

Department of Environmental Protection

100 Cambridge Street 9th Floor Boston, MA 02114 • 617-292-5500

Maura T. Healey Governor

Kimberley Driscoll Lieutenant Governor Rebecca L. Tepper Secretary

> Bonnie Heiple Commissioner

January 14, 2025

Lee Board of Public Works 32 Main Street Lee, MA 02130 RE: Lee\ BWR\WMA WMA Permit #: 9P2-1-02-150.03 Program: Water Management Act Action: Permit Renewal

Dear Public Works Board Members:

Please find attached the following:

- Findings of Fact in Support of the Water Management Act Permit Decision; and,
- Renewed Water Management Act Permit **#9P2-1-02-150.03** for the Lee Water Department in the Housatonic River Basin.

If you have any questions and would like to meet to discuss the permit, please contact me at (617) 780-1962 or <u>duane.levangie@mass.gov</u>.

Sincerely,

Onane hellaugie

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

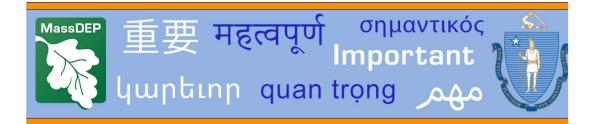
Enclosures

Ecc: Lydia Olson, Massachusetts Rivers Alliance Jennifer Pederson, Massachusetts Water Works Association Michael Towler, Lee Water Department Anne Carroll, DCR Dan Hall, MassDEP WERO Andrew Kelly, MassDEP WERO

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https://massgov.sharepoint.com/:f:/r/sites/DEP-BWR/DWPArchive/WERO/Lee-1150000-WMA Final Permit-1-14-2025

DEP BWR - Lee- Lee Water Department - All Documents - Lee-1150000-WMA Final Permit-1-14-2025



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.

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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

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ប្រទេសកម្ពុជា Khmer/Cambodian

ឯកសារនេះមានសារ:សំខាន់ ហើយកប្បីគួរត្រូវបានបកប្រែភ្លាមៗ។ ប្រសិនបើអ្នកត្រូវការអោយឯកសារនេះបកប្រែ សូមទាក់ទងនាយកផ្នែកយុត្តិធម៌បរិស្ថានរបស់ MassDEPតាមរយ:លេខទូរស័ព្ទដែលបានរាយដូចខា ងក្រោម។

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.

Contact Deneen Simpson 857-406-0738 Massachusetts Department of Environmental Protection 100 Cambridge Street 9th Floor Boston, MA 02114 TTY# MassRelay Service 1-800-439-2370 • <u>https://www.mass.gov/environmental-justice</u> (Version revised 8.2.2023) 310 CMR 1.03(5)(a)

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Arabic العربية

هذه الوثيقة مهمة وتجب ترجمتها على الفور

إذا كنت بحاجة إلى ترجمة هذه الوثيقة، فيرجى الاتصال بمدير العدالة البيئية فيMassDEP 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.

hայերեն Armenian

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

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

Contact Deneen Simpson 857-406-0738 Massachusetts Department of Environmental Protection 100 Cambridge Street 9th Floor Boston, MA 02114 TTY# MassRelay Service 1-800-439-2370 • <u>https://www.mass.gov/environmental-justice</u> (Version revised 8.2.2023) 310 CMR 1.03(5)(a)



Department of Environmental Protection

Maura T. Healey Governor

Kimberley Driscoll Lieutenant Governor Rebecca L. Tepper Secretary

> Bonnie Heiple Commissioner

Finding of Fact in Support of Permit Issuance Water Management Permit # 9P2-1-02-150.03 TOWN OF LEE

100 Cambridge Street 9th Floor Boston, MA 02114 • 617-292-5500

The Department of Environmental Protection (the Department or MassDEP) has completed its review of the May 27, 2015 permit renewal application submitted by the Lee Water Department (Lee or the Town). As part of this review, the Department reviewed Lee's compliance with the Town's existing WMA Permit originally issued in December 2001 and last modified on September 6, 2007 (the 2007 WMA Permit)¹. The Department requested additional information in an Order to Complete (OTC) dated May 14, 2024. The Town responded to the OTC on June 18, 2024.

The Department issues the Renewed Water Management Permit #9P2-1-02-150.03 (the "Renewed WMA Permit") in accordance with the Water Management Act (M.G.L. c. 21G) and the regulations promulgated thereunder at 310 CMR 36.00. The Renewed WMA Permit supersedes the 2007 WMA Permit. The Department makes the following Findings of Fact in support of the attached Renewed WMA Permit and includes herewith its reasons for issuing the Renewed WMA Permit and for conditions of approval imposed, as required by M.G.L. c. 21G, § 11, and 310 CMR 36.00. The Renewed WMA Permit is being issued since such action is necessary for the promotion of the purposes of M.G.L. c. 21G. The Department may amend, suspend, or terminate the Renewed WMA Permit, after notice and hearing, in accordance with the provisions of 310 CMR 36.29(1).

