



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Kathleen A. Theoharides
Secretary

Martin Suuberg
Commissioner

April 6, 2022

The Honorable Shaunna O'Connell
Mayor, City of Taunton
15 Summer Street
Taunton, MA 02780

RE: TAUNTON-BWR\WMA
PWS ID: # 4293000
Water Management Act Permit
WMA Permit 9P-4-25-293.04

Dear Mayor O'Connell:

Please find the attached documents:

- Findings of Fact in Support of the Renewed Permit #9P-4-25-293.04; and
- Water Management Act Permit #9P-4-25-293.04 (Taunton River Basin) for the City of Taunton.

The signature on this cover letter indicates formal issuance of the attached document. If you have any questions regarding this information, please contact me at (617) 292-5706 or via e-mail at duane.levangie@mass.gov.

Sincerely,

Duane LeVangie
Chief, Water Management Program
Bureau of Water Resources

[https://massgov.sharepoint.com/sites/DEP-BWR/DWPArchive/SERO/2022/Taunton-4293000-Final
WMA Permit 9P42529304 4-6-2022](https://massgov.sharepoint.com/sites/DEP-BWR/DWPArchive/SERO/2022/Taunton-4293000-Final/WMA%20Permit%209P42529304%204-6-2022)

Ecc: Jack Hamm, Taunton
Paul Gargiulo, Taunton
Mike Arruda, Taunton
Jodi Raposa, Taunton
Kate Bentsen, FWE
Brad Chase, DMF
Steve Hurley, DMF
Jim McLaughlin, MassDEP SERO
Michelle Regon, MassDEP SERO
Anne Carrol, DCR
Julia Blatt, Massachusetts Rivers Alliance
Sarah Bower, Massachusetts Rivers Alliance
Taunton River Watershed Alliance
Jen Pederson, MWWA
Fred Underhill, Chairman, Rochester Water Commissioners
Blair Bailey, Rochester Water Commissioner



Massachusetts Department of Environmental Protection
One Winter Street, Boston MA 02108 • Phone: 617-292-5751
Communication For Non-English -Speaking Parties - 310 CMR 1.03(5)(a)



1 English:

This document is important and should be translated immediately. If you need this document translated, please contact MassDEP's Diversity Director at the telephone numbers listed below.



2 Español (Spanish):

Este documento es importante y debe ser traducido inmediatamente. Si necesita este documento traducido, por favor póngase en contacto con el Director de Diversidad MassDEP a los números de teléfono que aparecen más abajo.



3 Português (Portuguese):

Este documento é importante e deve ser traduzida imediatamente. Se você precisa deste documento traduzido, por favor, entre em contato com Diretor de Diversidade da MassDEP para os números de telefone listados abaixo.



4(a) 中國（傳統） (Chinese (Traditional)):

本文件非常重要，應立即翻譯。如果您需要翻譯這份文件，請用下面列出的電話號碼與 MassDEP 的多樣性總監聯繫。



4(b) 中国（简体中文） (Chinese (Simplified)):

本文件非常重要，应立即翻译。如果您需要翻译这份文件，请用下面列出的电话号码与 MassDEP 的多样性总监联系。



5 Ayisyen (franse kreyòl) (Haitian) (French Creole):

Dokiman sa-a se yon bagay enpòtan epi yo ta dwe tradui imedyatman. Si ou bezwen dokiman sa a tradui, tanpri kontakte Divèsite Direktè MassDEP a nan nimewo telefòn ki nan lis pi ba a.



6 Việt (Vietnamese):

Tài liệu này là rất quan trọng và cần được dịch ngay lập tức. Nếu bạn cần dịch tài liệu này, xin vui lòng liên hệ với Giám đốc MassDEP đa dạng tại các số điện thoại được liệt kê dưới đây.



7 ប្រទេសកម្ពុជា (Kmer (Cambodian)):

ឯកសារនេះគឺមានសារៈសំខាន់និងគួរត្រូវបានបកប្រែភ្លាមៗ ប្រសិនបើអ្នកត្រូវបានបកប្រែ ឯកសារនេះសូមទំនាក់ទំនងឆ្នោតជាតិយក MassDEP នៅលេខទូរស័ព្ទដែលបានរាយ ខាងក្រោម។



8 Kriolu Kabuverdianu (Cape Verdean):

Es documento é importante e deve ser traduzido imidiatamente. Se bo precisa des documento traduzido, por favor contacta Director de Diversidade na MassDEP's pa es numero indicode li d'boche.



9 Русский язык (Russian):

Этот документ является важным и должно быть переведено сразу. Если вам нужен этот документ переведенный, пожалуйста, свяжитесь с директором разнообразия MassDEP по адресу телефонных номеров, указанных ниже.



10 العربية (Arabic):

هذه الوثيقة الهامة وينبغي أن تترجم على الفور. اذا كنت بحاجة الى هذه الوثيقة المترجمة، يرجى الاتصال مدير التنوع في PMassDE على أرقام الهواتف المدرجة أدناه.



11 한국어 (Korean):

이 문서는 중요하고 즉시 번역해야 합니다. 당신이 번역이 문서가 필요하다면 아래의 전화 번호로 MassDEP의 다양성 감독에 문의하시기 바랍니다.



12 հայերեն (Armenian):

Այս փաստաթուղթը շատ կարևոր է եւ պէտք է թարգմանել անմիջապէս. Եթէ Ձեզ անհրաժեշտ է այս փաստաթուղթը թարգմանվել դիմել MassDEP բազմազանությունը տնօրէն է հեռախոսահամարների թվարկված են ստորև.



13 فارسی (Farsi (Persian):

این سند مهم است و باید فوراً ترجمه شده است. اگر شما نیاز به این سند ترجمه شده، لطفاً با ما تماس تنوع مدیر PMassDE در شماره تلفن های ذکر شده در زیر.



14 Français (French):

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



15 Deutsch (German):

Dieses Dokument ist wichtig und sollte sofort übersetzt werden. Wenn Sie dieses Dokument übersetzt benötigen, wenden Sie sich bitte Diversity Director MassDEP die in den unten aufgeführten Telefonnummern.



