



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Bonnie Heiple
Commissioner

David Spiegel
FWG LLC
P. O. Box 890
Norwood, MA 02062

June 18, 2025
RE: Water Management Act
Permit #9P4-4-22-096.02
Action: Revised SDMP

Dear Mr. Spiegel:

The Massachusetts Department of Environmental Protection (MassDEP) received a revised Seasonal Demand Management Plan (SDMP) for FWG LLC (dba The Cape Club by Troon) on June 10, 2025. The Cape Club by Troon (Club) holds a Water Management Act (WMA) permit #9P4-4-22-096.02 with an authorized average daily water withdrawal volume of 0.17 million gallons per day over 210 days from two irrigation wells located in Falmouth. The permit was renewed on October 6, 2023.

The renewed permit required the club to limit nonessential outdoor water use through mandatory restrictions from May 1st through September 30th as outlined in the original SDMP, that based reductions on the number of acres irrigated during specific conditions, including Droughts. Based on improvements made to the Club's irrigation system that should improve water efficiency, the Club has requested to revise the SDMP to replace the Acreage reduction approach with the Time-Table reduction option. This approach, which is an option for all golf courses in their SDMP preparation, will make similar triggered reductions in irrigation but will instead be based on reductions in the length of time of each irrigation cycle. Water use efficiency is expected to be similar, if not improved, by this change. MassDEP agrees to the revised SDMP, and will assess future compliance based on the June 10, 2025 submission.

If you have any questions concerning the content of this letter, please contact Shi Chen at 857-360-0042 or shi.chen@mass.gov.

Sincerely,

A handwritten signature in black ink, reading "Duane LeVangie". The signature is written in a cursive style with a large, stylized 'D' and 'L'.

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

Ecc: Kelly Durfee Cardoza, Avalon Consulting Group

Bill Ransom, The Cape Club

mass.gov.sharepoint.com/W:\DWPWMA\Permit Renewals\Cape\Falmouth\The Cape Club by
Troon-9P442209602-Revised SDMP-2025-06-18



June 10, 2025

Mr. Duane LeVangie
WMA Program Chief
DEP Boston
100 Cambridge Street Suite 900
Boston, MA 02114

Re: Revised Seasonal Demand Management Plan
The Cape Club, 125 Falmouth Woods Rd, Falmouth
WMA Permit 9P442209602
Project No. 14-009

Dear Duane,

On behalf of our client, FWG, LLC, Avalon Consulting is pleased to submit a revised seasonal demand management plan (SDMP) for the Cape Club in Falmouth.

Since the original SDMP was prepared in 2015, a new irrigation system has been installed at the site. As a result, the club now proposes to revise its approach to seasonal demand management by measuring irrigation reductions in minutes rather than acres.

The permittee is committed to this updated approach and has confirmed with irrigation management staff that the current system can support the proposed timing-based method.

Please do not hesitate to contact me should you have any questions regarding this submittal.

Very Truly Yours,
Avalon Consulting Group

Kelly Durfee Cardoza
Principal

Cc: David Spiegel, FWG LLC
Bill Ranson, The Cape Club

Massachusetts Department of Environmental Protection
Bureau of Water Resources – Water Management Act Program
Seasonal Demand Management Plan
For Permitted Water Management Golf Courses

The Cape Club
Facility Name
9P442209602
Permit #
Falmouth
City or Town

Plan Requirements

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Golf courses permitted under the Water Management Act (WMA) are required to implement a Seasonal Demand Management Plan (SDMP) that, at a minimum, implements Best Management Practices throughout the May 1st through September 30th irrigation season outlined in Section B, and reduces irrigation during dry periods based on:

- a Drought Declaration of Mild, Significant or Critical by the Massachusetts Drought Management Task Force¹ (DMTF) for the Drought Region where the golf course is located (see <https://www.mass.gov/service-details/drought-regions>), or
- streamflow or groundwater levels measured at a United States Geological Survey (USGS) stream gage or groundwater monitoring well assigned in the WMA permit.

During a Mild Drought or greater, or when the WMA permit streamflow or groundwater trigger is reached, nonessential outdoor water use shall not occur between the hours of 9 a.m. to 5 p.m. when evapotranspiration rates are highest, except that hand-watering of hot spots may occur at any time as necessary, and limited watering of gardens and ornamentals for courses whose core business includes a special event venue as outlined in Section C.

During a Mild Drought or greater, or when the WMA permit streamflow or groundwater trigger is reached, reductions are required in the irrigation of fairways and roughs as outlined in Section C of this document.

