



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

100 Cambridge Street Suite 900 Boston, MA 02114 • 617-292-5500

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Bonnie Heiple
Commissioner

September 6, 2023

Dan Gorczyca
Agawam Springs Water Company
158 Tihonet Road
Wareham, MA 02571

RE: Water Management Act
Permit No. 9P4-4-24-239.06
Final BRP WM 02 Permit Amendment &
Permit Renewal

Dear Mr. Gorczyca:

The Massachusetts Department of Environmental Protection (MassDEP) received a BRP WM 02 permit amendment application on June 06, 2022 from Agawam Springs Water Company ("Agawam Springs") to increase its existing permitted maximum daily withdrawal limit from the Wareham Road Well. MassDEP had also previously received a 20-Year Permit Renewal Application from the Agawam Springs on May 29, 2015. This amended and renewed permit reflects the updated permit requirements. Please find the following attached documents:

- Findings of Fact in Support of the Final Permit Decision.
- Water Management Act Permit for withdrawals by Agawam Springs Water Company in the Buzzards Bay Basin.

If you have any questions regarding the permit, please contact Shi Chen at shi.chen@mass.gov or 857-360-0042.

Sincerely,

Duane LeVangie
Water Management Program Chief
Bureau of Water Resources

Ecc: Julia Blatt and Sarah Bower, Mass Rivers Alliance
Kevin MacKinnon and Jill Getchell, Weston & Sampson
Jennifer Pederson, Massachusetts Water Works Association

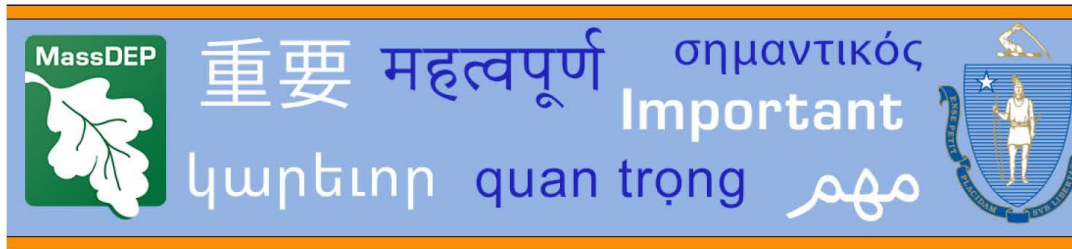
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Español Spanish

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繁體中文 Chinese Traditional

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如需對本文檔進行翻譯，請透過如下列示電話號碼與 MassDEP 的環境司法總監聯絡。

简体中文 Chinese Simplified

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Ayisyen Kreyòl Haitian Creole

Dokiman sa a enpòtan epi yo ta dwe tradui imedyatman. Si w bezwen tradui dokiman sa a tanpri kontakte Direktè. Jistis Anviwònman a 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
ហើយគួរត្រូវបានបកប្រែភ្លាមៗ។
ប្រសិនបើអ្នកត្រូវការអោយឯកសារនេះបកប្រែ
សូមទាក់ទងនាយកផ្នែកយុត្តិធម៌បរិស្ថានរបស់
MassDEP តាមរយៈលេខទូរស័ព្ទដែលបានរាយនាមខាងក្រោម។

Kriolu Kabuverdianu Cape Verdean

Es dokumentu sta important i tenki ser tradusidu imediatamenti. Se nho ta presisa ke e: dokumentu sta tradisidu, por favor kontata C Diretor di Justisia di Environman di DEP ku e: 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
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Русский Russian

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العربية Arabic

هذه الوثيقة مهمة ويجب ترجمتها على الفور.

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

한국어 Korean

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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

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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

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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।

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Findings of Fact in Support of Final Permit Decision Water Management Act Permit #9P4-4-24-239.06 Agawam Springs Water Company

The Massachusetts Department of Environmental Protection (MassDEP) has completed its review of the Agawam Springs Water Company's ("Agawam Springs") Water Management Act (WMA) permit renewal application of May 29, 2015 and the WMA permit amendment application of June 6, 2022, for increasing the existing permitted maximum daily withdrawal limit from the Wareham Road Well. The Department hereby proposes to issue Water Management Permit #9P4-4-24-239.06 (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 Final Permit and includes herewith its reasons for issuing the Final 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).