Lee's Withdrawal History

Lee holds a Water Management Act Registration (10215003) for an average annual daily withdrawal volume of 1.13 million gallons per day (MGD) from two surface water sources in the Housatonic River Basin: Upper Reservoir (1150000-01S) and Vanetti Reservoir (1150000-02S). In December 2001, the Department issued a Water Management Act Permit to Lee. This permit authorized Lee to withdraw water from an additional surface water source: Schoolhouse Reservoir (1150000-03S). This permit which was modified in 2007 did not authorize an increase in the withdrawal volume (1.13 MGD) set forth in the Town's Registration Statement. On May 27, 2015, Lee filed an application to renew its permit.

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¹ The 2007 WMA Permit was erroneously given the permit number 9P2-1-02-150.04 instead of the correct number 9P2-1-02-150.03. The Renewed WMA Permit corrects that error and lists the permit number as 9P2-1-02-150.03.

From 2019 through 2022, Lee's annual average daily withdrawals were substantially less than its total authorized average annual daily withdrawal volume, 1.13 MGD. See Table 1.

In 2023, Lee's annual average daily withdrawal volume increased to 1.05 MGD, 0.16 MGD above the prior year's annual average daily withdrawal volume. In the 2023 Annual Statistical Report (ASR), Lee reported that its Unaccounted for Water (UAW) had increased to 35%. Lee also stated it had discovered and repaired several leaks. In addition, Lee stated that it noticed that nighttime volumes were unusually high suggesting the need for further leak detection and repair. As more fully set forth below, the Renewed WMA Permit will require Lee to perform a full leak detection survey and to take additional action to reduce its UAW.² As a result, MassDEP has determined that it is unlikely that Lee will exceed its current total authorized volume of 1.13 MGD before the Renewed WMA Permit expires on May 31, 2032.

Table I Recent Water Ose		
Year	Annual Average Daily Withdrawal in MGD	
2023	1.05	
2022	0.89	
2021	0.75	
2020	0.68	
2019	0.71	

Table 1 Recent Water Use

MassDEP revised the Water Management Act Regulations, 310 CMR 36.00, in November 2014 to require permittees where applicable to address the impact of its withdrawals on coldwater fisheries, groundwater depleted subbasins and withdrawals that exceed a defined baseline withdrawal volume.

Permit Expiration Date

The Renewed WMA Permit will be in effect until May 31, 2032 in accordance with the schedule set forth in the Water Management Act Regulations, 310 CMR 36.17.

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

The Water Management Act (Act) requires 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,

² See discussion of Special Condition 5.

hydropower resources, water-based recreation, wetland habitat, fish and wildlife, agriculture, flood plains; and

• Reasonable economic development and job creation.

Safe Yield in the Housatonic River Basin

This Renewed WMA Permit is being issued under the safe yield methodology adopted by the Department on November 7, 2014, and described in the regulations at 310 CMR 36.13. As of the date of issuance of this permit, the safe yield for the Housatonic River Basin is 96.40 MGD, and total registered and permitted withdrawals are 31.01 MGD. The maximum withdrawals authorized in this permit, and all other permits currently under review by the Department within the Housatonic River Basin, will be within the safe yield and may be further conditioned as outlined in the regulations. The Renewed WMA Permit is not allocating any increase in the total authorized volume, so this permitting decision is not changing the current allocated volume in the Housatonic River Basin.

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

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

Special Condition 1: Maximum Authorized Annual Average Withdrawal Volumes

Like the 2007 WMA Permit, Special Condition 1 of the Renewed WMA Permit does not authorize Lee to withdraw more from its surface water sources in the Housatonic River Basin than the 1.13 MGD authorized by the Town's Registration.³

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

Special Condition 2 of the 2007 WMA Permit sets out the MassDEP approved firm yield rates for Lee's permitted source, Schoolhouse Reservoir. The maximum annual average approved daily rate is 0.966 MGD, and the maximum monthly average rate is 1.45 MGD. Special Condition 2 of the Renewed WMA Permit maintains that condition.

Special Condition 3: Surface Water Source Protection

Special Condition 3 of the 2007 WMA Permit required Lee to develop a surface water protection plan for the Schoolhouse Reservoir and to exercise Best Efforts with regard to the portion of the Zone A that extends into the Town of Washington. Special Condition 3 of the Renewed WMA Permit continues to require Lee to exercise Best Efforts with regard to the portion of the Zone A of the Schoolhouse Reservoir that extends into the Town of Washington.

Special Condition 4: Performance Standard for Residential Gallons Per Capita Day Water Use

³ See discussion of Lee's Recent Withdrawal History.

Special Condition 4 of the 2007 WMA Permit establishes a Performance Standard for Residential Gallons Per Calendar (RGPCD) of 80 gallons per day (gpd). The Renewed WMA Permit establishes a RGPCD Performance Standard of 65 gpd. Since 2019, Lee has been in compliance with the RGPCD Performance Standard of 65. See Table 2.

Year	Residential Gallons Per Calendar Day (RGPCD)	Unaccounted for Water (UAW) %
2023	36	35.0
2022	45	27.5
2021	46	10.5
2020	56	4.1
2019	65	6.9

Table 2 Residential Gallons Per Calendar Day and Unaccounted for Water

Special Condition 5: Performance Standard for Unaccounted for Water (UAW)

Special Condition 5 of the 2007 WMA Permit established an Unaccounted for Water (UAW) Performance Standard of 15%. The Renewed WMA Permit will set the UAW Performance Standard at 10% and will require that Lee comply with the 10% UAW Performance Standard for two out of every three years. Special Condition 5 of the Renewed WMA Permit provide that if Lee fails to meet this requirement, Lee will have to meet the Functional Equivalence Requirements based on the AWWA/IWA Water Audits and Loss Control Programs, Manual of Water Supply Practices as set forth Appendix B.