During a Drought Emergency, at a minimum, the irrigation of fairways and roughs must cease. Additional action may be required by the Governor's Emergency Proclamation.

Golf course facility managers shall be responsible for:

- tracking drought declarations and streamflow or groundwater levels,
- recording when water use reductions are implemented, and
- within 14 days of implementing water use reductions for the first time in a calendar year, notifying MassDEP by submitting the MassDEP Notification of Water Use Reductions Form for Golf Courses (<https://www.mass.gov/doc/notification-of-golf-course-water-use-restriction-0/download>).

Each golf course permit will include instructions on tracking drought declarations and streamflows or groundwater levels at the assigned USGS gage or monitoring well.

If you have any questions, contact Duane LeVangie at duane.levangie@mass.gov or 617-780-1962, or Shi Chen at shi.chen@mass.gov or 857-360-0042.

A. Golf Facility Information

The Cape Club

Facility Name

Falmouth

City/Town

Peter Ervin

Course Manager

(508) 540-4005

Phone Number

6/9/2025

Date

pervin@capeclubresort.com

¹ See Massachusetts Drought Management Task Force at <https://www.mass.gov/orgs/drought-management-task-force>.

Massachusetts Department of Environmental Protection
Bureau of Water Resources – Water Management Act Program
Seasonal Demand Management Plan
For Permitted Water Management Golf Courses

The Cape Club

Facility Name

9P442209602

Permit #

Falmouth

City or Town

B. Best Management Practices (BMPs)

Check the following BMPs for water conservation and management that you implement.

- | | | |
|---|--|---|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 1. Water use is 100% metered. (Required by WMA permit.) |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 2. Source meters are calibrated annually. (Required by WMA permit.) |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 3. New and existing irrigation ponds are lined with impervious material. |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 4. Implement an irrigation system inspection and maintenance program that includes leak detection and repair, sprinkler head maintenance and replacement on a weekly basis. |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 5. Irrigate in the early morning or evening hours, when evaporation is lowest. |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 6. Improve irrigation uniformity through evaluation of design criteria such as nozzle size, spacing, scheduling coefficient and pressure selection. |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 7. Use of soil sensors and/or soil samples to monitor soil moisture. |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 8. Use of a weather app or an onsite weather station combined with an automated sprinkler system governed by atmospheric conditions. |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 9. Use of computerized irrigation management system equipped with flow management to increase irrigation efficiency. |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 10. Use of rain shutoff switches on new and existing irrigation systems. |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 11. Use of environmentally-safe wetting agents to improve water infiltration and minimize evaporation. |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 12. Use of low water-use turf grass where applicable. |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 13. Raising turf height during dry weather and drought conditions. |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 14. Regular aeration of turf to increase the percolation of water into the soil. |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 15. Reduction of irrigation rates in secondary rough areas and, where possible, elimination of irrigation in non-play areas. |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 16. Use of mulch materials in planting beds to improve water-holding capacity. |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 17. Use of low water-use landscaping or native drought-tolerant plants around buildings, parking areas, or other appropriate places. |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 18. Employee training in water conservation and management. |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 19. Use of low-pressure alarms on water pumps and variable-speed drives. |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 20. Use of 3 rd -party retrofit nozzles. |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 21. Reuse of wastewater and/or stormwater for irrigation. |

Comment:

No irrigation pond on property; nozzles are Rainbird (not 3rd party).

Massachusetts Department of Environmental Protection
Bureau of Water Resources – Water Management Act Program
Seasonal Demand Management Plan
For Permitted Water Management Golf Courses

The Cape Club
Facility Name
9P442209602
Permit #
Falmouth
City or Town

C. Seasonal Demand Management Approach for Irrigation Reductions

Tables 1. and 2. below reflect two approaches to water use reductions during a drought. You may choose to complete the Acres Table or the Time Table to reflect your water use reduction approach, or otherwise describe your specific water use reduction plan (Option 3). The Acres Table reduces water use by limiting the number of irrigated acres for fairways, roughs, and ornamentals. The required irrigation reductions in both options increase as the drought severity increases.

Along with completing one of the tables, you may provide an additional narrative explanation of your plan to implement required irrigation reductions as drought conditions worsen. This could be through such practices as limited rotation of sprinkler heads, limits on water pressure, limiting irrigation to hot spots, eliminating non-target watering, etc. (Attach additional pages as necessary.)

☐ Check box if choosing Option 1.

