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

June 11, 2026

Mr. Brett Simmon, Superintendent
Southampton Water Department
67 Pequot Road
P.O. Box 379
Southampton, MA 01073

Permittee: Southampton Water Department
Public Water Supply (PWS) # 1276000
Program: Water Management Act
WMA Permit # 9P2-1-06-276.01
Action: WMA Final Renewed Permit

Dear Mr. Simmons:

Please find the attached:

- Findings of Fact in Support of the Final WMA Permit # 9P2-1-06-276.01; and,
- Renewed Final WMA Permit # 9P2-1-06-276.01 for withdrawals by the Town of Southampton Water Department in the Connecticut River Basin.

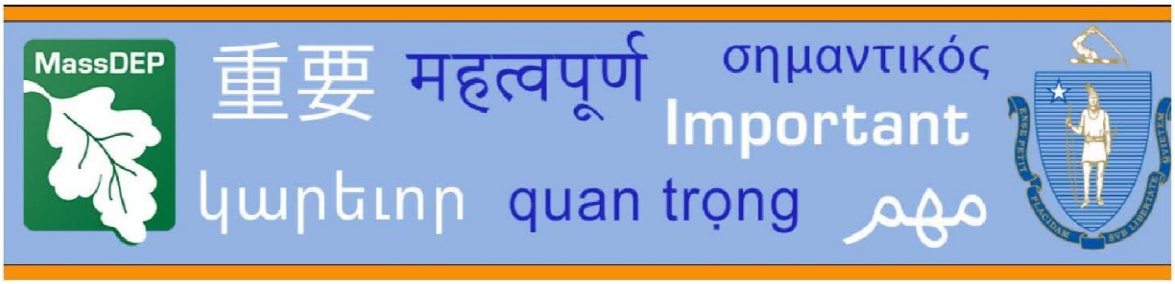
Notice of the Draft Renewal Permit and its accessibility for review was posted in the Public Notice section of the April 8, 2026 edition of the Massachusetts Environmental Policy Act (MEPA) Environmental Monitor. Notice of the Draft Renewal Permit was also sent to all WMA Registrants and Permittees in the Connecticut River Basin and to other interested parties offering a 30-day comment period. Comments submitted to MassDEP are herein addressed. If you have any questions regarding the permit, please contact Andrew Brolowski at andrew.brolowski@mass.gov or 857-278-5634.

Sincerely,

Duane LeVangie
Water Management Program Chief
Bureau of Water Resources

ecc: Andrew Kelly, Drinking Water Program Chief, MassDEP Springfield
Lydia Olson, Mass Rivers Alliance
Ron Rhodes, Connecticut River Conservancy
Jennifer Pederson, MA Water Works Association
Duane LeVangie, Water Management Program Chief

mass.gov.sharepoint.com/W:\DWPWMA\Permits Renewals\Connecticut\Southampton-1276000-WMA Final Renewed Permit-9P2-1-06-276.01-2026-06-11



Communication for Non-English-Speaking Parties

This document is important and should be translated immediately.

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

Español Spanish

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

Português Portuguese

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繁體中文 Chinese Traditional

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

简体中文 Chinese Simplified

这份文件非常重要，需要立即翻译。
如果您需要翻译这份文件，请通过下方电话与 MassDEP 环境司法主任联系。

Ayisyen Kreyòl Haitian Creole

Dokiman sa a enpòtan epi yo ta dwe tradui l imedyatman. Si w bezwen tradui dokiman sa a, tanpri kontakte Direktè. Jistis Anviwònmantal 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
ហើយគប្បីត្រូវត្រូវបានបកប្រែភ្លាមៗ។
ប្រសិនបើអ្នកត្រូវការអោយឯកសារនេះបកប្រែ
សូមទាក់ទងនាយកផ្នែកយុត្តិធម៌បរិស្ថានរបស់
MassDEPតាមរយៈលេខទូរស័ព្ទដែលបានរាយដូចខាងក្រោម។

Kriolu Kabuverdianu Cape Verdean

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

Русский Russian

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

العربية Arabic

هذه الوثيقة مهمة وتجب ترجمتها على الفور.

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

한국어 Korean

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

հայերեն Armenian

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

فارسی Farsi Persian

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

Français French

Ce document est important et doit être traduit immédiatement. Si vous avez besoin d'une traduction de ce document, veuillez contacter le directeur de la justice environnementale du MassDEP au numéro de téléphone indiqué ci-dessous.