In its 2023 ASR, Lee reported that its UAW was 35%. In response to the OTC, Lee stated that its high UAW was due to several small leaks and the conversion of an old paper mill to housing. Lee also noted that its night water flows were high and that a full leak detection survey of the entire distribution system was needed. Special Condition 5 of the Renewed WMA Permit provides that on or before May 31, 2025, Lee shall conduct the necessary full leak detection survey and report the results of that survey to Mass DEP.

Lee has exceeded the 10% UAW Performance Standard for the past three years. See Table 2. As a result, Special Condition 5 of the Renewed WMA Permit requires that beginning in the 2025 calendar year Lee shall meet the Functional Equivalence Requirements based on the AWWA/IWA Water Audits and Loss Control Programs, Manual of Water Supply Practices as set forth in Appendix B.

Special Condition 6: Water Conservation Requirements

Special Condition 6 of the 2007 WMA Permit sets out the water conservation requirements that the Town is required to meet. These requirements include metering, water main flushing, leak detection and repair, and requirements pertaining to pricing, enforcement of the plumbing code, plumbing in public buildings, and education. The Renewed WMA Permit revises the water conservation requirements to reflect the standards outlined in the Massachusetts Water Resources Commission's *Water Conservation Standards as revised in July 2018*.

Special Condition 7: Reporting Requirements

Town of Lee Renewed Water Management Act Permit January 14, 2025 #9P2-1-02-150.03

Special Condition 7 of the 2007 WMA Permit requires the Town to report annually in its ASR its raw water volumes and finished water volumes for the entire water system and its raw water volumes for individual withdrawal points. The Town has complied with this requirement. The Renewed WMA maintains that condition.

NEW PERMIT CONDITIONS

The Renewed WMA Permit includes new conditions that reflect the changes in the WMA regulations that were made in 2014.

Special Condition 8: Seasonal Limits on Nonessential Outdoor Water Use

Special Condition 8 of the Renewed WMA Permit requires Lee to implement restrictions on nonessential outdoor water use during the May 1st through September 30th irrigation season. The restrictions are based on:

- The permittee's compliance with the RGPCD Performance Standard during the preceding year; and
- The permittee's choice to implement restrictions either continuously throughout the irrigation season, or only when streamflow falls below trigger levels at an assigned USGS local stream gage.

Each year, Lee may choose one of two options for implementing nonessential outdoor watering restrictions:

1. <u>Calendar triggered restrictions:</u> Restrictions shall be implemented from May 1st through September 30th. Many public water suppliers will find this option easier to implement and enforce than the streamflow triggered approach.

2. <u>Streamflow triggered restrictions:</u> Restrictions shall be implemented at those times when streamflow falls below designated flow triggers measured at an assigned webbased, real-time U.S. Geologic Survey (USGS) stream gage from May 1st through September 30th. At a minimum, restrictions shall commence when streamflow falls below the trigger for three consecutive days. Once implemented, the restrictions shall remain in place until streamflow at the assigned USGS local stream gage meets or exceeds the trigger streamflow for seven consecutive days. The streamflow triggers are based on flow levels that are protective of habitat for fish spawning during the spring and for fish rearing and growth during the summer.

If Lee selects the streamflow approach, it has been assigned the USGS local stream gage of #01197500-Housatonic River at Great Barrington, MA. The local gage streamflow triggers at this site are 257 cubic feet per second (cfs) for May and June and 124 cfs for July, August, and September. Should the reliability of flow measures at the Housatonic River gage be so impaired as to question its accuracy, Lee may request MassDEP's review and approval to transfer to another gage to trigger restrictions. MassDEP reserves the right to require use of a different gage.

<u>The 7-Day Low flow Trigger</u>, 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 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 the Housatonic River at Great Barrington, MA gage is 68 cfs.

Lee may choose to implement limits on nonessential outdoor water use that are stricter than those required by Renewed WMA Permit. This permit condition does not confer enforcement authority on Lee.

Special Condition 8 of the Renewed WMA Permit requires Lee to update its bylaw governing nonessential outdoor water use to align with the required seasonal restrictions on nonessential outdoor water use as soon as possible but no later than May 1, 2025.

Coldwater Fishery Resources

Coldwater Fisheries Protection was incorporated into the Water Management Act Regulations in November 2014. Permittees with sources that may impact coldwater fishery resources (CFRs) are required to evaluate options for shifting withdrawals from these sources to the permittee's other sources (310 CMR 36.22(4)). A CFR, Washington Mountain Brook, has been identified in subbasin 27016, upstream and downstream of the Schoolhouse Reservoir.

To assess the impact that withdrawals from Schoolhouse Reservoir may have on Washington Mountain Brook, MassDEP consulted with the Department of Fisheries and Wildlife (DFW). DFW informed MassDEP that Washington Mountain Brook is currently a good trout stream. DFW's concerns about the potential impact of water withdrawals from Schoolhouse Reservoir centered on Lee beginning to withdraw the total volume it is authorized to withdraw from Schoolhouse Reservoir or withdrawals that would occur in the event of a severe drought. MassDEP researched both possibilities.