TABLE 1. ACRES TABLE (Fill in number of acres in all blank cells)

Irrigating Less Acreage as Drought Severity Increases								
Watering allowed up to designated percent								
Massachusetts Drought Level	Irrigated Tees & Greens		Irrigated Fairways		Irrigated Roughs		Irrigated Landscape & Ornamentals	
	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres
Normal	100%		100%		100%		100%	
Mild Drought or WMA Permit Trigger is reached	100%		80%†		50%†		0%**	
Significant Drought	100%		60%†		0%			
Critical Drought	100%		40%†					
Emergency *	TBD		0%				0%	
† Irrigation use 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.								

Massachusetts Department of Environmental Protection
Bureau of Water Resources – Water Management Act Program
Seasonal Demand Management Plan
For Permitted Water Management Golf Courses

The Cape Club
Facility Name
9P442209602
Permit #
Falmouth
City or Town

C. Seasonal Demand Management Approach for Irrigation Reductions

☒ Check box if choosing Option 2.

TABLE 2. TIME TABLE (Fill in time in minutes in all blank cells)

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	12	Full cycle	15	Full Cycle	10	100%	20
Mild Drought or WMA Permit Trigger is reached	Full cycle	12	80%†	12	50%†	5	0%**	
Significant Drought	Full cycle	12	60%†	9	0%			
Critical Drought	Full cycle	12	40%†	6				
Emergency *	TBD		0%				0%	
† Irrigation use 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.								

☐ Check box if choosing Option 3.

3. Alternative Approach

MassDEP offers flexibility for equivalent irrigation use reductions. Golf courses that have developed an equivalent plan that quantifies real water use reductions by other means that can relate to the Massachusetts DMTF action levels, may submit their plan for the MassDEP's review and approval.

(Attach additional pages as necessary.)



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Bonnie Heiple
Commissioner

October 6, 2023

David Spiegel
FWG LLC
P. O. Box 890
Norwood, MA 02062

RE: Water Management Act
Permit #9P4-4-22-096.02
Action: Final Renewed Permit

Dear Mr. Spiegel:

Please find the attached documents:

- Findings of Fact in Support of the Renewed Permit #9P4-4-22-096.02; and
- Final Water Management Act Permit #9P4-4-22-096.02 (Cape Cod Basin) for the FWG LLC (dba The Cape Club by Troon).

The signature on this cover letter indicates formal issuance of the attached document. If you have any questions regarding this information, please contact Shi Chen at shi.chen@mass.gov or 857-360-0042.

Very truly yours,

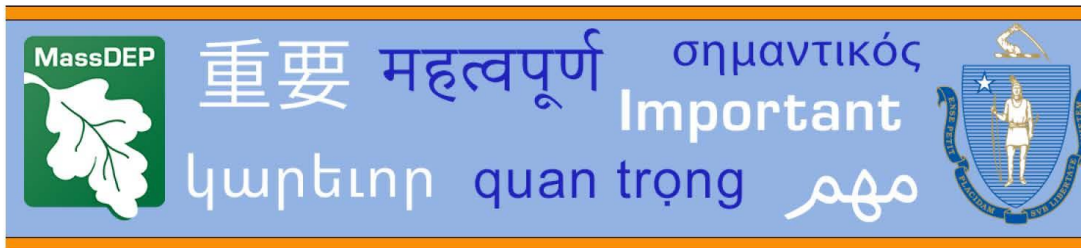
Duane LeVangie,
Water Management Program Chief
Bureau of Water Resources

Ecc: Jason Dalrymple, Department of the Air Force
Julia Blatt and Sarah Bower, Massachusetts Rivers Alliance

[mass.gov.sharepoint.com/W: DWPArchive\SERO\2023\Falmouth-FINAL Renewal-The Cape Club by Troon-9P442209602-2023-10-6-2023](https://mass.gov/sharepoint.com/W:DWPArchive\SERO\2023\Falmouth-FINAL Renewal-The Cape Club by Troon-9P442209602-2023-10-6-2023)

This information is available in alternate format. Please contact Melixza Esenyie at 617-626-1282.
TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep

Printed on Recycled Paper



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

Este documento é importante e deve ser traduzido imediatamente. Se você precisar traduzir este documento, entre em contato com o Diretor de Justiça Ambiental do MassDEP no número de telefone listado abaixo.

