



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Kathleen A. Theoharides
Secretary

Martin Suuberg
Commissioner

March 18, 2021

Nashawtuc Country Club
Attention: Greg Cormier
1861 Sudbury Road
Concord, MA 01742

City/Town: Concord
Program: Water Management Act (WMA)
WMA Permit #: 9P4-3-14-067.02
Action: Final Permit

Dear Mr. Cormier:

Please find the following attached:

- Findings of Fact in Support of the renewal of permit #9P4-3-14-067.02; and,
- Water Management Act Permit #9P4-3-14-067.02 for the Nashawtuc Country Club.

If you have any questions regarding this information, please contact Linjun Yao at (617) 556-1166 or via e-mail at Linjun.Yao@mass.gov.

Sincerely,

Duane LeVangie, Chief
Water Management Program
Bureau of Water Resources

ecc: Alison Field-Juma, OARS: for the Assabet, Sudbury, and Concord Rivers
Julia Blatt, Massachusetts River Alliance
Sara Bower, Mass Rivers Alliance

Y:\DWPARCHIVE\NERO\Concord-WMA Final Permit-9P431406702-3-18-2021

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

TTY# MassRelay Service 1-800-439-2370

MassDEP Website: www.mass.gov/dep

Printed on Recycled Paper

Communication For Non-English Speaking Parties - 310 CMR 1.03(5)(a)

Contact Michelle Waters-Ekanem, Diversity Director/Civil Rights: 617-292-5751 TTY# MassRelay Service 1-800-439-2370.

<http://www.mass.gov/eea/agencies/massdep/service/justice/>

(Version 3.30.15)



1 English:

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



2 Español (Spanish):

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



3 Português (Portuguese):

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



4(a) 中國（傳統）(Chinese (Traditional)):

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



4(b) 中国（简体中文）(Chinese (Simplified)):

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



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

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



6 Việt (Vietnamese):

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



7 ប្រទេសកម្ពុជា (Kmer (Cambodian)):

ឯកសារនេះគឺមានសារៈសំខាន់និងគួរត្រូវបានបកប្រែភ្លាម។ ប្រសិនបើអ្នកត្រូវបានបកប្រែឯកសារនេះសូមទំនាក់ទំនងឆ្នោតជំនាយក MassDEP នៅលេខទូរស័ព្ទដែលបានរាយខាងក្រោម។



8 Kriolu Kabuverdianu (Cape Verdean):

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



9 Русский язык (Russian):

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

Communication For Non-English Speaking Parties - 310 CMR 1.03(5)(a)

Contact Michelle Waters-Ekanem, Diversity Director/Civil Rights: 617-292-5751 TTY#
MassRelay Service 1-800-439-2370.

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10 العربية (Arabic):

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



11 한국어 (Korean):

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



12 հայերէն (Armenian):

Այս փաստաթուղթը շատ կարևոր է եւ պետք է թարգմանել անմիջապես. Եթե Ձեզ անհրաժեշտ է այս փաստաթուղթը թարգմանվել դիմել MassDEP բազմազանությունը տնօրեն է հեռախոսահամարների թվարկված են ստորև.



13 فارسی (Farsi (Persian):

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



14 Français (French):

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



15 Deutsch (German):

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



16 Ελληνική (Greek):

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



17 Italiano (Italian):

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



18 Język Polski (Polish):

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



19 हिन्दी (Hindi):

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



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Findings of Fact in Support of FINAL Permit Issuance Water Management Permit #9P4-3-14-067.02 Nashawtuc Country Club

The Department of Environmental Protection (the Department or MassDEP) makes the following Findings of Fact in support of the attached FINAL Water Management Act Permit Renewal #9P4-3-14-067.02, and includes herewith its reasons for issuing the Final 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 withdrawal permit renewal application by the Nashawtuc Country Club (Nashawtuc or the Club) for the purpose of golf course irrigation.

The Nashawtuc Country Club is an 18-hole golf course located in Concord, Massachusetts. The Club is registered to withdraw 0.10 million gallons per day (MGD) over 210 days per year, from one groundwater source (PW-1:WM4367-01G); and one surface water source (Pond-1: WM4367-01S) in the Concord Basin. See Registration #3-14-067.08.

On March 16, 2015, MassDEP issued a Water Management Act (WMA) Permit 9P4-3-14-067.02 authorizing the Nashawtuc Country Club to withdraw water from a new groundwater source, Well PW-2 (WM4367-02G) in the Concord River Basin. This permit did not authorize any additional annual volume but did limit the maximum daily withdrawal volume for Well PW-2 to 0.72 MGD (500 gpm for 24 hours).

