

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 7, 2019

City of Taunton
Attn: Jason Buffington, City Solicitor
City Hall
141 Oak Street
Taunton, MA 02780

Town: Taunton
WMA Permit: #9P4-4-25-293.09
Program: Water Management Act
Permit Application: BRP WM 03
MassDEP Transmittal Number: X266809
Action: Final Permit

Dear Mr. Buffington:

Please find the following attached:

- Findings of Fact in Support of the issuance of Permit #9P4-4-25-293.09;
- Final Water Management Act (WMA) Permit #9P4-4-25-293.09 for the Taunton John F. Parker Municipal Golf Course.

If you have any questions concerning this letter, please contact Julie Butler at (617) 292-5552 or Julie.Butler@mass.gov.

Sincerely,

Duane LeVangie, Chief
Water Management Program
Bureau of Water Resources

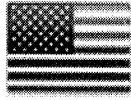
eCC: Gilbert F. Alegi, John F Parker Golf Course Manager
Jim McLaughlin, MassDEP SERO, Lakeville
Priscilla Chapman, Taunton River Watershed Alliance
Dan Wells, Goddard Consulting
Jane Nixon, Taunton resident
Julia Blatt, Mass Rivers Alliance

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This information is available in alternate format. Call the MassDEP Diversity Office at 617-556-1139. TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep

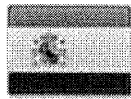


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Communication For Non-English Speaking Parties -
310 CMR 1.03(5)(a)



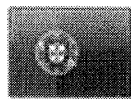
1 English:

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2 Español (Spanish):

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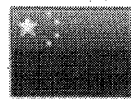
3 Português (Portuguese):

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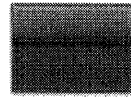
4(a) 中國（傳統）(Chinese (Traditional)):

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。



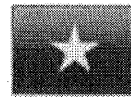
4(b) 中国（简体中文）(Chinese (Simplified)):

本文件非常重要，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。



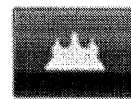
5 Ayisyen (franse kreyòl) (Haitian) (French Creole):

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)):

ឯកសារនេះគឺមានសារៈសំខាន់និងគួរត្រូវបានបកប្រែភ្លាមៗ ប្រសិនបើអ្នកត្រូវបានបកប្រែ ឯកសារនេះសូមទំនាក់ទំនងជាមួយក្រុមការងារ MassDEP នៅលេខទូរស័ព្ទដែលបានរាយនាមខាងក្រោម។



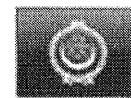
8 Kriolu Kabuverdianu (Cape Verdean):

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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.

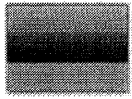


10 العربية (Arabic):

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 번역해야 합니다. 당신이 번역이 문서가 필요하면 아래의 전화 번호로 MassDEP의 다양성 감독에 문의하시기 바랍니다.

**12 հայերեն (Armenian):**

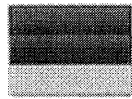
Այս փաստաթուղթը շատ կարևոր է եւ պետք է թարգմանել անմիջապես. Եթե Ձեզ անհրաժեշտ է այս փաստաթուղթը թարգմանվել դիմել MassDEP բարձրագույնությունը տնօրեն է հեռախոսահամարների թվարկված են ստորև.

**13 فارسی (Farsi (Persian):**

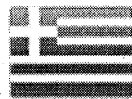
این سند مهم است و باید فوراً ترجمه شده است.
اگر شما نیاز به این سند ترجمه شده، لطفاً با ما تماس تنوع مدیر MassDEP در شماره تلفن های ذکر شده در زیر.

**14 Français (French):**

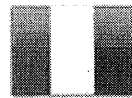
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**15 Deutsch (German):**

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.

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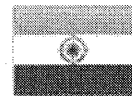
Το έγγραφο αυτό είναι σημαντικό και θα πρέπει να μεταφραστούν αμέσως. Αν χρειάζεστε αυτό το έγγραφο μεταφράζεται, παρακαλούμε επικοινωνήστε Diversity Director MassDEP κατά τους αριθμούς τηλεφώνου που αναγράφεται πιο κάτω.

