



Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs

Department of Environmental Protection

Address: 100 Cambridge Street, Suite 900, Boston MA 02114 | **Phone:** 617-292-5500

Maura T. Healey
Governor

Kim Driscoll
Lieutenant Governor

Rebecca Tepper
Secretary

Bonnie Heiple
Commissioner

Mr. Jared Phelps
Westover Municipal Golf Course
488 Chapin Street
Ludlow, MA 01056

September 16, 2026

RE: Water Management Act
WMA Permit #: #9P2-1-06-161.01
Action: WMA Permit Renewal

Dear Mr. Phelps:

Please find the attached documents:

- Findings of Fact in Support of the Water Management Act Permit # 9P2-1-06-161.01; and
- Water Management Act Renewed Permit # 9P2-1-06-161.01 (Connecticut River Basin) for the Westover Municipal Golf Course.

The DRAFT Renewal Permit was posted in the Public Notice section of the July 22, 2026, edition of the Massachusetts Environmental Policy Act (MEPA) Environmental Monitor. Notice of the Draft Renewal Permit was also sent to all WMA Registrants and Permittees in the Connecticut River Basin and to other interested parties offering a 30-day comment period. No comment was received.

The signature on this cover letter indicates formal issuance of the attached documents. If you have any questions regarding this information, please contact Linjun Yao at linjun.yao@mass.gov or (781) 686-3862, or me, Duane LeVangie, at duane.levangie@mass.gov or (617) 780-1962.

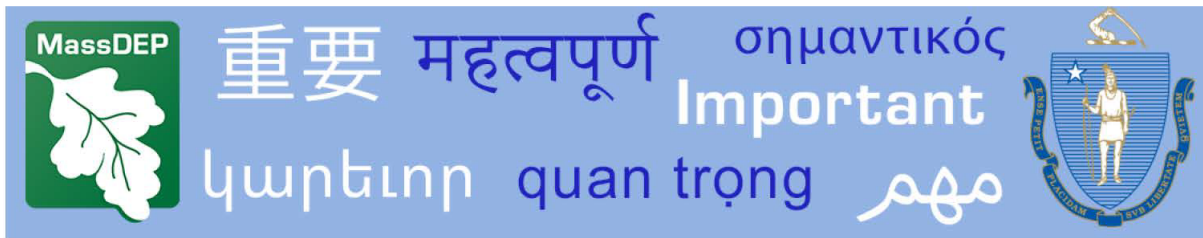
Sincerely,

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

Ecc: Melissa Shapiro and Lydia Olson, Massachusetts Rivers Alliance
Soloe Dennis, Deputy Regional Director, MassDEP-Springfield

Ron Rhodes, Connecticut River Conservancy

[https://massgov.sharepoint.com/DEP-BWR/Permit Renewals/Ludlow- Westover Municipal GC-FINAL WMA
Permit Renewal-9P2-1-06-161.01-2026-9-16_a11y](https://massgov.sharepoint.com/DEP-BWR/Permit%20Renewals/Ludlow-Westover%20Municipal%20GC-FINAL%20WMA%20Permit%20Renewal-9P2-1-06-161.01-2026-9-16_a11y)



Massachusetts Department of Environmental Protection | 100 Cambridge Street 9th Floor, Boston, MA 02114

Communication for Non-English-Speaking Parties

This document is important and should be translated immediately.

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

Español Spanish

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

Português Portuguese

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繁體中文 Chinese Traditional

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

简体中文 Chinese Simplified

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Ayisyen Kreyòl Haitian Creole

Dokiman sa a enpòtan epi yo ta dwe tradui l imedyatman. Si w bezwen tradui dokiman sa a, tanpri kontakte Direktè. Jistis Anviwònmanal MassDEP a nan nimewo telefòn ki endike anba a.

Việt Vietnamese

Tài liệu này và quan trọng và phải được dịch ngay. Nếu quý vị cần bản dịch của tài liệu này, vui lòng liên hệ với Giám Đốc Phòng Công Lý Môi Trường của MassDEP theo số điện thoại được liệt kê bên dưới.