On August 18, 2015, the Nashawtuc Country Club applied to MassDEP for a permit renewal in the Concord River Basin. On September 27, 2019, MassDEP issued a Permit Renewal Order to Complete (OTC) outlining specific information that was required to renew the Club's permit. Nashawtuc responded on December 24, 2019.

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

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

The WMA 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 Concord 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;
 - mitigation of the impacts of increasing withdrawals; and
- The special permit conditions in each Water Management Act permit.

Safe Yield in the Concord River Basin

This permit is being issued under the safe yield methodology adopted by the Department on November 7, 2014, and described in the regulations at 310 CMR 36.13. As of the date of issuance of this permit, the safe yield for the Concord Basin is 87.5 million gallons per day (MGD), and total registered and permitted withdrawals are 36.79 MGD. The maximum withdrawals that will be authorized in this permit, and all other permits currently under review by the Department within the Concord Basin, will be within the safe yield and may be further conditioned as outlined in the regulations. As noted above this permit does not allocate any additional withdrawal volumes, so it will not impact the safe yield of the Concord Basin.

Findings of Fact for Permit Conditions in Nashawtuc’s Water Management Act Permit

The following Findings of Fact for the special conditions included in the permit generally describe the rationale and background for each special condition in the FINAL 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, maintains the previously registered withdrawal volume of 0.10 million gallons per day (MGD) over a 210-day seasonal period through August 31, 2031 for a total of 21.0 million gallons per year. This rate appears sufficient based on reported water use since at least 2014, and also because the Club did not request an increase in authorized rate in the permit application.

Special Condition 2, Maximum Authorized Daily Withdrawal From Withdrawal Point, reflects that Well PW-2 is authorized to withdraw a maximum daily withdrawal volume of 0.72 MGD (500 gallons per minute for 24 hours), based on the withdrawal data submitted by the Club and the pumping test results included in the original permit application. This daily withdrawal volume is not to be exceeded without prior approval from MassDEP. The Well PW-1 and the Irrigation Pond are registered and as such do not have maximum daily pumping rates.

Special Condition 3, Water Conservation Requirements

The Water Conservation Practices Utilized at the Nashawtuc Country Club, submitted on December 24, 2019 as part of its Order to Complete (OTC) responses, has been combined with the Best Management Practices that Nashawtuc Country Club indicated as being implemented (according to the attached Seasonal Demand Management Plan). This combination constitutes the water conservation requirements of the renewed permit.

Special Condition 4, Seasonal Demand Management Plan

Consistent with sound 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 1 (Mild Drought) or higher Level 2 (Significant Drought), Level

3 (Critical Drought), Level 4 (Emergency Drought) for the region in which the golf course is located.

The SDMP shall also be implemented at times when streamflow falls below a designated flow trigger measured at an assigned, web-based, real-time USGS stream gage from May 1st through September 30th. At a minimum, restrictions shall commence when streamflow falls below the trigger for three consecutive days. The streamflow-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 streamflow at the assigned USGS local stream gage meets or exceeds the trigger streamflow for seven consecutive days. The low-flow statistic being applied, referred to as the “7-day low-flow statistic,” is the median value of the annual 7-day low flows for the period of record for the assigned gage. The 7-day low flow statistic is expected to respond more quickly to low-flow conditions than the State’s Drought Level Declaration.

The Nashawtuc Country Club has been assigned the USGS stream gage #01099500 – Concord River below River Meadow Brook at Lowell, MA. The 7-day low flow at this site is 71.0 cubic feet per second (cfs). Should the reliability of the flow measurement on Concord River at Lowell gage be so impaired as to question its accuracy, the Permittee may request MassDEP’s review and approval to transfer to another gage to trigger restrictions. MassDEP reserves the right to require use of a different groundwater trigger.

The Nashawtuc Country Club shall be responsible for tracking the Massachusetts Drought Management Task Force drought declarations and recording when drought-triggered restrictions are implemented. Nashawtuc Country Club shall also be responsible for tracking streamflow and recording when streamflow-triggered restrictions are implemented. See the SDMP in Table 4 and attached USGS Water Alert instructions for tracking information (Appendix A).

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.

As part of the *NCC Water Conservation Plan*, Nashawtuc Country Club submitted an SDMP using the Acres Table reductions in 2014. MassDEP has accepted Nashawtuc Country Club’s proposed SDMP and it is included as a condition of this renewed FINAL permit.