16 Ελληνική (Greek):

Το έγγραφο αυτό είναι σημαντικό και θα πρέπει να μεταφραστούν αμέσως. Αν χρειάζεστε αυτό το έγγραφο μεταφράζεται, παρακαλούμε επικοινωνήστε Diversity Director MassDEP κατά τους αριθμούς τηλεφώνου που αναγράφεται πιο κάτω.



17 Italiano (Italian):

Questo documento è importante e dovrebbe essere tradotto immediatamente. Se avete bisogno di questo documento tradotto, si prega di contattare la diversità Direttore di MassDEP ai numeri di telefono elencati di seguito.



18 Język Polski (Polish):

Dokument ten jest ważny i powinien być natychmiast przetłumaczone. Jeśli potrzebujesz tego dokumentu tłumaczone, prosimy o kontakt z Dyrektorem MassDEP w różnorodności na numery telefonów wymienionych poniżej.



19 हिन्दी (Hindi):

यह दस्तावेज़ महत्वपूर्ण है और तुरंत अनुवाद किया जाना चाहिए. आप अनुवाद इस दस्तावेज़ की जरूरत है, नीचे सूचीबद्ध फोन नंबरों पर MassDEP की विविधता निदेशक से संपर्क करें.



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Findings of Fact in Support of Water Management Permit # 9P-4-25-293.04 City of Taunton

The Department of Environmental Protection (the Department or MassDEP) makes the following Findings of Fact in support of the attached Water Management Act (WMA) Permit #9P-4-25-293.04 and includes herewith its reasons for issuing the Permit and for conditions of approval imposed, as required by M.G.L. c. 21G, § 11. The issuance of the WMA permit is in response to the November 23, 2009 WMA permit renewal application by the City of Taunton (the City or Taunton).

MassDEP adopted revised Water Management Regulations at 310 CMR 36.00 on November 7, 2014, (described in greater detail below). Since that time, MassDEP has been working closely with each Water Management Act permittee to fully consider all aspects of their individual situations and ensure thoughtful and implementable permits.

The City of Taunton Withdrawal Summary

On June 1, 1991, MassDEP issued a WMA Permit, #9P-4-25-293.04, authorizing the City to increase its withdrawals by an annual average daily volume of up to 1.42 million gallons per day (MGD) from its surface water sources in the Taunton River Basin. This was in addition to the 5.87 MGD that Taunton was previously authorized to withdraw by its WMA Registration, #4-25-293.02. The 1991 Taunton WMA Permit had an expiration date of February 28, 2010.

On May 31, 1991, MassDEP also issued a WMA Permit, #9P-425-293.02, authorizing the Paul A. Dever School (the Dever School) to withdraw an annual average daily volume of 0.20 MGD from three groundwater wells in the Taunton River Basin.

On November 23, 2009, the City applied to renew its 1991 WMA Permit. In 2009, the Department issued Taunton an interim permit which extended the expiration date of the City's 1991 WMA Permit until February 28, 2011. In 2010, the interim permit was extended for 2 years to February 28, 2013, by Section 173 of Chapter 240 of the Acts of 2010, the Permit Extension Act.

On February 22, 2011, MassDEP issued approval to the City to replace the Dever School's two active wells.¹ On March 1, 2011, Taunton filed an application requesting that MassDEP transfer to the City the Dever School's right to withdraw an annual average daily volume of 0.20 MGD from the two active wells. On May 24, 2011, MassDEP issued to the City a modified WMA Permit that effectuated the requested transfer. Taunton's 2011 WMA Permit authorizes the City to withdraw from the Taunton River Basin an annual average daily volume of 1.62 MGD. This volume is in addition to the 5.87 MGD that the City is authorized to withdraw by its WMA Registration #4-25-293.02, resulting in a total authorized volume of 7.49 MGD.

Additional Permit Extensions

In 2012, the Permit Extension Act was amended by Chapter 238 of the Acts of 2012, and Taunton's 2011 WMA Permit was extended an additional 2 years to February 28, 2015. Pursuant to M.G.L. c. 30A, Section 13, and 310 CMR 26.18(7), Taunton's 2011 WMA Permit continued in force until the date that the Department issues the 2020 WMA Permit. The expiration date for all permits going forward in the Taunton River Basin is February 28, 2030, in accordance with the staggered permitting schedule set forth in the regulations.

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

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

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

Water Management Regulation Revisions

In 2010 the Executive Office of Energy and Environmental Affairs (EEA) convened the Sustainable Water Management Initiative (SWMI) for the purpose of incorporating the best available science into the management of the Commonwealth's water resources. SWMI was a multi-year process that included a wide range of stakeholders and support from the Departments

¹ The Dever School had not used its third permitted well for many years.

of Environmental Protection, Fish and Game, and Conservation and Recreation. In November 2012 the *Massachusetts Sustainable Water Management Initiative Framework Summary* (<http://www.mass.gov/eea/docs/eea/water/swmi-framework-nov-2012.pdf>) was released.

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

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

- Safe yield determinations for the major river basins based on a new methodology developed through SWMI (see the Safe Yield in the Taunton River Basin section of this document or for more information on the Safe Yield methodology, go to the November 28, 2012 SWMI Framework Summary and Appendices);
- Water needs forecasts for public water suppliers developed by the DCR, using a methodology reviewed and approved by the Massachusetts WRC;
- Water supply protection measures for public water supplies including Zone II delineations for groundwater sources and wellhead and surface water protection measures as required by Massachusetts Drinking Water Regulations (310 CMR 22.00);
- Water conservation standards reviewed and approved by the WRC in July 2018 (<https://www.mass.gov/doc/massachusetts-water-conservation-standards-2/>) including without limitation;
 - performance standard of 65 residential gallons per capita day or less;
 - performance standard of 10% or less unaccounted-for-water;
 - seasonal limits on nonessential outdoor water use; and
 - a water conservation program that includes leak detection and repair, full metering of the system and proper maintenance of the meters, periodic review of pricing, and education and outreach to residents and industrial and commercial water users; and
- Environmental protections developed through SWMI, including without limitation;
 - protection for coldwater fish resources;
 - minimization of withdrawal impacts in areas stressed by groundwater use; and
 - mitigation of the impacts of increasing withdrawals.