ប្រទេសកម្ពុជា Khmer/Cambodian

ឯកសារនេះមានសារៈសំខាន់ ហើយគួរត្រូវបានបកប្រែភ្លាមៗ។
ប្រសិនបើអ្នកត្រូវការអោយឯកសារនេះបកប្រែ សូមទាក់ទងនាយកផ្នែកយុត្តិធម៌បរិស្ថានរបស់ MassDEPតាមរយៈលេខទូរស័ព្ទដែលបានរាយដូចខាងក្រោម។

Kriolu Kabuverdianu Cape Verdean

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

Deneen Simpson 857-406-0738
TTY# MassRelay Service 1-800-439-2370

Русский Russian

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

العربية Arabic

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

한국어 Korean

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

հայերեն Armenian

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

فارسی Farsi Persian

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

Français French

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Deutsch German

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

Ελληνική Greek

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

Italiano Italian

Questo documento è importante e deve essere tradotto immediatamente. Se hai bisogno di tradurre questo documento, contatta il Direttore della Giustizia Ambientale di MassDEP al numero di telefono sotto indicato.

Język Polski Polish

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

हिन्दी Hindi

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

Deneen Simpson 857-406-0738
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Findings of Fact in Support of Water Management Permit # 9P2-1-06-161.01 Westover Municipal Golf Course

The Massachusetts Department of Environmental Protection (the Department or MassDEP) has completed its review of Westover Municipal Golf Course (WMGC) Water Management Act (WMA) permit renewal application filed on November 23, 2016. The Department hereby proposes to issue WMA Permit #9P2-1-06-161.01 (the “Permit”) in accordance with the Water Management Act (M.G.L. c. 21G) and the regulations promulgated thereunder at 310 CMR 36.00. The Department makes the following Findings of Fact in support of the attached Permit and includes herewith its reasons for issuing the Permit and for conditions of approval imposed, as required by M.G.L. c. 21G, § 11, and 310 CMR 36.00. The Permit is being issued since such action is necessary for the promotion of the purposes of M.G.L. c. 21G. The Department may amend, suspend or terminate the Permit, after notice and hearing, in accordance with the provisions of 310 CMR 36.29(1).

Westover Municipal Golf Course’s Withdrawal History

Original Permit: On July 22, 2005, WMGC was issued a WMA Permit (9P2-1-06-161.01) to withdraw an average annual daily volume of 0.12 million gallons per day (MGD) or 25.2 million gallons per year (MGY) over a 210-day irrigation season (April -October). WMGC is authorized to withdraw water for irrigation purposes from one surface water source (Wade Pond -WM11064-01S) in the Connecticut River Basin.

Permit Expiration Date: All Connecticut River Basin water withdrawal permits were originally intended to expire on November 30, 2013. The expiration date in the Connecticut Basin for all Water Management permits was extended for two years by Chapter 240 of the Acts of 2010 and further extended another two years by Chapter 238 of the Acts of 2012, collectively known as the Permit Extension Act. Prior to the revised November 2017 expiration date, WGC filed to renew its permit on November 23, 2016. Pursuant to M.G.L. c. 30A, § 13, and 310 CMR 36.18(7), WGC’s permit continues in force and effect until the Department issues a final decision on the permit renewal application.

In accordance with 310 CMR 36.17(1), the expiration date for WMGC’s renewed permit in the Connecticut River Basin will be November 30, 2033.

Permit Renewal Application: As noted above, MassDEP received a WMA 20-year permit renewal application from WMGC for their withdrawals in the Connecticut River on November 23, 2016. The

submitted application requested to maintain the permitted withdrawal volume of 0.12 MGD or 25.2 MGY. Pursuant to M.G.L. c. 30A, § 13, and 310 CMR 36.18(7), WMGC's existing permit continues in force and effect until the Department issues a final decision on the permit renewal application.

