



Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs

Department of Environmental Protection

Address: 100 Cambridge Street, Suite 900, Boston MA 02114 | Phone: 617-292-5500

Maura T. Healey
Governor

Kim Driscoll
Lieutenant Governor

Rebecca Tepper
Secretary

Bonnie Heiple
Commissioner

June 11, 2026

Xiaowei (Willie) Guo
Cold Spring Country Club
330 Chauncey Walker Street
Belchertown, MA 01007

RE: Chicopee Basin—BWR/WMA
Water Management Act
WMA Permit: #9P2-1-08-024.02
Permit Renewal

Dear Mr. Guo,

Please find the attached documents:

- Final Findings of Fact in Support of the Water Management Act Renewed Permit #9P2-1-08-024.02; and
- Final Water Management Act Renewed Permit #9P2-1-08-024.02 (Chicopee Basin) for Cold Spring Country Club

The signature on this cover letter indicates formal issuance of the attached document. If you have any questions regarding this information, please contact Jen D'Urso at jen.durso@mass.gov or me at (857) 276-5393 or via e-mail at duane.levangie@mass.gov.

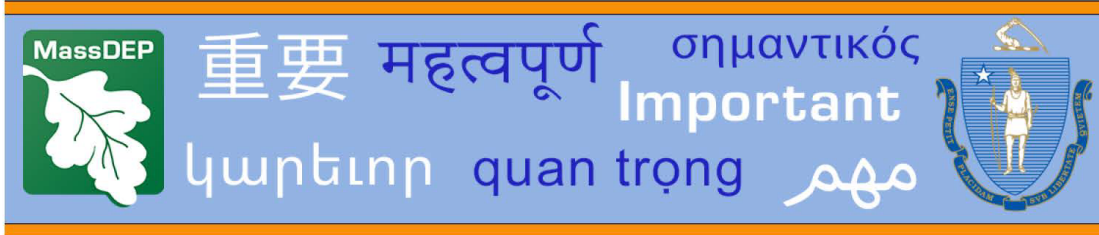
Sincerely,

Duane LeVangie, Chief
Water Management Program
Bureau of Water Resources

[https://massgov.sharepoint.com/DEP-BWR/DWPWMA/PermitRenewals/Chicopee/Belchertown-#9P2-1-08-024.02 -Cold Spring CC-Final WMA Permit-06-11-26-a11y](https://massgov.sharepoint.com/DEP-BWR/DWPWMA/PermitRenewals/Chicopee/Belchertown-#9P2-1-08-024.02-ColdSpringCC-FinalWMAPermit-06-11-26-a11y)

Ecc: Lydia Olson, Massachusetts Rivers Alliance

Duane LeVangie, WMA Program Chief—Boston
Soloe Dennis, MassDEP-Deputy Regional Director- Springfield



Communication for Non-English-Speaking Parties

This document is important and should be translated immediately.

If you need this document translated, please contact MassDEP's Director of EJ at the telephone number listed below.

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

Português Portuguese

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

繁體中文 Chinese Traditional

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

简体中文 Chinese Simplified

本文件非常重要，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 的多元化主任聯繫。

Ayisyen Kreyòl Haitian Creole

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

Việt Vietnamese

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

ប្រទេសកម្ពុជា Khmer/Cambodian

ឯកសារនេះគឺសំខាន់ហើយត្រូវបានបកប្រែភ្លាមៗ។ ប្រសិនបើអ្នកត្រូវការឱ្យគេបកប្រែឯកសារនេះ សូមទាក់ទងមកនាយកផ្នែកពិធីកម្មរបស់ MassDEP តាមលេខទូរស័ព្ទខាងក្រោម។

Kriolu Kabuverdianu Cape Verdean

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



Contact Deneen Simpson 857-406-0738
Massachusetts Department of Environmental Protection
100 Cambridge Street 9th Floor Boston, MA 02114
TTY# MassRelay Service 1-800-439-2370 • <https://www.mass.gov/environmental-justice>
(Version revised 4.21.2023) 310 CMR 1.03(5)(a)

