration: Groveland holds a WMA Registration #31311601 for an average annual daily withdrawal volume of 0.41 million gallons per day (MGD), or 149.94 million gallons per year (MGY) from one groundwater source in the Merrimack River Basin: GPW #3 (3116000-03G). All WMA Registrations, including Groveland`s, were renewed in 2023 and include a new condition (Registration Condition 3) requiring nonessential outdoor water use restrictions during times of drought.

Original Permit, April 12, 2000: Groveland`s Permit #9P231311601 authorized no additional withdrawals beyond the 0.41 MGD or 149.94 MGY previously registered volume. The permit was necessary because two groundwater sources were added, Well #1 (3116000-01G) and Well #4 (3116000-04G).

Permit Expiration Date

The Renewed WMA Permit will be in effect until November 30, 2034 in accordance with the schedule set forth in the Water Management Act Regulations, 310 CMR 36.17.

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

The Water Management Act (Act) requires MassDEP to issue permits that balance a variety of factors including without limitation:

- Impact of the withdrawal on other water sources;
- Time of year when the withdrawal will be made;

- 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 (https://www.mass.gov/files/documents/2016/08/wf/swmi-framework-nov-2012.pdf) was released.

On November 7, 2014, MassDEP 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, MassDEP has incorporated the following into Water Management permitting:

- Safe yield determinations for the major river basins based on a new methodology developed through SWMI. For a water source where an estimate of natural annualized streamflow is not applicable because the water source is groundwater-driven, the Safe Yield is determined through estimates of groundwater recharge during drought conditions. 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 (https://www.mass.gov/files/documents/2018/09/11/ma-water-conservation-standards-2018.pdf), including;
    - 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;
- Environmental protections developed through SWMI, including;
    - protection for coldwater fish resources;
    - mitigation of the impacts of increasing withdrawals.

Safe Yield in the Merrimack 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 Merrimack Basin is 900.4 million gallons per day (MGD), and total allocated withdrawals are 80.11 MGD. The maximum withdrawals that will be authorized in this permit, and all other permits currently under review by the Department within the Housatonic Basin, will be within the safe yield and may be further conditioned as outlined in the regulations.

Findings of Fact for Permit Conditions in Groveland'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 DRAFT 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, reflects the authorized annual average withdrawal volume for the life of this permit. Groveland is authorized to withdraw an average annual daily volume of up to 0.41 MGD through its Registration #31311601 with no additional volumes allocated by this permit.

Groveland requested a withdrawal volume of 0.54 MGD in the permit renewal application, which is based on the water needs forecast (WNF) developed by the Department of Conservation and Recreation (DCR) in consultation with the community. MassDEP issued a Permit Renewal Order to Complete (OTC) on July 2, 2025 requesting additional information to complete the review. Groveland submitted a response to the OTC on September 11, 2025 and states that it seeks to renew the current authorized volume of

0.41 MGD instead. Groveland may file a new permit application at any point in the future should they identify they need additional volumes beyond those currently authorized.

Special Condition 2, Maximum Authorized Daily Withdrawals from Each Withdrawal Point, identifies the MassDEP approved maximum daily withdrawal rate for Groveland`s permitted sources.

Special Condition 3, Zone of Contribution (Zone II or Zone III) Delineations, all of Groveland`s permitted sources have approved Zone II`s delineated. No further delineations are required as a condition of this permit.

Special Condition 4, Wellhead Protection, MassDEP records indicate Groveland submitted its wellhead protection information for their wells in 2010. Therefore, no land use controls for wellhead protection are required as a condition of this permit.

Former Special Condition 5, Source Management Plan and Former Special Condition 6, Needs Analysis have been removed from the renewed WMA Permit. This is because the Source Management Plan permit condition was established to ensure compliance with Special Conditions 1 and 2, both of which have been accomplished, and the Needs Analysis has been accomplished and is also reflected in the DCR`s WNF.

Special Condition 5, Performance Standard for Residential Gallons Per Capita Day (RGPCD) Water Use, for all PWS permittees is 65 RGPCD. Groveland`s RGPCD has been below the 65 RGPCD performance standard for the past three years (41 in 2024, 42 in 2023 and 46 in 2022). If Groveland fails to meet the RGPCD performance standard in its 2026 Annual Statistical Report (ASR) or in any ASR thereafter, Groveland must file with that ASR a RGPCD Plan that meets Functional Equivalence Requirements outlined in Appendix A.