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

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

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

Water Management Regulation Revisions

In 2010 the Executive Office of Energy and Environmental Affairs (EEA) convened the Sustainable Water Management Initiative (SWMI) for the purpose of incorporating the best available science into the management of the Commonwealth's water resources. SWMI was a multi-year process that included a wide range of stakeholders and support from the Departments of Environmental Protection, Fish and Game, and Conservation and Recreation. In November 2012 the Massachusetts Sustainable Water Management Initiative Framework Summary (<https://www.mass.gov/files/documents/2016/08/wf/swmi-framework-nov-2012.pdf>) was released.

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

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

- Safe yield determinations for the major river basins based on a new methodology developed through SWMI (see the Safe Yield in the Connecticut River Basin section of this document);
- 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 Connecticut River Basin

This permit is being issued under the safe yield methodology adopted by MassDEP on November 7, 2014, and described in the regulations at 310 CMR 36.13. As of the date of issuance of this permit, the Safe Yield calculation for the Connecticut River Basin is 1866.5 MGD, and total registered and permitted withdrawals are 148.70 MGD. The maximum withdrawals that will be authorized in this permit, and all other permits currently under review by the Department within the Connecticut River Basin, will be within the remaining safe yield and may be further conditioned as outlined in the regulations.

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

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

SPECIAL PERMIT CONDITIONS

Special Condition 1, Maximum Authorized Annual Average Withdrawal Volume, reflects the previously permitted volume of 0.12 million gallons per day (MGD) over the 210-day irrigation season for a total of 25.2 million gallons per year (MGY). This rate has not been changed from the previous permit. The withdrawal volumes reported by WMGC for the most recent five years are in compliance with this special condition (Table 1).

Table 1. Authorized and Actual Average Daily Water Withdrawal Volumes (MGD)

Permitted	2020	2021	2022	2023	2024	Average 2020-2024
0.12	0.08	0.07	0.1	0.06	0.08	0.08

Special Condition 2, Maximum Authorized Daily Withdrawals from Each Withdrawal Point, reflects a maximum daily withdrawal volume limit of 0.28 MGD to withdraw from their one surface water source in the Connecticut River Basin. In no event shall the withdrawal from the individual withdrawal point exceed the withdrawal volumes authorized above in Special Condition 1. Based upon review of the 2020 to 2024 annual report forms (ARF), the source is in compliance with this Special Condition (Table 2).

Table 2. Authorized and Actual Maximum Daily Water Withdrawal Volume (MGD)

Source Name	Source ID	Authorized MAX Daily Rate	Reported MAX Daily Withdrawals				
			2020	2021	2022	2023	2024
Wade Pond	WM11064-01S	0.28	0.26	0.24	0.22	0.19	0.19

Formerly Special Condition 3, Metering

The volume from all withdrawal points included within the permit shall be metered with meters of appropriate size. Volumes will be recorded on a basis that will accurately furnish the information required by the Water Management Program Annual Report, including the maximum day's flow. Meters shall be calibrated annually.

Metering is a condition for all permittees and will be moved to the General Conditions section of the renewed permit.

Special Condition 3, Water Conservation Requirements

This condition have been updated and now incorporates the water conservation requirements that are subject to the July 2018 Water Conservation Standards for the Commonwealth of Massachusetts (<https://www.mass.gov/files/documents/2018/09/11/ma-water-conservation-standards-2018.pdf>).

New Permit Conditions

Special Condition 4, Seasonal Demand Management Plan

Consistent with good water conservation practices, permitted golf courses will be required to implement a drought triggered Seasonal Demand Management Plan (SDMP) as a condition of their Water Management Permit. The SDMP, at a minimum, restricts nonessential outdoor water use when the Secretary of the Executive Office of Energy and Energy and Environmental Affairs declares a Level 1-“Mild Drought” or higher (“Significant Drought, Critical Drought or Emergency Drought”) for the region or watershed in which the golf course is located.

The SDMP shall also be implemented from May 1st through September 30th when streamflow falls below a designated flow trigger 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 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 low-flow statistic being applied, referred to as the “7-day low-flow statistic,” is the median value of annual 7-day low flows for the period of record for the assigned gage. MassDEP uses both the 7-day low flow in addition to the Secretary of the Executive Office of Environmental Affairs Drought declaration.