Русский Russian

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

العربية Arabic

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

한국어 Korean

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

հայերեն Armenian

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

فارسی Farsi Persian

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

Français French

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

Deutsch German

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

Ελληνική Greek

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

Italiano Italian

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

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

हिन्दी Hindi

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

Contact Deneen Simpson 857-406-0738

Massachusetts Department of Environmental Protection
100 Cambridge Street 9th Floor Boston, MA 02114

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Findings of Fact in Support of Final Water Management Permit # 9P2-1-08-024.02 Cold Spring Country Club

The Department of Environmental Protection (the Department or MassDEP) makes the following Findings of Fact in support of the attached Final Water Management Act (WMA) Permit #9P2-1-08-024.02 and includes herewith its reasons for issuing the Permit and for conditions of approval imposed, as required by M.G.L. c. 21G, § 11. The issuance of the WMA permit is in response to the May 31, 2016 permit renewal application submitted by Cold Spring Country Club (CSCC) in the Chicopee River Basin.

Cold Spring Country Club's Withdrawal History

Original Permit:

On January 19, 2000, CSCC was issued a WMA Permit (9P2-1-08-024.02) for two irrigation sources, wells PW-1 and PW-2 and the public water system (PWS) wells PW-4 (Source ID #1024013-01G) and PW-5 (Source ID # 1024013-02G). Individual maximum daily withdrawal volumes were established for the four groundwater sources. The authorized cumulative annual withdrawal of 59.656 million gallons per year (MGY) for the sources was based on an average daily withdrawal rate of 0.163 million gallons per day (MGD).

Amended Permit:

The permit was amended on August 3, 2006, superseding the previously issued WMA Permit. The amended permit was issued to include the unlined irrigation pond as an authorized withdrawal point. MassDEP did not specify a maximum daily withdrawal volume for the pond at that time.

Permit Transfer:

On August 2, 2010, the WMA permit was transferred from Four B Development Corporation to Qianlong US Boston, LLC (operating as CSCC). All authorized withdrawal points and volumes remained unchanged.

Modified Permit:

On April 18, 2014, the WMA permit was modified to reflect water quality sampling results from three years of water quality sampling and MassDEP's revised withdrawal rates for the public water supply wells based on the source approval for wells PW-4 and PW-5. The modified permit period corrected the permit period dates and included the addition of Period Five in response to the Permit Extension Act.

The modified permit adjusted the annual authorized withdrawal volume and clarified the days of operation for the irrigation sources vs. the public water supply wells separating the seasonal irrigation well rates from the annual PWS well rates and reaggregating them together to obtain an annual withdrawal volume results in an overall maximum annual average withdrawal volume of 0.108 MGD or 39.46 MGY¹.

The water quality monitoring program was modified to reflect the change in course activities from its construction to operation. Revisions to the permit at that time included reductions in both monitoring frequency and the number of analytes monitored.

Permit Expiration Date:

Chicopee River Basin water withdrawal permits were originally intended to expire on May 31, 2013. The expiration date in the Chicopee River Basin for all Water Management permits was extended for two years by Chapter 240 of the Acts of 2010 and further extended another two years by Chapter 238 of the Acts of 2012, collectively known as the Permit Extension Act. Prior to the new May 2017 expiration date, CSCC filed to renew its permit on May 31, 2016. Pursuant to M.G.L. c. 30A, § 13, and 310 CMR 36.18(7), CSCC's existing permit continued in force and effect until the Department issued a final decision on the permit renewal application. In accordance with 310 CMR 36.17 (1), the expiration date for CSCCs permit in the Chicopee Basin will be May 31, 2033.

Permit Renewal Application:

As noted above, MassDEP received a WMA 20-year permit renewal application from CSCC for their withdrawals in the Chicopee Basin on May 31, 2016.

In the application, CSCC expressed concern regarding the average daily withdrawal value. Specifically, CSCC believed that the annual withdrawal volume in the 2014 WMA permit should have been modified from 59.656 MGY to 48.77 MGY (not 39.46 MGY).