Please note that all permitted golf courses will be required to notify MassDEP when you put your SDMP or other required restrictions in place. Copies of the notification forms for golf courses

can be found at <https://www.mass.gov/info-details/outdoor-water-use-restrictions-for-cities-towns-and-golf-courses>.

Special Condition 5, Minimization of Groundwater Withdrawal Impacts in Stressed Subbasins, requires permittees with permitted groundwater sources in subbasins¹ with a net groundwater depletion (NGD) of 25% or more during August to minimize their withdrawal impacts on those subbasins to the greatest extent feasible, through an extension of water conservation and demand management that go beyond standard the Water Management Act permit requirements.

Since Nashawtuc`s permitted source is located in Subbasin 12063, which has August net groundwater depletion greater than 25% (39%), Nashawtuc Country Club is required to minimize their withdrawal impacts on Subbasin 12063.

As part of the Order to Complete response, Nashawtuc Country Club outlined the following conservation measures that go beyond standard the Water Management Act permit requirements.

- Use of a weather app or an onsite weather station combined with an automated irrigation system.
- Installation of rain shutoff switches on all new and existing irrigation systems.
- Reduction of irrigation rates in rough areas and, where possible, elimination of irrigation in non-play areas.
- Implement Green Maintenance Practices, including using native, drought-tolerant plants, or mulch materials in landscaping.
- Improving irrigation uniformity through careful evaluation of design criteria such as nozzle size, spacing, scheduling coefficient and pressure selection.
- Installation of 3rd-party retrofit nozzles.
- Use of a water storage ponds.
- Installation of low-pressure alarms on water pumps.

Mitigation of Impacts for Withdrawals that Exceed Baseline Withdrawals requires mitigation of the impacts of withdrawals above the permittee`s baseline, which in Nashawtuc Country Club`s case is their registered volume of 0.10 MGD or 21.0 MGY. Mitigation is not required at this time because volumes greater than the baseline are not allocated by this permit. Should Nashawtuc Country Club need more than 0.10 MGD over the 210 days period, they will need to file and obtain a new permit and provide the required mitigation if feasible.

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 Club`s withdrawal do not impact any waters that MA Division of Fisheries and Wildlife has identified as supporting coldwater fish at this time.

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).



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FINAL WATER WITHDRAWAL PERMIT
#9P4-3-14-067.02
Nashawtuc Country Club

This renewal of Permit #9P4-3-14-067.02 is approved pursuant to the Massachusetts Water Management Act (WMA) for the sole purpose of authorizing the withdrawal of a volume of water as stated below and subject to the following special and general conditions. This Permit conveys no right in or to any property.

PERMIT NUMBER: 9P4-3-14-067.02

RIVER BASIN: Concord

PERMITTEE: Nashawtuc Country Club

EFFECTIVE DATE: March 18, 2021

EXPIRATION DATE: August 31, 2031

NUMBER OF WITHDRAWAL POINTS: 1
Groundwater: 1

USE: Golf Course Irrigation

DAYS OF OPERATION: 210

LOCATION(S):

Source	Latitude	Longitude	Location
Irrigation Well PW-2	42° 07' 24.70" N	71° 02' 32.14" W	1861 Sudbury Road, Concord

SPECIAL CONDITIONS

1. Maximum Authorized Annual Average Withdrawal Volume

This Permit authorizes Nashawtuc Country Club to withdraw water from the Concord Basin at the rate described below (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). This permit does not authorize average withdrawal above the 21.0 MGY authorized under WMA Registration #31406708.

The Department of Environmental Protection (“MassDEP”) will use the water withdrawal volume from all authorized withdrawal points to assess compliance with the permitted withdrawal volume.

Table 1. Maximum Authorized Withdrawal Volumes

Permit Periods	Total Water Withdrawal Volumes			
	Permit		Permit + Registration	
	Daily Average (MGD)	Total Annual (MGY)	Daily Average (MGD)	Total Annual (MGY)
03/18/2021 to 08/31/2026	0.0	0.0	0.10	21.0
09/01/2026 to 08/31/2031	0.0	0.0	0.10	21.0

2. Maximum Authorized Daily Withdrawals from Withdrawal Point

Withdrawals from the point shall not to exceed the approved maximum daily volumes listed below (Table 2) without specific advance written approval from MassDEP.