A review of Lee's 2021 Sanitary Survey identified that it is very unlikely that Lee would ever withdraw its total authorized volume from Schoolhouse Reservoir. The water from this source has very high levels of iron and manganese and is typically blended with water from the Leahy Reservoir prior to treatment at a ratio of 25% (Schoolhouse Reservoir) /75% (Leahy Reservoir). Lee has to apply additional chemicals in the treatment process whenever water from the Schoolhouse Reservoir is used.

The Schoolhouse Reservoir was first permitted in 2001 and replaced an intake from Washington Mountain (WM) Brook. The WM Brook intake was removed when the Schoolhouse Reservoir was put into use. So, it is unlikely that the use of the Reservoir, a source of water for WM Brook, in place of a direct intake from the WM Brook, would have greater impact on this CFR.

A review of Lee's water use since 2019 shows that although Schoolhouse Reservoir has an approved yield of 0.966 MGD, the maximum withdrawal rate for the last five years has not exceeded 0.250 MGD. That was true even during the drought year of 2022.

Moreover, there is little that Lee can do to protect this CFR. Lee does not control the spillway. It is under the control of the Department of Conservation and Recreation (DCR). As a result, MassDEP concluded that at this time there was no need to include a condition in the Renewed WMA Permit requiring Lee to plan to optimize protection of the WM Brook CFR. MassDEP shared this conclusion and the research on which it is based with both DCR and DFW. Both agencies concurred with this conclusion. As a result, the Renewed WMA Permit does not contain a permit condition requiring optimization of protection of the WM Brook CFR.

Minimization

Minimization of Groundwater Withdrawal Impacts was incorporated into the Water Management Act Regulations in November 2014. Permittees with groundwater sources in subbasins having August net groundwater depletion of 25% or greater are required to evaluate options for minimizing the impact of its withdrawals on groundwater depleted subbasins. The Renewed WMA Permit does not require Lee to implement minimization, because the Town has no groundwater sources.

Mitigation

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:

- 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.

Baseline withdrawal volumes are calculated for each individual basin as well as a system-wide baseline.

Permittees who request a total authorized volume that exceeds their baseline volume are required to prepare a plan to mitigate the volume requested above the baseline volume. Lee's baseline is 1.13 MGD, its registered volume. Lee has not requested a permitted volume in excess of its registered volume, and the Renewed WMA Permit does not include a permitted volume in excess of the Town's registered volume. As a result, the Renewed WMA Permit does not require the Town to develop and implement a mitigation plan.

Response to Comments.

The Draft Renewed WMA Permit was noticed in the Massachusetts Environmental Monitor for public comment from October 23, 2024 to November 25, 2024. On November 25, 2024, the Massachusetts Rivers Alliance (MassRivers) submitted comments on the Draft Renewed WMA Permit.

In its comments, MassRivers expressed the concern that Lee's unaccounted for water (UAW) was greater than 10% in 2021, 2022, and 2023. In response to Lee's high UAW, MassDEP required Lee to perform a full leak detection survey and to meet the Functional Equivalence Requirements. MassRivers stated it was happy with MassDEP's response and urged MassDEP to impose penalties on Lee in the event that the Town fails to comply with these requirements.

MassDEP expects Lee to comply with the Functional Equivalence Requirements, the leak detection requirement and all the other terms and conditions of the Renewed WMA Permit. The decision to take a particular enforcement action in response to a possible future failure to comply with a permit condition is within the sole discretion of MassDEP and is outside the scope of this individual permitting decision.

In its comments, MassRivers criticizes MassDEP's safe yield methodology, a methodology that determines safe yield on an annual time step and at the major basin level rather than a subbasin level.⁴ MassRivers suggests that if safe yield were determined at the subbasin level, it is likely that Lee's withdrawals would exceed the safe yield of subbasin 27065, the subbasin in which Lee's registered sources are located⁵. MassRivers makes this suggestion although it knows that it is outside the scope of MassDEP's current regulations and policies and outside the scope of this individual permitting decision.

MassRivers also requests that MassDEP require Lee to implement minimization and mitigation measures although the Water Management Regulations, 310 CMR 36.22(5) and (6), make it clear that minimization requirements do not apply to permittees like Lee that do not have any groundwater sources and mitigation requirements do not apply to permittees like the Town that are not requesting more than their baseline volume.

MassDEP is aware that MassRivers is advocating changes in the safe yield methodology and the Water Management Regulations. Changing existing policies and regulations is an issue outside the scope of this individual permitting decision.

MassRivers also requests that MassDEP require Lee to conduct an alternative source evaluation to see if there are sources in addition to Lee's existing surface water sources that Lee can access to fill its needs without impacting a Coldwater Fish Resource (CFR). The Water Management Regulations, 310 CMR 36.22(4), describe the required Coldwater Fish Resource (CFR) optimization review as an evaluation of options for shifting withdrawals to the permittee's other sources to minimize the impact on CFR resources. As MassRivers acknowledges in its comments, all of Lee's existing sources have the potential to impact a CFR. In this situation, there is no reason to require the CFR optimization review envisioned in the regulations, since there are no options to review.

⁴ See 310 CMR 26.13(1) and definition of Water Source in 310 CMR 36.03.

