



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

May 30, 2025

Mark Lucas  
Nantucket Golf Club, Inc.  
250 Milestone Road  
P.O. Box 313  
Siasconset, MA 02564-0313

RE: Islands Basin—BWR/WMA  
Water Management Act Permit  
WMA Permit: #9P2-4-23-197.02

Dear Mr. Lucas,

Please find the attached documents:

- Findings of Fact in Support of the Renewed Water Management Act Permit #9P2-4-23-197.02; and
- Renewed Water Management Act Permit #9P2-4-23-197.02 (Islands Basin) for Nantucket Golf Club, Inc.

The signature on this cover letter indicates formal issuance of the attached document. If you have any questions regarding this information, please contact Emily Wilcox at [emily.wilcox@mass.gov](mailto:emily.wilcox@mass.gov) or me at (857) 276-5393 or via e-mail at [duane.levangie@mass.gov](mailto:duane.levangie@mass.gov).

Sincerely,

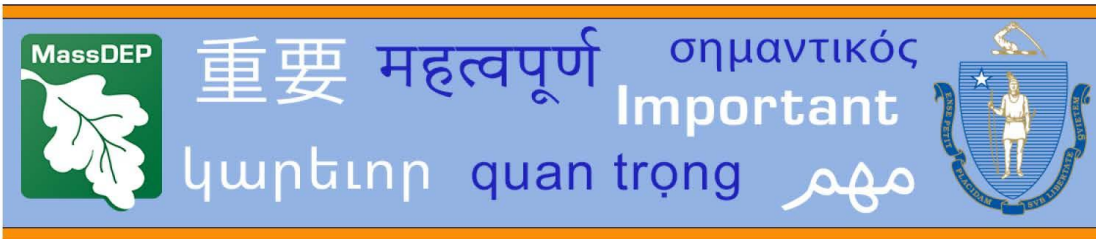
Duane LeVangie, Chief  
Water Management Program  
Bureau of Water Resources

[https://massgov.sharepoint.com/DEP-BWR/DWPWMA/Permit Renewals/Nantucket- Nantucket GC-Final WMA Permit\\_9P2-4-23-197.02\\_5-30-2025](https://massgov.sharepoint.com/DEP-BWR/DWPWMA/Permit%20Renewals/Nantucket-%20Nantucket%20GC-Final%20WMA%20Permit_9P2-4-23-197.02_5-30-2025)

Ecc: Lydia Olson, Massachusetts Rivers Alliance  
Duane LeVangie, WMA Program Chief—Boston  
Gerard Martin, Regional Director, MassDEP—Lakeville  
Lisa Graves, Nantucket Conservation Commission

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

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**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 EJ at the telephone number listed below.

**Español Spanish**

Este documento es importante y debe ser traducido de inmediato. Si necesita este documento traducido, comuníquese con la Directora de Diversidad de MassDEP al número de teléfono que aparece más abajo.

**Português Portuguese**

Este é um documento importante e deve ser traduzido imediatamente. Se precisar de uma tradução deste documento, entre em contato com o Diretor de Diversidade da MassDEP nos números de telefone listados abaixo.

**繁體中文 Chinese Traditional**

本文件非常重要，應立即翻譯。如果您需要翻譯這份文件，請用下面列出的電話號碼聯絡 MassDEP 多元化負責人。

**简体中文 Chinese Simplified**

本文件非常重要，应立即翻译。如果您需要翻译这份文件，请用下面列出的电话号码与 MassDEP 的多元化主任联系。

**Ayisyen Kreyòl Haitian Creole**

Dokiman sa-a se yon bagay enpòtan epi yo ta dwe tradwi l imedyatman. Si ou bezwen dokimar sa a tradwi, tanpri kontakte Direktè Divèsite MassDEP la nan nimewo telefòn endike anba.