Safe Yield in the Taunton River Basin

This permit is being issued under the safe yield methodology adopted by the 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 calculation for the Taunton River Basin is 134.42 million MGD, and total registered and permitted withdrawals are 93.86 MGD as of February 20, 2020. The renewed permit will not increase the volume of withdrawals from the Taunton River Basin and thus will not cause an exceedance of the Basin's safe yield.

Findings of Fact for Special Permit Conditions in Taunton'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 Draft 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, specifies the authorized annual average withdrawal volume for each period during the life of Taunton's WMA Permit. MassDEP bases public water supply permits on the Department of Conservation and Recreation (DCR) Office of Water Resources water needs forecasts (WNF). In a November 18, 2009 letter to the City, the DCR provided a final WNF for Taunton. This WNF is for Taunton's total raw water withdrawal and was prepared based on two separate assumptions, the first being that Taunton meets the performance standards of 65 Residential Gallons per Capita Day (RGPCD) and 10% Unaccounted for Water (UAW), and the second assumes that Taunton's RGPCD and UAW continue based on the trends of RGPCD and UAW at the time that DCR prepared the WNF. DCR's WNF are set forth in Table 1 below.

Table 1: Taunton System-Wide WNF of Average Daily Withdrawal Rates (MGD)

Permit Period	WNF assuming RGPCD 65/UAW 10%	WNF assuming current trend ² RGPCD/UAW
2020-2025	7.36	7.27
2025-2030	7.49	7.40
With 5% Buffer	7.86	7.77

It is MassDEP's policy to issue permits that result in a total authorized volume that does not exceed the DCR WNF volumes. As shown in Table 1, the total authorized volume of 7.49 MGD set forth in Special Condition 1 of the 2011 WMA Permit does not exceed that forecast. Consistent with that policy and the WMA Regulations, Special Condition 1 of the WMA Permit allows the City to maintain a total authorized volume of 7.49 MGD with actual withdrawals further limited to the baseline volume as outlined below.

The Water Management 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:

- (a) baseline cannot be less than a permittee's registered volume;
- (b) cannot be greater than the permittee's authorized volume for 2005;
- (c) and 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

² Based on DCR WNF letter of November 2, 2009, using 2006-2008 Annual Statistical Reports.

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

Applying this definition, Taunton's baseline is its 2005 water use plus 5% or 6.44 MGD.

Permittees whose authorized withdrawal volume is above the baseline volume are required to develop a mitigation plan and to implement that mitigation plan prior to withdrawing more than the baseline volume.

Table 2: Taunton's 2016-2020 Actual Water Withdrawals

Year	2016	2017	2018	2019	2020
Average Actual Withdrawals (MGD)	6.28	5.81	5.68	5.45	5.71

As shown by Table 2 above, Taunton's recent water use is significantly less than the City's baseline volume of 6.44 MGD. In light of their recent water use, Taunton chose to limit Special Condition 1 of the Permit to its baseline to avoid the mitigation plan requirement. To this end, Special Condition 1 specifically provides that the City shall limit its withdrawal volume to its baseline volume of 6.44 MGD, 2350.60 MGY, unless and until:

1. The City submits to MassDEP an application for a permit amendment requesting authorization to withdraw more than the baseline volume of 6.44 MGD up to a total authorized volume of 7.49 MGD, and a plan to mitigate the amount by which the total requested authorized withdrawal volume exceeds the baseline volume of 6.44 MGD, as adjusted for any wastewater returned to groundwater in the basin;
2. MassDEP issues a permit amendment in response to that application; and
3. The City, in accordance with the amended permit, implements the mitigation plan prior to withdrawing more than the baseline volume of 6.44 MGD.

Special Condition 2, Maximum Daily Withdrawals from Groundwater Withdrawal Points.

Taunton has two permitted groundwater sources Well # 1, (4293000-01G) and Well # 2, (4293000-02G). Special Condition 2 provides that withdrawals from Well # 1 and Well # 2, combined or separately, shall not exceed the maximum daily rate of 0.48 MGD without advance approval MassDEP. Special Condition 2 also provides that Taunton shall not withdraw from Well #1 and Well #2 an annual average daily volume of more than 0.20 MGD, the volume transferred to the City from the Dever School. Please note that Taunton may not use Well #1 and Well #2 unless and until the City obtains a permit amendment allowing the use of these wells together with the following documents:

- documentation that Taunton is in compliance with the wellhead protection requirements of 310 CMR 22.21(2);
- a plan and schedule for monitoring the wetlands adjacent to these wells and documentation that Taunton has begun to implement the plan and schedule as approved by MassDEP, and

- a plan to minimize the impacts of the withdrawal from these wells on Subbasin 24073, a subbasin that is groundwater depleted in August.³

Special Condition 3, Firm Yield.⁴ The approved firm yield for Elders Pond is 0.58 MGD or 211.7 MGY. Because Elders Pond is part of a reservoir system where water is pumped from the Assawompsett Pond Complex to Elders Pond, the Taunton Reservoir system firm yield is approved at 7.29 MGD. Special Condition 3 provides that Taunton's combined withdrawal from Elders Pond and the Assawompsett Pond Complex shall not exceed the firm yield of its reservoir system, 2660.85 MGY or an annual average daily volume of 7.29 MGD. Every year, from 2013 thru 2018, Taunton's combined withdrawals from Elders Pond and the Assawompsett Pond Complex were less than 2660.85 MGY and 7.29 MGD.

Special Condition 4, Zone II Delineations. Taunton's permitted groundwater sources have approved Zone IIs. No further Zone II work is required as a condition of this permit.

Special Condition 5, Wellhead Protection requirements have not been met. Special Condition 5 provides that the City shall not use Well #1 and/or Well #2 unless and until it submits a permit amendment requesting authorization to use these wells together with documentation that it is in compliance with the wellhead protection requirements of 310 CMR 22.21(2).