WMGC has been assigned the USGS stream gage #01171500 Mill River at Northampton, MA.

The 7-day low flow at this site is 10 cubic feet per second (cfs). Should the reliability of the flow measurement at the Mill River at Northampton gage be so impaired as to question its accuracy, the Permittee 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.

WMGC shall be responsible for tracking the Massachusetts Drought Management Task Force drought declarations and recording when drought-triggered restrictions are implemented. WMGC shall also be responsible for tracking streamflow and recording when streamflow-triggered restrictions are implemented. Streamflow information is available at the USGS National Water Information System (MWIS): Web Interface. The USGS NWIS default shows Massachusetts streamflow in real time, i.e., the most recent, usually quarterly hourly, reading made at each USGS stream gage. 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, WMGC must use the mean daily streamflow from the preceding day when tracking streamflow.

The SDMP is intended to address the necessary minimums of acceptable demand management required as dry conditions begin to impact our environment. Of particular importance in developing your SDMP and in evaluating its effect on your golf course's irrigation, is the recognition of nonessential outside water uses. MassDEP considers the irrigation of tees and greens as essential uses, but fairways and roughs less so.

Section C of the SDMP provides three options for water use reduction. Two options for water use reduction are in table format with the third option being an open-ended alternative approach. The Acres Table requires that you identify the number of acres you irrigate for tees and greens, fairways, roughs, landscaping and ornamentals, along with a percent reduction per unit area with worsening drought. The Time-Table requires that you identify irrigation in timing reduction cycles.

The WMGC submitted a SDMP dated November 18, 2025, that selected the Time-Table reduction approach. This approach has been incorporated into the permit.

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

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

The calculated baseline withdrawal volume for WMGC is 0.07 MGD, the amount of water withdrawn during calendar year 2005 plus 5%. The Water Management Regulations, 310 CMR

36.22(6) and (7), provide that Permittees that seek to withdraw more than their baseline prepare and implement a Mitigation Plan¹. The Mitigation Plan will be developed in consultation with MassDEP.

Based on potential withdrawal allocation options, each permittee is grouped into one of three categories, referred to as “Tiers”. The following is a brief summary of how the relevant permit Tiers may be applied to WMGC.

Tier 1 - The applicant requests no withdrawal greater than baseline. WMGC would be considered a Tier 1 permittee if their total permitted withdrawal request is 0.07 MGD or less (the baseline volume). If WMGC chooses to remain at their baseline volume, no mitigation activities will be required.

Tier 2 - To be classified as a Tier 2 permittee, the applicant’s withdrawal request would be above baseline, but the applicant’s groundwater withdrawals would not change the Biological Category (BC) or Groundwater Withdrawal Category (GWC)² in any of their subbasins³.

Because WMGC withdraws all its irrigation water from a surface water source, Wade Pond, in subbasin 14018, it cannot change a BC or GWC and is likely a Tier 2 permit review. A Tier 3 permit review would change a GWC or BC with an increase over baseline from a groundwater source.

All Tier 2 applicants are required to develop a mitigation plan at the start of the 20-year WMA permit period that identifies sufficient actions and projects to mitigate the maximum authorized withdrawals during the life of the permit. This plan should identify the expected maximum mitigation volume, identify feasible mitigation options, and include a timeline for the implementation of the mitigation options.

In the OTC response dated December 19, 2025, WMGC confirmed they are requesting a permit renewal for a total authorized annual average daily withdrawal volume of 0.12 MGD (25.2 MGY over a 210-day irrigation season). Therefore, WMGC must submit and implement a mitigation plan to mitigate the volumes requested above 0.07 MGD, which is 0.05 MGD.