**Việt Vietnamese**

Tài liệu này rất quan trọng và cần được dịch ngay lập tức. Nếu quý vị cần dịch tài liệu này, xin liên lạc với Giám đốc Đa dạng của MassDEP theo các số điện thoại ghi dưới đây.

**ប្រទេសកម្ពុជា Khmer/Cambodian**

ឯកសារនេះគឺសំខាន់ហើយត្រូវបានបកប្រែភ្លាមៗ។ ប្រសិនបើអ្នកត្រូវការឱ្យគេបកប្រែឯកសារនេះ សូមទាក់ទងមកនាយកផ្នែកពិពិធកម្មរបស់ MassDEP តាមលេខទូរស័ព្ទខាងក្រោម។

**Kriolu Kabuverdianu Cape Verdean**

*Kel dokumentu li é inportáti y debe ser traduzidu imidiatamenti. Se bu meste di kel dokumentu traduzidu, pur favor kontakta Diretor di Diversidádi di MassDEP na numeru abaxu indikadu.*



**Contact Deneen Simpson 857-406-0738**

**Massachusetts Department of Environmental Protection  
100 Cambridge Street 9<sup>th</sup> Floor Boston, MA 02114**

TTY# MassRelay Service 1-800-439-2370 • <https://www.mass.gov/environmental-justice>  
(Version revised 4.21.2023) 310 CMR 1.03(5)(a)

## Русский Russian

Это важный документ, и он должен быть безотлагательно переведен. Если вам нужен перевод данного документа, пожалуйста, свяжитесь с директором по вопросам многообразия (Diversity Director) компании MassDEP по указанному ниже телефону .

## العربية Arabic

هذه الوثيقة مهمة ويجب ترجمتها على الفور. إذا كنت بحاجة إلى هذه الوثيقة مترجمة، يرجى الاتصال بمدير التنوع PMASSDE على أرقام الهواتف المدرجة أدناه.

## 한국어 Korean

이 문서는 중요하고 즉시 번역해야 합니다. 이 문서의 번역이 필요하시다면, 아래의 전화 번호로 MassDEP의 다양성 담당 이사에 문의하시기 바랍니다.

## հայերեն Armenian

Այս փաստաթուղթը կարևոր է և պետք է անմիջապես թարգմանվի:  
Եթե Ձեզ անհրաժեշտ է այս փաստաթուղթը թարգմանել, դիմեք MassDEP-ի թարգմանաբանական տնօրենին ստորև նշված հեռախոսահամարով:

## فارسی Farsi Persian

این سند مهم است و باید فوراً ترجمه شود.  
اگر به ترجمه این سند نیاز دارید، لطفاً با مدیر بخش تنوع نژادی MassDEP به شماره تلفن ذکر شده در زیر تماس بگیرید.

## Français French

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

## Deutsch German

Dieses Dokument ist wichtig und sollte sofort übersetzt werden. Sofern Sie eine Übersetzung dieses Dokuments benötigen, wenden Sie sich bitte an den Diversity Director MassDEP unter der unten aufgeführten Telefonnummer.

## Ελληνική Greek

Το παρόν έγγραφο είναι σημαντικό και θα πρέπει να μεταφραστεί αμέσως. Αν χρειάζεστε μετάφραση του παρόντος εγγράφου, παρακαλούμε επικοινωνήστε με τον Διευθυντή Διαφορετικότητας του MassDEP στους αριθμούς τηλεφώνου που αναγράφονται παρακάτω.

## Italiano Italian

Comunicazione per parti che non parlano inglese. Questo documento è importante e dovrebbe essere tradotto immediatamente. Se avete bisogno di questo documento tradotto, potete contattare il Direttore di Diversità di MassDEP al numero di telefono elencato di seguito.

## Język Polski Polish

Dokument ten jest ważny i powinien zostać natychmiast przetłumaczony. Jeśli potrzebujesz przetłumaczonej wersji dokumentu, prosimy o kontakt z dyrektorem ds. różnorodności MassDEP pod jednym z numerów telefonu wymienionych poniżej.