Deutsch German

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

Ελληνική Greek

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

Italiano Italian

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Język Polski Polish

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

हिन्दी Hindi

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

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

Findings of Fact in Support of Final Permit Decision
Town of Southampton Water Management Act Permit #9P2-1-06-276.01

The Massachusetts Department of Environmental Protection ("MassDEP" or "the Department") makes the following *Findings of Fact* in support of the attached renewed Water Management Act (WMA) Permit #9P2-1-06-276.01 and herewith includes 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 the timely filing of a water withdrawal permit renewal application by Town of Southampton Water Department ("Southampton" or the "Town").

The Water Management Act (M.G.L. §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,
- water availability 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) created 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* was released, with link below.

MA Sustainable Water Management Initiative (Framework Summary, November 2012)

On November 7, 2014, and March 17, 2023, the Department adopted revised Water Management Regulations at 310 CMR 36.00 that incorporate elements of the SWMI framework and Water Conservation Standards adopted by the Massachusetts Water Resource Commission (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 Connecticut River Basin section of this document). For more information on the Safe Yield methodology, refer to the November 2012 SWMI Framework Summary and Appendices (SWMI Framework Appendices, November 2012),
- 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 (Massachusetts Water Conservation Standards) and, including without limitation:
    1. performance standard of 65 residential gallons per capita day (RGPCD) or less,
    2. performance standard of 10% or less unaccounted-for-water (UAW),
    3. seasonal limits on nonessential outdoor water use, and,
    4. a water conservation program that includes leak detection and repair, full metering of the system and proper maintenance of the meters, periodic review of pricing, and education and outreach to residents and industrial and commercial water users, and,
- environmental protections developed through SWMI, including without limitation:
    1. protection for Coldwater fish resources,
    2. minimization of withdrawal impacts in areas stressed by groundwater use, and,
    3. mitigation of the impacts of increasing withdrawals.

Safe Yield in the Connecticut River Basin

This permit has been issued in accordance with 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 Connecticut River Basin water source is 1,866.5 million gallons per day (MGD), with total allocated withdrawals of 149.87 MGD. The maximum withdrawals that will be authorized by this permit, and all other permits currently under review by the Department within the Connecticut River Basin will be within the remaining safe yield and may be further conditioned as outlined in the regulations.

Southampton's Water Withdrawal History

MassDEP issued the original and only version of Southampton's WMA permit on November 13, 2003, (2003 WMA permit) authorizing an interim withdrawal volume of 0.36 million gallons per day (MGD) to two groundwater withdrawal points, Glendale Well (Well #1-01G) and its replacement well, Glendale Replacement Well (02G). A previously applied for registration by Southampton was not considered eligible by the Department due to the actual withdrawals from the Glendale Well (01G) being less than threshold volume. Therefore, Southampton does not hold a registration statement. Prior to the issuance of their permit, Southampton met its demand through water pumped from its well and volumes purchased from the City of Holyoke. Due to diminished production capacity, Glendale Well (01G) was officially "abandoned" on July 10, 2019, and therefore has no status as a Public Water Supply (PWS) source. In recent years, Southampton has supplemented its demand by purchasing volumes from the cities of Holyoke and Easthampton. Southampton has expressed the intention to apply for a new permit to increase their authorized volume.

The permitted daily withdrawal volume of 0.36 MGD or 131.40 million gallons per year (MGY) was allocated for the remaining three 5-year Periods in the permit. **Table 1** shows Southampton's withdrawals for the past 5 years.

TABLE 1: SUMMARY OF SOUTHAMPTON'S WITHDRAWAL RATES

YEAR	AUTHORIZED ANNUAL AVERAGE WITHDRAWAL RATE (MGD)	ACTUAL ANNUAL AVERAGE DAILY WITHDRAWAL RATE (MGD)
2020	**0.36**	0.39
2021		0.32
2022		0.35
2023		0.33
2024		0.35

The Permit Extensions

Southampton's 2003 WMA Permit has an incorrect expiration date of May 13, 2014. All Connecticut River Basin water withdrawal permits were originally intended to expire on November 30, 2013. The expiration date in the Connecticut Basin for all Water Management permits was extended for two years by Chapter 240 of the Acts of 2010 and further extended another two years by Chapter 238 of the Acts of 2012, collectively known as the Permit Extension Act. In November 2016, Southampton filed a permit renewal application. Pursuant to M.G.L. c. 30A, section 13, and 310 CMR 36.18(7), your current withdrawal permit will continue in force and effect until the Department issues a decision on your permit renewal application. Consistent with 310 CMR 36.17(1), the expiration date for withdrawal permits going forward in the Connecticut River Basin will be November 30, 2033.

