

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

#### **FINAL**

Tournament Players Club of Boston Attention: Thomas G. Brodeur 205 Arnold Palmer Boulevard Norton, MA 02766 February 14, 2020

Town: Norton

Program: Water Management Act (WMA)

WMA Permit #: 9P4-4-25-218.02

Action: Final Permit

Dear Mr. Brodeur:

Please find the following attached:

- FINAL Findings of Fact in Support of the renewal of permit #9P4-4-25-218.02; and,
- FINAL Water Management Act Permit #9P4-4-25-218.02 for the Tournament Players Club of Boston.

If you have any questions regarding this information, please contact Shi Chen at (617) 292-5532 or via e-mail at <a href="mailto:shi.chen@state.ma.us">shi.chen@state.ma.us</a>.

Sincerely,

Duane LeVangie, Chief

Water Management Program Bureau of Water Resources

Ecc: Julia Blatt, Massachusetts River Alliance

Y:\DWPWMA\Permit Renewals\Taunton\Norton-TPC Boston-WMA Final Permit-9P442521802-2020-02-14

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Massachusetts Department of Environmental Protection
One Winter Street, Boston MA 02108 • Phone: 617-292-5751
Communication For Non-English Speaking Parties - 310
CMR 1.03(5)(a)



#### 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 abaio.



# 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):

ឯកសារនេះគឺមានសារៈសំខាន់និងគួរគ្រូវបានបកប្រែក្លាម។ ប្រសិនបើអ្នកគ្រូវ បានបកប្រែឯកសារនេះសូមទំនាក់ទំនងឆ្នោតជានាយក MassDEP នៅលេខទូរស័ព្ទ ដែលបានរាយខាងក្រោម។



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.



10 العربية (Arabic):

هذه الوثيقة الهامة وينبغي أن تترجم على الفور . اذا كنت بحاجة الى هذه الوثيقة المترجمة ، يرجى الاتصال مدير التنوع في MassDEP على أرقام الهواتف المدرجة أدناه .



### 11 한국어 (Korean):

이 문서는 중요하고 즉시 번역해야합니다. 당신이 번역이 문서가 필요하면 아래의 전화 번호로 MassDEP의 다양성 감독에 문의하시기 바랍니다.



### 12 հայերեն (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.



# :(Farsi (Persian) فارسى 13

این سند مهم است و باید فورا ترجمه شده است. اگر شما نیاز به این سند ترجمه شده، لطفا با ما تماس تنوع مدیر MassDEP 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 दस्तावेज़ की जरूरत हैं, नीचे सूचीबद्ध फोन नंबरों पर MassDEP की विविधता निदेशक से संपर्क करें.



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# Findings of Fact in Support of FINAL Water Management Permit #9P4-4-25-218.02 Tournament Players Club of Boston

The Department of Environmental Protection ("MassDEP" or "the Department") makes the following Findings of Fact in support of the attached Final Water Management Permit #9P442521802, and includes herewith its reasons for issuing the Final Permit and for 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 M.G.L.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.

The Department 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.

#### Tournament Players Club of Boston Water Withdrawal History

The TPC Boston is an 18-hole golf course located in the Norton, Massachusetts. TPC Boston was first issued a Water Management Act permit in August 28, 2003 for its withdrawal from seven wells in the Taunton River Basin at a rate of 50.01 million gallons over 214 days, or 0.234 million gallons per day (MGD). TPC Boston has reported annual withdrawal below its permitted volume from 2014 to 2018. The average daily withdrawal volume for the TPC Boston in 2018 was 0.09 MGD.

#### The Permit Extensions

TPC Boston's WMA permit was initially set to expire on February 28, 2010. The Department accepted a renewal application from the TPC Boston on November 2009. Subsequently, the Permit Extension Act, 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 Taunton River Basin were extended to February 28, 2014.

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

On March 28, 2016, the Department informed the TPC Boston 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 Taunton River 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 36.18(7), TPC Boston's permit continues in force and effect until the Department issues a final decision on the permit renewal application.

The Department published notice of the permit renewal application in the Environmental Monitor on March 21, 2018. No comments were received.