The Permit Extensions

WMA permits issued during the first 20-year permitting cycle for the Buzzards Bay Basin were due to expire on May 31, 2011. The expiration dates for all Water Management permits were extended for four years by Chapter 240 of the Acts of 2010 as amended by Chapter 238 of the Acts of 2012, collectively known as the Permit Extension Act. The expiration date for the applicant's permit was extended to May 31, 2015.

Agawam Springs filed a timely renewal application for their Water Management permit on May 29, 2015. Subsequently, in a letter of March 28, 2016, MassDEP informed the applicant that MassDEP would need additional time before making a determination on the application in order to ensure that all permit renewal applicants in the Buzzards Bay Basin fully understood the new Water Management Regulations (discussed below), and to give proper consideration to all permit renewal applications within the basin. Pursuant to M.G.L. c. 30A, § 13, and 310 CMR 36.18(7), the applicant's permit, continues in force and effect until MassDEP issues a final decision on the permit renewal application.

In accordance with 310 CMR 36.17 (1), the expiration date for all permits in the Buzzards Bay Basin will be September 4, 2032.

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

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

- Impact of the withdrawal on other sources of water;
- Time of year when the withdrawal will be made;
- Water available within the safe yield of the 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, floodplains; 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, 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 Buzzards Bay River Basin section of this document);
- 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 without limitation;
- Environmental protections developed through SWMI, including without limitation;

- protection for coldwater fish resources;
- minimization of withdrawal impacts in areas stressed by groundwater use;
- mitigation of the impacts of increasing withdrawals.

Safe Yield in the Buzzards Bay Basin

This permit is being issued under the Safe Yield methodology adopted by MassDEP 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 Buzzards Bay Basin water source is 148.40 million gallons per day (MGD), and total allocated withdrawals are 83.78 MGD. The maximum withdrawals that will be authorized in this permit, and all other permits currently under review by the Department within the Buzzards Bay Basin, will be within the remaining safe yield and may be further conditioned as outlined in the regulations.

Findings of Fact for Permit Conditions in Agawam Springs Water Company's Water Management Act Permit

The 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, reflects the total authorized annual average withdrawal volume of up to 0.26 million gallons per day (MGD). The permit amendment application did not seek to increase the authorized annual average withdrawal volume.

Special Condition 2, Maximum Daily Withdrawals from Groundwater Withdrawal Points, reflects the MassDEP approved Zone II maximum daily pumping rate for each of Agawam Springs's permitted wells based on the pumping tests. The Wareham Road Well has been approved for a maximum daily withdrawal rate of 0.259 MGD.

Special Condition 3, Zone II Delineations, requires DEP-approved Zone II delineations for all permitted PWS groundwater sources. In a BRP WS19 pumping test report approval letter dated March 15, 2022, MassDEP approved the updated Zone II boundary correspond to the increased withdrawal rate. Therefore, this permit requirement has been met and no further delineations are required as a condition of this permit at this time.

Special Condition 4, Wellhead Protection, requires PWS permittees to implement appropriate wellhead protection zoning and non-zoning controls in accordance with the Wellhead Protection Regulations at 310 CMR 22.21 (1). Agawam Springs submitted a copy of the letter dated March 14, 2023 requesting the Town of Plymouth to include the updated Zone II in their protection district. The Best Effort Requirement has been met for this permit.

Special Condition 5, Performance Standard for Residential Gallons Per Capita Day (RGPCD) Water Use, for all PWS is 65. The existing 2018 permit requires Agawam Springs to meet 65 RGPCD the first year in which its withdrawals exceed an annual average daily

withdrawal of 0.1 MGD. Agawam Springs exceeded 0.1 MGD withdrawal volume on 2021 and the reported RGPCD for 2021 was 56.

This permit requires that Agawam Springs meet 65 RGPCD annually. If Agawam Springs fails to meet the RGPCD performance standard in its 2023 Annual Statistical Report (ASR) or in any ASR thereafter, Agawam Springs must file with that ASR a RGPCD Plan that meet Functional Equivalence Requirements outlined in Appendix A.

Special Condition 6, Performance Standard for Unaccounted for Water (UAW), for all PWS is 10%. The existing 2018 permit requires Agawam Springs to meet 10% UAW the first year in which its withdrawals exceed an annual average daily withdrawal of 0.1 MGD. Agawam Springs exceeded 0.1 MGD withdrawal volume on 2021 and the reported UAW for 2021 was 7.9%.

This permit requires that Agawam Springs meet the 10% or less UAW performance standard for 2 of the most recent 3 years throughout the permit period. Permittees that fails to document compliance with the UAW performance standard 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.