⁵ The regulatory response to exceeding safe yield is for MassDEP to refrain from permitting any additional withdrawals from the basin. See 310 CMR 3613(2) In this case, Lee's total authorized volume is its registered volume. It has no permitted withdrawal volume that would be reduced or eliminated in response to an exceedance of safe yield.

In addition to the alternative source evaluation⁶, MassRivers also requests that the Department require Lee to conduct a study of Codding Brook and Commons Brook⁷, two water bodies that may be impacted by the Town's registered sources. Requiring this study and the alternative source evaluation proposed by MassRivers would exceed MassDEP's authority under the Water Management Regulations.

Although it does not include the measures recommended by MassRivers⁸, the Renewed WMA Permit contains many provisions aimed at reducing UAW and water demand, measures that will reduce the volume of Lee's withdrawals and thus the impact of Lee's withdrawals on CFRs. These measures include more stringent performance standards for residential gallons per calendar day and UAW, the Functional Equivalence Requirements, leak detection and repair, updated water conservation requirements, and seasonal restrictions on nonessential outdoor water use. Compliance with these requirements should reduce the volume of Lee's withdrawals and thus the impact of Lee's withdrawals.

⁶ The Water Management Regulations, 310 CMR 36,22(7), require a permittee with groundwater sources, withdrawals above their baseline volume and withdrawals that will change the biological or groundwater category of the subbasin where the source is located are required to demonstrate that there is no feasible alternative source. Since Lee has no groundwater sources and no withdrawals above baseline, this requirement does not apply.

⁷The Water Management Regulations, 310 CMR 36.20, provide that a permittee may conduct a site specific fish community assessment to demonstrate that a permittee need not continue to perform the required minimization activities to protect the fluvial fish population. Without groundwater sources, Lee is not subject to the minimization requirement and thus this option is not relevant to Lee's Renewed WMA Permit.

⁸ These measures were discussed earlier in the Response to Comments and include minimization and mitigation requirements, an alternative source evaluation, and a study of Codding and Common Brook.



Department of Environmental Protection

100 Cambridge Street 9th Floor Boston, MA 02114 • 617-292-5500

Maura T. Healey Governor

Kimberley Driscoll Lieutenant Governor Rebecca L. Tepper Secretary

> Bonnie Heiple Commissioner

WATER WITHDRAWAL PERMIT TOWN OF LEE MGL c 21G

This permit is issued pursuant to the Massachusetts Water Management Act for the sole purpose of authorizing the withdrawal of a volume of water as stated below and subject to the following special and general conditions. This permit conveys no right in or to any property beyond the right to withdraw the volume of water for which it is issued.

PERMIT NUMBER: 9P2-1-02-150.03

RIVER BASIN: Housatonic

PERMITTEE: Town of Lee

EFFECTIVE DATE: January 14, 2025

PERMIT EXPIRATION DATE: May 31, 2032

NUMBER OF WITHDRAWAL POINTS:

Surface Water: 1

USE: Public Water Supply

DAYS OF OPERATION: 365

SOURCES

Table 1: Withdrawal Point Identification

Withdrawal Point	PWS Source ID Code	
Schoolhouse Reservoir	1150000-03S	

This information is available in alternate format. Please contact MassDEP at 617-292-5500. TTY# MassRelay Service 1-800-439-2370 MassDEP Website: www.mass.gov/dep

Printed on Recycled Paper

SPECIAL PERMIT CONDITIONS

Special Condition 1: Maximum Authorized Annual Average Withdrawal Volume

Lee has two registered surface water sources in the Housatonic River Basin: Upper Reservoir (1150000-01S)⁹ and Vanetti Reservoir (115000-02S). Lee is authorized to withdraw 1.13 million gallons per day (MGD) from its two registered sources. The 2007 WMA Permit authorized Lee to use a new source: the Schoolhouse Reservoir (1150000-03S) but did not increase Lee's total authorized volume above the 1.13 MGD set forth in its registration. The Renewed WMA Permit takes the same approach. This permit authorizes the Lee Water Department (Lee or the Town) to withdraw water from its sources in the Housatonic River Basin at the rate described below (Table 2). This rate reflects the 1.13 MGD previously authorized to Lee under Water Management Act Registration #1-02-150.03. The total authorized volume is expressed both as an annual average daily withdrawal rate (million gallons per day or MGD), and as a total annual withdrawal volume (million gallons per year or MGY) for each permit period of the permit term.

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

	Total Raw Water Withdrawal Volumes			
	Permit		Permit + Registration	
Permit Periods	Daily Average (MGD)	Total Annual (MGY)	Daily Average (MGD)	Total Annual (MGY)
1/14/2025 to 5/31/2027	0	0	1.13	412.45
6/1/2027 to 5/31/2032	0	0	1.13	412.45

Table 2: Maximum Authorized Annual Withdrawal Volumes

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

Withdrawals from individual withdrawal points are not to exceed the approved maximum daily volumes listed in Table 3 without specific advance written approval from MassDEP. The authorized maximum daily volume is the approved rate of each source. In no event shall the combined withdrawal volumes from the individual withdrawal points exceed the withdrawal volumes authorized above in Special Condition 1.

⁹ The Upper Reservoir is referred to as the Leahy Reservoir in the 2007 WMA Permit .