The expiration date for all permits going forward in the Taunton Basin will be February 28, 2030, in order to restore the staggered permitting schedule set forth in the regulations.

# 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 (<a href="http://www.mass.gov/eea/docs/eea/water/swmi-framework-nov-2012.pdf">http://www.mass.gov/eea/docs/eea/water/swmi-framework-nov-2012.pdf</a>) 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 Taunton River Basin section of this document);
- Environmental protections developed through SWMI, including without limitation;
  - o protection for coldwater fish resources;
  - o minimization of withdrawal impacts in areas stressed by groundwater use;
  - o mitigation of the impacts of increasing withdrawals; and
- The special permit conditions in each Water Management Act permit.

#### Safe Yield in the Taunton 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 Taunton Basin is 244.4 million gallons per day (MGD), and total registered and permitted withdrawals are 92.45 MGD, leaving 151.95 MGD potentially available. The maximum withdrawals that will be authorized in this permit, and all other permits currently under review by the Department within the Taunton Basin, will be within the safe yield and may be further conditioned as outlined in the regulations.

# <u>Findings of Fact for Permit Conditions in Tournament Players Club of Boston's Water Management Act Permit</u>

The following Findings of Fact for the special conditions include 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, reflects the permitted withdrawal volume of 0.21 million gallons per day (MGD) over a 214-day seasonal period through February 28, 2030 for a total of 44.94 million gallons per year. The TPC Boston stated in its response to the permit renewal Order to Complete (OTC) that the golf course is no longer in need of the original 0.234 MGD authorized volume due to its diligent conservation measures and conservative water use. TPC Boston has agreed to reduce the authorized volume to its baseline withdrawal volume of 0.21 MGD. Should TPC Boston need to withdraw more than 0.21 MGD of water in the future, a new permit application (BRPWM03 Form) and public notice are required.

Special Condition 2, Maximum Authorized Daily Withdrawal From Withdrawal Points, reflects the volume of groundwater withdrawal expressed as a maximum daily rate for the irrigation wells included in the permit. According to MassDEP's records, the well RW-9 exceeded its maximum withdrawal limit in 2014 and 2016; the well RW-4 exceeded the limit in 2016. TPC Boston responded that the exceedances occurred due to the storage supply shortage during the abnormally dry periods. TPC Boston pledged in the responses that it would ensure the

compliances of all wells moving forward and it plans to replace one of the non-operational well to increase the flexibility in supplying water for the golf course. TPC Boston should note that withdrawals in excess of these maximum daily rates require approval from the Department.

Special Condition 3, Water Conservation Requirements The OTC responses submitted by TPC Boston, has been combined with the Best Management Practices that TPC Boston indicated as being implemented (according to the attached Seasonal Demand Management Plan). This combination constitutes the water conservation requirements of the renewed permit.

Formerly Special Condition 4, Wetlands Monitoring has been removed from this renewed permit. The certificate of the final environmental impact report for the Park at Great Woods project (TPC Boston) issued on January 14, 2000 required TPC Boston to conduct a wildlife survey to document the project site's pre and post construction wildlife inventory to determine the project's impacts on the wetlands' ability to contribute to wildlife habitat. In the OTC responses, TPC Boston submitted Certificate of Compliance for MassDEP's Order of Conditions File #250-445 to demonstrate its continuous efforts on mitigating the project's impacts on the surrounding wetland resource areas. In addition, TPC Boston has achieved certifications through the E-par program for golf course operations and the Audubon Cooperative Sanctuary Program for Golf Courses (ACSP). Both of these programs focus on environmental sustainability and encourage Best Management Practices (BMPs) in golf courses. Based on the evidences, MassDEP encourages TPC Boston to keep its current certifications active during the life of this permit and continue evaluating and implementing those BMPs at the golf course.

# 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 Permits. The SDMP, at a minimum, restricts nonessential outdoor water use between May 1<sup>st</sup> and September 30<sup>th</sup> 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 U.S. Geologic Survey (USGS) stream gage from May 1st through September 30th. At a minimum, restrictions shall commence when streamflow falls below the trigger for three consecutive days. The streamflow-triggered response actions shall be consistent with the drought-triggered response actions at the Advisory 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 Drought Management Task Force Drought Declaration.