Special Condition 7, Seasonal Limits on Nonessential Outdoor Water Use, requires Agawam Springs to implement the Water Use Restrictions from May-September starting in 2019 when groundwater levels at USGS monitoring well 415453070434901 (MA-PWW 22) declines to or below certain levels for 60 consecutive days, or a drought advisory or higher is declared. To demonstrate its compliance status with the requirement to implement nonessential outdoor water use restrictions, Agawam Springs submitted public notices it has published since 2019 about the implementation and enforcement of the limits on Nonessential Outdoor Water Use. The Seasonal Limits on Nonessential Outdoor Water Use permit condition will remain the same in this permit and Agawam Springs shall notify MassDEP within 14 days of when the restrictions are put in place.

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 2006 and revised in June 2012 (<http://www.mass.gov/eea/docs/dcr/watersupply/intbasin/waterconservationstandards.pdf>) and the Water Conservation Questionnaire submitted by the Agawam Springs.

Special Condition 9, Mitigation of Impacts for Withdrawals that Exceed Baseline, requires mitigation, where feasible, for withdrawals over a baseline volume. Baseline withdrawal means the volume of water withdrawn during calendar year 2005 plus 5%, or the average annual volume withdrawn from 2003 through 2005 plus 5%, whichever is greater provided that:

- (a) baseline cannot be less than a permittee's registered volume;
- (b) baseline cannot be greater than the permittee's authorized volume for 2005; and
- (c) if, during the period from 2003 to 2005, the permittee's withdrawals from the water source were interrupted due to contamination of the source or construction of a treatment

plant, the Department will use best available data to establish a baseline volume from the water source.

The calculated baseline volume for Agawam Springs is 0 MGD as there was no withdrawal in the baseline period of 2003-2005. This permit authorizes Agawam Springs to withdraw up to 0.26 MGD, and therefore Agawam Springs needs to mitigate the difference between the authorized volume and the baseline volume (i.e., 0.26 MGD). A wastewater adjustment can be applied against the volume required to be mitigated for systems where the water withdrawn is returned to the ground as wastewater within the same major basin as the withdrawal. According to the permit renewal application submitted on May 29, 2015, 100% of the water withdrawn will be discharged to a public sewer system (Rive Run Wastewater Treatment Facility, Agawam Wastewater Capital, LLC). According to MassDEP's records, River Run Wastewater Treatment Facility holds a groundwater discharge permit authorizing discharges from the on-site wastewater treatment facility to the ground located at River Run Development, off Wareham Road, Plymouth, MA with a discharge limitation of 395,000 gallons per day (GPD). Therefore, MassDEP assumes that 85% of Agawam Springs' withdrawals will be returned to the Buzzards Bay basin via the groundwater discharge. As a result, Agawam Springs is required to mitigate 0.039 MGD based on this adjustment.

Mitigation plans were discussed with Agawam Springs' consultants on September 29, 2022, October 14, 2022 and January 18, 2023. Agawam Springs submitted a mitigation plan that included a Stormwater Recharge project identified in its 2015 permit renewal application. Stormwater BMPs that was built on or after January 1, 2005 that infiltrate stormwater from previously directly connected impervious surfaces¹ are eligible for the mitigation credits. The Stormwater Recharge project submitted by Agawam Springs would divert precipitation from newly created impervious surfaces after 2005 into sandy soils areas. Therefore, the Stormwater Recharge project does not qualify for direct mitigation credits.

Without additional eligible direct mitigation activities, indirect mitigation activities were evaluated to meet the mitigation requirements of 0.039 MGD. ADM Agawam Development LLC granted a parcel of land located in the Town of Plymouth constituting approximately 25.236 acres to the Department of Fish and Game for rare species habitat conservation purposes. The Conservation Restriction over this parcel of land is recorded on the Book 51064 Page 239 with the Plymouth County Registry of Deeds. Permittees may be eligible for 0.2 credits for each acre priority conservation land protected, for up to five mitigation credits. Therefore, Agawam Springs receives 5 indirect mitigation credits for protecting priority lands, which translates to 0.05 MGD, which is sufficient to address their mitigation volume of 0.039 MGD. Should there be any changes to the status of that parcel during the life of this permit, Agawam Springs should contact MassDEP about the changes and the mitigation requirements will need to be reassessed.

Special Condition 10, Requirement to Report Raw and Finished Water Volumes, ensures that the information necessary to evaluate compliance with the conditions included herein is accurately reported.