MassDEP confirmed in the Order to Complete (OTC) issued to CSCC on May 22, 2024, that the annual withdrawal volume of 39.46 MGY is the correct volume. CSCC's understanding was that the annual PWS withdrawal should be 0.0626 MGD, which would be the sum of the maximum daily rates for PW4 and PW5 (0.0216 + 0.0410). However, as stated in the 2014 modified permit, the new source approval process identified the maximum daily withdrawal rate for wastewater design purposes to be 0.0371 MGD. MassDEP used the wastewater demand value to estimate the average annual demand. This means that, while

the individual maximum daily withdrawal rates for PW4 and PW5 can be 0.0216 MGD and 0.0410 MGD, collectively they cannot exceed 0.0371 MGD.

The WMA Permit included resource monitoring requirements, encompassing groundwater monitoring (annually at six locations), surface water monitoring (annually at five locations), stormwater monitoring (up to three events per year at five locations), and wetland monitoring (three plots). CSCC requested modifications to these requirements, as detailed in an email from Fuss & O'Neill to MassDEP on August 14, 2024:

- Proposed changes to Special Condition #3 – Surface and Groundwater Water Quality Monitoring program:
 - o Reduce groundwater monitoring locations from six to four locations.
 - o Reduce surface water monitoring locations from five to two locations
 - o Reduce stormwater monitoring from three events to one event annually in August.
- Request to eliminate Special Condition #4 – Wetlands Monitoring

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

The Water Management Act (Act) requires MassDEP to issue permits that balance a variety of factors including without limitation:

- Impact of the withdrawal on other water sources;
- Time of year when the withdrawal will be made;
- Water available within the safe yield of the water source;
- Reasonable protection of existing water uses, land values, investments and enterprises;
- Proposed use of the water and other existing or projected uses of water from the water source;
- Municipal and Massachusetts Water Resources Commission (WRC) water resource management plans;
- Reasonable conservation consistent with efficient water use;
- Reasonable protection of public drinking water supplies, water quality, wastewater treatment capacity, waste assimilation capacity, groundwater recharge areas, navigation, hydropower resources, water-based recreation, wetland habitat, fish and wildlife, agriculture, flood plains; and
- Reasonable economic development and job creation.

Water Management Regulation Revisions

In 2010 the Executive Office of Energy and Environmental Affairs (EEA) convened the Sustainable Water Management Initiative (SWMI) for the purpose of incorporating the best available science into the management of the Commonwealth's water resources. SWMI was a multi-year process that included a wide range of stakeholders and support from the Departments of Environmental Protection, Fish and Game, and Conservation and

Recreation. In November 2012 the Massachusetts Sustainable Water Management Initiative Framework Summary (<https://www.mass.gov/files/documents/2016/08/wf/swmi-framework-nov-2012.pdf>) was released.

On November 7, 2014, MassDEP adopted revised Water Management Regulations at 310 CMR 36.00 that incorporate elements of the SWMI Framework and the Water Conservation Standards adopted by the Massachusetts WRC. The regulations reflect a carefully developed balance to protect the health of Massachusetts' water bodies while meeting the needs of businesses and communities for water.

Without limitation, MassDEP has incorporated the following into Water Management permitting:

- Safe yield determinations for the major river basins based on a new methodology developed through SWMI (see the Safe Yield in the Islands Basin section of this document);
- Environmental protections developed through SWMI, including without limitation:
 - protection for coldwater fish resources;
 - minimization of withdrawal impacts in areas stressed by groundwater use; and
 - mitigation of the impacts of increasing withdrawals.

Safe Yield in the Chicopee Basin

This permit is being issued under the safe yield methodology adopted by MassDEP on November 7, 2014, and described in the regulations at 310 CMR 36.13. As of the date of issuance of this permit, the Safe Yield calculation for the Chicopee Basin is 353.1 MGD, and total registered and permitted withdrawals are 203.72 MGD. The maximum withdrawals that will be authorized in this permit, and all other permits currently under review by the Department within the Chicopee Basin, will be within the remaining safe yield and may be further conditioned as outlined in the regulations.

