



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

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

March 16, 2015

Mr. Greg Cormier
Nashawtuc Country Club
1861 Sudbury Road
Concord, MA 01742

RE: Nashawtuc Country Club— Concord
River Basin
Program: Water Management Act
Action: Withdrawal Permit
#9P4-3-14-067.02

Dear Mr. Cormier:

Please find attached the following:

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

All Permits in the Concord River basin are scheduled to expire on August 31, 2015. However MassDEP expects to extend your current permit provided a permit renewal application is filed between June 30, 2015 and August 31, 2015. MassDEP will be contacting all Concord basin permittees in advance of the renewal application filing date soon with information on the permit renewal process.

If you have any questions and would like to meet to discuss the permit, please contact Richard Friend at 617-654-6522 or by email at richard.friend@state.ma.us.

Sincerely,

Beth Card
Assistant Commissioner
Bureau of Water Resources

Enclosures

Cc: SuAsCo Watershed Community Council, Suite 200, 118 Great Road, Stow, MA 01775
Mike Toohill, BSC Group, 33 Waldo Street, Worcester MA 01608

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

English

This document is important and should be translated immediately.

Spanish

Este documento es importante y se debe traducir inmediatamente.

Portuguese

Este original é importante e deve ser traduzido imediatamente.

Italian

Questo documento è importante e dovrebbe essere tradotto immediatamente.

Greek

Αυτό το έγγραφο είναι σημαντικό και πρέπει να μεταφραστεί αμέσως.

French

Ce document est important et devrait être traduit immédiatement.

Chinese (traditional)

這個文件重要和應該立刻被翻譯。
这个文件重要和应该立刻被翻译。



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Final Findings of Fact in Support of the Final Permit Decision Water Management Permit # 9P4-3-14-067.02

The Department of Environmental Protection (“MassDEP” or “the Department”) has completed its review of the Nashawtuc Country Club (NCC) Water Management Act permit application based upon the January 2007 Water Withdrawal Permit Application and the June 2008 Permit Application Re-Submittal prepared by ENR Corporation. The permit application is for withdrawing water from the Concord River basin. The Department hereby issues Water Management Permit # 9P4-3-14-067.02 (the “Permit”) in accordance with the Water Management Act (M.G.L. 21G). The Department makes the following Findings of Fact in support of the attached permit, and includes herewith its reasons for issuing the permit and for the conditions of approval imposed, as required by M.G.L. c.21G, s. 11 and 310 CMR 36.00. The permit is being issued since such action is necessary for the promotion of the purposes of MCL c. 21G. The Department may modify, suspend or terminate the permit, after notice and hearing, for violations of its conditions, of M.G.L. c. 21G, or of regulations adopted or orders issued by the Department, and when deemed necessary for the promotion of the purposes of the Water Management Act.

Nashawtuc Country Club’s Water Withdrawal History

Nashawtuc Country Club’s Water Management Act registration #31406708, re-issued December 31, 2007, authorizes an average daily volume of 0.10 million gallons per day (MGD) over 210 days per year, or a total annual volume of 21.0 million gallons (MG). From 2007 to 2011 NCC pumped an average annual volume of 0.082 MGD. The lowest year was 2011 (0.06 MGD) and the highest year was 2007 (0.10 MGD). This permit does not authorize any additional annual volume; it only authorizes the use of a new groundwater source (well PW-2).

The Water Management Act

General Permit Factors

The Water Management Act requires that MassDEP issue permits that balance a variety of factors including:

- Reasonable protection of existing water uses, land values, investments and enterprises;
- 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.

MassDEP has determined that there is documented evidence that an increase in development and impervious area, combined with out-of-basin export of wastewater and water withdrawals, substantially contribute to low stream flow in the Commonwealth. Low stream flows impact the ability of rivers and tributaries to adequately serve all of the competing uses described in the Act. To better achieve the balance of competing water uses named in the Act, the MassDEP refers to the Water Conservation Standards adopted by the Massachusetts Water Resources Commission (WRC) July 2006, updated June 2012. The standards can be found at <http://www.mass.gov/eea/docs/eea/wrc/water-conservation-standards-rev-june-2012.pdf>

The Lawn and Landscape standards are outlined in Section 9 of the document and Appendices I, J and K contain additional information on water conservation measures, irrigation practices and turf management. In accordance with Section 9 of the Standards, MassDEP requires golf course permittees to submit a seasonal demand management plan (SDMP) and an updated water conservation plan when a permit application is submitted. These plans then become a condition of the permit and are enforceable thereunder.