## हिन्दी Hindi

यह दस्तावेज़ महत्वपूर्ण है और इसका तुरंत अनुवाद किया जाना चाहिए. यदि आपको इस दस्तावेज़ का अनुवाद करने की आवश्यकता है, तो कृपया नीचे सूचीबद्ध टेलीफोन नंबरों पर मासडेपस डायवर्सिटी के निदेशक से संपर्क करें.

Contact Deneen Simpson 857-406-0738

Massachusetts Department of Environmental Protection  
100 Cambridge Street 9<sup>th</sup> Floor Boston, MA 02114

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## **Findings of Fact in Support of Water Management Permit # 9P2-4-23-197.02 Nantucket Golf Club, Inc.**

The Department of Environmental Protection (the Department or MassDEP) makes the following Findings of Fact in support of the attached Water Management Act (WMA) Permit #9P2-4-23-197.02 and includes herewith its reasons for issuing the Permit and for conditions of approval imposed, as required by M.G.L. c. 21G, § 11. The issuance of the WMA permit is in response to the December 3, 2010 permit renewal application submitted by Nantucket Golf Club, Inc. (Nantucket GC) in the Islands Basin.

### **Nantucket Golf Club's Withdrawal History**

#### **Original Permit:**

On September 27, 1996, Nantucket GC was issued a WMA Permit (9P2-4-23-197.02) to withdraw an average volume of 0.22 million gallons per day (MGD) or 53.2 million gallons per year (MGY) over a 240-day operating season (April to November) through February 28, 2011. Nantucket GC is authorized to withdraw water for irrigation purposes from one groundwater source (NGC-1, WM4875-01) in the Islands Basin.

#### **Modified Permit:**

Nantucket GC's permit was modified on April 30, 2002, superseding the previously issued WMA Permit. Special Condition 1 in the modified permit changed from an authorized withdrawal volume of 0.22 MGD to 0.192 MGD or 46.0 MGY.

#### **Permit Expiration Date:**

WMA permits issued during the first 20-year permitting cycle for the Islands Basin were due to expire on February 28, 2011. On December 3, 2010, prior to the expiration date, Nantucket GC filed to renew its permit. Subsequently, the expiration dates in the Islands Basin for all Water Management permits were 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. Therefore, WMA permits for withdrawals in the Islands Basin were extended to February 28, 2015.

In April of 2015, MassDEP informed Nantucket GC and other permittees in the Islands Basin that MassDEP would need additional time before making a determination on their application in order to ensure that all permit renewal applicants 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 36.18(7), Nantucket GC's permit continues in force and effect until MassDEP issues a final decision on the permit renewal application.

In accordance with 310 CMR 36.17 (1), the expiration date for Nantucket GC's permit in the Islands Basin will be June 4, 2032.

**Permit Renewal Application:**

As noted above, MassDEP received a WMA 20-year permit renewal application from Nantucket GC for their withdrawals in the Islands Basin on December 3, 2010. The application requested to maintain the permitted withdrawal volume of 0.192 MGD or 46.0 MGY. Pursuant to M.G.L. c. 30A, § 13, and 310 CMR 36.18(7), Nantucket GC'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 Islands 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 Islands 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 Islands Basin is 104.4 MGD, and total registered and permitted withdrawals are 8.01 MGD. The maximum withdrawals that will be authorized in this permit, and all other permits currently under review by the Department within the Islands 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 Nantucket GC'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**

This condition reflects the previously permitted volume of 0.192 million gallons per day (MGD) over the 240-day irrigation season for a total of 46.0 million gallons per year (MGY). This rate has not been changed from the previous permit.

The language previously included in Special Condition 1, which allowed for withdrawals exceeding the annual average authorized volume by 0.1 MGD without requiring a new permit, will not be included in the updated permit. This change aligns with 310 CMR 36.16(1)(c), which stipulates that for persons with a permit for withdrawals within the water source, any withdrawal exceeding the authorized volume requires a new permit.