TPC Boston has been assigned the USGS stream gage #01109000-Wading River near Norton, MA. The 7-day low flow at this site is 4.3 cubic feet per second (cfs). Should the reliability of the flow measurement at the Wading River near Norton 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.

TPC Boston shall be responsible for tracking the Massachusetts Drought Management Task Force drought declarations and recording when drought-triggered restrictions are implemented. TPC Boston shall also be responsible for tracking streamflow and recording when streamflow-triggered restrictions are implemented. See the SDMP in Table 4 and 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 the 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 Order to Complete (OTC) responses, TPC Boston submitted an SDMP using the Time Table reductions. MassDEP has accepted TPC Boston's proposed SDMP and it is included as a condition of this renewed permit.

Formerly Special Condition 5, M.G.L. Chapter 30 Section 61 Permit Findings has been removed from this renewed permit. This former condition required TPC Boston to adopt water conservation measures and monitor the wetland resources adjacent to the on-site Well RW-13 to avoid or minimize adverse environmental impacts. Since MassDEP has decided to remove the wetlands monitoring condition from this renewed permit and the water conservation requirements are addressed in Special Condition 3, the former Special Condition 5 is no longer applicable to this renewed permit.

Mitigation of Impacts for Withdrawals that Exceed Baseline Withdrawals requires mitigation of the impacts of withdrawals above the permittee's baseline, which is based on withdrawals made during 2003-2005. The calculated baseline withdrawal volume for TPC Boston is 0.21 MGD or 44.94 MGY, the amount of water withdrawn during calendar year 2005 plus 5%. Mitigation is not required at this time because volumes greater than the baseline are not allocated by this permit. Should TPC Boston need more than 0.21 MGD they will need to file and obtain a new permit and provide the required mitigation if feasible.

Norton – Tournament Players Club of Boston FINAL Water Management Act Permit 9P4-4-25-218.02

Minimization of Groundwater Withdrawal Impacts in Stressed Subbasins, requires permittees with permitted groundwater sources in subbasins<sup>1</sup> with net groundwater depletion (NGD) of 25% or more during August to minimize their withdrawal impacts on those subbasins to the greatest extent feasible.

Since TPC Boston's permitted source is located in a subbasin (#24067) with an August NGD less than 25%, it is not currently required to develop a minimization plan.

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

<sup>&</sup>lt;sup>1</sup> 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).



# 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

# FINAL WATER WITHDRAWAL PERMIT #9P442521802 Tournament Players Club of Boston

This renewal of Permit #9P442521802 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:** 9P4-4-25-218.02

**RIVER BASIN:** Taunton

PERMITTEE: Tournament Players Club of Boston

**EFFECTIVE DATE:** February 14, 2020

**EXPIRATION DATE:** February 28, 2030

**NUMBER OF WITHDRAWAL POINTS: 7** 

Groundwater: 7

**USE:** Golf Course Irrigation

**DAYS OF OPERATION: 214** 

**LOCATION(S):** 

Source*	Latitude	Longitude	
RW-3	41-58-42	71-13-02	
RW-4	41-59-12	71-13-26	
RW-5	41-58-59	71-13-44	
RW-6	41-58-43	71-13-03	
RW-9	41-59-07	71-13-14	
RW-11	41-59-10	71-13-06	
RW-13	41-58-43	71-13-30	

<sup>\*</sup>All Wells are located on the West Side of Mansfield Ave, Route 140, Norton

#### **SPECIAL CONDITIONS**

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

This Permit authorizes Tournament Players Club of Boston to withdraw water from the Taunton 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).

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 Annual Average Withdrawal Volumes

5-Year Periods	Total Water Withdrawal Volumes			
	Daily Average (MGD)	Total Annual (MGY)		
02/14/2020 to 02/28/2020	0.21	44.94		
03/01/2020 to 02/28/2025	0.21	44.94		
03/01/2025 to 02/28/2030	0.21	44.94		

# 2. Maximum Authorized Daily Withdrawals From Withdrawal Point

Withdrawals from withdrawal points are not to exceed the approved maximum daily volume listed below (Table 2) without specific advance written approval from MassDEP.