繁體中文 Chinese Traditional

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

简体中文 Chinese Simplified

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

Ayisyen Kreyòl Haitian Creole

Dokiman sa a enpòtan epi yo ta dwe tradui l imedyatman. Si w bezwen tradui dokiman sa a, tanpri kontakte Direktè. Jistis 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
ហើយកម្រិតត្រូវបានបកប្រែភ្លាមៗ។
ប្រសិនបើអ្នកត្រូវការការណែនាំឯកសារនេះបកប្រែ
សូមទាក់ទងនាយកដ្ឋានយុត្តិធម៌បរិស្ថានរបស់
MassDEPតាមរយៈលេខទូរស័ព្ទដែលបានរាយនាមខាងក្រោម។

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 numero di telefoni menxionadu di baixo.

Contact Deneen Simpson 857-406-0738

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

TTY# MassRelay Service 1-800-439-2370 • <https://www.mass.gov/environmental-justice>
(Version revised 8.2.2023) 310 CMR 1.03(5)(a)

Русский Russian

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

العربية Arabic

هذه الوثيقة مهمة وتجب ترجمتها على الفور.

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

한국어 Korean

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

հայերէն Armenian

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

فارسی Farsi Persian

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

Français French

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

Deutsch German

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

Ελληνική Greek

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

Italiano Italian

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

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

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 • <https://www.mass.gov/environmental-justice>
(Version revised 8.2.2023) 310 CMR 1.03(5)(a)



Department of Environmental Protection

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

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Bonnie Heiple
Commissioner

Findings of Fact in Support of Water Management Permit # 9P4-4-22-096.02 FWG LLC (dba The Cape Club by Troon)

The Department of Environmental Protection (the Department or MassDEP) makes the following Findings of Fact in support of the attached Renewed Water Management Permit #9P4-4-22-096.02 and includes herewith its reasons for issuing the Renewed Permit and for conditions of approval imposed, as required by M.G.L. c. 21G, § 11. The issuance of this permit is in response to a Water Management Act (WMA) permit renewal application by the former New Falmouth Woods, LLC.

The Cape Club by Troon Withdrawal Summary

On March 31, 2004, in response to the application for a new permit to withdraw 0.17 million gallons per day (MGD) of water over 210 days per year from the Cape Cod Basin for the New Falmouth Golf, LLC, Ballymeade Golf and Country Club, the Department approved the application in accordance with M.G.L. 21G. On June 24, 2015, in response to the application to transfer the Water Management Permit from the New Falmouth Woods, LLC to the FWG LLC (dba The Cape Club by Troon), the Department approved the transfer.

The Permit Extensions

The Cape Club by Troon's permit initially issued on March 31, 2004 and was originally set to expire on November 30, 2010. The Permit Extension Act (PEA), Section 173 of Chapter 240 of the Acts of 2010, as amended by Sections 74 and 75 of Chapter 238 of the Acts of 2012, extended all existing permits by four years. Therefore, WMA permits for withdrawals in the Cape Cod basin were extended to November 30, 2014. The Department accepted a renewal application from former New Falmouth Woods, LLC on November 27, 2009 and published notice of the permit renewal application in the Environmental Monitor on September 22, 2010. No comments were received.

In addition, in a letter on September 25, 2015, the Department informed the FWG LLC that the Department would need additional time before making a determination on the application in order to ensure that all permit renewal applicants in the Cape Cod Basin fully understood the new Water Management Regulations (discussed below), and to give proper consideration to all permit renewal applications within the basin. Pursuant to M.G.L.c.30A, § 13, and 310 CMR

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

TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep

Printed on Recycled Paper

36.18(7), FWG LLC's permit continues in force and effect until the Department issues a final decision on the permit renewal application.

Permit expiration dates were further extended by 462 days by the Governor's COVID-19 Order No. 42, "Order Resuming State Permitting Deadlines and Continuing to Extend the Validity of Certain State Permits, July 2, 2020. Recent promulgation of revised regulations (310 CMR 36.00) have adjusted permit expiration dates in several basins, including the Cape, so all permits going forward in the Cape Cod Basin will have a March 6, 2032 expiration date.

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

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

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

Water Management Regulation Revisions

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

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

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

- Safe yield determinations for the major river basins based on a new methodology developed through SWMI (see the Safe Yield in the Cape Cod Basin section of this

document or for more information on the Safe Yield methodology, go to the November 28, 2012 SWMI Framework Summary and Appendices);

- Water needs forecasts for public water suppliers developed by the Department of Conservation and Recreation, Office of Water Resources (DCR), using a methodology reviewed and approved by the Massachusetts WRC;
- Water supply protection measures for public water supplies including Zone II delineations for groundwater sources, and wellhead and surface water protection measures as required by Massachusetts Drinking Water Regulations (310 CMR 22.00);

Water conservation standards reviewed and approved by the WRC in July 2006 and revised in July 2018 (<https://www.mass.gov/doc/massachusetts-water-conservation-standards-2/>) including without limitation;

- performance standard of 65 residential gallons per capita day or less;
- performance standard of 10% or less unaccounted for water;
- seasonal limits on nonessential outdoor water use;
- a water conservation program that includes leak detection and repair, full metering of the system and proper maintenance of the meters, periodic review of pricing, and education and outreach to residents and industrial and commercial water users; and
- Environmental protections developed through SWMI, including without limitation;
 - protection for coldwater fish resources;
 - minimization of withdrawal impacts in areas stressed by groundwater use;
 - mitigation of the impacts of increasing withdrawals.