Findings of Fact for Permit Conditions in Southampton'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 WMA 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. This condition recognizes the 0.36 MGD of authorized volume allocated to Southampton by the 2003 WMA permit. Therefore, Southampton's renewed permitted authorized volume will remain at an annual average daily withdrawal volume of 0.36 MGD. No modifications were made to this condition.

Southampton exceeded their authorized volume of 0.36 MGD in 2020 and has annually withdrawn close to this rate since then. Southampton has indicated they intend on applying for a new permit to increase their authorized volume in the near future.

Special Condition 2, Maximum Authorized Daily Withdrawal. This condition reflects the not to exceed approved maximum daily withdrawal volume for Glendale Well #2 of 0.792 MGD. Well #1 (01G) has been taken off-line, abandoned and no longer has Public Water Supply (PWS) status.

Special Condition 3, Zone of Contribution Delineations. This condition reflects Southampton's status with MassDEP with respect to the Zone II delineation for their permitted groundwater withdrawal source. MassDEP records indicate an approved Zone II delineation for Southampton's permitted groundwater withdrawal source. No further work is required on this condition of the permit.

Special Condition 4, Wellhead Protection. The condition requires Southampton's sources to be in compliance with Wellhead Protection (WHP) regulations at 310 CMR 22.21(2). Since Southampton's 's Zone II extends into the City of Westfield, Southampton is subject to Best Effort Requirements at 310 CMR 22.21(1) on a periodic basis until Southampton can demonstrate they have obtained the required protections, as summarized in this link, Wellhead Protection Guidance | The Best Effort Requirement.

Special Condition 5, Performance Standard for Residential Gallons Per Capita Day Water Use (RGPCD). This condition requires Southampton meet the Performance Standard for 65 Residential Gallons Per Capita Day (RGPCD). Southampton has been in compliance with the RGPCD Performance Standard since 2021 (**Table 2**). The renewed WMA Permit provides that if Southampton fails to meet this requirement, Southampton will be required to meet RGPCD Functional Equivalence requirements.

TABLE 2: RESIDENTIAL GALLONS PER CAPITA DAY AND UNACCOUNTED FOR WATER

TABLE 2:	RGPCD	UAW %
2024	35	9
2023	36	7
2022	50	1
2021	47	2
2020	46	1

Special Condition 6, Performance Standard for Unaccounted for Water (UAW)

The renewed WMA Permit requires Southampton to meet the 10% Unaccounted-for Water (UAW) Performance Standard. **Table 2** above shows that Southampton's UAW has been at or below the Performance Standard since 2023. The Renewed WMA Permit requires Southampton meet the 10% UAW Performance Standard two out of every three consecutive years. The renewed WMA Permit provides that if Southampton fails to meet the 10% UAW standard, Southampton will be required to meet Functional Equivalence requirements based on the AWWA/IWA Water Audits and Loss Control Programs, Manual of Water Supply Practices.

Special Condition 7, Water Conservation Requirements. The renewed WMA Permit will update the requirements for water conservation requirements to reflect the July 2018 standards outlined in the Massachusetts Water Resources Commission's Water Conservation Standards.

Special Condition 8, Limits on Nonessential Outdoor Water Use

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

An additional consideration in Water Management permitting is whether a permittee has a well in a subbasin that is 25% or more August net groundwater depleted (Aug NGD). Restrictions for PWSs with well(s) in such subbasins are set to minimize withdrawals from depleted subbasins. Because Southampton's Glendale Well #2 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, Southampton 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.
- **Streamflow triggered restrictions** are implemented at those times when streamflow falls below designated flow triggers measured at an assigned, web-based, real-time U.S. Geologic Survey (USGS) stream gage from May 1st through September 30th. At a minimum, restrictions commence when streamflow falls below the trigger for three consecutive days. Once implemented, the restrictions remain in place until streamflow at the assigned USGS local stream gage meets or exceeds the trigger streamflow for seven consecutive days.

If Southampton selects the streamflow trigger approach, it has been assigned **USGS Gage 01171500** located on the Mill River at Northampton, MA. The May-June streamflow trigger is **62** cubic feet per second (cfs), and the July-September streamflow trigger is **26** 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 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 01171500** is **10** cfs.

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

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.

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

Special Condition 9, Requirement to Report Raw and Finished Water Volumes, ensures that the information necessary to evaluate compliance with the conditions included herein is accurately reported.

Other WMA Considerations

The Water Management Regulations require WMA permits to address protection of Coldwater Fishery Resources (CFR), minimization of the impact of pumping, mitigation of pumping above the baseline rates, and potential changes in Biological Category (BC)[1] and Groundwater Withdrawal Categories (GWC)[2] of subbasins[3] where Southampton has permitted withdrawals. Below is an outline of these requirements as they apply to Southampton.