Special Conditions 6, Surface Water Protection. Taunton has an approved surface water supply protection plan and has complied with the best effort requirements of 310 CMR 22.20C(2). No further work is required as a condition of this permit.

Special Condition 7, Performance Standard for Residential Gallons Per Capita Day (RGPCD) Water Use, required for all public water suppliers (PWSs) is 65. Permittees that cannot meet this performance standard within the timeframe in the permit must meet the Functional Equivalence Requirements outlined in Appendix A.

As shown in Table 3, Taunton has consistently met this Performance Standard for the years 2016 thru 2020.

Table 3: Residential Gallons Per Capita Day Water Use

Year	2020	2019	2018	2017	2016
RGPCD	56	50	53	53	56

Special Condition 8, Performance Standard for Unaccounted for Water (UAW), for all PWSs is 10%. Taunton is required to meet 10% or less UAW for two of the three most recent years throughout the permit period. Although the City conducted a water audit in 2018, Taunton's UAW exceeded 10% every year from 2016 through 2020 (see Table 4). Since Taunton has missed the UAW Standard for two of the last three years, Special Condition 8 requires that beginning with the filing of their 2022 Annual Statistical Report, Taunton meet the

³ See Special Conditions 5, 12, and 14. See also minimization discussion in this Findings of Fact.

⁴ The Water Management Regulations, 310 CMR 36.03, define firm yield to mean "a simulated estimate of the water volume available in a reservoir or reservoir system as approved by the Department." The reservoir system's firm yield is the basis for permitting maximum annual withdrawals from reservoirs.

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.

Table 4: Unaccounted for Water

Year	2020	2019	2018	2017	2016
UAW	14%	20%	17%	20%	20%

Special Condition 9, Seasonal Limits on Nonessential Outdoor Water Use, reflects the restrictions on nonessential outdoor water use from May 1st through September 30th. The options outlined in Special Condition 9 are based on whether reported RGPCD for the previous year was in compliance with the RGPCD Performance Standard (see Special Condition 7, Performance Standard for RGPCD).⁵

Each year Taunton may choose one of two options for implementing nonessential outdoor watering restrictions.

- **Calendar triggered restrictions** are in place from May 1st through September 30th. Many public water suppliers find this option easier to implement and enforce than the streamflow triggered approach
- **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 Taunton selects the streamflow trigger approach, it has been assigned USGS stream gage 01108000 Taunton River near Bridgewater, MA. The May-June streamflow trigger is 265 cubic feet per second (cfs), and the July-September streamflow trigger is 119 cfs. Should the reliability of flow measurement at the Taunton River gage be so impaired as to question its accuracy, Taunton may request that the Department review and approve the transfer to another gage that will trigger restrictions. The Department reserves the right to require use of a different gage.

- **The 7-Day Low Flow Trigger**, at which restrictions increase, is incorporated into both Calendar and Streamflow Triggered restrictions in order to provide additional protection to streamflows when flows are very low. The 7-day low flow trigger for Taunton is 47 cfs.

Taunton may choose to implement limits on nonessential outdoor water use that are stricter than those required by the permit. Taunton may also opt to implement restrictions based on a MassDEP-approved drought management plan that includes environmental considerations.

⁵ If Taunton fails to meet the RGPCD Performance Standard in any calendar year, the next year nonessential outdoor water use is restricted to no more than two days per week.

Special Condition 10, Water Conservation Requirements, incorporates the Water Conservation Standards for the Commonwealth of Massachusetts reviewed and approved by the Water Resources Commission in July 2018 (<https://www.mass.gov/doc/massachusetts-water-conservation-standards-2/>). Taunton shall continue to meet these standards.

Special Condition 11, Reporting Requirements, ensures that the information necessary to evaluate compliance with the conditions included herein is accurately reported.

Special Condition 12, Wetlands Monitoring. Special Condition 10 of Taunton's 2011 WMA Permit required the City to develop and implement a plan to monitor the wetlands adjacent to the Dever School's wells. Taunton used Well # 1 (4293000-01G) and Well # 2 (4293000-02G) very little in 2013 and 2014, and has not used it since. As a result, the City has not performed the wetlands monitoring required by the 2011 WMA Permit.

Special Condition 12 of the renewed WMA Permit provides that the City shall not resume use of Well #1 and/or Well #2 unless and until Taunton obtains a permit amendment allowing the use of these wells. Prior to submittal of the permit amendment, the City shall submit and obtain approval of a plan and schedule for monitoring the wetlands adjacent to these wells. Monitoring should begin prior to the permit amendment approval. The wetlands monitoring plan and schedule approved by MassDEP shall become a condition of the amended permit. Based on the results of the wetlands monitoring, MassDEP may place future conditions on the pumping of the wells in the amended permit.

Special Condition 13, Operation and Management of the Assawompsett Pond Complex.

The Water Management Act Regulations, 310 CMR 36.02, recognize that water resources are public resources that require sustainable management for the well-being and safety of the public, the protection of natural resources and economic growth. The Water Management Act Regulations, 310 CMR 36.02, authorize the Department to establish enforceable requirements for the comprehensive management of withdrawals that ensure an appropriate balance among competing water withdrawals and uses and the preservation of the water resource.

The Assawompsett Pond Complex is used for many purposes. It is a source of drinking water for New Bedford and Taunton, a habitat for many species of waterfowl, birds, and fish, the site of one of the largest herring runs in the state, and the location of many popular spots for fishing, bird watching, hiking, walking, running and other recreational activities. The City reports that it implements the following measures to protect the anadromous fish population:

1. Coordinates the Assawompsett Pond Dam operations with Lakeville-Middleborough Herring Fisheries Committee.
2. Coordinates annual maintenance with local Conservation Commissions and Lakeville-Middleborough Herring Fisheries Committee.
3. Continues monitoring the Assawompsett Pond Dam and Long Point Road Spillway.