¹ Directly connected impervious surfaces are those whose runoff discharges to a surface water body.

Coldwater Fish Resource Protection was incorporated into the Water Management Regulations in November 2014. Coldwater Fish Resource Protection is not a condition of this permit because the permittee's withdrawals do not impact any water that MA Division of Fisheries and Wildlife has identified as supporting coldwater fish at this time.

Minimization of Groundwater Withdrawal Impacts in Stressed Subbasins requires permittees with permitted groundwater sources in subbasins² with net groundwater depletion of 25% or more during August to minimize their withdrawal impacts on those subbasins to the greatest extent feasible. Minimization of Groundwater Withdrawal Impacts is not a condition of this permit because Agawam Springs' three permitted groundwater sources are located where August net depletion has not been established, minimization measures are not required.

² 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).



Commonwealth of Massachusetts
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Commissioner

WATER WITHDRAWAL PERMIT Agawam Springs Water Company

This permit is issued 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 beyond the right to withdraw the volume of water for which it is issued.

PERMIT NUMBER: 9P4-4-24-239.06

RIVER BASIN: Buzzards Bay

PERMITTEE: Agawam Springs Water Company

EFFECTIVE DATE: September 6, 2023

EXPIRATION DATE: September 4, 2032*

* Promulgation of revised regulations (310 CMR 36.00) have adjusted permit expiration dates in this basin.

NUMBER OF WITHDRAWAL POINTS: 3

Groundwater: 3

Surface Water: 0

USE: Public Water Supply

DAYS OF OPERATION: 365

LOCATION:

Source Name	PWS Source ID Code
Wareham Road Well	4239060-01G
Agawam Well	TBD
Agawam Backup Well	TBD

This information is available in alternate format. Please contact Melixza Esenyie at 617-626-1282.

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SPECIAL CONDITIONS

1. Maximum Authorized Annual Average Withdrawal Volume

This permit authorizes Agawam Springs Water Company (Agawam Springs) to withdraw water from the Buzzards Bay Bain at the rate described below (Table 1). The permitted volume is expressed both as an annual average daily withdrawal rate (million gallons per day or MGD), and as a total annual withdrawal volume (million gallons per year or MGY) for each permit period over the term of this permit.

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

Table 1: Maximum Authorized Withdrawal Volumes

Permit Periods	Total Raw Water Withdrawal Volumes	
	Daily Average (MGD)	Total Annual (MGY)
9/6/2023 to 9/4/2027	0.26	94.9
9/5/2027 to 9/4/2032	0.26	94.9

2. Maximum Authorized Daily Withdrawals from Groundwater Withdrawal Points

Withdrawals from permitted withdrawal points are not to exceed the approved maximum daily volumes listed below without specific advance written approval from MassDEP (Table 2). The authorized maximum daily volume is the approved rate of each source. In no event shall the combined withdrawals from the individual withdrawal points exceed the withdrawal volumes authorized above in Special Condition 1.

Table 2: Maximum Daily Withdrawal Volumes

Source Name	PWS Source Code ID	Maximum Daily Rate (MGD)
Wareham Road Well	4239060-01G	0.259
Agawam Well	TBD	0.78*
Agawam Backup Well	TBD	*

*The combined volumes from the Agawam Wells shall not exceed a maximum daily volume of 0.78 mgd.

3. Zone II Delineation

MassDEP records show that all Agawam Springs' sources have approved Zone II delineations. Therefore, no further Zone II delineation work is required.

4. Wellhead Protection

MassDEP records show that Agawam Springs has implemented municipal controls that comply with the Wellhead Protection Regulations, 310 CMR 22.21 (2) for all the sources included in this permit.

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

Agawam Springs' performance standard for residential gallons per capita day (RGPCD) is 65 gallons or less. Agawam Springs shall document its compliance with this performance standard in the Annual Statistical Report (ASR). If Agawam Springs does not meet the standard, it shall be in compliance with the functional equivalence requirements outlined in Appendix A.

6. Performance Standard for Unaccounted for Water

Agawam Springs' Performance Standard for Unaccounted for Water (UAW) is 10% or less of overall water withdrawal for 2 of the most recent 3 years throughout the permit period. If Agawam Spring does not meet the standard, it shall be in compliance with the functional equivalence requirements outlined in Appendix B.

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

7. Seasonal Limits on Nonessential Outdoor Water Use

Agawam Springs shall limit nonessential outdoor water use through mandatory restrictions from May 1st through September 30th as outlined in Table 3 below.