Table 2. Maximum Daily Withdrawal Volumes

Source	Maximum Daily Rate (MGD)
Irrigation Well PW-2	0.72

3. Water Conservation Requirements

The Water Conservation Practices Utilized at the Club, submitted as part of its renewal application, has been combined with the Best Management Practices that Nashawtuc indicated as being implemented (according to the Order to Complete (OTC) responses and the Seasonal Demand Management Plan included in Special Condition 4). This combination constitutes the water conservation requirements of the renewed FINAL permit.

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 ensure no leaks throughout the system are present.

<ul style="list-style-type: none"> • Weekly Sprinkler head maintenance and replacement to ensure proper trajectory, pressure, and rotation • Weekly cleaning or replacing clogged nozzles.
c. Use of portable soil moisture sensors and golf weather apps to increase the efficiency of the irrigation system
d. Irrigating in the early morning or evening hours when evaporation rates are at their lowest, to extent practicable to maintain the turf
e. Regular aerating of turf to increase the percolation of water into the soil
f. Use of mulch materials in planting beds to improve water-holding capacity of the landscaping
g. Use of environmentally safe wetting agents to improve water infiltration and minimize evaporation
h. Use of low water use or native drought tolerant plants to the greatest extent practicable
i. Employee training in water conservation and management

4. Seasonal Demand Management Plan

The Nashawtuc Country Club 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 streamflow falls below a designated flow 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 streamflow falls below the trigger for three consecutive days. Once implemented, the restrictions shall remain in place until streamflow at the assigned USGS local stream gage meets or exceeds the trigger streamflow for seven consecutive days. The low-flow statistic being applied, referred to as the “7-day low-flow statistic,” is the median value of annual 7-day low flows for the period of record for the assigned gage. The 7-day low-flow statistic is expected to respond more quickly to low-flow conditions than the Drought Level Declaration.

Nashawtuc Country Club has been assigned USGS stream gage #01099500 – Concord River below River Meadow Brook at Lowell, MA. The 7-day low flow at this site is 71.0 cubic feet per second (cfs).

Nashawtuc Country Club selected an acre-reduction approach, which requires that the club reduces irrigation by acres (Table 4).

Table 4. Nashawtuc Country Club Time-Reduction in its SDMP

Massachusetts Drought Levels	Irrigating Less Acreage as Drought Severity Increases Watering allowed up to designated percent							
	Irrigated Tees & Greens		Irrigated Fairways		Irrigated Roughs		Irrigated Landscape & Ornamentals	
	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres
Normal	Full cycle	8.5	Full cycle	30	Full cycle	62	Full cycle	1
Level 1- Mild Drought or WMA SDMP Streamflow Trigger (71 cfs) is reached	Full cycle	8.5	80% [†]	24	50% [†]	31	0%	0
Level 2- Significant Drought	Full cycle	8.5	60% [†]	18	0%	0	0%	0
Level 3- Critical Drought	Full cycle	8.5	40% [†]	12	0%	0	0%	0
Level 4- Emergency Drought**	TBD**	TBD	0%	0%	0%	0	0%	0

[†] Irrigation shall not occur between the hours of 9 am and 5 pm, except that hand-watering of hot spots may occur at any time.

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

Golf permittees must notify MassDEP within 14 days of the effective date for triggering and implementing their SDMP. Notification is required for the initial implementation only each year. Copies of the notification forms for golf courses can be found at <https://www.mass.gov/info-details/outdoor-water-use-restrictions-for-cities-towns-and-golf-courses>

6. Minimization of Groundwater Withdrawal Impacts in Stressed Subbasins

The Nashawtuc Country Club shall minimize the impacts of its groundwater withdrawal from Irrigation Well PW-2 in Subbasin 12063, as following measures:

- Lining irrigation ponds with impervious material where permissible.
- Use of a weather app or an onsite weather station combined with an automated irrigation system.
- Installation of rain shutoff switches on all new and existing irrigation systems.
- Reduction of irrigation rates in rough areas and, where possible, elimination of irrigation in non-play areas.
- Implement Green Maintenance Practices, including using native, drought-tolerant plants, or mulch materials in landscaping.
- Improving irrigation uniformity through careful evaluation of design criteria such as nozzle size, spacing, scheduling coefficient and pressure selection.
- Installation of 3rd-party retrofit nozzles.
- Use of the water storage pond.
- Installation of low-pressure alarms on water pumps.