**17 Italiano (Italian):**

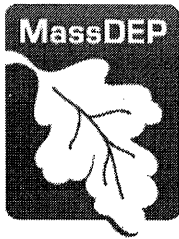
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**18 Język Polski (Polish):**

Dokument ten jest ważny i powinien być natychmiast przetłumaczony. 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 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 #9P4-4-25-293.09 John F. Parker Municipal Golf Course

The Department of Environmental Protection ("MassDEP" or "the Department") has completed its review of the Taunton John F. Parker Municipal Golf Course's Water Management Act (WMA) permit application. This review was conducted in regard to the permit for the Taunton John F. Parker Municipal Golf Course ("Taunton Golf") to withdraw water from the Taunton Basin. The Department hereby **issues** the Water Management Permit #9P4-4-25-293.09 (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 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.

Withdrawal Description and History

The issuance of this permit is in response to a water withdrawal permit application from the City of Taunton for the purpose of golf course irrigation. The application was prompted by a planned expansion of the course from 9 to 18 holes. Taunton Golf estimates its current and historical use to be below the WMA threshold, but the course expansion will necessitate withdrawals above the threshold. The existing withdrawal sources include a surface-water withdrawal point in the Three Mile River and an unlined irrigation pond that receives the water pumped from the river withdrawal point. Because it is unlined and subject to groundwater interaction, the Department considers the unlined pond to be a separate source. The golf course expansion will add another surface-water withdrawal point in the Three Mile River, resulting in a total of three withdrawal sources. A lined irrigation pond will also be installed during the expansion, but it is not considered to be a withdrawal source. Taunton Golf is required to meter and report its withdrawals from each of the three sources as well as any exchange of water between the two ponds (see Special Condition 1 below) in the WMA Annual Report Form.

The WMA permit application requests a withdrawal of 0.194 million gallons per day (MGD) over a 184-day irrigation season (May – October) during the first three years of its permit, which is equivalent to 35.70 million gallons per year (MGY). In the remaining period of the permit, when the golf course expansion is complete and the grow-in period has ended, Taunton Golf is projected to withdraw 0.128 MGD over the 184-day season (or 23.60 MGY) (Table 2).

Taunton Golf's expansion project has received a number of regulatory approvals to date, including an Environmental Notification Form Certificate from the Massachusetts Environmental Protection Act (MEPA) Program; an Order of Conditions from the Taunton Conservation Commission; a Conservation and Management Permit from the Natural Heritage and Endangered Species Program; and a Chapter 91 License from the MassDEP Wetlands and Waterways Program.

The Water Management Act

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 description that follows);
- 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 Taunton Basin

This Permit is being issued under the Safe Yield methodology adopted by MassDEP on November 7, 2014, and described in the Regulations at 310 CMR 36.13. As of the date of issuance of this permit, the safe yield for the Taunton Basin is 134.4 million gallons per day (MGD), and total registered and permitted withdrawals are 93.98 MGD (not including the additional 0.194 MGD authorized by this permit). 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 conditioned as outlined in the regulations. Withdrawal authorizations are further limited by other factors, such as the impact to local resources, water quality constraints, pumping rate limits placed on individual sources, and the regulatory requirement that permit holders demonstrate a need for the water, which for public water systems is done through Water Needs Forecasts prepared by the Department of Conservation and Recreation.

Findings of Fact for Special Permit Conditions

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 permit. This Findings of Fact also explain any changes to Special Permit Conditions from prior Permits, when applicable. 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

Special Condition 1 reflects a permitted withdrawal volume of 0.194 million gallons per day (MGD) over a 184-day irrigation season (May – October) during the first three years of its permit, which is equivalent to 35.70 million gallons per year (MGY) from three surface-water withdrawal points in the Taunton River Basin. In the remaining period of the permit, when the golf course expansion is complete and the grow-in period has ended, Taunton Golf is projected to withdraw 0.128 MGD over the 184-day season (or 23.60 MGY) from its three surface-water withdrawal points in the Three Mile River (Table 2 of the Permit).

In a May 25, 2017 letter to the Department, Taunton Golf indicated that the irrigation system design will not be finalized until after it hires a contractor for the expansion project, which cannot happen until after all of the required permits are obtained. Therefore, with uncertainty remaining in the system operations, Taunton Golf will be required to meter and report its withdrawals from each of the three sources in the WMA Annual Report Form. Taunton Golf shall also meter any exchange of water between the two ponds. After Taunton Golf has submitted its first ARF, the Department will discuss the irrigation system operation with Taunton Golf and may reduce metering requirements at that time.