Mitigation plans were discussed in the Order to Complete (OTC) issued on August 25, 2025, and in WMGC’s OTC Response. WMGC was not able to identify eligible direct mitigation activities at the golf course at this time and therefore indirect mitigation activities were evaluated to meet the mitigation requirements of 0.05 MGD. WMGC indicated that they intend on obtaining the required indirect mitigation credits by achieving the Audubon International Certification Program. WMGC proposed to obtain the certifications in components of the Audubon Cooperative Sanctuary Program (ACSP), including Environmental Planning, Water Conservation by December 31, 2026 and certifications of components: Wildlife and Habitat Management, Chemical Use Reductions and Safety, and Water Quality Management by December 31, 2027. WMGC shall maintain active certifications during the term of this permit. If WMGC fails to do so, additional mitigation options will need to be submitted and reviewed prior to exceeding the baseline volume of 0.07 MGD.

Other Considerations

Minimization of Groundwater Withdrawal Impacts in Stressed Subbasins, requires permittees with permitted groundwater sources in subbasins with net groundwater depletion of 25% or more during August to minimize their withdrawal impacts on those subbasins to the greatest extent feasible. WMGC is not required to prepare a minimization plan, because their withdrawals are in subbasin (#14018) with an August NGD of 0.20%, and WMGC uses only a surface water source.

Coldwater Fish Resource Protection was incorporated into the Water Management Regulations in November 2014. Permittees with withdrawals that impact streamflow of a CFR (identified on subbasin maps) must evaluate reducing impacts to CFRs through feasible optimization. WMGC's subbasin in the Connecticut River Basin does not contain CFRs identified by the Department of Fish and Game (DFG), therefore, no CFR protection is required at this time.



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WATER WITHDRAWAL PERMIT
#9P2-1-06-161.01
WESTOVER MUNICIPAL GOLF COURSE

This renewal of Permit #9P2-1-06-161.01 is approved pursuant to the Massachusetts Water Management Act (WMA) for the sole purpose of authorizing the withdrawal of a volume of water as stated below and subject to the following special and general conditions. This permit conveys no right in or to any property beyond the right to withdraw the volume of water for which it is issued.

PERMIT NUMBER: 9P2-1-06-161.01

RIVER BASIN: Connecticut

PERMITTEE: Westover Municipal Golf Course
South Street
Ludlow, MA 01056

EFFECTIVE DATE: September 16, 2026

EXPIRATION DATE: November 30, 2033

NUMBER OF WITHDRAWAL POINTS: 1

Groundwater: 0

Surface Water: 1

USE: Golf Course Irrigation

DAYS OF OPERATION: 210

LOCATIONS:

Source Name	Source ID	Latitude	Longitude	Location
Wade Pond	WM11064-01S	42° 12' 51.3"	72° 31' 4.4"	Stony Brook, Ludlow, MA

SPECIAL CONDITIONS

1. Maximum Authorized Annual Average Withdrawal Volume

This permit authorizes the Westover Municipal Golf Course (WMGC) to withdraw an average daily volume of 0.12 million gallons per day (MGD) or 25.2 million gallons per year (MGY) of water over 210 days annually for irrigation from its surface water source in the Connecticut River Basin. The permitted volume is expressed both as an annual average daily withdrawal rate (million gallons per day or MGD), and as a total annual withdrawal volume (million gallons per year or MGY) for each permit period over the term of this permit. WMGC does not have a WMA Registration.

Table 1: Maximum Authorized Withdrawal Rates

Permit Periods	Total Raw Water Withdrawal Volumes	
	Daily Average (MGD)	Total Annual (MGY)
9/16/2026 to 11/30/2033	0.12	25.2

2. Maximum Daily Withdrawal Rates from Authorized Withdrawal Points

Withdrawals from individual withdrawal points are not to exceed the approved daily volume listed below without specific advance written approval from MassDEP (Table 2). Maximum daily withdrawals for individual sources must be provided in annual reporting forms.

Table 2: Maximum Authorized Daily Withdrawal Volumes

Source Name	Source ID	Maximum Daily Rate (MGD)
Irrigation Well #1	WM4880-01G	0.28

3. Water Conservation Requirements

At a minimum, WMGC shall implement the following conservation measures forthwith (Table 3). Compliance with the water conservation requirements shall be reported to MassDEP upon request, unless otherwise noted below.