Special Condition 6, Performance Standard for Unaccounted for Water, for all PWS permittees is 10% or less of overall water withdrawal for 2 of the most recent 3 years throughout the permit period. Permittees that cannot comply within the timeframe in the permit must meet 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. Groveland`s UAW for the most recent three years has been 7% in 2024, 7% in 2023 and 6% in 2022.

Special Condition 7, Seasonal Limits on Nonessential Outdoor Water Use:
Groveland'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).

In addition, outdoor water use restrictions for permittees with wells in subbasins[i] that are 25% or more August net groundwater depleted (Aug NGD)[ii] are set to minimize withdrawals

from depleted subbasins. Because Groveland's well(s) is not located in a subbasin which is Aug NGD by 25% or more, the more stringent nonessential outdoor water use restrictions have not been included in this permit.

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

- **Calendar triggered restrictions** are in place from May 1 through September 30. 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).
- **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 1 through September 30. 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 Groveland selects the streamflow trigger approach, it has been assigned **USGS Gage #01101000-Parker River at Byfield, MA**. The May-June streamflow trigger is **20** cubic feet per second (cfs), and the July-September streamflow trigger is **6** cfs. Should the reliability of flow measurement at this gage be so impaired as to question its accuracy, the permittee may request that MassDEP review and approve the transfer to another gage that will trigger restrictions. MassDEP acknowledges that the Parker River Gage is currently under construction and daily gage levels will be available starting in summer 2026. 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 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 #01101000** is **0.5** 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**.

Based on our review of the Water Use Bylaw submitted by Groveland (Town of Groveland, MA Water Use), Groveland may need to update its bylaws to enforce the seasonal limits on outdoor water use requirements in the renewed permit.

Special Condition 8, 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). The Water Conservation Questionnaire submitted by Groveland dated September 11, 2025 indicates that Groveland is not currently meeting the water conservation requirements in the area of Public Education and Outreach. Groveland shall develop and implement a public education plan.

Also note that the permit requires by May 1, 2027, that Groveland adopt the enforcement authority necessary to establish and implement enforceable restrictions limiting nonessential outdoor water use.

OTHER CONSIDERATIONS

Minimization of Groundwater Withdrawal Impacts in Stressed Subbasins, requires permittees with permitted groundwater sources in subbasins with net groundwater depletion of 25% or more during August to minimize their withdrawal impacts on those subbasins to the greatest extent feasible.

Groveland`s groundwater sources are located in subbasins 13014 and 13086. Subbasin 13014 has an August NGD of less than 25% (8.6%), and August NGD is not applicable for subbasin 13086 because it runs along the Merrimack River mainstem. Therefore, Groveland is not currently required to implement measures to minimize their withdrawal impacts.

Mitigation of Withdrawals over Baseline is not required because the calculated baseline withdrawal volume for Groveland is 0.41 MGD, based on the registered volume. The permit renewal will not authorize Groveland to withdraw volumes that exceed its registered

volume of 0.41 MGD. Therefore, Groveland is not required to develop a mitigation plan at this point.

Coldwater Fish Resource (CFR) Protection was incorporated into the Water Management Regulations in November 2014. A CFR (Argilla Brook) has been identified in subbasin 13014. MassDEP has consulted with the Division of Fisheries and Wildlife who suggested that Groveland discuss their ability to shift pumping away from Well #1 (3116000-01G) along Argilla Brook to Groveland`s other non-CFR wells (Wells #3 & #4). Groveland responded that due to the water quality concerns at Well #3 (with elevated PFAs levels and high levels of Manganese) and the limited capacity at Well #4, Groveland is not able to shift pumping away from Well #1 to other wells. Therefore, there are no further CFR optimization requirements in this renewed permit.

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 July1-September 30. This final permit includes the corrected table with the flow values that trigger restrictions.

Commonwealth of Massachusetts
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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
MGL c 21G

This permit is issued pursuant to the Massachusetts Water Management Act 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 beyond the right to withdraw the volume of water for which it is issued.