Special Condition 2, Maximum Authorized Daily Withdrawal Volume from Each Withdrawal Point

Special Condition 2 reflects the withdrawal volume expressed as a maximum daily rate for the sources included in the Permit. The rates are based on the pump capacity per source and the number of hours each pump could potentially run under maximum-use conditions. The maximum authorized daily withdrawal volumes for the three surface-water sources are indicated in Table 3 of the Permit. Taunton

Golf is required to report the maximum daily withdrawal per year from each of its three surface-water sources in the WMA Annual Report Form.

Special Condition 3, Streamflow Impacts

In response to public comments and in the interests of protecting streamflow in the Three Mile River, Taunton Golf will limit its maximum daily withdrawal from the intakes on the Three Mile River to its current (pre-expansion) capacity of 0.324 MGD during low-flow periods. "Low-flow periods" will be defined by the 7-day low-flow statistic of the flow record at a USGS stream gage downstream of the golf course, the Three Mile River at North Dighton, MA (USGS Site ID 01109060). Taunton Golf shall limit its maximum daily withdrawal from the river to 0.324 MGD when the daily streamflow falls below the 7-day low flow statistic of 13 cfs for three (3) consecutive days. Once implemented, the withdrawal reductions shall remain in place until streamflow at the gage meets or exceeds 13 cfs for seven (7) consecutive days.

Taunton Golf shall be responsible for tracking streamflow and recording when streamflow-triggered reductions are implemented; see the attached streamflow-tracking instructions for guidance. Within 14 days of implementing water use reductions, golf course facility managers shall notify MassDEP of implementing reductions by submitting the MassDEP Notification of Water Use Reductions Form for Golf Courses (<https://www.mass.gov/service-details/outdoor-water-use-restrictions-for-cities-and-towns>).

Special Condition 4, Water Conservation and Seasonal Demand Management Plans

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, reduces water use between May 1st and September 30th when the Massachusetts Drought Management Task Force declares a drought level of "Advisory" or higher ("Watch, Warning or Emergency") for the region in which the golf course is located.

Taunton Golf shall be responsible for tracking the Massachusetts Drought Management Task Force drought declarations and recording when drought-triggered reductions are implemented. See the attached drought-tracking instructions for guidance. Within 14 days of implementing water use reductions, golf course facility managers shall notify MassDEP of implementing reductions by submitting the MassDEP Notification of Water Use Reductions Form for Golf Courses (<https://www.mass.gov/service-details/outdoor-water-use-restrictions-for-cities-and-towns>).

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 two options for water use reduction in table format. 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. In a letter dated July 25, 2016, Taunton Golf elected to use the Time Table approach. This approach has been incorporated into the Permit.

Section B of the SDMP lists Best Management Practices (BMPs), and Taunton Golf indicated compliance with all but one of them. These BMPs have been combined with the BMPs that Taunton Golf indicated in its Operations and Maintenance Plan, which was submitted with its permit application. This combination appears in Table 4 of the Permit and constitutes the Water Conservation Plan of the Permit.

Special Condition 5, Mitigation Plan

WMA regulations require mitigation, where feasible, for withdrawal requests over a baseline volume. Baseline volume 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.

Because Taunton Golf reported in its application that its withdrawal records were lost, the Department alternatively accepted an estimate of Taunton Golf's 2005 withdrawals (plus 5%) as its baseline volume. The estimate was based on the Department's Golf Course Water Use Policy and Taunton Golf's reported acreage that was irrigated in 2005.

The estimated baseline withdrawal volume for Taunton Golf is 0.093 MGD (17.04 MGY over a 184-day season). The requested authorized annual volume during the grow-in period is 0.194 (35.70 MGY), which is 0.101 MGD (18.66 MGY) above the baseline. Therefore, Taunton Golf must submit and implement a mitigation plan to mitigate 0.101 MGD.