### **Special Condition 2, Maximum Authorized Daily Withdrawal from Withdrawal Point**

Withdrawals from NGC-1 (WM4875-01) are not to exceed the approved maximum daily volume without specific advance written approval from the Department. The authorized daily volume is the approved rate of the source (NGC-1, WM4875-01), which is 0.41 MGD.

### **Special Condition 3, Water Conservation Requirements**

In the 2002 permit, Special Condition 3 highlighted Chapter 30, Section 61 Permit Findings and Special Condition 4 discussed Water Conservation Requirements. Specifically, the 2002 permit discussed that Nantucket GC submitted documentation of the water conservation efforts that were being implemented. In the updated permit, these Conditions will be combined into one Special Condition 3 named Water Conservation Requirements.

Special Condition 3 incorporates the Water Conservation Standards for the Commonwealth of Massachusetts reviewed and approved by the Water Resources Commission in July 2018 (<https://www.mass.gov/doc/massachusetts-water-conservation-standards-2/>).

### **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 Environmental Affairs 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 from May 1<sup>st</sup> through September 30<sup>th</sup> when groundwater level falls below a designated groundwater trigger measured at an assigned, web-based, real-time U.S. Geologic Survey (USGS) groundwater gage. 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 below land surface in a local well, as determined and published by the USGS. Restrictions could start on May 1st, so monitoring of the well shall begin on March 1st 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.

Nantucket GC has been assigned the USGS monitoring well #411555070021901 (NBW 228) in Nantucket, MA. The proposed monthly groundwater trigger values are shown in Table 5 in permit. Should the reliability of the NBW 228 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.

Nantucket GC shall be responsible for tracking the Massachusetts Drought Management Task Force drought declarations and recording when drought-triggered restrictions are implemented. Nantucket GC 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 (Appendix A).

The SDMP is intended to address the necessary minimums of acceptable demand management required as dry conditions 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. Nantucket GC submitted a SDMP dated October 21, 2024, that selected the open-ended alternative approach (Table 6). This approach has been incorporated into the permit.

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

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 Nantucket GC is 0.14 MGD, the amount of water withdrawn during calendar year 2005 plus 5%. Therefore, Nantucket GC must submit and implement a mitigation plan to mitigate the volumes requested above 0.14 MGD, which is 0.052 MGD (52,000 gallons per day) or 5 indirect mitigation credits. Mitigation plans were discussed in the Order to Complete (OTC) issued on June 14, 2024, and in Nantucket GC's OTC Responses that the Department received on October 21, 2024.

Nantucket GC has decided to meet the mitigation requirements by committing to obtain the full Audubon Cooperative Sanctuary Program (ACSP) certification within three years of the issuance of the renewed permit. The full Audubon Certification qualifies for 12 indirect mitigation credits, which is equivalent to 120,000 gallons per day. The Department will confirm Nantucket GC's efforts to secure these certifications and maintain them during the term of the permit.

### **Other Water Management Act Considerations**

#### **Minimization of Groundwater Withdrawal Impacts in Stressed Subbasins**

Minimization requires permittees with 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. Since Nantucket GC's permitted source is located in the



Islands Basin where August net groundwater depletion has not been established, they are not currently required to implement measures to minimize the withdrawal impact.

#### Coldwater Fish Resource Protection

Coldwater Fish Resource Protection (CFR) protection was incorporated into the Water Management Regulations in November 2014. CFR Protection is not a condition of this permit because Nantucket GC's withdrawals do not impact any waters that MA Division of Fisheries and Wildlife has identified as supporting a coldwater fishery at this time.

#### Responses to Public Comments

MassDEP published the Draft Permit for Nantucket GC in the February 26, 2025 Environmental Monitor for review and comment. No comments were received.