Table 3: Water Conservation Requirements

a. Metering 100% of water use, and calibrating source meters annually.
b. Implementation of an irrigation system inspection and maintenance program that includes the following on a routine basis: - Leak detection and repair: Daily monitoring of the golf course to insure no leaks throughout the system are present. - Weekly Sprinkler head maintenance and replacement to ensure proper trajectory, pressure, and rotation - Weekly cleaning or replacing clogged nozzles.

c. Use of a computerized-control irrigation system that allows for irrigation of only those areas in need.
d. Use of portable soil moisture sensors and golf weather apps to increase the efficiency of the irrigation system
e. Irrigating in the early morning or evening hours when evaporation rates are at their lowest, to extent practicable to maintain the turf
f. Regular aerating of turf to increase the percolation of water into the soil
g. Use of mulch materials in planting beds to improve water-holding capacity of the landscaping
h. Use of environmentally safe wetting agents to improve water infiltration and minimize evaporation
i. Use of low water use or native drought tolerant plants to the greatest extent practicable
j. Employee training in water conservation and management

4. Seasonal Demand Management Plan

WMGC shall limit nonessential outdoor water use through mandatory restrictions from May 1st through September 30th as outlined in the Seasonal Demand Management Plan (SDMP) and discussed below. At a minimum, restrictions shall commence when the Secretary of the Executive Office of Energy and Environmental Affairs declares a Level 1- Mild Drought or higher (Level 2- Significant Drought, Level 3-Critical Drought, or Level 4-Emergency Drought) for the region (Connecticut River Valley Drought Region) or basin (Connecticut River) in which the golf course is located.

The SDMP shall also be implemented from May 1st through September 30th when streamflow falls below a designated flow trigger 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 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 low-flow statistic being applied, referred to as the “7-day low-flow statistic,” is the median value of annual 7-day low flows for the period of record for the assigned gage. MassDEP uses both the 7-day low flow in addition to the Secretary of the Executive Office of Environmental Affairs Drought declaration.

WMGC has been assigned USGS stream gage #01171500 Mill River at Northampton, MA. The 7-day low flow at this site is 10 cubic feet per second (cfs). Should the reliability of the flow measurement at the Mill River at Northampton gage be so impaired as to question its accuracy, the Permittee 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. The Instructions for Accessing Streamflow and Drought Advisory Information please see the attachment of the permit.

WMGC has selected Option 2, the Time-Table, for their SDMP (Table 4).

Table 4: Westover Municipal Golf Course Seasonal Demand Management Plan

Irrigating for Shorter Durations as Drought Severity Increases Reduced Minutes in Irrigation Cycles								
Massachusetts Drought Levels	Irrigated Tees & Greens		Irrigated Fairways		Irrigated Roughs		Irrigated Landscape & Ornamentals	
	Percent	Time (min.)	Percent	Time (min.)	Percent	Time (min.)	Percent	Time (min.)
Normal	Full cycle	15	Full cycle	25	Full Cycle	25	100%	20
Mild Drought or 7-Day Low Flow Trigger is reached	Full cycle	15	80%†	20	50%†	12.5	0%**	
Significant Drought	Full cycle	15	60%†	15	0%			
Critical Drought	Full cycle	15	40%†	10				
Emergency *	TBD		0%				0%	

† Irrigation shall not occur between the hours of 9 a.m. and 5 p.m., except that hand-watering of hot spots may occur at any time

* Additional actions to be determined by the Governor's Emergency Proclamation

** Courses whose core business includes a special event venue may continue to irrigate gardens, flowers, and ornamental plants by means of hand-held hose or drip irrigation during a Mild, Significant, or Critical Drought.