Mitigation plans were discussed when the Department met with Taunton Golf on June 15, 2016. Direct mitigation options were evaluated, but no opportunities were available to Taunton Golf. In considering indirect mitigation activities, it was determined that the most suitable activity for an expanding golf course that provides the necessary credits is an Audubon Classic Sanctuary Program certification. Note that this certification also addresses the fertilizer runoff concerns expressed in public comments received by the Department (see *Response to Comments* below), as the program requires a nutrient management plan. Taunton Golf shall obtain the Classic Sanctuary Program certification within eight years, which is the maximum certification period allowed by Audubon International. Once obtained, the certification shall be renewed by Taunton Golf every two years through the life of the permit. Taunton Golf will submit proof of 1) its membership payment with its Annual Report Form each year, and 2) its certification once obtained, and 3) its recertification with the Annual Report Form every two years.

Minimization of Groundwater Withdrawal Impacts in Stressed Subbasins, requires permittees with permitted groundwater sources in subbasins¹ with net groundwater depletion of 25% or more during August to minimize their withdrawal impacts on those subbasins to the greatest extent feasible. Because all of Taunton Golf's withdrawals are from surface-water sources, minimization measures are not required.

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).

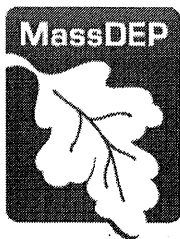
Coldwater Fish Resource Protection was incorporated into the Water Management Regulations in November 2014. Coldwater Fish Resource Protection is not a condition of this permit because Taunton Golf's withdrawals do not impact any waters that MA Division of Fisheries and Wildlife has identified as supporting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

Response to Comments on WMA Permit Application

Two sets of comments on Taunton Golf's WMA permit application were submitted. Jane Nixon, a Taunton resident, submitted inquiries about potential impacts of the golf course expansion on streamflow and water quality. Similarly, the Taunton River Watershed Alliance (TRWA) expressed concern over potential impacts on streamflow and aquatic habitat. TRWA also emphasized the need for maintaining accurate metering records. Taunton Golf responded to the comments via a July 12, 2016 letter to Jane Nixon and an October 6, 2016 email to TRWA. No further comment was received from either party.

The permit conditions detailed in these Findings of Fact address the concerns in the letters relevant to the WMA as follows:

- Special Condition 1 and General Condition 8 address metering concerns by requiring metering of withdrawals and annual meter calibration. Taunton Golf will report its monthly withdrawals in the WMA Annual Report Form and submit a calibration report annually.
- Special Condition 3 was included in the Permit to address concerns over impacts to the Three Mile River during low-flow periods. Special Condition 4 also addresses these concerns by requiring irrigation reductions during a Drought Advisory (or higher) and requiring water conservation practices.
- Special Condition 5 addresses concerns over fertilizer runoff impacts. The Audubon Classic Sanctuary Program certification will require that Taunton Golf develop a plan which minimizes the impacts of fertilizer application.



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

WATER WITHDRAWAL PERMIT M.G.L. c. 21G

This issuance of Permit #9P4-4-25-293.09 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: 9P4-4-25-293.09

RIVER BASIN: Taunton

PERMITTEE: City of Taunton
City Hall, 141 Oak Street
Taunton, Massachusetts 02780

ISSUANCE DATE: March 7, 2019

EXPIRATION DATE: February 28, 2030

TYPE AND NUMBER OF WITHDRAWAL POINTS:

Groundwater: 0
Surface Water: 3

USE: Golf course irrigation at the John F. Parker Municipal Golf Course

DAYS OF OPERATION: 184 (May – October)

LOCATION:

Table 1. Withdrawal Point Identification

Source	Latitude	Longitude	Location
Three Mile River #1	41° 54' 8.87" N	71° 07' 50.44" W	Fisher Street, Taunton
Three Mile River #2	41° 54' 9.10" N	71° 07' 50.42" W	Fisher Street, Taunton
Irrigation Pond #1	41° 54' 4.68" N	71° 07' 42.56" W	Fisher Street, Taunton

SPECIAL CONDITIONS

1. Maximum Authorized Annual Average Withdrawal Volume

This permit authorizes Taunton Golf to withdraw 0.194 million gallons per day (MGD) of water over a 184-day irrigation season (May – October) during the first three years of the Permit, which is equivalent to 35.70 million gallons per year (MGY) from three surface-water withdrawal points in the Taunton River Basin. In the remaining period of the Permit, when the golf course expansion is complete and the grow-in period has ended, Taunton Golf is authorized to withdraw 0.128 MGD over the 184-day season (or 23.60 MGY) from its two surface-water withdrawal points on the Three Mile River and the unlined irrigation pond that receives water from one of the surface-water withdrawal points on the river (Table 2). Taunton Golf is required to meter and report its withdrawals from each of the three sources in the WMA Annual Report Form (ARF). Taunton Golf shall also meter any exchange of water between the two ponds. After Taunton Golf has submitted its first ARF, the Department will discuss the irrigation system operation with Taunton Golf and may reduce metering requirements at that time.