Special Condition 13 also requires Taunton to participate in efforts to manage the Assawompsett Pond Complex in a manner that achieves a proper balance among its many competing uses. The City of Taunton shall continue to work with the City of New Bedford, the Towns of Lakeville, Middleborough, Freetown and Rochester, the Lakeville-Middleborough Herring Fisheries

Committee, and the Division of Marine Fisheries (the Assawompsett Workgroup) on the development and implementation of a plan and schedule for the operation and maintenance of the Assawompsett Pond Complex. The Plan shall aim to provide a habitat for a wide variety of aquatic life including anadromous fish and to supply drinking water, in accordance with the actions outlined in Appendix C, Operation and Management of the Assawompsett Pond Complex.

Special Condition 14 Minimization. The Water Management Regulations revised and promulgated in November 2014 require WMA permits for groundwater sources in subbasins with a net groundwater depletion of 25% or more during August, a groundwater depleted subbasin, to minimize their withdrawal impacts on those subbasins to the greatest extent feasible, through optimization of groundwater source use, surface water releases to improve streamflows, outdoor water use restrictions and water conservation programs that go beyond the standard Water Management Act permit requirements. Taunton's groundwater sources are in Subbasin 24073, a subbasin that has been mapped as an August groundwater depleted subbasin. Special Condition 14 provides that Taunton may not use Well #1(4293000-01G) and/or Well #2 (4293000-02G), unless and until it obtains a permit amendment allowing the use of these wells together with a plan and schedule to minimize the impacts of these wells on Subbasin 24073. The amended permit will require Taunton to implement the minimization plan and schedule as approved by MassDEP.

Coldwater Fishery Resources. The Water Management Regulations revised and promulgated in November 2014 also require WMA permits to address protection of Coldwater Fishery Resources (CFR) and mitigation of pumping above the baseline rates. Coldwater Fish Resource protection is not a condition of this Permit, because Taunton's withdrawals do not impact any waters that the Massachusetts Division of Fisheries and Wildlife has identified as supporting coldwater fish at this time.

Mitigation. Mitigation requirements are not included in this Permit, because the Permit limits the City's total authorized withdrawal volume to its baseline volume of 6.44 MGD unless and until: the City submits an application for an amended permit in accordance with Special Condition 1, and MassDEP issues an amended permit increasing the City's total authorized withdrawal volume above the City's baseline volume of 6.44 MGD. If, and when, MassDEP issues an amended permit authorizing the City to withdraw more than its baseline volume, the amended permit will include mitigation requirements.

Response to Comments

MassDEP did not receive any comments on Taunton's Draft MWA permit.



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Kathleen A. Theoharides
Secretary

Martin Suuberg
Commissioner

WATER WITHDRAWAL PERMIT #9P-4-25-293-04 City of Taunton

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: 9P-4-25-293.04

RIVER BASIN: Taunton River

PERMITTEE: City of Taunton

EFFECTIVE DATE: April 6, 2022

EXPIRATION DATE: February 28, 2030

NUMBER OF WITHDRAWAL POINTS: 6

Groundwater: 2

Surface Water: 4

USE: Public Water Supply

DAYS OF OPERATION: 365

WITHDRAWAL POINT IDENTIFICATION

<u>Source Name</u>	<u>Source Code</u>
Well #1	4293000-01G
Well #2	4293000-02G
Assawompsett Pond	4293000-01S
Elders Pond	4293000-02S
Long Pond	4293000-03S
Pocksha Pond	4293000-04S

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.

TTY# MassRelay Service 1-800-439-2370

MassDEP Website: www.mass.gov/dep

Printed on Recycled Paper

SPECIAL CONDITIONS

1. Maximum Authorized Annual Average Withdrawal Volume

This permit authorizes the City of Taunton to withdraw water from the Taunton River Basin at the rate described below (Table 1). The volume reflected by this rate is in addition to the 5.87 million gallons per day (MGD) previously authorized to the City of Taunton under Water Management Act (WMA) Registration #4-25-293.02 for withdrawal from the Taunton River Basin. The permitted volume is expressed both as an annual average daily withdrawal rate, MGD, and as a total annual withdrawal volume, million gallons per year (MGY), for each permit period over the term of this permit.

Permittees whose authorized volume exceeds their baseline volume are required to develop a plan to mitigate the authorized volume above the baseline volume as adjusted by the volume of wastewater returned to the groundwater within the basin and to implement that plan prior to withdrawing more than the baseline volume. To allow the City to avoid this mitigation requirement, the permit provides that the City shall limit its withdrawal volume to its baseline volume of 6.44 MGD, 2350.60 MGY, unless and until:

- a. The City submits to MassDEP an application for a permit amendment requesting authorization to withdraw more than its baseline volume of 6.44 MGD up to a total authorized volume of 7.49 MGD, and a plan to mitigate the amount of the total requested authorized withdrawal volume that exceeds the baseline volume of 6.44 MGD, as adjusted for any wastewater returned via groundwater disposal to the basin;
- b. MassDEP issues a permit amendment in response to that application; and
- c. The City, in accordance with the amended permit, implements the mitigation plan prior to withdrawing more than its baseline volume of 6.44 MGD.

Table 1: Maximum Authorized Withdrawal Volumes

Permit Periods	Total Authorized Raw Water Withdrawal Volumes Prior to Permit Amendment and Mitigation Plan			
	Permit		Permit + Registration	
	Daily Average (MGD)	Total Annual (MGY)	Daily Average (MGD)	Total Annual (MGY)
4/6/2022 to 2/28/2005	0.57	208.05	0.57+5.87=6.44	2350.60
3/01/2025 to 2/28/2030	0.57	208.05	0.57+5.87=6.44	2350.60
Permit Periods	Maximum Authorized Total Raw Water Withdrawal Volumes After Permit Amendment and Mitigation Plan			
	Permit		Permit + Registration	
	Daily Average (MGD)	Total Annual (MGY)	Daily Average (MGD)	Total Annual (MGY)
4/6/2022 to 2/28/2025	1.62	591.30	1.62+5.87=7.49	2732.35
3/01/2025 to 2/28/2030	1.62	591.30	1.62+5.87=7.49	2732.35

2. Maximum Authorized Daily Withdrawals from Groundwater Withdrawal Points

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

Table 2: Maximum Daily Withdrawal Volumes

Source Name	PWS Source Code ID	Maximum Daily Rate (MGD)
Well #1 and Well #2	4293000-01G 4293000-02G	0.48 MGD*

The authorized maximum daily volume is the approved rate for the City's permitted groundwater sources combined or separately. In no event shall the separate or combined withdrawals from the individual withdrawal points listed below exceed the annual average daily withdrawal volume of 0.20 MGD.