)	
Source	Source Code	Maximum Annual	Maximum Monthly
		Average	Average
		Withdrawal Rate ¹⁰	Withdrawal Rate ¹¹
Schoolhouse Reservoir	115000-03S	0.966 MGD	1.45 MGD

Table 3: Maximum Daily Withdrawal Volumes

Special Condition 3: Surface Water Supply Protection

Lee shall continue to meet the requirements of 310 CMR 22.20C(1)(d)(4) by exercising Best Efforts to encourage the Town of Washington to enact surface water protection measures to protect the portion of the Zone A of the Schoolhouse Reservoir that is located within Washington.

Special Condition 4: Performance Standard for Residential Gallons Per Capita Day Water Use

Lee's Performance Standard for residential gallons per capita day (RGPCD) is 65 gallons. Lee is required to report its RGPCD water use annually in its Annual Statistical Report (ASR) and document compliance with this Performance Standard in its ASR. The Town shall report its RGPCD and the calculations to derive that figure as part of its ASR including without limitation the source of the data used to establish the service population and the year in which the data was developed. See Appendix A for additional information on the requirements if the Performance Standard for RGPCD is not met.

Special Condition 5: Performance Standard for Unaccounted for Water

Lee'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. If Lee does not meet this standard, it shall be in compliance with the Functional Equivalence Requirements based on the AWWA IWA Water Audits and Loss Control Programs, Manual of Water Supply Practices as outlined in Appendix B.

On or before May 31, 2025, Lee shall complete a full leak detection survey of the entire distribution system and submit to MassDEP a report to documenting the results of that survey. Beginning in calendar year 2025, Lee shall comply with the Functional Equivalence Requirements. based on the AWWA IWA Water Audits and Loss Control Programs, Manual of Water Supply Practices as outlined in Appendix B. Lee shall continue to meet the Functional Equivalence Requirements including implementation of the water loss control program until it meets the preconditions for discontinuing this effort set forth in Appendix B.

¹⁰ The maximum annual average withdrawal rate is based on the reservoir predicted firm yield.

¹¹ The maximum monthly average withdrawal rate is based on the Firm Yield Estimator reservoir release model. The monthly maximum reflects factors used in the Firm Yield Estimator model that simulate variation in monthly reservoir release management. Adherence to a simulated release management regime is essential to sustaining adequate reservoir release and Aquatic Base Flow in the stream fed by reservoir releases.

Lee is required to report its UAW in its ASR so as to document compliance with this Performance Standard. Lee's ASR shall include the calculation to derive that figure including without limitation the source of data used, the methodology for calculating UAW and any assumptions used in making the calculation.

Special Condition 6: Water Conservation Requirements

At a minimum, Lee shall implement the following conservation measures. Compliance with the conservation requirements shall be reported to MassDEP upon request unless otherwise noted in Table 4.

Table 4: Minimum Water Conservation Requirements

System Water Audits and Leak Detection

Lee shall complete a leak detection survey on the entire distribution system before May 31, 2025. Thereafter, Lee shall conduct a leak detection surveys on the entire distribution system every two years.

Lee shall perform a leak detection survey of the entire distribution system within one year whenever the percentage of unaccounted for water 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, Lee shall submit to MassDEP for its review a report detailing the leak detection 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.

Lee shall conduct field surveys for leaks and repair programs in accordance with the American Water Works Association Manual <u>36</u>.

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

Metering

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

Lee reports that its system is not yet 100% metered and that it is working to make its system 100% metered. Within 30 days of the effective date of the Renewed WMA **Permit**, Lee shall submit to MassDEP a list of all consumers whose water use is not

Table 4: Minimum Water Conservation Requirements

metered and a plan and schedule for achieving compliance with the 100% metered stand within 11 months. On or before the one-year anniversary of the effective date of the Renewed WMA Permit, Lee shall meet the 100% metered standard and submit to MassDEP a report documenting all actions taken to achieve compliance with this standard.

Lee shall have an ongoing program to inspect and install individual service meters to ensure that all service meters accurately measure the volume of water used by your customers. The metering program shall include regular meter maintenance, including testing, calibration, repair, replacement and checks for tampering to identify and correct illegal connections. The plan shall continue to include placement of sufficient funds in Lee's annual water budget to calibrate, repair, or replace meters as necessary.

Pricing

Lee shall continue to implement full cost pricing. Lee shall continue to bill at least quarterly. Lee reports that it is in the process of evaluating its rates.

Lee shall continue its practice of not using decreasing block rates. Decreasing block rates which charge lower prices as water use increases during the billing period, are not allowed by M.G.L. Chapter 40 Section 39L.

Residential and Public Sector Conservation

Lee shall continue to meet the standards set forth in the Federal Energy Policy Act, 1992 and the Massachusetts Plumbing Code.

Lee shall continue to meter or estimate water used by contractors using fire hydrants for pipe flushing and construction.

Lee reports that all public buildings are equipped with water saving devices. Lee shall continue to provide advice to municipal officials on water conservation in Municipal buildings.