Coldwater Fishery Resource (CFR) Protection

Permittees with withdrawals point(s) impacting a CFR must evaluate options for shifting withdrawals to other withdrawal points and/or utilizing potential alternative withdrawal sources to minimize the impacts to CFRs through feasible optimization. **Table 3** below indicates Southampton's only withdrawal point (02G) is in subbasin (#14080) which contains a CFR. Having only one active well (Glendale Well #2) limits Southampton's ability to shift pumping to other withdrawal points to minimize impacts to the CFR. Southampton has consistently pumped close to their authorized volume in recent years and supplements their demand by purchasing volumes from the city of Easthampton and has indicated their intention of applying for a new withdrawal permit to increase their authorized volume.

Should an additional groundwater withdrawal source become active, the Department may revisit the feasibility of optimization. Therefore, at this time, no further CFR optimization is required as a condition of this permit.

Minimization

Groundwater withdrawal impacts in subbasins having August Net Groundwater Depletion (NGD[4]) of 25% or greater was incorporated into the Water Management Regulations in November 2014. Permittees with groundwater sources in subbasins having an August NGD of 25% or greater are required to develop a plan to minimize the impacts of their withdrawals. As shown below in **Table 3,** Southampton's withdrawal point is not located in a subbasin with an August NGD greater than 25%. Therefore, Southampton was not required to submit a Minimization Plan.

TABLE 3: SOUTHAMPTON WITHDRAWAL POINTS SUBBASIN CHARACTERISTICS

SOURCE NAME	SOURCE	SUBBASIN	CFR	GWC	BC	August NGD
GLENDALE WELL #2	02G	14080	YES	2	3	4.0

Mitigation

The WMA regulations require WMA permits to address mitigation of withdrawals above the baseline volumes. Water Management Act permittees whose total authorized volume exceeds their baseline volume are required to implement mitigation measures to offset impact of their withdrawals above the baseline.

WMA regulations, 310 CMR 36.03, define baseline to mean 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:

1. baseline cannot be less than a permittee's registered volume,
2. baseline cannot be greater than the permittee's authorized volume for 2005, and
3. 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.

Southampton's baseline is 0.36 MGD based on the Town's average withdrawal rate during 2003 to 2005, plus 5%. Southampton's WMA permit renewal authorized volume of 0.36 MGD does not exceed their baseline value of 0.36 MGD. Therefore, Southampton does not require mitigation at this time. Note that a new permit for volumes beyond 0.36 MGD will require Southampton to submit a plan to mitigate the withdrawals above baseline, to the greatest extent feasible.

Changes from Draft Permit

Ongoing efforts by the United State Geological Survey (USGS) to update the USGS National Water Information System (NWIS): Web Interface have resulted in changes to the web links for accessing USGS streamflow information. As a result, suppliers have sometimes been unable to access their trigger information for implementing nonessential outdoor water use restrictions.

MassDEP has now developed an internal webpage to better support suppliers' access to the USGS website. Permits will now direct permittees to a MassDEP webpage to link to the USGS web interface. Any ongoing changes to the USGS web interface links will be updated in the MassDEP webpage. This change was not introduced in the draft permit that was recently released but is incorporated in this final permit. There are no changes to the requirements for the permittee, only changes to the instructions for accessing stream gage data (see **Table 4).**

Questions about accessing trigger information for implementing nonessential outdoor water use restrictions, should be directed to Brittany Segill at Brittany.segill@mass.gov or to dep.wma@mass.gov.

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Department of Environmental Protection
Address: 100 Cambridge Street, Suite 900, Boston MA 02114 | **Phone**: 617-292-5500

Maura T. Healey Governor | **Kim Driscoll** Lieutenant Governor | **Rebecca Tepper** Secretary | **Bonnie Heiple** Commissioner

WATER WITHDRAWAL PERMIT
M.G.L. c. 21G

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: 9P2-1-06-276.01 **RIVER BASIN:** CONNECTICUT

PERMITTEE: Southampton Water Department
67 Pequot Road
Southampton, MA 01073

EFFECTIVE DATE: June 11, 2026

EXPIRATION DATE: November 30, 2033

NUMBER OF WITHDRAWAL POINTS: **1**
Groundwater: 1
Surface Water: 0

USE: Public Water Supply (PWS)

DAYS OF OPERATION: 365

LOCATIONS:

TABLE 1: WITHDRAWAL POINT IDENTIFICATION

SOURCE NAME	PWS SOURCE
GLENDALE WELL #2 (GLENDALE REPLACEMENT WELL)	1276000-02G

SPECIAL CONDITIONS

1. Maximum Authorized Annual Average Withdrawal Volume

This permit authorizes the Town of Southampton (Southampton) to withdraw water from the Connecticut River Basin at rates described below in **Table 2**. The permitted volume is expressed both as an annual average daily withdrawal rate in million gallons per day (MGD) and as a total annual withdrawal volume in million gallons per year (MGY) for the permit period. The Department of Environmental Protection (MassDEP) uses the raw water withdrawal volumes from all authorized withdrawal points to assess compliance with the registered and permitted withdrawal volumes.