Safe Yield in the Cape Cod Basin

This permit is being issued under the Safe Yield methodology adopted by MassDEP on November 7, 2014, and described in the Regulations at 310 CMR 36.13. As of the date of issuance of this permit, the safe yield for the Cape Cod Basin is 266.0 million gallons per day (MGD), and total allocated withdrawals are 50.87 MGD. The maximum withdrawals that will be authorized in this permit, and all other permits currently under review by the Department within the Cape Cod 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 The Cape Club by Troon's Water Management Act Permit

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

Special Condition 1, Maximum Authorized Annual Average Withdrawal Volume, specifies the authorized annual average withdrawal volume for each period during the life of this permit. The existing authorized withdrawal volume for The Cape Club by Troon is 0.17 million gallons per day (MGD) or 35.0 million gallons per year (MGY) over 210 days from its two irrigation sources.

Special Condition 2, Maximum Authorized Daily Withdrawal From Withdrawal Point, reflects the volume of groundwater withdrawal expressed as a maximum daily rate for the irrigation well included in the permit. Withdrawals in excess of these maximum daily rates require approval from the Department.

Special Condition 3, Water Conservation Requirements, 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>).

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 between May 1st and September 30th when the Massachusetts Drought Management Task Force declares a drought level of “Mild Drought” or higher (“Significant Drought, Critical Drought or Emergency Drought”) for the region in which the golf course is located.

The SDMP shall also be implemented at times when groundwater level falls below a designated groundwater trigger measured at an assigned, web-based, real-time U.S. Geologic Survey (USGS) groundwater gage from May 1st through September 30th. At a minimum, restrictions shall commence when groundwater levels decline to or below the trigger for 60 consecutive days. The monthly trigger levels are the period of record’s monthly 25th percentile depth to water levels in a local well, as determined and published by the USGS. Restrictions could start on May 1, so monitoring of the well shall begin on March 1 of each year. The groundwater-triggered response actions shall be consistent with the drought-triggered response actions at the Mild Drought level. Once implemented, the restrictions shall remain in place until the daily value of the groundwater levels at the assigned USGS monitoring well have been recovered to less than the trigger for 30 consecutive days.

The Cape Club by Troon has been assigned the USGS monitoring well 414129070361401 (MA-BHW 198) in Bourne, MA. The monthly groundwater trigger values are shown in Table 4 of the permit. Should the reliability of the BHW 198 monitoring well be so impaired as to question its accuracy, the Permittee may request MassDEP’s review and approval to transfer to another monitoring well to trigger restrictions. MassDEP reserves the right to require use of a different groundwater trigger.

The Cape Club by Troon shall be responsible for tracking the Massachusetts Drought Management Task Force drought declarations and recording when drought-triggered restrictions are implemented. The Cape Club by Troon shall also be responsible for tracking groundwater levels and recording when groundwater-triggered restrictions are implemented. See the attached USGS WaterAlert instructions for tracking information.

The SDMP is intended to address the necessary minimums of acceptable demand management required as dry conditions begin to impact our environment from May through September. 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 Cape Club by Troon submitted a SDMP dated July 6, 2015 that included the Acre Table reduction approach shown in Table 5. This approach has been incorporated into the Permit.

Special Condition 5, Mitigation of Impacts for Withdrawals that Exceed Baseline Withdrawals

The renewed permit will include a condition that 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 the Cape Club by Troon is 0.12 MGD, which is the 2005 withdrawal volume plus 5%.