Findings of Fact for Permit Conditions in CSCC's Water Management Act Permit

The Findings of Fact for the special conditions included in the permit generally describe the rationale and background for each special condition in the permit. This summary of permit special conditions is not intended to and should not be construed as modifying any of the permit special conditions. In the event of any ambiguity between this summary and the actual permit conditions, the permit language shall control.

SPECIAL PERMIT CONDITIONS

Special Condition 1, Maximum Authorized Annual Average Withdrawal Volume

This condition reflects the previously permitted volume of 0.108 million gallons per day (MGD) over the 180-day irrigation season and 365-day potable public water system for a

total of 39.46 million gallons per year (MGY). This rate has not been changed from the previous permit.

As part of the OTC issued on May 22, 2024, MassDEP inquired about CSCC's water use being significantly lower than the authorized 0.108 MGD (39.46 MGY) and requested an explanation along with projections of future water needs. CSCC explained that the reduced usage is due to the incomplete development of facilities outlined in their original Master Plan. While the plan included a banquet facility and residential housing, only the clubhouse has been constructed to date. At full buildout, the combined potable water demand is projected to be approximately 37,145 gallons per day (GPD), which accounts for 112 residential units, a 350-seat banquet facility, a 60-seat clubhouse, and other planned facilities outlined in their 2012 Water Conservation Plan.

In addition to questions about CSCC overall water needs, questions also existed about their reporting of withdrawal volumes. Previously, CSCC reported withdrawal volumes from PW-4, PW-5, and the lined Irrigation Pond. This approach was taken because withdrawals from Wells PW-1 and PW-2 are discharged directly to the Irrigation Pond. However, Pond 20, another lined storage pond on the property, also discharges into the irrigation pond along with other stormwater and surface runoff. As a result, metering withdrawals at the Irrigation Pond did not accurately reflect groundwater withdrawals from PW-1 and PW-2. This modified permit requires CSCC to report groundwater withdrawals directly from Wells PW-1, PW-2, PW-4, and PW-5 and not the Irrigation Pond. This change ensures accurate accounting of groundwater use moving forward.

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

Withdrawals from individual withdrawal points are not to exceed the approved maximum daily volume without specific advance written approval from the Department. The maximum authorized daily volume is the approved rate of each source.

Special Condition 3, Surface and Groundwater Water Quality Monitoring

MassDEP reviewed CSCC's annual reports for the years 2019 to 2023 and concluded that Special Condition 3 will be revised to reduce the number of monitoring locations as requested in CSCC's permit renewal application. The locations proposed for elimination MW-100, Stormwater Pond 21, Stormwater Pond 20, the Irrigation Pond, and MW-2—are no longer deemed essential due to changes in site conditions and overlapping monitoring efforts.

MW-100, located in the western portion on the golf course, was initially installed to monitor for potential impacts from an area historically used as an orchard. Early sampling determined no impacts, and the value of this well has since been superseded by MW-6R, which provides sufficient coverage of potential impacts from the orchard area. Stormwater Pond 21, which is lined and overflows into the Irrigation Pond without any additional outlets, no longer holds significant monitoring value. The irrigation pond itself is lined and

receives flows from either the irrigation wells—specifically monitored at PW-2—or overflow from Pond 21, further reducing the need for separate monitoring. Finally, the monitoring of surface water location SW-1 and groundwater location MW-6R provide sufficient insight into potential off-site migration, addressing the role previously fulfilled by Stormwater Pond 20.

MW-2, positioned southeast of the Irrigation Pond, was more valuable before the Irrigation Pond was lined, as the lining significantly reduced the potential for groundwater interaction. Additionally, monitoring from 2019-2023 detected no exceedances of trigger levels for indicator chemicals in MW-2.

Across all the monitoring locations proposed for removal, no indicator chemicals exceeded trigger levels, providing further justification for eliminating sampling in these locations. Although aesthetic parameters such as pH, temperature, and dissolved oxygen were frequently out of range during the review period, these deviations are not critical for monitoring the lined ponds. While the aesthetic quality of these sources is still a concern, the issue does not impact our decision to approve the elimination of monitoring for these locations.