# Department of Environmental Protection

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

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Secretary

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Commissioner

## **WATER WITHDRAWAL PERMIT #9P2-4-23-197.02 NANTUCKET GOLF CLUB, INC.**

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

**PERMIT NUMBER:** 9P2-4-23-197.02

**RIVER BASIN:** Islands

**PERMITTEE:** Nantucket Golf Club, Inc.  
250 Milestone Road  
P.O. Box 313  
Siasconset, MA 02564

**EFFECTIVE DATE:** May 30, 2025

**EXPIRATION DATE:** June 4, 2032

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

**USE:** Golf Course Irrigation

**DAYS OF OPERATION:** 240

### **LOCATIONS:**

**Table 1: Withdrawal Point Identification**

<b>Source</b>	<b>WMA ID#</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Location</b>
NGC-1	WM4875-01	41°16'15"	69°58'43"	250 Milestone Rd., Nantucket

**SPECIAL PERMIT CONDITIONS**

**1. Maximum Authorized Annual Average Withdrawal Volume**

This permit authorizes Nantucket Golf Club, Inc. (Nantucket GC) to withdraw water from the Islands Basin at the rate described below in Table 2. 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. Nantucket GC does not have a WMA Registration.

**Table 2: Maximum Authorized Withdrawal Rates**

Permit Periods	Total Raw Water Withdrawal Volumes	
	Daily Average (MGD)	Total Annual (MGY)
5/30/2025 to 6/4/2032	0.192	46.00

**2. Maximum Authorized Daily Withdrawal from Withdrawal Point**

Withdrawals from permitted withdrawal points are not to exceed the approved maximum daily volumes listed below without specific advance written approval from MassDEP (Table 3). The authorized maximum daily volume is the approved rate for each source. Maximum daily withdrawals for individual sources must be provided in annual reporting forms.

**Table 3: Maximum Authorized Daily Withdrawal Volumes**

Source Name	WMA ID#	Maximum Daily Rate (MGD)
NGC-1	WM4875-01	0.41

**3. Water Conservation Requirements**

At a minimum, Nantucket GC shall implement the following conservation measures forthwith (Table 4). Compliance with the water conservation requirements shall be reported to MassDEP upon request, unless otherwise noted below.

**Table 4: Water Conservation Requirements for Golf Courses**

Employee training in water conservation and management
Metering <ul style="list-style-type: none"> <li>• Water use is 100% metered.</li> <li>• Source meters are calibrated annually</li> </ul>
Irrigation System Inspection and Maintenance Program <ul style="list-style-type: none"> <li>• Weekly leak detection and repair during the irrigation season</li> <li>• Weekly sprinkler head maintenance/replacement during the irrigation season</li> <li>• Irrigation ponds are lined with impervious material</li> </ul>
Implementation of a Turf Management Plan <ul style="list-style-type: none"> <li>• Regular inspection of course to determine irrigation needs</li> <li>• Use of soil sensors or soil samples to determine soil moisture content</li> </ul>

<ul style="list-style-type: none"> <li>• Regulator aerating of turf to increase the percolation of water into the soil</li> <li>• Use of drought tolerant grasses and shrubs</li> <li>• Raising turf height during dry weather and drought conditions</li> <li>• Eliminating of irrigation whenever possible, such as in rough areas</li> <li>• Limited ornamental watering</li> </ul>
Reuse, where feasible, wastewater and/or stormwater for irrigation

**4. Seasonal Demand Management Plan**

Nantucket GC shall limit nonessential outdoor water use through mandatory restrictions 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 in which the golf course is located.

The SDMP shall also be implemented from May 1<sup>st</sup> through September 30<sup>th</sup> when groundwater level falls below a designated groundwater trigger measured at an assigned, web-based, real-time U.S. Geologic Survey (USGS) groundwater gage. 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 below land surface in a local well, as determined and published by the USGS. Restrictions could start on May 1st, so monitoring of the well shall begin on March 1st 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.