Because The Cape Club by Troon's authorized volume exceeds its baseline volume, a mitigation plan is required. MassDEP had meetings and email communication with representatives from The Cape Club by Troon about the mitigation plan since receiving the OTC response in 2015. There are no eligible direct mitigation activities identified at the golf course at this time and therefore indirect mitigation activities were evaluated to meet the mitigation requirements of 0.05 MGD. The Cape Club by Troon submitted a mitigation plan on March 7, 2017, that proposed contributing funds to the protection of a parcel of priority conservation land. However, MassDEP did not receive confirmation that a permanent conservation restriction (CR) had been placed on this parcel. On April 8, 2022, MassDEP received an email from a representative of The Cape Club by Troon stating that the golf course would achieve the certification with the Audubon Cooperative Sanctuary Program (ACSP) to meet its mitigation requirements. The Cape Club by Troon is required to obtain recognitions in the Environmental Planning and Water Conservation components. Additionally, The Cape Club by Troon shall obtain at least two recognitions from the components of Wildlife and Habitat Management, Chemical Use Reductions and Safety, or Water Quality Management.

The Cape Club by Troon shall obtain the required recognitions within three years of the issuance of the final permit, and it shall keep its ACSP recognitions active during the life of this permit. If The Cape Club by Troon fails to do so, additional mitigation options will need to be submitted and reviewed prior to exceeding the baseline volume of 0.12 MGD.

Public Health Commitment- the existing permit required that a TCE (trichloroethylene) analysis be conducted on the water withdrawn once per year at the start of the irrigation season. It further required that copies of the analytical data be submitted to the MassDEP by June 30th of each year. On June 27, 2016, The Cape Club by Troon submitted a request to MassDEP to eliminate this annual monitoring requirement from the permit. Attached to that request was the analytical results for the groundwater samples collected from the irrigation wells on April 27, 2016, and a June 07, 2016 letter from the Air Force Civil Engineer Center. The letter states that irrigation well samples since 2008 have consistently been below the TCE maximum contaminant level (MCL) and the extraction well was turned off as a result of the TCE plume being remediated in the area.

Based on the submitted sampling results, MassDEP approves the request to eliminate the monitoring condition from the renewed permit.

Minimization of Groundwater Withdrawal Impacts in Stressed Subbasins, requires permittees with permitted groundwater sources in subbasins¹ with net groundwater depletion of 25% or more during August to minimize their withdrawal impacts on those subbasins to the greatest extent feasible.

Since The Cape Club by Troon` permitted sources are located in the Cape Cod Basin where August net groundwater depletion has not been established, they are not currently required to implement measures to minimize the withdrawal impact. (See response to public comments below)

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

Response to public comments

The draft permit was posted in the Massachusetts Environmental Monitor for public comments from July 10, 2023 to August 10, 2023. MassDEP received one comment letter submitted by Massachusetts Rivers Alliance, on behalf of Mass Rivers, the Association to Preserve Cape Cod, and the Barnstable Clean Water Coalition. The public comment requests that MassDEP utilize new data developed by USGS in 2015 in the renewal process, include minimization plan requirements in the permit, and require that the Cape Club by Troon mitigate its additional withdrawals above baseline through direct mitigation measures. The comment also requests the Seasonal Demand Management Plan (SDMP) be implemented when groundwater levels at

¹ 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).

USGS monitoring well MA-BHW 198 decline to or below the monthly groundwater trigger for 7 consecutive days instead of 60 consecutive days as currently required in renewed Cape Cod permits with groundwater triggers for restrictions on nonessential outdoor water use.

While MassDEP may specify additional or alternative requirements to address impacts of withdrawals in groundwater-driven water sources (the southern portion of South Coastal, Cape Cod, Islands, and portions of Buzzards Bay) according to the 310 CMR 36.21 (5), the Department has determined that it is not necessary for this permittee to include additional or alternative requirements at this time. As noted by the commenters, a number of permits in the Cape Cod Basin have already been renewed through 2032. Consistency and equity among permittees are an important aspect of the permitting process and in this case, it is particularly important because there are other permitted golf courses competing for the same customers in the area. Imposing different permit requirements on this permittee would potentially create an economic disadvantage to the permittee. This permit, and all permits on the Cape, expire in 2032. New information on hydrology and environmental conditions, and updated permit requirements should be assessed at that time and universally applied as applicable.

Although permits on Cape Cod do not require a formal Minimization Plan, the goal of minimizing withdrawals, and thus impacts, is supported by other conditions in the permit. Specifically, the water conservation requirements in Special Condition 3, the irrigation management required during declared droughts or when groundwater levels fall required in Special Condition 5, and the Environmental Planning and Water Conservation component training required in Special Condition 6 will all contribute to minimizing withdrawals over the life of the permit.

MassDEP consulted with representatives of the Cape Club by Troon about the available mitigation options for the golf course. There are no eligible direct mitigation activities available to the golf course at this time. To only accept direct mitigation for withdrawals above baseline is not consistent with the Water Management Regulations at 310 CMR 36.22 (6)(b) which require indirect mitigation when an applicant cannot achieve all the mitigation required through direct mitigation.