Table 2. Maximum Authorized Annual Average Withdrawal Volumes per Permit Period

Permit Periods	Daily Average (MGD)	Total Annual (MGY)
3/7/2019 to 2/29/2020	0.194	35.70
3/1/2020 to 2/28/2025	0.128	23.60
3/1/2025 to 2/28/2030	0.128	23.60

2. Maximum Authorized Daily Withdrawal Volume per Withdrawal Point

Withdrawals from Taunton Golf's permitted sources are not to exceed the approved maximum daily rates listed in Table 3 without advance approval from the Department. Taunton Golf is required to report the maximum daily withdrawal per year from each of its two surface-water sources in the WMA Annual Report Form.

Table 3. Maximum Authorized Daily Withdrawal Volumes

Source	Maximum Authorized Daily Withdrawal Volume (MGD)
Three Mile River #1	0.324
Three Mile River #2	0.324
Irrigation Pond #1	0.648

3. Streamflow Impacts

In order to address potential impacts to streamflow in the Three Mile River, Taunton Golf will limit its total maximum daily withdrawal to its current (pre-expansion) capacity of 0.324 MGD during low-flow periods. "Low-flow periods" will be defined by the 7-day low-flow statistic of the flow record at a USGS stream gage downstream of the golf course, the Three Mile River at North Dighton, MA (USGS Site ID 01109060). Taunton Golf shall limit its total maximum daily withdrawal from the river to 0.324 MGD when the daily streamflow falls below the 7-day low flow statistic of 13 cfs for three (3) consecutive days. Once implemented, the withdrawal reductions shall remain in place until streamflow at the gage meets or exceeds 13 cfs for seven (7) consecutive days.

Taunton Golf shall be responsible for tracking streamflow and recording when streamflow-triggered reductions are implemented; see the attached streamflow-tracking instructions for guidance. Within 14 days of implementing water use reductions, golf course facility managers shall notify MassDEP of implementing reductions by submitting the MassDEP Notification of Water Use Reductions Form for Golf Courses (<https://www.mass.gov/service-details/outdoor-water-use-restrictions-for-cities-and-towns>). In addition, Taunton Golf's Annual Report Form shall include daily pumping volumes during the periods that this condition is triggered. Nothing in this permit shall prevent the Permittee from implementing water use reductions that are more restrictive than those set forth in this permit.

4. Water Conservation and Seasonal Demand Management Plans

The Operation and Maintenance Plan submitted with Taunton Golf's application has been combined with the Best Management Practices that Taunton Golf indicated are implemented in its Seasonal Demand Management Plan. This combination appears in Table 4 and constitutes the Water Conservation Plan of the permit.

Table 4. Water Conservation Plan

1. Metering 100% of water use, and calibrating source meters at least once per year.
2. Implementation of an inspection and maintenance program that includes the following on a routine basis: <ul style="list-style-type: none">o <i>Leak detection and repair</i>: daily monitoring of the golf course insures no leaks throughout the system are presento <i>Sprinkler head maintenance and replacement</i> as needed to ensure proper trajectory, pressure, and rotationo <i>Pump maintenance</i>: the pumps that control the output of water onto the golf course are monitored daily for flow, pressure, and overall integrityo <i>Erosion inspection</i>: inspect course to minimize erosion; stabilize all eroded soils by applying loam and seed and/or erosion control matso <i>Ditch maintenance</i>: inspect and clean ditches to ensure proper runoffo The City of Taunton Golf Committee shall inspect the following annually at a minimum: greens and tee surfaces, fairways, landscaping, irrigation ponds, irrigation lines and heads, pumps, and all maintenance equipment.
3. Use of a computerized-control irrigation system to ensure sprinkler heads have proper timing, rotation, and coverage
4. Aeration of all irrigated turf a minimum of twice yearly
5. Use of weather stations to generate irrigation cycles