Safe Yield Permit Factor

Among the minimum permit factors required by MGL c 21G §7 is a determination by MassDEP that permitted water withdrawals are within the safe yield of the water source from which they are made. MGL c 21G §2 defines "safe yield" as: "the maximum dependable withdrawal that can be made continuously from a water source including ground or surface water during a period of years in which the probable driest period or period of greatest water deficiency is likely to occur; provided however, that such dependability is relative and is a function of storage and drought probability." For the purposes of the Water Management Program, MassDEP considers a water source to be any one of Massachusetts' 27 major river basins. A map of the 27 major river basins has been developed by the Massachusetts Department of Conservation and Recreation and can be viewed at: <http://www.mass.gov/eea/agencies/dcr/water-res-protection/interbasin-transfer-act/>.

No increase in the annual authorized withdrawal volume is provided under this permit and, therefore, this permit has no impact on Safe Yield.

Finding of Fact for Special Permit Conditions

As required by MGL c 21G, s 11 and 310 CMR 36.00, the Department makes the following Findings of Fact in support of the Permit, and includes herewith its reasons for approving the Permit and for imposing the conditions of approval.

Special Condition 1, Maximum Authorized Annual Average Withdrawal Rate, is the previously registered rate of 0.10 million gallons per day (MGD) through the remainder of the life of the permit. This rate appears sufficient based on reported water use since at least 2007, and also because NCC did not request an increase in authorized rate in the permit application.

Special Condition 2, Maximum Authorized Daily Withdrawal Rate from each Withdrawal Point, authorizes daily withdrawal volumes from the Concord River Basin and limits the daily withdrawal volume for new supply well PW-2 to 0.72 MGD (500 gpm for 24 hours), based on the pumping test results included in the permit application . 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, incorporates the Water Conservation Standards for the Commonwealth of Massachusetts reviewed and approved by the Water Resources Commission in July 2006 and updated June 2012. NCC shall also implement its Seasonal Demand Management Plan if a drought advisory or higher level is declared by the Massachusetts Drought Management Task force for the Northeast region.

The summary of permit conditions above as part of the Department's findings of fact is not intended to, and should not be construed as, modifying any of the Permit conditions. In the event of any ambiguity between the summary and the actual permit conditions, the Permit language shall be controlling.



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WATER WITHDRAWAL PERMIT MGL c 21G

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

PERMIT NUMBER: 9P4-3-14-067.02

RIVER BASIN: Concord

PERMITTEE: Nashawtuc Country Club
1861 Sudbury Road
Concord, MA 01742

EFFECTIVE DATE: March 16, 2015

PERMIT EXPIRATION DATE: August 31, 2015*

* The original expiration date for Concord river basin permits was August 31, 2011. In 2010 this date was extended for 2 years, to August 31, 2013, by Section 173 of Chapter 240 of the Acts of 2010, the Permit Extension Act. In 2012 the Permit Extension Act was amended by Chapter 238 of the Acts of 2012 and Concord River basin permits were extended an additional 2 years to August 31, 2015.

NUMBER OF WITHDRAWAL POINTS: 1

Groundwater: 1

USE: Golf Course Irrigation

DAYS OF OPERATION: 210 (April to October)

WITHDRAWAL POINT IDENTIFICATION:

Table 1

Name	Well Location
Irrigation Well PW-2	1861 Sudbury Road, Concord MA

SPECIAL CONDITIONS

1. Maximum Authorized Annual Average Withdrawal Rate

This permit authorizes Nashawtuc Country Club (NCC) to withdraw water from the Concord River Basin at the rate described in Table 2. The permitted rate is expressed both as an annual average daily withdrawal rate (million gallons per day or MGD), and as a total annual withdrawal rate (million gallons per year or MGY). This permit does not authorize average withdrawal above the 21.0 MGY authorized under registration #31406708 issued to NCC for the Concord River basin. The Department of Environmental Protection (“MassDEP” or “the Department”) bases the withdrawal rate on the raw water withdrawn from the authorized withdrawal points, and will use the raw water rate to assess compliance with the registered and permitted withdrawal rates.