TABLE 2: MAXIMUM AUTHORIZED RAW WATER AVERAGE WITHDRAWAL VOLUMES

	PERMIT		REGISTRATION + PERMIT	
PERMIT PERIOD	Daily Average (MGD)	Total Annual (MGY)	Daily Average (MGD)	Total Annual (MGY)
6/11/2026 to 11/30/2033	0.36	131.4	0.0 + 0.36 = **0.36**	0.0 + 131.4 = **131.4**

2. Authorized Withdrawal Points

Withdrawals from Glendale Well #2 (02G) is not to exceed the individual maximum daily approval rate of 0.792 MGD.

3. Zone of Contribution (Zone II or Zone III) Delineations

Department records show an approved Zone II delineation for Glendale Well #2 (02G)Southampton Water Department's permitted groundwater withdrawal source. No further work is required on this condition of the permit.

4. Wellhead Protection

MassDEP records show that the Town of Southampton is in compliance with Wellhead Protection Regulations, 310 CMR 22.12(2), for current withdrawal sources in their community. Southampton shall continue Best Effort Requirements pursuant to 310 CMR 22.21(1) to obtain protection of their withdrawal sources extending into the Town of Westfield for non-zoning floor drain control until compliance is met.

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

Southampton is required to meet the 65 RGPCD performance standard. Southampton shall report its RGPCD water use annually in its Annual Statistical Report (ASR), and document compliance with this performance standard in its ASR for 2027 and each year thereafter. As part of its ASR submittals, Southampton shall report its RGPCD and the method of calculation used to derive it including, without limitation, the source of the data used to establish the service population and the year in which this data was developed. See **Appendix A** for additional information on the requirements if the performance standard for RGPCD is not met.

6. Performance Standard for Unaccounted for Water

Southampton's is required to meet the performance standard of 10% for unaccounted for water (UAW) of its total finished water, . Southampton shall report its UAW annually in its ASR and document compliance with this performance standard in its ASR for 2027 and each year thereafter. As part of its ASR submittals, Southampton shall report the calculation used to derive its UAW. See **Appendix B** for additional information on requirements if the performance standard for UAW is not met.

7. Limits on Nonessential Outdoor Water Use

Southampton shall limit nonessential outdoor water use through mandatory restrictions from May 1 through September 30, as outlined in **Table 3** below. Southampton 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

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, unless,

b) USGS Gage 01171500 on the Mill River at Northampton, MA falls below **10 cfs** for three (3) consecutive days, then **one (1) day per week** is allowed.

Once implemented, restrictions shall remain in place until streamflow at the gage meets or exceeds **10 cfs** 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,** unless,

b) **USGS Gage 01171500** on the Mill River at Northampton, MA falls below **10 cfs** for three (3) consecutive days, then **one (1) day per week** is allowed.

Once implemented, restrictions shall remain in place until streamflow at the gage meets or exceeds **10 cfs** 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, unless,

b) USGS Gage 01171500 on the Mill River at Northampton, MA falls below **10 cfs** for three (3) consecutive days, then **one (1) day per week** is allowed.

Once implemented, restrictions shall remain in place until streamflow at the gage meets or exceeds **10 cfs** 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 **USGS Gage 01171500** on the Mill River at Northampton, MA falls below:

- **62 cfs** for three (3) consecutive days from **May 1 – June 30**, and
- **26 cfs** for three (3) consecutive days from **July 1 – September 30**, unless,

b) **USGS Gage 01171500** falls below **10 cfs** for three (3) consecutive days, at any time from **May 1 – September 30**, then **one (1) day per week** is allowed**.**

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 link, 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 01171500** on the Mill River at Northampton, MA be so impaired as to question its accuracy, Southampton 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 link 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 Southampton does not have appropriate enforcement authority, then beginning as soon as possible, but no later than 24 months after issuance of the permit, the permittee shall establish enforceable restrictions limiting nonessential outdoor water use.

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

8. Water Conservation Requirements

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

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. The first full leak detection survey shall be completed no later than 3 years from the date of the last documented leak detection survey.