6. Use of low-trajectory sprinkler heads
7. Use of mulch materials in planting beds to improve water-holding capacity of the landscaping
8. Raising turf height during drought conditions
9. Use of soil sensors and/or soil samples to monitor soil moisture
10. Use of environmentally safe wetting agents to improve water infiltration and minimize evaporation
11. Use of drought-tolerant turf grass and shrubs
12. Reduction of irrigation rates in secondary rough areas and, where possible, elimination of irrigation in non-play areas
13. Employee training in water conservation and management
14. Planting the latest mixture of seed on the expanded portion of the course in order to withstand rigorous winter conditions and reduce water use

The Taunton Golf shall limit water use through mandatory reductions from May 1st through September 30th as outlined in the Seasonal Demand Management Plan (SDMP) and the attached 7-day low flow trigger instructions. At a minimum, reductions shall commence when the Massachusetts Drought Management Task Force declares a drought level of “Advisory” or higher (“Watch, Warning or Emergency”) for the region in which the golf course is located.

Taunton Golf shall be responsible for tracking the Massachusetts Drought Management Task Force drought declarations and recording when drought-triggered reductions are implemented. See the attached drought-tracking instructions for guidance. Within 14 days of implementing water use reductions, golf course facility managers shall notify MassDEP of implementing reductions by submitting the MassDEP Notification of Water Use Reductions Form for Golf Courses (<https://www.mass.gov/service-details/outdoor-water-use-restrictions-for-cities-and-towns>). Nothing in this permit shall prevent the Permittee from implementing water use reductions that are more restrictive than those set forth in this permit.

In its WM03 application, Taunton Golf submitted an SDMP that included the Time Table reduction approach shown in Table 5. This approach has been incorporated into the permit.

Table 5. Taunton Golf Time-Reduction in its SDMP

Massachusetts Drought Levels	Irrigating for Shorter Durations as Drought Severity Increases						
	Reduced Minutes in Irrigation Cycles						
Action Levels	Irrigated Tees & Greens	Irrigated Fairways		Irrigated Roughs		Irrigated Landscape & Ornamentals	
	Percent	Percent	Time (min)	Percent	Time (min)	Percent	Time (min)
Normal	Full cycle (100%)	100%	20	100%	20	100%	0
Advisory †	100%	80%	16	50%	10	*	XXX
Watch †	100%	60%	12	*	XXX	*	XXX
Warning †	100%	40%	8	*	XXX	*	XXX
Emergency **	TBD	TBD	TBD	*	XXX	*	XXX

† Nonessential outdoor irrigation use shall not occur between the hours of 9 am and 5 pm, except that hand-watering of hot spots may occur at any time

* No irrigation allowed.

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

5. Mitigation Plan

Taunton Golf's authorized withdrawal volume (0.194 MGD) exceeds its baseline volume (0.093 MGD) by 0.101 MGD. In order to mitigate this volume, Taunton Golf shall obtain an Audubon Classic Sanctuary Program certification within eight years of the issuance date of this permit. Once the Classic Sanctuary Program certification is obtained, Taunton Golf shall renew its certification every two years through the life of the permit. Taunton Golf will submit proof of 1) its membership payment with its Annual Report Form each year, and 2) its certification once obtained, and 3) its recertification with the Annual Report Form every two years.

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

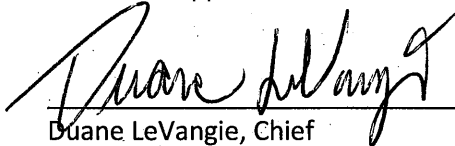
The request shall be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below.

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, Chief
Water Management Program
Bureau of Water Resources



Date

Instructions for Accessing U.S. Geologic Survey Streamflow and Massachusetts Drought Advisory 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 quarter-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 01109060 – Three Mile River at North Dighton, 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.

Drought Advisory information is available at the Massachusetts Department of Conservation and Recreation (DCR) Drought Status Website at

<http://www.mass.gov/eea/agencies/dcr/water-res-protection/water-data-tracking/drought-status.html>

- The color coded map displays the six drought regions in Massachusetts. Restrictions are implemented when a Drought Advisory, Watch, Warning or Emergency is announced in your region through the DCR website.