Industrial and Commercial Water Conservation

Lee shall implement an outreach program designed to inform and (where appropriate) work with its largest industrial, commercial and institutional water users on ways to reduce their water use, Such outreach plans can include, but are not limited to: information on water audits, meter sizing, water reuse, low-flow plumbing fixtures, mandatory outdoor water use restrictions, suggestions for contacting trade associations for process specific information on water use reductions, and information on contacting the Executive Office of Environmental Affairs Office of Technical Assistance for Toxics Use Reduction (OTA) which offers a range of assistance and information to help facilities improve water use efficiency and reduce wastewater discharge. OTA can be contacted at (617) 626-1060 or at www.mass.gov/envir/ota.

Upon request by MassDEP, Lee shall report on industrial, commercial and institutional water conservation including the results of its review of water use records for industrial, commercial and institutional water users, the inventory of the largest water users, copies of any outreach materials distributed to industrial, commercial and institutional water users, and to the extent practical, a summary of water use reductions or savings that have resulted. Upon receipt of this report, MassDEP will take whatever action it deems appropriate to promote the interests of the Water Management Act, including without

Table 4: Mini	mum Water Con	servation Requirements
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limitation, requiring Lee DPW to take additional actions to reduce industrial, commercial and institutional water use.

Lawn and LandscapeLee shall adopt a water use restriction bylaw, ordinance or regulation as soon as possiblebut no later than May 1, 2025 to align with the required seasonal restrictions onnonessential outdoor water use.

Public Education and Outreach

Lee shall continue to implement a Water Conservation Education Plan. Lee's Water Conservation Education Plan shall be designed to educate the Towns's water customers on ways to conserve water. Without limitation, Lee's plan may include the following actions:

- Annual work sheets included in water bills or under separate cover 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;
- Partner with garden clubs, or other private and non-profit organizations to promote efficient water use;
- Provide information on water-wise landscaping, gardening, efficient irrigation, and lawn care practice;
- Public service announcements; radio/T.V./audio-visual presentations;
- o Joint advertising with hardware stores to promote conservation devices;
- Water conservation workshops for the general public;
- 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.

Upon request of MassDEP, Lee shall report on its public education and outreach effort, including a summary of activities developed for specific target audiences, any events or activities sponsored to promote water conservation and copies of written materials.

Special Condition 7: Requirement to Report Raw and Finished Water Volumes

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

Special Condition 8: Seasonal Limits on Nonessential Outdoor Water Use

Lee shall limit nonessential outdoor water use through mandatory restrictions from May 1st through September 30th as outlined in Table 5 below. Lee shall be responsible for tracking

steamflow gages and recording and reporting when restrictions are implemented if triggered restrictions are implemented.

Lee shall document compliance with the seasonal limits on nonessential outdoor water use annually in its ASR and indicate whether it anticipates implementing calendar triggered restrictions or USGS streamflow triggered restrictions during the next year.

Nothing in this Renewed WMA Permit shall prevent Lee from implementing water use restrictions that are more restrictive than those set forth in this permit.

Nonessential Outdoor Water Use and Water Use Restrictions

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.

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

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

The following uses may be allowed, before 9 A.M. and after 5 P.M. when mandatory

restrictions are in place:

- irrigation to establish a new lawn and new plantings during the months of May and September; and
- irrigation of lawns, gardens, flowers, and ornamental plants by means of a hand-held hose.

TABLE 5: Restrictions for Permittees meeting the 65 RGPCD Standard for the preceding year RGPCD \leq 65 as reported in the ASR and accepted by MassDEP

Calendar triggered restrictions

Nonessential outdoor water use is restricted to:

- a) seven (7) days per week before 9 A.M. and after 5 P.M.; and
- b) one (1) day per week before 9 A.M. and after 5 P.M.
 when USGS stream gage 01197500 –Housatonic River at Great Barrington, MA falls below 7day the low-flow statistic 68 cfs for three (3) consecutive days.

Once streamflow triggered restrictions are implemented, they shall remain in place until streamflow at the gage meets or exceeds **68 cfs** for seven (7) consecutive days.

Streamflow triggered restrictions

Nonessential outdoor water use is restricted to:

- a) **seven (7) days per week** before 9 A.M. and after 5 P.M. when USGS stream gage 01197500 –Housatonic River at Great Barrington, MA falls below:
 - May 1 June 30: **257 cfs** for three (3) consecutive days
 - July 1 September 30: **124 cfs** for three (3) consecutive days
- b) one (1) day per week before 9 A.M. and after 5 P.M.

when USGS stream gage 01197500 –Housatonic River at, Great Barrington MA falls below the 7-day low-flow statistic **68 cfs** for three (3) consecutive days.

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

Restrictions for Permittees NOT meeting the 65 RGPCD standard for the preceding year RGPCD > 65 as reported in the ASR and accepted by MassDEP

Calendar triggered restrictions

Nonessential outdoor water use is restricted to:

a) two (2) days per week before 9 A.M. and after 5 P.M.; and

b) one (1) day per week before 9 A.M. and after 5 P.M.

when USGS stream gage 01197500 –Housatonic River at Great Barrington, MA falls below 7day the low-flow statistic **68 cfs** for three (3) consecutive days.

Once streamflow triggered restrictions are implemented, they shall remain in place until streamflow at the gage meets or exceeds **68 cfs** for seven (7) consecutive days.