Table 2: Maximum Daily Withdrawal Volumes

Source	Maximum Daily Rate
RW-3	30 GMP/0.043 MGD
RW-4	50 GMP/0.072 MGD
RW-5	20 GMP/0.029 MGD
RW-6	25 GMP/0.036 MGD
RW-9	20 GMP/0.029 MGD
RW-11	20 GMP/0.029 MGD
RW-13	50 GMP/0.072 MGD

#### 3. Water Conservation Requirements

The renewal application Order to Complete (OTC) responses submitted by the Tournament Players Club of Boston, has been combined with the Best Management Practices that Tournament Players Club of Boston indicated as being implemented (according to the attached Seasonal Demand Management Plan). This combination constitutes the water conservation requirements of the renewed 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:
  - 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
- i. Employee training in water conservation and management

# 4. Seasonal Demand Management Plan

The Tournament Players Club of Boston shall limit nonessential outdoor water use through mandatory restrictions from May 1<sup>st</sup> through September 30<sup>th</sup> 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 1<sup>st</sup> through September 30<sup>th</sup>. 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 Management Task Force Drought Declaration.

Tournament Players Club of Boston has been assigned USGS stream gage #01109000-Wading River near Norton, MA. The 7-day low flow at this site is 4.3 cubic feet per second (cfs).

Tournament Players Club of Boston selected a time-reduction approach, which requires that the club reduces irrigation by time (Table 4).

Table 4. Tournament Players Club of Boston Time-Reduction in its SDMP

	Irrigating for Shorter Durations as Drought Severity Increases  Reduced Minutes in Irrigation Cycles							
Massachusetts Drought Levels	Irrigated Gre	Tees & ens	k Irrigated Fairways		Irrigated Roughs		Irrigated Landscape & Ornamentals	
	Percent	Time (min.)	Percent	Time (min.)	Percent	Time (min.)	Percent	Time (min.)
Normal	Full cycle	32	Full cycle	.8	Full cycle	8	100%	6
Advisory or WMA Permit Trigger is reached	Full cycle	32	80%+	6.4	50%+	4	0%	0
Watch	Full cycle	32	60%+	4.8	0%	0	0%	0
Warning	Full cycle	32	40%+	3.2	0%	0	0%	0
Emergency **	TBD	TBD	0%	0%	0%	0	0%	0 .

<sup>+</sup> Irrigation shall not occur between the hours of 9am and 5 pm, except that hand-watering of hot spots may occur at any time

<sup>\*\*</sup>Mitigation actions to be determined by the Governor's Emergency Proclamation.

#### 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. <u>Duty to Comply</u> 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. <u>Water Emergency</u> 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. <u>Transfer of Permits</u> 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. <u>Duty to Report</u> 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. <u>Duty to Maintain Records</u> The Permittee shall be responsible for maintaining withdrawal and all other records as specified by this permit.
- 8. <u>Metering</u> 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

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Seasonal Limits on Nonessential Outdoor Water Use using 7-Day Low Flow Trigger

The Tournament Players Club of Boston (TPC Boston) shall limit nonessential outdoor water use through September 30<sup>th</sup> as outlined in below. Fo the extent feasible, all summer outdoor water use should take place before 9 am and after 5 pm when evaporation and evaporanspiration rates are lowers.

### 7-Day Low Flow Triggered Restrictions

TPC Boston should implement the "Advisory" level water use reductions outlined in its Acres-Reduction Seasonal Demand Management Plan (SDMP):

When USGS stream gage 01109000 -Wading River near Norton, MA falls below the 7-day low-flow statistic 4.3 cfs for three (3) consecutive days.

Once implemented, the restrictions shall remain in place until streamflow at the gage meets or exceeds the trigger streamflow for seven (7) consecutive days.

# 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 <a href="http://waterdata.usgs.gov/ma/nwis/current/?type=flow">http://waterdata.usgs.gov/ma/nwis/current/?type=flow</a>.

- Scroll down to 01109000 Wading River Near Norton, 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 "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 7-Day Low Flow Triggered Restrictions above.