*Please note that Taunton may not use Well #1 and Well #2 unless and until the City obtains a permit amendment allowing the use of these sources.

3. Firm Yield

The approved firm yield for Elders Pond is 0.58 MGD or 211.7 MGY. Because Elders Pond is part of a reservoir system where water is pumped from the Assawompsett Pond Complex to Elders Pond, the Taunton Reservoir system firm yield is approved at 7.29 MGD, or 2660.85 MGY. Taunton's combined withdrawal from Elders Pond and the Assawompsett Pond Complex shall not exceed 2660.85 MGY or an annual average daily withdrawal volume of 7.29 MGD.

4. Zone II Delineation

MassDEP records show that Taunton has approved Zone II delineations for its groundwater sources. Therefore, no further Zone II delineation work is required.

5. Wellhead Protection

MassDEP records show that Taunton has not implemented municipal controls that comply with the Wellhead Protection Regulations, 310 CMR 22.21(2) for its groundwater sources. Taunton shall not use Well #1 (4293000-01G) and/or Well #2 (4293000 -02G), unless and until it obtains a permit amendment authorizing the use of these wells and provides the documentation that demonstrates to the satisfaction of MassDEP that it has adopted municipal controls that comply with the Wellhead Protection Regulations.

6. Special Conditions 6, Surface Water Protection

Taunton has an approved surface water supply protection plan and has complied with the best effort requirements of 310 CMR 22.20C(2). No further work is required.

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

The City of Taunton's Performance Standard for residential gallons per capita day (RGPCD) is 65 gallons or less. If, at any time, Taunton does not meet the RGPCD Performance Standard, it shall comply with the functional equivalence requirements set forth in Appendix A.

8. Performance Standard for Unaccounted for Water

The City of Taunton's Performance Standard for Unaccounted for Water (UAW) is 10% or less of overall water withdrawal for two of the most recent three years throughout the permit period. Although the City has made progress, Taunton has failed to meet that standard for the years 2014 through 2018. Beginning calendar year 2022 Annual Statistical Report, Taunton shall comply with the functional equivalence requirements set forth 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 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.

9. Seasonal Limits on Nonessential Outdoor Water Use

Taunton shall limit nonessential outdoor water use through mandatory restrictions from May 1st through September 30th as outlined below (Table 3).

Table 3: Seasonal Limits on Nonessential Outdoor Water Use

Restrictions if Taunton has met the 65 RGPCD Standard for the preceding year RGPCD \leq 65 as reported in the ASR and accepted by MassDEP	
Calendar Triggered Restrictions	<p>Nonessential outdoor water use is restricted to:</p> <ul style="list-style-type: none"> a) seven (7) days per week before 9 am and after 5 pm; and b) one (1) day per week before 9 am and after 5 pm when USGS stream gage 01108000 – Taunton River, near Bridgewater, MA falls below 7-day the low-flow statistic 47 cfs for three (3) consecutive days. <p>Once streamflow triggered restrictions are implemented, they shall remain in place until streamflow at the gage meets or exceeds 47 cfs for seven (7) consecutive days.</p>
Streamflow Triggered Restrictions	<p>Nonessential outdoor water use is restricted to:</p> <ul style="list-style-type: none"> a) seven (7) days per week before 9 am and after 5 pm when USGS stream gage 01108000 – Taunton River near Bridgewater, MA falls below: <ul style="list-style-type: none"> • May 1 – June 30: 265 cfs for three (3) consecutive days • July 1 – September 30: 119 cfs for three (3) consecutive days b) one (1) day per week before 9 am and after 5 pm when USGS stream gage 01108000 – Taunton River near Bridgewater, MA falls below the 7-day low-flow statistic 47 cfs for three (3) consecutive days. <p>Once implemented, the restrictions shall remain in place until streamflow at the gage meets or exceeds the trigger streamflow for seven (7) consecutive days.</p>
Restrictions if Taunton has not met the 65 RGPCD standard for the preceding year RGPCD $>$ 65 as reported in the ASR and accepted by MassDEP	
Calendar Triggered Restrictions	<p>Nonessential outdoor water use is restricted to:</p> <ul style="list-style-type: none"> a) two (2) day per week before 9 am and 5 pm; and b) one (1) day per week before 9 am and after 5 pm when USGS stream gage 01108000 – Taunton River, near Bridgewater, MA falls below 7-day the low-flow statistic 47 cfs for three (3) consecutive days. <p>Once streamflow triggered restrictions are implemented, they shall remain in place until streamflow at the gage meets or exceeds 47 cfs for seven (7) consecutive days.</p>
Streamflow Triggered Restrictions	<p>Nonessential outdoor water use is restricted to:</p> <ul style="list-style-type: none"> a) two (2) days per week before 9 am and after 5 pm when USGS stream gage 01108000 – Taunton River near Bridgewater, MA falls below: <ul style="list-style-type: none"> May 1 – June 30: 265 cfs for three (3) consecutive days July 1 – September 30: 119 cfs for three (3) consecutive days; and b) one (1) day per week before 9 am and after 5 pm when USGS stream gage 01108000 – Taunton River near Bridgewater, MA falls below the 7-day low-flow statistic 47 cfs for three (3) consecutive days. <p>Once implemented, the restrictions shall remain in place until streamflow at the gage meets or exceeds the trigger streamflow for seven (7) consecutive days.</p>

Instructions for Accessing Streamflow Website Information

If Taunton chooses Streamflow Triggered Restrictions, Taunton 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. 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, permittees must use the mean daily streamflow from the preceding day when tracking streamflows.