The permit requires the golf course to limit nonessential outdoor water use through mandatory restrictions from May 1st through September 30th when either a Level 1-Mild Drought or higher is declared, or when the designated USGS monitoring well MA-BHW 198 falls below the monthly groundwater trigger for 60 consecutive days. Should the USGS monitoring well MA-BHW 198 have a delayed response to drought, the Cape Club by Troon is still constrained to the Massachusetts Drought Management Task Force declaration for implementing the Seasonal Demand Management Plan (SDMP). As noted, this condition is consistent with prior golf course permits renewed on Cape Cod.



Department of Environmental Protection

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

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Bonnie Heiple
Commissioner

WATER WITHDRAWAL PERMIT #9P4-4-22-096.02

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

PERMIT NUMBER: 9P4-4-22-096.02

RIVER BASIN: Cape Cod

PERMITTEE: FWG LLC (dba The Cape Club by Troon)

EFFECTIVE DATE: October 6, 2023

EXPIRATION DATE: March 6, 2032

NUMBER OF WITHDRAWAL POINTS: 2

Groundwater: 2

Surface Water: 0

USE: Golf Course Irrigation

DAYS OF OPERATION: 210 (April-November)

LOCATION:

Source Name	WMA Unique Source ID	Latitude	Longitude	Location
Irrigation Well 691G0015	WM10071- 01G	41°38'14" N	70°36'08" W	125 Falmouth Woods Road, North Falmouth
Irrigation Well 691G0016	WM10071- 02G	40°38'33" N	71°10'35" W	125 Falmouth Woods Road, North Falmouth

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

TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep

Printed on Recycled Paper

SPECIAL CONDITIONS

1. Maximum Authorized Annual Average Withdrawal Volume

This permit authorizes FWG LLC (dba The Cape Club by Troon) to withdraw water from the Cape Cod Basin at the rate described below in Table 1. The permitted volume is expressed both as an annual average daily withdrawal rate (million gallons per day or MGD), and as a total annual withdrawal volume (million gallons per year or MGY) for each permit period over the term of this permit.

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

Table 1: Maximum Authorized Annual Withdrawal Volumes

Permit Periods	Total Raw Water Withdrawal Volumes	
	Daily Average (MGD)	Total Annual (MGY)
10/6/2023 to 3/6/2027	0.17	35.0
3/7/2027 to 3/6/2032	0.17	35.0

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 2 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 withdrawals from the individual withdrawal points exceed the withdrawal volumes authorized above in Special Condition 1.

Table 2: Maximum Daily Withdrawal Volumes

Source Name	WMA Unique Source ID	Maximum Daily Rate (MGD)
Irrigation Well 691G0015	WM10071-01G	0.86
Irrigation Well 691G0016	WM10071-02G	0.072

3. Water Conservation Requirements

FWG LLC (dba The Cape Club by Troon) shall implement the following water conservation requirements (Table 3).

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: <ul style="list-style-type: none">• 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

FWG LLC (dba The Cape Club by Troon) shall limit nonessential outdoor water use through mandatory restrictions from May 1st through September 30th as outlined in the Seasonal Demand Management Plan (SDMP). At a minimum, restrictions shall commence when the Massachusetts Drought Management Task Force declares a Level 1- Mild Drought or higher Level 2- Significant Drought, Level 3-Critical Drought, or Level 4-Emergency Drought for the region in which the golf course is located.

The SDMP shall also be implemented at times when groundwater level falls below a designated groundwater trigger measured at an assigned, web-based, real-time U.S. Geologic Survey (USGS) groundwater gage from May 1st through September 30th. At a minimum, restrictions shall commence when groundwater levels decline to or below the trigger for 60 consecutive days. The groundwater-triggered response actions shall be consistent with the drought-triggered response actions at the Mild Drought level. Once implemented, the restrictions shall remain in place until the daily value of the groundwater levels at the assigned USGS monitoring well have been recovered to less than the trigger for 30 consecutive days.

The Cape Club by Troon has been assigned the following USGS monitoring well #414129070361401– MA-BHW 198 Bourne, MA. The groundwater trigger values are shown in Table 4 and are the monthly 25th percentile depth-to-water levels for the period of record, as determined and published by the USGS.

Groundwater-Level Triggers (feet below ground surface)

Groundwater-Level Triggers (feet below ground surface)						
March	April	May	June	July	August	Sept
33.32	32.99	32.74	33.12	33.68	34.01	34.31

The Cape Club by Troon is using the Acre Table Option for its SDMP, which requires that the club identifies irrigation in timing reduction cycles (Table 5).