Table 2: Maximum Authorized Withdrawal Rate

Period		Total Raw Water Withdrawal Rates			
		Permit		Permit + Registration	
		Daily Average (MGD)	Total Annual (MGY)	Daily Average (MGD)	Total Annual (MGY)
Period Four Years 16-20*	3/16/2015 to 8/31/2015	0.0	0.0	0.10	21.0

*An additional four years have been added under the Permit Extension Act, Section 173 of Chapter 240 of the Acts of 2010 and Chapter 238 of the Acts of 2012.

2. Maximum Daily Withdrawal Rate from Withdrawal Point

Withdrawal from the following source is not to exceed the approved maximum daily rate listed in Table 3 without advance approval from the Department.

Table 3: Maximum Daily Withdrawal Rate from Withdrawal Point

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

3. Water Conservation Requirements and Seasonal Demand Management Plan

Metering

- All water withdrawal points must be metered.
- Metering must be performed with meters of proper size and accuracy to measure water flow to within 5 percent.
- All master meters must be calibrated annually.

Leak Detection

The Nashawtuc Country Club currently implements a leak detection program as part of its Best Management Practices. The Department commends these efforts and encourages the continuation of aggressive leak detection practices. The following minimum leak detection requirements apply to this permit:

- The Nashawtuc Country Club shall conduct a full leak detection survey at a frequency of no less than biennially (once every two years).

Leak Repair

- Leaks are to be fixed as soon as possible, but in no event shall any leak remain unrepaired more than seven (7) days after detection.
- Nashawtuc Country Club must have repair reports available for inspection by the Department.

Education

- Continue to implement a golf course employee education program which emphasizes:
 - all the costs of providing water
 - that investments in efficiency and conservation will provide the course with long-term savings
 - the environmental benefits of irrigation Best Management Practices.

Irrigation

The Nashawtuc Country Club has developed Water Conservation Best Management Practices that include a turf management plan, regular maintenance, leak detection, regular aeration and spiking of soil to reduce compaction and improve percolation of water into the soil, and a sprinkler management program.

The Nashawtuc Country Club has also developed and will implement beginning with the 2015 irrigation season a Seasonal Demand Management Plan for use during a Drought Advisory or greater level, or during a Drought Emergency. Drought levels may be monitored at: <http://www.mass.gov/eea/agencies/dcr/water-res-protection/water-data-tracking/drought-status.html> . Table 4 lists watering restrictions to be followed by Nashawtuc Country Club.

**Table 4
 Percent and Acreage of Allowed Watering During Various Drought Stages
 Nashawtuc Country Club**

DMTF* Drought Status	Tees and Greens		Fairways		Roughs		Landscape and Ornamentals	
	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres
Normal	100	5.5	100	30	100	63	100	1
Advisory	100	5.5	80	24	50	31.5	0	0
Watch	100	5.5	60	18	0	0	0	0
Warning	100	5.5	40	12	0	0	0	0
Emergency	TBD	TBD	TBD	TBD	0	0	0	0

*Massachusetts Drought Management Task Force.
 TBD: To be decided during a Drought Emergency.

Nashawtuc Country Club shall supplement this existing water conservation program, by implementing the following Best Management Practices:

- Install, or retrofit, irrigation and sprinkler systems that reduce water use;
- Implement Green Maintenance Practices, including planting turf that requires less water, and
- the use of tensiometers to ensure that watering does not occur when it is not necessary.
- Upon request, the Nashawtuc Country Club shall submit to the Department a report documenting the work it has done to implement the water conservation program and estimating the amount of water saved as a result of that program.

GENERAL PERMIT CONDITIONS (applicable to all permittees)

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

1. **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 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 MGL c 21G ss 15-17, MGL c 150 ss 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 36.37.
6. **Duty to Report** The permittee shall complete and submit annually, on a form provided by the Department, all of the information required by said form including, without limitation, a certified statement of the withdrawal. Such report shall be received by the Department by the date specified on the form each year. Such report must be mailed or hand delivered to:

Department of Environmental Protection
Water Management Act Program
One Winter Street, 5th Floor
Boston, MA 02108

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

APPEAL RIGHTS AND TIME LIMITS

This permit is a decision of the Department. Any person aggrieved by this decision may request an adjudicatory hearing under the provisions of MGL c 30A. Any such request must be made in writing, by certified mail and received by the Department within twenty-one (21) days of the date of receipt of this permit. 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 city or town in which the withdrawal point(s) 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 this permit.

FILING FEE AND ADDRESS

The hearing request, 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 city or town (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.