GENERAL PERMIT CONDITIONS (applicable to all Permittees)

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

1. **Duty to Comply** The Permittee shall comply at all times with the terms and conditions of this permit, the Act 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 water so as not to impair the purposes and interests of the Act.
3. **Entry and Inspections** The Permittee or the Permittee's agent shall allow personnel or authorized agents or employees of the Department to enter and examine any property over which Permittee has authority, title or control, for the purpose of determining compliance with this permit, the Act or the regulations published pursuant thereto, upon presentation of proper identification and an oral statement of purpose.
4. **Water Emergency** Withdrawal volumes authorized by this permit are subject to restriction in any water emergency declared by the Department pursuant to M.G.L. c. 21G, §§ 15-17, M.G.L. c. 150, § 111, or any other enabling authority.
5. **Transfer of Permits** This permit shall not be transferred in whole or in part unless and until the Department approves such transfer in writing, pursuant to a transfer application on forms provided by the Department requesting such approval and received by the Department at least thirty (30) days before the effective date of the proposed transfer. No transfer application shall be deemed filed unless it is accompanied by the applicable transfer fee established by 310 CMR 36.33.
6. **Duty to Report** The Permittee shall submit annually, on a form provided by the Department, a certified statement of the withdrawal. Such report is to be received by the Department by the date specified by the Department. Such report must be submitted as specified on the report form.
7. **Duty to Maintain Records** The Permittee shall be responsible for maintaining withdrawal and all other records as specified by this permit.
8. **Metering** Withdrawal points shall be metered. Meters shall be calibrated annually. Meters shall be maintained and replaced as necessary to ensure the accuracy of the withdrawal records.
9. **Right to Amend, Suspend or Terminate** The Department may amend, suspend or terminate the permit in accordance with M.G.L. c. 21G and 310 CMR 36.29.

APPEAL RIGHTS AND TIME LIMITS

This permit is a decision of the Department. Any person aggrieved by this decision may request an adjudicatory hearing as described herein and in accordance with the procedures described at 310 CMR 36.37. Any such request must be made in writing, by certified mail or

hand delivered and received by the Department within twenty-one (21) days of the date of receipt of this permit. The hearing request, including proof of payment of the filing fee, must be mailed to:

Case Administrator
MassDEP Office of Appeals and Dispute Resolution
One Winter Street
Boston, MA 02108

No request for an appeal of this permit shall be validly filed unless a copy of the request is sent by certified mail, or delivered by hand to the local water resources management official in the community in which the withdrawal point is located; and for any person appealing this decision, who is not the applicant, unless such person notifies the permit applicant of the appeal in writing by certified mail or by hand within five (5) days of mailing the appeal to the Department.

CONTENTS OF HEARING REQUEST

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

FILING FEE AND ADDRESS

The Department's fee transmittal form, together with a valid check, payable to the Commonwealth of Massachusetts in the amount of \$100 must be mailed to:

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

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

EXEMPTIONS

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

WAIVER

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



Duane LeVangie
Water Management Program Chief
Bureau of Water Resources

3/18/2021

Date

Appendix A – Instructions for Accessing Streamflow Website Information

Streamflow information is available at the USGS National Water Information System (NWIS): Web Interface. The USGS NWIS default shows Massachusetts streamflows in real time, i.e., the most recent, usually quarterly hourly, reading made at each USGS stream gage.

Seasonal Limits on Nonessential Outdoor Water Use are implemented when the mean daily streamflow falls below the designated trigger. The mean daily flow is not calculated until after midnight each day when the USGS computes the hourly data into a mean daily streamflow. As a result, permittees must use the mean daily streamflow from the preceding day when tracking streamflows.

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

- Scroll down to 01099500 – Concord River in Lowell, MA.
- Click on the gage number.
- Scroll down to “Provisional Date Subject to Revision – Available data for this site” and click on the drop-down menu.
- Click on “Time-series: Daily data” and hit GO.
- Scroll down to the “Available Parameters” box. Within the box, be sure “00060 Discharge (Mean)” is checked, then, under “Output Format” click “Table” and hit GO.
- Scroll down to “Daily Mean Discharge, cubic feet per second” table and find the current date on the table.
- Compare the cubic feet per second (cfs) measurement shown on the table to the cfs shown under Streamflow Triggered Restrictions above.

Nashawtuc Golf Course shall document compliance with the Seasonal Nonessential Outdoor Water Use Restrictions annually. All permitted golf courses must notify MassDEP within 14 days of the effective date for triggering and implementing their SDMP. Notification is required for the initial implementation only each year. Copies of the notification forms for golf courses can be found at <https://www.mass.gov/info-details/outdoor-water-use-restrictions-for-cities-towns-and-golf-courses>.