Additionally, CSCC has requested to update their August stormwater sampling. Under the current permit, CSCC is required to monitor nutrient indicators in the assigned stormwater locations during the month of August each year within 12 hours of any storm event greater than 0.5 inches of rain in 24 hours. CSCC is not required to conduct more than three (3) stormwater sampling events annually. CSCC requested that this requirement be reduced to one sampling event in August. In support of this request, CSCC provided the stormwater monitoring data collected over the past five years (with monitoring occurring since 2011), which shows generally consistent and low results, with the exception of two elevated TKN values observed in 2022. MassDEP staff with stormwater expertise reviewed the data and determined that the results are consistently well below applicable trigger thresholds and do not warrant more than one annual sampling event. The proposed change was also reviewed by staff in MassDEP's Western Regional Office (WERO) Drinking Water Program, who confirmed that no new or elevated contaminants have been detected through routine public water system monitoring in recent years. Based on this information, MassDEP approves CSCC's request to reduce stormwater monitoring from up to three events to one event conducted in August.

Special Condition 4, Wetlands Monitoring

As mentioned above, CSCC requested to eliminate Special Condition 4, Wetlands Monitoring, in their permit renewal application. This condition requires annual monitoring of wetland species adjacent to Wells PW-1 and PW-2 and in the Broad Brook sub-basin by a trained and qualified professional. Specifically, the monitoring plan included three observation plots. Golf course irrigation has occurred since 2004, but the baseline monitoring event was not conducted until December 2011, at which time Pioneer Environmental, Inc. (PEI) identified plant species and soils within each observation plot.

The 2014 permit required CSCC to submit annual reports to MassDEP's WMA Program in the Western Regional office, the Belchertown Conservation Commission, and the Springfield Water and Sewer Commission. The reports required a listing and percent coverage of wetland plant species, wetlands plot piezometer readings, and a complete and thorough description of wetland hydrology at each observation plot. The 2014 permit also states that MassDEP will review the results of wetlands monitoring to determine whether the wetlands monitoring program should be revised, continued, or discontinued at the time of permit renewal or next five-year review.

From 2011 to 2019, CSCC contracted with Wetland Consultants, Inc. (WCI) to monitor the nearby wetland areas. The final report, completed in 2019, concluded that eight years of monitoring soil morphology and vegetative communities in Plots 1 and 2 provided data indicating no adverse effects from water withdrawals at irrigation wells PW-1 and PW-2 or the irrigation pond. Based on these findings, MassDEP agrees that further wetland monitoring is not necessary and has discontinued the wetlands monitoring requirement in this permit.

Special Condition 4 (formerly Special Condition 5), Water Conservation Requirements

On June 2, 2012, Fuss & O'Neill submitted a Water Conservation Plan on behalf of CSCC. Part of that plan included a Seasonal Demand Management Plan (SDMP). MassDEP approved and included the provisions of the Water Conservation Plan including the SDMP as conditions of the 2014 modified permit and has continued the SDMP in this permit.

Special Condition 4 also incorporates the Water Conservation Standards for the Commonwealth of Massachusetts reviewed and approved by the Water Resources Commission in July 2018 (<https://www.mass.gov/doc/massachusetts-water-conservation-standards-2/>).

Special Condition 5 (formerly Special Condition 6), Annual Reporting

As mentioned in the prior Special Condition 4, the renewed permit eliminates the requirement for wetlands monitoring. CSCC is required to submit annual water quality reports (due on February 28 of each year), in addition to the standard annual reports required by the Water Management Act Program and the Annual Statistical Report of withdrawal volumes required by the Department Drinking Water Program. As mentioned in Special Condition 1 above, this modified permit will require CSCC to report groundwater withdrawals directly from Wells PW-1, PW-2, PW-4, and PW-5. This change ensures accurate accounting of groundwater use moving forward.