Agawam Springs shall be responsible for tracking groundwater levels and drought advisories and recording and reporting when restrictions are implemented if groundwater level triggered restrictions are implemented. See Table *Instructions for Accessing U.S. Geologic Survey Groundwater Level and Massachusetts Drought Advisory Website Information*.

Agawam Springs shall also document compliance with the seasonal limits on nonessential outdoor water use annually in its Annual Statistical Report (ASR), and indicate whether it anticipates implementing calendar triggered restrictions or USGS monitoring well triggered restrictions during the next year.

Restricted Nonessential Outdoor Water Uses

Nonessential outdoor water uses that are subject to mandatory restrictions include:

- irrigation of lawns via sprinklers or automatic irrigation systems;
- filling swimming pools;
- washing of vehicles, except in a commercial car wash or as necessary for operator safety; and
- washing exterior building surfaces, parking lots, driveways or sidewalks, except as necessary to apply surface treatments such as paint, preservatives, stucco, pavement or cement.

The following uses may be allowed, before 9 am and after 5 pm, when mandatory restrictions are in place:

- irrigation to establish a new lawn and new plantings during the months of May and September;
- irrigation of public parks and recreational fields by means of automatic sprinklers outside the hours of 9 am to 5 pm;
- irrigation of gardens, flowers and ornamental plants by means of a hand-held hose or drip irrigation systems; and
- irrigation of lawns by means of a hand-held hose.

Water uses NOT subject to mandatory restrictions are those required:

- for health or safety reasons;
- by regulation;
- for the production of food and fiber;
- for the maintenance of livestock; or
- to meet the core functions of a business (for example, irrigation by golf courses as necessary to maintain tees, greens, and limited fairway watering, or irrigation by plant nurseries as necessary to maintain stock).

Public Notice of Seasonal Nonessential Outdoor Water Use Restrictions

Agawam Springs shall notify its customers of the restrictions, including a detailed description of the restrictions and penalties for violating the restrictions.

Notice that restrictions have been put in place shall be filed each year with the Department 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 website.

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

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

Table 3: Seasonal Limits on Nonessential Outdoor Water Use

Permittee must at a minimum implement the following outdoor water use restrictions:	
Groundwater level Triggered Restrictions from May 1st through September 30th Nonessential outdoor water use is allowed no more than TWO DAYS per week before 9 am and after 5 pm whenever:	
a)	Groundwater levels at USGS Monitoring Well 415453070434901 (MA-PWW 22) Plymouth, MA decline to or below the groundwater trigger for 60 consecutive days. The monthly trigger levels are listed below and are the period of record monthly 25 th percentile depth to water level values, as determined and published by the USGS. Restrictions could start on May 1, so monitoring begins on March 1 of each year.

Trigger Values for Outdoor Water Use Restrictions (feet below land surface)

March	April	May	June	July	Aug	Sept
24.50	24.10	24.10	24.00	24.50	25.00	25.25

Once implemented, the restrictions shall remain in place until the daily value of the groundwater levels at the assigned USGS monitoring well have recovered to less than the trigger for 30 consecutive days (when the water table elevation has risen above the trigger level).

OR;

b) A Level 1-Mild Drought or higher is declared by the Massachusetts Drought Management Task Force for Southeastern MA.

Instructions for Accessing U.S. Geologic Survey Groundwater Level and Massachusetts Drought Status Information

Groundwater level information is available at the USGS National Water Information System (NWIS): Web Interface. The USGS NWIS default shows Massachusetts groundwater levels in real time, i.e., the most recent, usually hourly, water level measured and recorded at each USGS monitoring well.

Seasonal Limits on Nonessential Outdoor Water Use are implemented when the daily mean depth to water level exceeds the designated trigger for 60 consecutive days (i.e., when the depth to water becomes larger than the trigger value as the water table elevation declines). The daily water level is compared to the trigger for that month. **To determine if restrictions must be implemented on May 1 it is necessary to monitor the daily water level in March and April.**

Mean daily groundwater level readings are available at the USGS NWIS Web Interface at http://waterdata.usgs.gov/ma/nwis/current/?type=gw&group_key=county_cd

- Scroll down to 415453070434901 - MA-PWW 22, Plymouth, MA.
- Click on the station number.
- Under the dropdown menu “Data inventory” on the top of the website, click on “Daily Data”
- Under “Available Parameters” click on “72019 Water level, depth LSD (Mean)”.
- Under “Output format” click on “Table” and enter the number of days of records (the default is 7 days; entering 60 will give you the past 60 days of data) or the desired date range (from “Begin date” to “End date”) and hit “GO”.
- The table provides the “Daily Mean Depth to water level, feet below land surface” for the most recent number of days or desired date range chosen.
- Compare each day’s value to its month’s trigger value (25th percentile) in your permit. Outdoor water use restrictions must be implemented when the daily depth to water has been at or below (i.e. a greater value than) the trigger values for 60 consecutive days.