Nantucket GC has been assigned the USGS monitoring well: #411555070021901 NBW 228 in Nantucket, MA. The proposed monthly groundwater trigger values are shown below in Table 5. Should the reliability of the NBW 228 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.

**Table 5: Groundwater Trigger Levels for NBW 228 in Nantucket, MA**

Groundwater-Level Triggers (feet below ground surface)						
March	April	May	June	July	August	September
25.92	25.51	25.36	24.97	24.86	25.03	25.32

Nantucket GC has selected Option 3, an alternative approach to the Acres or Time-Table, for their SDMP (Table 6).

1. Daily Irrigation:
  - o Nantucket’s central computer must calculate irrigation run times based on data entered including:

- nozzle type, spacing, head type, sprinkler arc degree, and desired volume (in tenths of inches).
    - Irrigation volumes must be adjusted based on:
      - Field observations, evapotranspiration (ET) rates, moisture meter readings, and data from onsite weather station.
  - 2. Hot Spot Programs to focus on areas known to lose soil moisture faster
    - Implement targeted "hot spot" irrigation programs for fairways, greens, tees, roughs, and landscapes, addressing areas prone to dryness.
    - Maintain three levels of hot spot programs for fairways\*:
      - Level 1: Mild dryness – minimal sprinkler activation.
      - Level 2: Moderate dryness – more sprinklers activated.
      - Level 3: Severe dryness – maximum sprinklers for hot spot areas.
- \*Ensure no program activates all irrigation heads in any area.
- 3. Drought Management:
    - During drought periods or periods when the groundwater triggers are hit, irrigation amounts must be reduced based on the previous 30 days-worth of irrigation cycles (in gallons) averaged. Nantucket GC will then reduce by the required percentage for every given area as shown in Table 6.
    - Reductions for other areas must be quantifiable and reported.

**Table 6: Nantucket Golf Course Seasonal Demand Management Plan**

Irrigated Less Acreage as Drought Severity Increases Watering allowed up to designated percent								
Massachusetts Drought Level	Irrigated Tees & Greens		Irrigated Fairways		Irrigated Roughs		Irrigated Landscape & Ornaments	
	Percent	Gallons	Percent	Gallons	Percent	Gallons	Percent	Gallons
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.

\* Gallons calculated based on the average of the previous 30 days-worth of irrigation cycles

\*\* 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.

**5. Mitigation of Impacts for Withdrawals that Exceed Baseline**

The baseline volume for Nantucket GC is 0.14 MGD, the 2005 reported withdrawal volume plus 5%. Nantucket GC shall mitigate for the impacts of its authorized withdrawals (0.192 MGD)

beyond the baseline volume. To mitigate for this volume (0.052 MGD), Nantucket GC has committed to obtain the full Audubon Cooperative Sanctuary Program (ACSP) certification within three years of the issuance of this permit. Nantucket shall maintain its ACSP recognition during the life of this permit.

Nantucket GC shall also submit copies of those certifications to MassDEP for its review within three years of the issuance of this permit. Should those certifications not be received within three years of the permit's issuance date, then Nantucket's authorized withdrawals are limited to 0.14 MGD.

### **GENERAL 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 at reasonable times to enter and examine any property or inspect and copy any 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, s. 15-17, M.G.L. c. 111, s. 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 36.33.

**6. Duty to Report:** The permittee shall submit annually, on the electronic Annual Report form (eARF) accessed through MassDEP's eDEP website, a statement of the withdrawal. Such report must be submitted annually by the date identified on eDEP each year, unless the permittee has explicit permission from the MassDEP Drinking Water program for an extension of time.

**7. Duty to Maintain Records:** The permittee shall be responsible for maintaining withdrawal records in sufficient detail to assess compliance with the conditions of 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:** MassDEP may amend, suspend or terminate the permit in accordance with M.G.L. c. 21G and 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.



May 30, 2025

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Duane LeVangie  
Water Management Program Chief  
Bureau of Water Resources

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Date