Golf permittees must notify MassDEP within 14 days of the effective date whenever implemented or revised in accordance with permit requirements on restricting nonessential outdoor water use. Copies of the notification forms for golf courses can be found at [Outdoor Water Use Restrictions for Cities, Towns, and Golf Courses | Mass.gov](#)

5. Mitigation

WMGC is required to mitigate 0.05 MGD for its permitted withdrawals over the baseline. In order to mitigate this volume, WMGC has proposed to obtain recognitions in five components of the Audubon Cooperative Sanctuary Program (ACSP). The ACSP recognitions of Environmental Planning, and Water Conservation shall be obtained before December 31, 2026. The ACSP recognitions of Wildlife and Habitat Management, Chemical Use Reduction and Safety, and Water Quality Management shall be obtained before December 31, 2027. WMGC shall maintain those ACSP recognitions during the life of this permit.

GENERAL PERMIT CONDITIONS (applicable to all permittees except Cranberry permits)

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

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

NOTICE OF APPEAL RIGHTS

Any person aggrieved by this decision may request an adjudicatory hearing by timely filing a Notice of Claim for an Adjudicatory Appeal ("Notice of Claim") in accordance with 310 CMR 36.37 and 310 CMR 1.01 within twenty-one (21) days of receipt of this Permit. The Notice of Claim shall state

specifically, clearly, and concisely the facts that are grounds for the appeal, the relief sought, and any additional information required by applicable law or regulation. A copy of this Permit shall be included with the Notice of Claim. No request for an appeal of this permit shall be validly filed unless a copy of the request is sent at the same time by certified mail, or delivered by hand, to the local water resources management official in the community in which the withdrawal point is located; and for any person appealing this decision, who is not the Permittee, unless such person notifies the Permittee of the appeal in writing by certified mail or by hand within five (5) days of mailing the appeal to the Department.

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

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

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

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

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



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

September 16, 2026

Date

Attachments:

Endnotes

Appendix A: Instructions for Accessing Streamflow Website Information

ENDNOTES

1 The Water Management Regulations, 310 CMR 36.19(1), classify any permittee seeking authorization to withdraw more than baseline as tier 2 or tier 3. The Water Management Regulations, 310 CMR 36.21(3)(b), provide that tier 2 and tier 3 permit applications include a plan to offset any water withdrawal volume above baseline through a mitigation plan.

2 Information on the Groundwater Withdrawal Category (GWC), the Biological Category (BC), or August Net Groundwater Depletion (August NGD) of subbasins can be found in the Sustainable Water Management Initiative Framework at <https://www.mass.gov/service-details/sustainable-water-management-initiative>, Information on specific subbasins can be found in the WMA Permitting Access Tool at <https://www.mass.gov/guides/sustainable-water-management-initiative-swmi-technical-resources>.

3 Subbasins used for WMA permitting are the 1,395 subbasins delineated by the U.S. Geological Survey in *Indicators of Streamflow Alteration, Habitat Fragmentation, Impervious Cover, and Water Quality for Massachusetts Stream Basins* (Weiskel et al., 2010, USGS SIR 2009-5272).

Appendix A: Instructions for Accessing Streamflow Website Information

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 [Massachusetts water conditions - USGS Water Data for the Nation](#). Instructions for accessing real-time streamflow values from the USGS Web interface are available on MassDEP's website ([Outdoor Water Use Restrictions for Cities, Towns, and Golf Courses | Mass.gov](#)).

For additional questions or for additional support, contact the MassDEP Water Management Program at DEP.WMA@mass.gov (preferred), or the WMA Program contact identified in this permit.

Drought information is available at [Drought Management in Massachusetts | Mass.gov](#).

Click on "Current Status". The color-coded map displays the six drought regions in Massachusetts. Restrictions are implemented when a Level 1- Mild Drought or higher (Level 2- Significant Drought; Level 3-Critical Drought; or Level 4- Emergency Drought) is declared.

Westover Municipal Golf Course shall document compliance with the Seasonal Nonessential Outdoor Water Use Restrictions annually. All permitted golf courses must notify MassDEP within 14 days of the effective date whenever implemented or revised their SDMP. Copies of the notification forms for golf courses can be found at <https://www.mass.gov/info-details/outdoor-water-use-restrictions-for-cities-towns-and-golf-courses>.