Mean daily streamflow gage readings are available at the USGS NWIS Web Interface at <http://waterdata.usgs.gov/ma/nwis/current/?type=flow>.

- Scroll down to 01108000 – Taunton River near Bridgewater, MA.
- Click on the gage number.
- Scroll down to “Provisional Date Subject to Revision – Available data for this site” and click on the drop-down menu.
- Click on “Time-series: Daily data” and hit GO.
- Scroll down to the “Available Parameters” box. Within the box, be sure “00060 Discharge (Mean)” is checked, then, under “Output Format” click “Table” and hit GO.
- Scroll down to “Daily Mean Discharge, cubic feet per second” table and find the current date on the table.
- Compare the cubic feet per second (cfs) measurement shown on the table to the cfs shown under Streamflow Triggered Restrictions above.

Taunton shall document compliance with the Seasonal Nonessential Outdoor Water Use Restrictions annually in its Annual Statistical Report (ASR) and indicate whether it anticipates implementing calendar triggered restrictions or streamflow 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 of exterior building surfaces, parking lots, driveways or sidewalks, except as necessary to apply surface treatments such as paint, preservatives, pavement or cement.

The following uses may be allowed 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 before 9 am and after 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 minimal fairway watering, or irrigation by plant nurseries as necessary to maintain stock).

Public Notice of Seasonal Nonessential Outdoor Water Use Restrictions

Taunton 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 15th 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.

Taunton may also opt to implement restrictions based on a MassDEP-approved drought management plan that includes environmental considerations.

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

10. Water Conservation Requirements

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

Table 4: Minimum Water Conservation Requirements	
System Water Audits and Leak Detection	
Taunton shall continue its current program of performing a full leak detection program for its distribution system every two years.	
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.	
Conduct field surveys for leaks and repair programs in accordance with the AWWA Manual 36.	
Taunton shall have repair reports available for inspection by MassDEP. Taunton shall establish a schedule for repairing leaks that is at least as stringent as the following: Leaks of 3 gallons per minute or more shall be repaired within 3 months of detection. Leaks of less than 3 gallons per minute at hydrants and appurtenances shall be repaired as soon as possible. Leaks of less than 3 gallons per minute shall be repaired in a timely manner, but in no event more than 6 months from detection, except that leaks in freeway, arterial or collector roadways shall be repaired when other roadwork is being performed on the roadway. Leaks shall be repaired in accordance with Taunton's priority schedule including leaks up to the property line, curb stop or service meter, as applicable. Taunton shall have water use regulations in place that require property owners to expeditiously repair leaks on their property.	
Metering	
1. Calibrate all source and finished water meters at least annually and report date of calibration on the ASR.	
Taunton reports that its system is 100% metered.	
Taunton shall continue to implement to its program of repairing and replacing meters by size and time based on AWWA Standards	
Pricing.	
Taunton shall continue to implement a water pricing structure that includes the full cost of operating, maintaining and protecting the water supply system.	
Taunton shall continue to evaluate its rate structure annually.	
Taunton reports using an increasing block rate structure and shall continue to do so.	

Residential and Public Sector Conservation
Taunton shall continue to meet the standards set forth in the Federal Energy Policy Act, 1992 and the Massachusetts Plumbing Code.
Taunton shall meter or estimate use of water from fire hydrants for pipe flushing, construction and other uses not related to fire fighting.
Taunton shall continue to bill residential customers quarterly and large users monthly.
Taunton reports that it has installed water savings devices in all new municipal buildings and the new City Hall. Taunton reports that it will begin installing water saving devices in older schools and municipal buildings as they are repaired or renovated. Taunton shall continue these practices. To conserve water, Taunton has installed artificial turf at two athletic fields and plans for additional artificial turf fields are pending. Taunton shall continue to ensure that water conserving landscaping practices are incorporated into the design, construction, management, and operation of public parks, playing fields and other facilities.
Industrial and Commercial Water Conservation
Taunton shall continue to review development proposals to ensure they contain water conservation practices including the installation of low flow devices and the incorporation of water-wise landscaping practices.
Public Education and Outreach
Taunton shall continue to implement a public education plan that includes annual bill stuffers, information on water wise landscaping, gardening, efficient irrigation and lawn care practices, a water conservation curriculum for the schools, public service announcements, multilingual materials, use of social media and in person events.

11. Reporting Requirements

Taunton 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.

12. Wetlands Monitoring

Taunton shall not resume use of Well #1(4293000-01G) and/or Well #2 (4293000-02G), unless and until it obtains a permit amendment authorizing the use of these wells. Prior to submittal of the permit amendment, the City shall submit and obtain approval of a plan and schedule for monitoring the wetlands adjacent to these wells. Monitoring should begin prior to the permit amendment approval. The wetlands monitoring plan and schedule approved by MassDEP shall become a condition of the amended permit. Based on the results of the wetlands monitoring, MassDEP may place future conditions on the pumping of the wells in the amended permit.

13. Operation and Management of the Assawompsett Pond Complex

The Water Management Act Regulations, 310 CMR 36.02, recognize that water resources are public resources that require sustainable management for the well-being and safety of the public, the protection of natural resources and economic growth. The Water Management

Act Regulations, 310 CMR 36.02, authorize the Department to establish enforceable requirements for the comprehensive management of withdrawals that ensure an appropriate balance among competing water withdrawals and uses and the preservation of the water resource.

The Assawompsett Pond Complex is used for many purposes. It is a source of drinking water for New Bedford and Taunton, a habitat for many species of waterfowl, birds, and fish, the site of one of the largest herring runs in the state, and the location of many popular spots for fishing, bird watching, hiking, walking, running and other recreational activities. The City reports that it implements the following measures to protect the anadromous fish population:

1. Coordinates the Assawompsett Pond Dam operations with Lakeville-Middleborough Herring Fisheries Committee.
2. Coordinates annual maintenance with local Conservation Commissions and Lakeville-Middleborough Herring Fisheries Committee.
3. Continues monitoring the Assawompsett Pond Dam and Long Point Road Spillway.