Watering Less Irrigated Acreage as Drought Severity Increases Watering allowed up to designated percent

Massachusetts Drought Levels	Irrigated Tees & Greens		Irrigated Fairways		Irrigated Roughs		Irrigated Landscape & Ornamentals	
	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres
Normal	100%	6	100%	34	100%	12	100%	5
Mild Drought or WMA Permit Trigger is reached	100%	6	80%†	27.2	50%†	6	0%*	
Significant Drought	100%	6	60%†	7.2	0%			
Critical Drought	100%	6	40%†	4.8				
Emergency Drought**	TBD		0%				0%	

† Irrigation use 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.

* 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.

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

5. Mitigation

The Cape Club by Troon is required to mitigate 0.05 MGD for its permitted withdrawals over the baseline. In order to mitigate this volume, The Cape Club by Troon shall obtain recognition in four components of the Audubon Cooperative Sanctuary Program (ACSP). The components shall include Environmental Planning, Water Conservation, and two of the following: Wildlife and Habitat Management, Chemical Use Reduction and Safety, or Water Quality Management.

The Cape Club by Troon shall obtain the ACSP component recognitions within three years of the issuance of the final permit. Once the ACSP recognitions are obtained, The Cape Club by Troon shall maintain those required ACSP recognitions during the life of this permit.

General Permit Conditions (applicable to all Permittees)

1. **Duty to Comply** The Permittee shall comply at all times with the terms and conditions of this permit, the Act and all applicable State and Federal statutes and regulations.
2. **Operation and Maintenance** The Permittee shall at all times properly operate and maintain all facilities and equipment installed or used to withdraw up to the authorized volume so as not to impair the purposes and interests of the Act.
3. **Entry and Inspections** The Permittee or the Permittee's agent shall allow personnel or authorized agents or employees of MassDEP to enter and examine any property, inspect and monitor the withdrawal, and inspect and copy any relevant records, for the purpose of determining compliance with this permit, the Act or the regulations published pursuant thereto, upon presentation of proper identification and an oral statement of purpose.
4. **Water Emergency** Withdrawal volumes authorized by this permit are subject to restriction in any water emergency declared by MassDEP pursuant to M.G.L. c. 21G, §§ 15-17, M.G.L. c. 111, § 160, or any other enabling authority.
5. **Transfer of Permits** This permit shall not be transferred in whole or in part unless and until MassDEP approves such transfer in writing, pursuant to a transfer application on forms provided by MassDEP requesting such approval and received by MassDEP at least thirty (30) days before the effective date of the proposed transfer. No transfer application shall be deemed filed unless it is accompanied by the applicable transfer fee established by 310 CMR 36.37.
6. **Duty to Report** The Permittee shall submit annually, on a form provided by MassDEP, a certified statement of the withdrawal. Such report is to be received by MassDEP by the date specified by MassDEP. Such report must be mailed or hand delivered to the address specified on the report form.
7. **Duty to Maintain Records** The Permittee shall be responsible for maintaining withdrawal records as specified by this permit.
8. **Metering** Withdrawal points shall be metered. Meters shall be calibrated annually. Meter shall be maintained and replaced as necessary to ensure the accuracy of the withdrawal records.

9. **Amendment, Suspension or Termination** The Department may amend, suspend or terminate this permit in accordance with M.G.L. c. 21G or 310 CMR 36.29.

APPEALS

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

The Notice of Claim and supporting documentation must be sent by certified mail or hand delivered to:

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

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

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

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



Duane LeVangie
Water Management Program Chief
Bureau of Water Resources

October 6, 2023

Date

ATTACHMENT

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

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

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

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

- Scroll down to 414129070361401 - MA-BHW 198, Bourne, MA.
- Click on the station number.
- Under the dropdown menu “Data inventory” on the top of the website, click on “Daily Data”
- Under “Available Parameters” click on “72019 Water level, depth LSD (Mean)”.
- Under “Output format” click on “Table” and enter the number of days of records (the default is 7 days; entering 60 will give you the past 60 days of data) or the desired date range (from “Begin date” to “End date”) and hit “GO”.
- The table provides the “Daily Mean Depth to water level, feet below land surface” for the most recent number of days or desired date range chosen.
- Compare each day’s value to its month’s trigger value (25th percentile) in your permit. Outdoor water use restrictions must be implemented when the daily depth to water has been at or below (i.e. a greater value than) the trigger values for 60 consecutive days.

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

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