Streamflow triggered restrictions

Nonessential outdoor water use is restricted to:

- a) **two (2) days per week** before 9 A.M. and after 5 P.M. when USGS stream gage 01197500 Housatonic River at Great Barrington, MA falls below:
- May 1 June 30: **257 cfs** for three (3) consecutive days
- July 1 September 30: **124 cfs** for three (3) consecutive days
- b) **one** (1) **day per week** before 9 A.M. and after 5 P.M.

when USGS stream gage 01197500 –Housatonic River at Great Barrington, MA falls below 7day the low-flow statistic **68 cfs** for three (3) consecutive days.

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

Instructions for Accessing Streamflow Information

If Lee chooses Streamflow Triggered Restrictions, Lee 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 (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 proceeding day when tracking streamflows.

Mean daily streamflow gage readings are available at the USGS NWIS Web Interface at: <u>USGS</u> <u>Current Conditions for Massachusetts_Streamflow</u>

- Scroll down to #01197500 Housatonic River at Great Barrington, MA.
- Click on the gage number.
- Click on "Legacy Real-Time Page".
- Scroll down to "Provisional Data 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.

Lee 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 calendar year.

Public Notice of Water Use Restrictions

Lee 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 to customers shall include the following:

- A detailed description of the restrictions and penalties for violating the restrictions:
- The need to limit water use, especially nonessential outdoor water use, to ensure a sustainable drinking water supply and to protect natural resources and streamflow for aquatic life; and
- Ways individual homeowners can limit water use, especially nonessential outdoor water use.

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 Water Use Restrictions Form on the MassDEP website. Notice to MassDEP need not be provided if Lee has already implemented water use restrictions that conform to the applicable restrictions and those restrictions are still in force.

Lee shall update its Water Restriction Bylaw to include the restrictions on seasonal nonessential outdoor water use required by Special Condition 8 and submit a copy of those regulations to MassDEP as soon as possible and no later than May 1, 2025. Beginning May 1, 2025, or the date that the Town updates its Water Restriction Bylaw to include the restriction required by Special Condition 8, whichever first occurs, Lee shall commence implementation of the seasonal restrictions on nonessential outdoor water use required by Special Condition 8.

GENERAL PERMIT CONDITIONS (applicable to all permittees)

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

- 1. <u>Duty to Comply</u> 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. <u>Operation and Maintenance</u> 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. <u>Entry and Inspections</u> The permittee or the permittee's agent shall allow personnel or authorized agents or employees of the Department to enter and examine any property 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.** <u>Water Emergency</u> Withdrawal volumes authorized by this permit are subject to restriction in any water emergency declared by the Department pursuant to MGL c 21G ss 15-17, MGL c 111 ss 160, or any other enabling authority.
- 5. <u>Transfer of Permits</u> This permit shall not be transferred in whole or in part unless and until the Department approves such transfer in writing, pursuant to a transfer application 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 established by 310 CMR 36.37.
- 6. <u>Duty to Report</u> 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. Such report must be mailed or hand delivered to:

Department of Environmental Protection Water Management Act Program 100 Cambridge Street 9th Floor Boston, MA 02114

- 7. <u>Duty to Maintain Records</u> The permittee shall maintain withdrawal records and other information in sufficient detail to demonstrate compliance with this permit.
- 8. <u>Metering</u> If the withdrawal point included within the permit is not yet metered, it shall be metered within one year of the date of issuance of the permit. Meters shall be maintained and replaced as necessary to ensure the accuracy of the withdrawal records.

APPEAL RIGHTS AND TIME LIMITS

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 1.00 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 a Notice of Claim. No request for an appeal of this permit shall be validly filed unless a copy of the request is sent at the same time by certified mail, or delivered by hand, to the local water resources management official in the community in which the withdrawal point is located; and for any person appealing this decision, who is not the permit 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 the Department.

The Notice of Claim and supporting documentation must be sent to:

Town of Lee Renewed Water Management Act Permit January 14, 2025 #9P2-1-02-150.03

Case Administrator Office of Appeals and Dispute Resolution Department of Environmental Protection 100 Cambridge Street, 9th Floor Boston, MA 02114

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

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

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

Vurane hellaugie

Duane LeVangie Water Management Program Chief Bureau of Water Resources

January 14, 2025

Date

<u>Appendix A – Functional Equivalence with the 65 Residential Gallons Per Capita Day</u> <u>Performance Standard</u>

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

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

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

and may include, without limitation, the following:

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

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

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

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

If a RGPCD plan is required, the permittee must:

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

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

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

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

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

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

NOTE FOR SMALL SYSTEMS: For small systems with less than 3,000 service connections or a service connection density of less than 16 connections per mile of pipeline,

the Unavoidable Annual Real Loss (UARL) calculation and the Infrastructure Leak Index (ILI) developed as the final steps of the top down water audit may not result in valid performance indicators, and may not be comparable to the UARL and ILI calculations for larger systems.

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

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

- An annual water audit and leak detection survey, as described in the AWWA M36 Manual, of the entire system.
 - Within one year, repair 75% (by water volume) of all leaks detected in the survey that are under the control of the public water system;
 - Thereafter, repair leaks as necessary to reduce permittee's UAW to 10% or the minimum level possible.
- Meter inspection and, as appropriate, repair, replace and calibrate water meters:
 - <u>Large Meters</u> (2" or greater) within one year
 - Medium Meters (1" or greater and less than 2") within 2 years
 - <u>Small Meters</u> (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.

<u>Hardship</u> - 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 systemwide 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.