PERMIT NUMBER: 9P2-3-13-116.01 **RIVER BASIN:** Merrimack

PERMITTEE: Groveland Water Department

EFFECTIVE DATE: September 16, 2026

EXPIRATION DATE: November 30, 2034

NUMBER OF WITHDRAWAL POINTS:
Groundwater: 2
Surface Water: 0

USE: Public Water Supply

DAYS OF OPERATION: 365

WITHDRAWAL POINT IDENTIFICATION

Source Name	PWS Source ID Code	Latitude	Longitude
Well #1	3116000-01G	42°45’06” N	71°02’11” W
Well #4	3116000-04G	42°45’06” N	71°02’11” W

SPECIAL CONDITIONS

Special Condition 1: Maximum Authorized Annual Average Withdrawal Volume

This permit authorizes Groveland to withdraw water from the Merrimack Basin at the rates described below (Table 1). The volume reflected by this rate is in addition to the 0.41 million gallons per day (MGD) previously registered to the permittee through the Water Management Act (WMA) Registration #31311601. The permitted volume is expressed both as an annual average daily withdrawal rate (MGD), and as a total annual withdrawal volume (million gallons per year or MGY).

The Department of Environmental Protection (MassDEP or the Department) bases these withdrawal volumes on the raw water withdrawn from the authorized withdrawal point and will use the raw water amount to assess compliance with the registered and permitted withdrawal volumes.

Table 1: Maximum Authorized Daily Withdrawal Volumes

Permit Periods	Total Raw Water Withdrawal Volumes			
	Permit		Registration + Permit	
	Daily Average (MGD)	Total Annual (MGY)	Daily Average (MGD)	Total Annual (MGY)
09/16/2026 to 11/30/2034	0	0	0.41 + 0 = 0.41	149.94 + 0 = 149.94

Special Condition 2: Maximum Authorized Daily Withdrawals from Each Withdrawal Point

Withdrawals from the individual withdrawal points are not to exceed the approved maximum daily volumes listed below in Table 2 without specific advance written approval from MassDEP.

Table 2: Maximum Authorized Daily Withdrawal Volumes

Source Name	PWS Source Code ID	Maximum Daily Rate (MGD)
Well #1	3116000-01G	0.58
Well #4	3116000-04G	0.31

Special Condition 3: Zone II Delineations

MassDEP records show that Groveland`s permitted sources, Well #1 and Well #4 have MassDEP approved Zone II delineations. No further Zone II work is required as a condition of this permit for these sources.

Special Condition 4: Wellhead Protection

MassDEP records indicate that Groveland has adopted land use controls and water supply protection measures meeting the requirements of the Wellhead Protection Regulations at 310 CMR 22.21(2). Therefore, no further wellhead protection work is required as a condition of this permit.

Special Condition 5: Performance Standard for Residential Gallons Per Capita Day (RGPCD) Water Use

Permittee's performance standard for residential gallons per capita day (RGPCD) is 65 gallons. If, at any time Groveland does not meet the RGPCD Performance Standard, it shall comply with the functional equivalence program as set forth in Appendix A: Functional Equivalence with the RGPCD Performance Standard. Groveland shall report its RGPCD annually in its Annual Statistical Report (ASR).

Special Condition 6: Performance Standard for Unaccounted for Water

Groveland's Performance Standard for Unaccounted for Water (UAW) is 10% or less of overall water withdrawal for two of the most recent three years 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. Groveland 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*.

Permittees meeting the Performance Standard for Unaccounted for Water through implementation of a water loss control program based on AWWA M36 annual water audits and guidance shall continue to report UAW annually as required in the Annual Statistical Report for public water suppliers.

Special Condition 7: Seasonal Limits on Nonessential Outdoor Water Use

Groveland shall limit nonessential outdoor water use through mandatory restrictions from May 1 through September 30, as outlined in Table 3 below. Groveland 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: Limits on Nonessential Outdoor Water Use from May 1 through September 30

Restrictions are triggered by USGS Gage 01101000 - Parker River at Byfield, 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 **0.5 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: • **20 cfs** from **May 1 – June 30**, and • **6.0 cfs** from **July 1 – September 30**; except b) **One (1) day per week** whenever flow at the Gage falls below **0.5 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 **0.5 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:
   - **20 cfs** from **May 1 – June 30**, and
   - **6.0 cfs** from **July 1 – September 30**; except

b) **One (1) day per week** whenever flow at the Gage falls below **0.5 cfs** for three (3) consecutive days**.**

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

Table 4: Tracking Streamflows through the USGS Website

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 01101000**-Parker River at Byfield, MA be so impaired as to question its accuracy, Groveland 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:
    1. plant nurseries as necessary to maintain stock;
    2. golf courses as necessary to maintain greens and tees, and limited fairway watering per 310 CMR 36.07(2)(c)2.a. through c.;
    3. 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;
    4. 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 Groveland does not have appropriate enforcement authority, then beginning as soon as possible, but **no later than May 1, 2027**, the permittee shall establish enforceable restrictions limiting nonessential outdoor water use.