2. Conduct leak detection of the entire distribution system within one year whenever the percentage of UAW increases by 5% or more (for example an increase from 3% to 8%) over the percentage reported on the ASR for the prior calendar year. Within 60 days of completing the leak detection survey, submit to the Department a report detailing the survey, any leaks uncovered as a result of the survey or otherwise, dates of repair and the estimated water savings as a result of the repairs.

3. Conduct field surveys for leaks and repair programs in accordance with the AWWA Manual 36.

4. Southampton shall have repair reports available for inspection by MassDEP. Southampton 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 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 Southampton's priority schedule including leaks up to the property line, curb stop or service meter, as applicable. Southampton shall have water use regulations in place that require property owners to expeditiously repair leaks on their property.

Metering

1. Southampton shall continue to calibrate all source and finish water meters at least annually and report date of calibration on the ASR.

2. Southampton shall maintain its system as 100% metered.

3. Southampton shall maintain the AWWA-based meter replacement program.

Pricing

1. Southampton shall have a plan and schedule for establishing and maintaining a water pricing structure that includes the full cost of operating the water supply system. Thereafter, Southampton shall implement the plan and schedule as approved by MassDEP. Full cost pricing factors all costs - operations, maintenance, capital, and indirect costs (environmental impacts, watershed protection) - into prices.

2. Evaluate rates at a minimum every three to five years and adjust costs as needed.

3. Southampton will continue to implement an increasing block rate structure.

4. Southampton shall continue to bill at least quarterly.

TABLE 5 (continued): MINIMUM WATER CONSERVATION REQUIREMENTS

Residential and Public Sector Conservation

1. Southampton shall ensure that the standards set forth in the Federal Energy Policy Act of 1992 and the Massachusetts Plumbing Code are met when buildings are constructed or renovated.

2. Southampton reports metering water used by contractors using fire hydrants for pipe flushing and construction and shall continue to do so.

3. Within 24 months of issuance of this permit, Southampton shall ensure that it has enforcement authority in place for the specific Limits on Nonessential Outdoor Water Use contained in Special Condition 7 of the permit.

4. Municipal buildings:

By the 2026 ASR due date, Southampton shall submit to MassDEP a status report detailing which municipally owned public buildings in the Permittee's service area have been retrofitted with water saving devices (faucet aerators, low-flow shower heads and low-flow toilets) and which of those buildings have yet to be retrofitted, along with a cost estimate and reasonably phased work schedule to complete retrofitting.

Note: Municipally owned buildings scheduled for rehabilitation or demolition may with MassDEP's approval, be exempted from this condition based on the schedule of work. Status report required above shall identify those buildings and schedule for repairs/demolition.

Industrial and Commercial Water Conservation

1. Southampton shall inspect industrial facilities and recommend the use of separate meters for process water where appropriate.

Public Education and Outreach

1. Within six months of the effective date of this permit, Southampton shall submit to MassDEP a plan and schedule for the development and implementation of a water conservation education and outreach plan designed to educate customers on ways to conserve water.

Without limitation, the plan may include the following actions:

- Include in bill stuffers and/or bills, a work sheet to enable customers to track water use and conservation efforts and estimate the dollar savings,
- Public space advertising/media stories on successes (and failures),
- Conservation information centers perhaps run jointly with electric or gas company,
- Speakers for community organizations,
- Public service announcements; radio/T.V./audio-visual presentations,
- Joint advertising with hardware stores to promote conservation devices,
- Use of civic and professional organization resources,
- Special events such as Conservation Fairs,
- Develop materials that are targeted to schools with media that appeals to children, including materials on water resource projects and field trips, and
- Provide multilingual materials as needed.

2. Thereafter, Southampton shall develop and implement the water conservation education and outreach plan and schedule as approved by MassDEP. Upon request of MassDEP, Southampton shall report on its public education and outreach efforts.

9. Requirement to Report Raw and Finished Water Volumes.

Southampton shall report raw water volumes for each water withdrawal point and finished water for each filtration treatment system annually on its ASR.