Drought Status information is available at <https://www.mass.gov/info-details/drought-status>.

- Restrictions are implemented when a Mild Drought, Significant Drought, Critical Drought or Emergency Drought is announced in your region through the website.

8. Water Conservation Requirements

At a minimum, Agawam Springs shall implement the following updated conservation measures forthwith. 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 4: 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.	<p>Agawam Springs shall have repair reports available for inspection by MassDEP. Agawam Springs shall establish a schedule for repairing leaks that is at least as stringent as the following:</p> <ul style="list-style-type: none"> • 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. <p>Leaks shall be repaired in accordance with Agawam Springs' priority schedule including leaks up to the property line, curb stop or service meter, as applicable. Agawam Springs shall have water use regulations in place that require property owners to expeditiously repair leaks on their property.</p>
Metering	
1.	Calibrate all source and finished water meters at least annually and report date of calibration on the ASR.
2.	Agawam Springs 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 <u>AWWA Manual M6 – Water Meters</u> .

3. Agawam Springs 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 Agawam Springs' annual water budget to calibrate, repair, or replace meters as necessary.
Pricing
1. Agawam Springs shall maintain a water pricing structure that includes the full cost of operating the water supply system. Full cost pricing factors all costs - operations, maintenance, capital, and indirect costs (environmental impacts, watershed protection) - into prices.
2. Agawam Springs reports using an increasing block rate structure and shall continue to do so.
Residential and Public Sector Conservation
1. Agawam Springs shall meet the standards set forth in the Federal Energy Policy Act, 1992 and the Massachusetts Plumbing Code.
2. Agawam Springs reports metering water used by contractors using fire hydrants for pipe flushing and construction and shall continue to do so.
3. Agawam Springs shall ensure water conserving fixtures and landscaping practices are incorporating into the design of new constructions.
Industrial and Commercial Water Conservation
1. Agawam Springs shall ensure water conservation practices in all development proposals, particularly low flow devices and water-wise landscaping practices.
Public Education and Outreach
1. Agawam Springs shall continue to implement its water conservation and education efforts designed to educate its water customers on ways to conserve water. Without limitation, Agawam Springs' plan may include the following actions: <ul style="list-style-type: none">• 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 MassDEP, Agawam Springs 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.

9. Mitigation of Impacts for Withdrawals that Exceed Baseline

Agawam Springs is required to mitigate 0.039 MGD for its permitted withdrawals over the baseline. Agawam Springs' mitigation will be met with the indirect mitigation credits achieved through granting a parcel of land located in the Town of Plymouth constituting approximately 25.236 acres to the Department of Fish and Game for rare species habitat conservation purposes. The Conservation Restriction over this parcel of land is recorded on the Book 51064 Page 239 with the Plymouth County Registry of Deeds. Agawam Springs receives 5 indirect mitigation credits for protecting priority protection land, which translates to 0.05 MGD.

10. Reporting Requirements

Agawam Springs shall report annually as required by completing the electronic Annual Statistical Report (eASR) for public water suppliers, and shall provide other reporting as specified in the Special Conditions above.

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.



September 6, 2023

Duane LeVangie
Water Management Program Chief
Bureau of Water Resources

Date

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

MassDEP will consider PWS 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 top soil 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 with the 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, as of December 31, 2019, 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.

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, the permittee shall 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. The Permittee shall submit the component analysis and water loss control program with a proposed implementation schedule to the Department.
3. Continued implementation will be a condition of the permit in place of meeting the 10% UAW performance standard.
4. 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 DEP, 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: Permittees who do not have MassDEP approved Water Loss Control Programs in place by 6th calendar year after 2019 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.

Suppliers will be able to present:

- Reasons why specific measures are not cost effective because the cost would exceed the costs of alternative methods of achieving the appropriate standard;
- Alternative 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 Functional Equivalence Plan; and

- When applicable, an analysis demonstrating that implementation of specific measures will cause or exacerbate significant economic hardship.