Special Condition 8: Water Conservation Requirements

At a minimum, Groveland shall implement the conservation measures listed in Table 5. Compliance with the water conservation requirements shall be reported to MassDEP upon

request, during all interim permit reviews, and at the time of permit renewal, unless otherwise noted below.

Table 5: Minimum Water Conservation Requirements

System Water Audits and Leak Detection
1. At a minimum, conduct a full leak detection survey every three years.
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 AWWA Manual 36.
4. Groveland shall have repair reports available for inspection by MassDEP. Groveland 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 Groveland's priority schedule including leaks up to the property line, curb stop or service meter, as applicable. Groveland 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. Groveland reports its system is 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 AWWA Manual M6 – Water Meters.
3. Groveland 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 include placement of sufficient funds in Groveland's annual water budget to calibrate, repair, or replace meters as necessary.
Pricing

1. Groveland shall maintain a water pricing structure that includes the full cost of operating the water supply system. Groveland shall evaluate rates at a minimum of every three years and adjust costs as needed. Full cost pricing factors all costs - operations, maintenance, capital, and indirect costs (environmental impacts, watershed protection) into prices.
2. Groveland reports using an increasing block rate structure.

Residential and Public Sector Conservation

1. Groveland shall meet the standards set forth in the Federal Energy Policy Act, 1992 and the Massachusetts Plumbing Code.
2. Groveland shall meter water from hydrants used by contractors for pipe flushing and/or construction.
3. Groveland shall ensure that water savings devices are installed in all municipal buildings as they are renovated, and shall ensure water conserving fixtures and landscaping practices are incorporating into the design of new municipal capital projects.

Industrial and Commercial Water Conservation

1. Groveland shall ensure that the best available technologies for water conservation practices are being used in all development proposals, particularly low flow devices and water-wise landscaping practices.

Lawn and Landscape

1. **By May 1, 2027**, Groveland shall update as necessary its water use restriction bylaw in accordance with the restricted nonessential outdoor water uses condition.

Public Education and Outreach

1. Groveland shall develop and implement a Water Conservation Education Plan. Groveland's Water Conservation Education Plan shall be designed to educate Groveland's water customers of ways to conserve water. Without limitation, Groveland'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
    - Make multilingual materials available as needed.
2. Upon request of MassDEP, Groveland 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.

General Permit Conditions (applicable to all Permittees)

1. **Duty to Comply** The Permittee shall comply at all times with the terms and conditions of this permit, the Act and all 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 up to the authorized volume 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 MassDEP to enter and examine any property, inspect and monitor the withdrawal, and 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 MassDEP 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 MassDEP approves such transfer in writing, pursuant to a transfer application on forms provided by MassDEP requesting such approval and received by MassDEP 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 established by 310 CMR 36.37.
6. **Duty to Report** The Permittee shall submit annually, on a form provided by MassDEP, a certified statement of the withdrawal. Such report is to be received by MassDEP by the date specified by MassDEP. Such report must be mailed or hand delivered to the address specified on the report form.
7. **Duty to Maintain Records** The Permittee shall be responsible for maintaining withdrawal records as specified by this permit.
8. **Metering** Withdrawal points shall be metered. Meters shall be calibrated annually. Meter shall be maintained and replaced as necessary to ensure the accuracy of the withdrawal records.
9. **Amendment, Suspension or Termination** The Department may amend, suspend or terminate this permit in accordance with M.G.L. c. 21G or 310 CMR 36.29.

APPEALS

Any person aggrieved by this decision may request an adjudicatory hearing on this Permit 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 its 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 a 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 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 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

September 16, 2026

Duane LeVangie, Program Chief
Water Management Act Program
Bureau of Water Resources

Date

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 a 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).
    - 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.
    - 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.
    - 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:

- 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.
- 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.
- Bill at least quarterly within three years.
- 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:

- Document economic hardship and present an analysis demonstrating that implementation of specific measures will cause or exacerbate significant economic hardship;
- 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

- 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.

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[i] 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). The Water Management Regulations, 310 CMR 36.03, define August net groundwater depletion (NGD) 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. A subbasin is groundwater, depleted if it has an August NGD of greater than 25%.

[ii] 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.