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

1. **Duty to Comply:** The permittee shall comply at all times with the terms and conditions of this permit, the Act, the Water Management Act regulations at 310 CMR 36.00, and all other applicable State and Federal statutes and regulations**.**
2. **Operation and Maintenance:** The permittee shall at all times properly operate and maintain all facilities and equipment installed or used to withdraw water so as not to impair the purposes and interests of the Act.
3. **Entry and Inspections:** The permittee or the permittee's agent shall allow personnel or authorized agents or employees of the Department to enter and examine at reasonable times any property, facility, operation, equipment or activity involving the withdrawal of water, and to inspect and copy any relevant records, for the purpose of determining compliance with this permit, the Act or the regulations published pursuant thereto, upon presentation of proper identification and an oral statement of purpose.
4. **Water Emergency:** Withdrawal volumes authorized by this permit are subject to restriction in any water emergency declared by the Department pursuant to M.G.L. c. 21G, §§ 15-17, M.G.L. c. 111, §§ 160, or any other enabling authority.
5. **Transfer of Permits:** This permit shall not be transferred in whole or in part unless and until the Department approves such transfer in writing, pursuant to the submittal of a transfer application in accordance with 310 CMR 36.33 on forms provided by the Department requesting such approval and received by the Department at least thirty (30) days before the effective date of the proposed transfer. No transfer application shall be deemed filed unless it is accompanied by the applicable transfer fee as set forth in 310 CMR 4.00.
6. **Duty to Report:** The permittee shall complete and submit annually, on a form provided by the Department, all of the information required by said form including, without limitation, a certified statement of the withdrawal. Such report shall be received by the Department by the date specified on the form each year. For public water supplier permittees, the report form is the MassDEP Drinking Water Program Public Water Supply Annual Statistical Report.
7. **Annual Compliance Fee:** The permittee shall submit any applicable annual compliance fee as established in 310 CMR 4.00.
8. **Duty to Maintain Records:** The permittee shall maintain withdrawal records and other information in sufficient detail to demonstrate compliance with this permit.
9. **Metering:** All withdrawal points included within the permit shall be metered. Meters are to be calibrated annually. Meters shall be maintained and replaced as necessary to ensure the accuracy of the withdrawal records.
10. **Amendment, Suspension or Termination:** The Department may amend, suspend or terminate the permit in accordance with M.G.L. c. 21G and 310 CMR 36.29.

NOTICE OF APPEAL RIGHTS

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

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

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

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

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

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

Duane LeVangie

June 11, 2026

Duane LeVangie
Water Management Program Chief
Bureau of Water Resources

Date

Endnotes
Appendix A: Functional Equivalence with RGPCD Performance Standard
Appendix B: Functional Equivalence with 10% UAW Performance Standard

ENDNOTES

[1] The Water Management Regulations, 310 CMR 36.14(1)(a), establish a biological category (BC) for each subbasin based on the simulated 2000 to 2004 existing condition of aquatic habitat using fluvial fish community characteristics as the surrogate indicator variable. Each biological category represents the percent alteration within the range of these fluvial fish community characteristics as a function of the following subbasin parameters: 1. Impervious cover; 2. Cumulative groundwater withdrawal as a portion of the unimpacted August median flow; 3. Stream channel slope; and 4. Percent wetland within the stream buffer area. The percentage alteration for each BC is as follows: BC 1, 0% to5%.; BC 2, > 5% to 15%; BC3 >15% to 35%; BC 4, > 35% to 65%; BC 5, >65%.

[2] The Water Management Regulations 310 CMR 36.14(1)(b), establishes a groundwater withdrawal category (GWC) based on the ratio of 2000 to 2004 groundwater withdrawal volume to the unimpacted median monthly flow for August and represents conditions during the late summer bioperiod (July thru September). Each GWC represents the range of this ratio that would result in the BC of the same number under conditions of low (15%) impervious cover. The GWC for each withdrawal ratio for the late summer bioperiod is as follows: GWC 1, 0% to 3%; GWC 2, >3% to 10%; GWC 3, >10% to 25%; GWC 4, >25% to 55%; and GWC 5, >55%.

[3] 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. A subbasin is groundwater, depleted if it has an August NGD of greater than 25%.

[4] 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 as described in the USGS report Indicators of Streamflow Alteration, Habitat Fragmentation, Impervious Cover, and Water Quality for Massachusetts Stream Basins (Weiskel et al., 2010, USGS SIR 2009-5272).

APPENDIX A
Functional Equivalence with the
Residential Gallons Per Capita Day (RGPCD) Performance Standard

I. Compliance Plan Requirement

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

a. meet the requirement set forth below in Section II,
b. include measures to be implemented to meet the performance standard), and
c. include the schedule for implementing such measures.

The filing of an RGPCD Plan shall not constitute a return to compliance, nor shall it affect MassDEP's authority to take action in response to the permittee's failure to meet the performance standard.

If an RGPCD Plan is required, the permittee must:

a. submit information and supporting documentation sufficient to demonstrate compliance with its RGPCD Plan annually at the time it files its ASR, and
b. 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.