Special Condition 13 also requires Taunton to participate in efforts to manage the Assawompsett Pond Complex in a manner that achieves a proper balance among its many competing uses. The City of Taunton shall continue to work with the City of New Bedford, the Towns of Lakeville, Middleborough, Freetown and Rochester, the Lakeville-Middleborough Herring Fisheries Committee, and the Division of Marine Fisheries (the Assawompsett Workgroup) on the development and implementation of a plan and schedule for the operation and maintenance of the Assawompsett Pond Complex. The Plan shall aim to provide a habitat for a wide variety of aquatic life including anadromous fish and to supply drinking water, in accordance with the actions outlined in Appendix C, Operation and Management of the Assawompsett Pond Complex.

14. Minimization

Taunton shall not resume use of Well #1(4293000-01G) and/or Well #2 (4293000-02G), unless and until it obtains a permit amendment authorizing the use of these wells together with a plan approved by MassDEP to minimize the impact of these wells on Subbasin 24073.

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.

APPEAL RIGHTS AND TIME LIMITS

This permit is a decision of MassDEP. Any person aggrieved by this decision may request an adjudicatory hearing. Any such request must be made in writing, by certified mail and received by MassDEP within twenty-one (21) days of the date of receipt of this permit.

No request for an appeal of this permit shall be validly filed unless a copy of the request is sent 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 applicant, unless such person notifies the permit applicant of the appeal in writing by certified mail or by hand within five (5) days of mailing the appeal to MassDEP.

CONTENTS OF HEARING REQUEST

310 CMR 1.01(6)(b) requires the request to include a clear and concise statement of the facts which are the grounds for the request and the relief sought. In addition, the request must include a statement of the reasons why the decision of MassDEP is not consistent with applicable rules and regulations, and for any person appealing this decision who is not the applicant, a clear and concise statement of how that person is aggrieved by the issuance of his permit.

FILING FEE AND ADDRESS

The hearing request, together with a valid check, payable to the Commonwealth of Massachusetts in the amount of \$100 must be mailed to:

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

The request shall be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below.

EXEMPTIONS

The filing fee is not required if the appellant is a municipality (or municipal agency), county, district of the Commonwealth of Massachusetts, or a municipal housing authority.

WAIVER

MassDEP may waive the adjudicatory hearing filing fee for any person who demonstrates to the satisfaction of MassDEP that the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request, an affidavit setting forth the facts which support the claim of undue hardship.



Duane LeVangie
Water Management Program Chief
Bureau of Water Resources

4/6/2022

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 topsoil with a high water- retention rate;
 - h) the implementation of a program to encourage the use of cisterns or rain barrels for outside watering;
 - i) the implementation of monthly or quarterly billing.
4. A schedule for implementation; and
5. An analysis of how the planned actions will address the specific circumstances that resulted in the failure to meet the performance standard.

If the permittee is already implementing one or more of these programs, it must include in its RGPCD plan the continued implementation of such program(s), as well as implementation of at

least one additional program. All programs must include a public information component designed to inform customers of the program and to encourage participation in the program.

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

If a RGPCD plan is required, the permittee must:

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

Appendix B – Functional Equivalence: 10% Unaccounted for Water Performance Standard

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

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

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

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

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

However, these small systems can benefit from developing reliable data and conducting an annual top down water audit. Small systems can rely on the real losses (gallons per mile of main

per day) performance indicator developed in the water audit as a measure of real water loss when developing a water loss control program. The M36 Manual discusses the audit process for small systems and includes a chapter to guide small systems in understanding the results of their audits and in developing a water loss control program (*Manual of Water Supply Practices – M36, Fourth Edition, Chapter 9: Considerations for Small Systems*, pp. 293-305).

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

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

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

A permittee's hardship analysis shall:

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

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

Appendix C – Operation and Management of the Assawompsett Pond Complex

As pertaining to the Division of Marine Fisheries' (DMF) Fisheries Management Plan for Herring, the following activities take place annually or as needed by the Assawompsett Workgroup to facilitate the natural migration of fish. The workgroup consists of the following cities, towns, and entities: New Bedford, Taunton, Lakeville, Middleborough, Freetown, Rochester, the Lakeville-Middleborough Herring Fisheries Committee, and the Division of Marine Fisheries. The overarching goal of the plan is to determine a schedule of activities to be taken at specific water levels to ensure that the reservoir system is operated to be protective of anadromous fisheries.

1. Screens are placed and maintained in the gatehouse between Great Quitticas and Little Quitticas ponds during herring migration season, usually March through December. The screens are not removed until approval has been given by the Director of DMF. These screens keep herring out of Little Quitticas Pond where they would be in danger of being sucked up into the intake pipes.
2. The Middleborough Herring Commission shall perform a manual herring count annually.
3. Upon the request of DMF, the gates between Great and Little Quitticas are closed to allow Great Quitticas to increase in level and cause water to flow into Pocksha Pond. This provides young herring a better opportunity of getting out of Great Quitticas Pond.
4. When pond levels are low enough, heavy equipment can be brought in to remove sand from the Great Quitticas /Pocksha spillway and from the Assawompsett Pond Dam. All work is to be done in conjunction with the Middleborough Conservation Commission.
5. Wooden baffles are placed in the fish ladder at the Assawompsett Pond Dam to aid in the passage of adult herring from the river to the ponds. Monitoring of the fish ladder at the Assawompsett Pond Dam shall be conducted to allow for the safe passage of fish and observe the quantities of fish utilizing the structure. Maintain adequate levels in Assawompsett Pond during the Spring and Fall seasons to allow for the passage of fish to and from the Nemasket River.
6. Pond level data at New Bedford's intake point shall be collected and provided to MassDEP each year with New Bedford's Annual Statistical Report (ASR). Historic data dating back to 2010 shall be provided to MassDEP and the Division of Marine Fisheries in a separate filing within 6 months of issuance of this permit. An update to the Operation and Management of the Assawompsett Pond Complex plan by the Assawompsett Workgroup shall be completed and submitted to MassDEP by December 31, 2022. If no changes have been made to the plan by December 31, 2022, MassDEP shall be notified with a revised schedule for submittal.