II. Contents of an RGPCD Plan

A permittee that does not meet the 65 RGPCD performance standard within 2 years, has the choice to file an RGPCD Plan containing measures that the permittee believes will be sufficient to bring the system into compliance with the performance standard (Individual RGPCD Plan) or may adopt the MassDEP RGPCD Functional Equivalence Plan that includes mandated Best Management Practices (BMPs).

A permittee that has been unable to meet the 65 RGPCD performance standard within 5 years must implement the MassDEP RGPCD Functional Equivalence Plan to be considered functionally equivalent with the performance standard.

At a minimum, all RGPCD Compliance Plans must include a detailed:

a. description of the actions taken during the prior calendar year to meet the performance standard,
b. analysis of the cause of the failure to meet the performance standard,
c. description and schedule of the actions that will be taken to meet the performance standard, and
d. analysis of how the actions described in c. will address the specific circumstances that resulted in the failure to meet the performance standard.

RGPCD Plans may be amended to revise the actions that will be taken to meet the performance standard.

Individual RGPCD Plan

Individual RGPCD Plan will document a plan to adopt and implement measures tailored to the specific needs of the water supply system that the permittee believes will be sufficient to bring the system into compliance with the performance standard within three years.

At a minimum, all Individual RGPCD Plans for failure to meet the RGPCD performance standard must include implementation of at least one of the following residential conservation programs:

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, bylaw, or regulation to require the installation of moisture sensors or similar climate-related control technology on all automatic irrigation systems.

If the permittee is already implementing one or more of these programs, it must include in its Individual 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.

Without limitation, the Individual RGPCD Plan for failure to meet the RGPCD performance standard may include any of the actions set forth in the MassDEP RGPCD Functional Equivalence Plan below.

MassDEP RGPCD Functional Equivalence Plan

In order to be considered functionally equivalent with the RGPCD performance standard, the permittee must be in compliance with the permit Special Condition, Seasonal Limits on Nonessential Outdoor Water Use, and must adopt and implement the MassDEP RGPCD Functional Equivalence Plan that requires all the following residential conservation programs:

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),
c. the adoption and enforcement of an ordinance, bylaw, or regulation to require the installation of soil moisture sensors or similar climate related control technology on all automatic irrigation systems,
d. the use of an increasing block water rate or a seasonal water rate structure as a tool to encourage water conservation,
e. the adoption and enforcement of an ordinance, bylaw, or regulation to require that all new construction include water saving devices and low water use appliances; and
f. the implementation of monthly or quarterly billing.

Hardship

A permittee may present an analysis of the cost effectiveness of implementing certain conservation measures included in the MassDEP RGPCD Functional Equivalence Plan 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:

a. Reasons why specific measures are not cost effective because the cost would exceed the costs of alternative methods of achieving the appropriate standard,
b. 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 RGPCD Functional Equivalence Plan, and
c. When applicable, an analysis demonstrating that implementation of specific measures will cause or exacerbate significant economic hardship.

APPENDIX B
Functional Equivalence with the 10% Unaccounted for Water (UAW) Performance Standard

Water Loss Control Program: 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 ongoing Water Loss Control Program in place that ensures best practices for controlling water loss.

Developing a Municipal Water Loss Control Program: A permittee who fails to document compliance with the 10% UAW performance standard for 2 out of the 3 years during the permit period, shall develop a Municipal Water Loss Control Program in accordance with the *AWWA M36 Water Audits and Loss Control Program*. Within 5 full calendar years of failing to meet the standard, the permittee shall:

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 as an attachment to the 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 component analysis and long-term program to reduce real and apparent water losses.
        i. 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.
        ii. 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. Submit the Municipal Water Loss Control Program that includes an M36 component analysis and implementation schedule and identifies implementation funding to the Department.
    4. Upon request of the Department, the permittee shall report on its implementation of the water loss control program.
    5. Continued implementation of the Program will be required for the permittee to be considered functionally equivalent with the 10% UAW performance standard and in compliance with their permit.

A PWS permittee may choose to discontinue the Municipal Water Loss Control 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 Water Loss Control Program: If the permittee is required to develop a Water Loss Control Program in order to be to functionally equivalent with the 10% Unaccounted for Water Performance Standard, and the permittee has not developed a Municipal Water Loss Control Program that includes a component analysis and identifies implementation funding after 5 full calendar years of failing to meet the standard, the permittee will be required to implement the MassDEP UAW Water Loss Control Program measures outlined below:

- Complete an annual water audit and leak detection survey, as described in the AWWA M36 Manual, for 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.
- Review the permittee's water pricing structure and ensure revenues are 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 Water Loss Control Program 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 Program.

MassDEP will review a permittee's detailed, written analysis to determine whether unique circumstances make specific water loss control measures less cost-effective than alternatives, or infeasible for the permittee.