NEW PERMIT CONDITIONS

Coldwater Fishery Resource, Minimization and Mitigation

The Massachusetts Water Resources Management Program regulations at 310 CMR 36.00 were revised and promulgated in November 2014. The regulations provide protections for coldwater fishery resources (CFR), minimization of withdrawal impacts in areas already

stressed by groundwater uses, mitigation of withdrawals over a baseline volume, and avoidance of potential changes in Biological Category (BC)ⁱⁱ and Groundwater Withdrawal Category (GWC)ⁱⁱⁱ. Below is an outline of these requirements as they apply to CSCC (Table 1).

Table 1: Summary of Subbasins Containing CSCC’s Permitted Sources

Subbasin Unique ID	GWC	BC	August Net Groundwater Depletion	CFR Present	Additional water over baseline available before GWC change (MGD)	Additional water over baseline available before BC change (MGD)
17030	3	3	2.6%	Yes	0.17	0.05

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

The renewed permit includes a condition that requires mitigation of withdrawals over a baseline volume, if feasible, if future withdrawals exceed the assigned baseline volume. Baseline withdrawal means the volume of water withdrawn during calendar year 2005 plus 5%, or the average annual volume withdrawn from 2003 through 2005 plus 5%, whichever is greater provided that:

- (a) baseline cannot be less than a permittee’s registered volume;
- (b) baseline cannot be greater than the permittee’s authorized volume for 2005; and
- (c) if, during the period from 2003 to 2005, the permittee’s withdrawals from the water source were interrupted due to contamination of the source or construction of a treatment plant, the Department will use best available data to establish a baseline volume from the water source.

The calculated baseline withdrawal volume for CSCC is 0.04 MGD, the amount of irrigation water withdrawn during calendar year 2005 plus 5%. Therefore, CSCC must submit and implement a mitigation plan to mitigate the volumes requested above 0.04 MGD, which is 0.068 MGD based on the permitted volume of 0.108 MGD. The Department evaluated the impact of potential increases in withdrawals above baseline on the biological category (BC) and groundwater category (GWC) of the subbasin in which CSCC has withdrawal points and identified that CSCC may change the GWC or BC in subbasin #17030. The BC would change from a 3 to 4 if CSCC extracts more than 0.05 MGD over the baseline of 0.04 MGD (see Table 1), or a total of 0.09 MGD (or 16.2 MG over 180 days). This means that CSCC is required to provide up to twice the standard indirect mitigation for any volumes above 0.09 MGD and show they have no feasible alternative source that is less environmentally harmful. With a withdrawal volume of up to 0.108 MGD, CSCC is authorized to withdraw 0.068 MGD (68,000 gallons per day) above its baseline of 0.04 MGD. See Table 2 below for the mitigation volume calculation.

Table 2: Mitigation Volume Calculation

<p>Permitted Withdrawals above Baseline = 0.068 MGD</p> <ul style="list-style-type: none"> • Total withdrawals - Baseline withdrawals: 0.108 MGD – 0.04 MGD = 0.068 MGD
<p>Mitigation Requirement</p> <ul style="list-style-type: none"> ○ 68,0000 gpd in mitigation is required for total withdrawals up to 0.108 MGD <p>CSCC is permitted to withdraw up to 0.108 MGD, which is 0.068 MGD above the baseline of 0.04 MGD. This additional volume must be mitigated, to the greatest extent feasible. CSCC may meet this requirement through 68,000 GPD of direct mitigation.</p> <p>If direct mitigation is not possible, indirect mitigation may be used instead. However, because the total withdrawal exceeds 0.09 MGD, this triggers a category change in subbasin #17030, requiring additional indirect mitigation.</p> <ul style="list-style-type: none"> • The first 0.05 MGD above the baseline (from 0.04 to 0.09 MGD) requires 5 indirect mitigation credits. • The final 0.018 MGD (from 0.09 to 0.108 MGD) would need to be mitigated at double the rate due to the category change, requiring 4 additional indirect credits. <ul style="list-style-type: none"> ○ 0.09 MGD (BC Change) – 0.04 MGD (Baseline) = 0.05 MGD (5 Credits needed) ○ 0.108 MGD (Permit volume) – 0.09 MGD (BC Change) = 0.018 MGD ○ 0.018 MGD x 2 (double the indirect mitigation credits) = 0.036 MGD (4 Credits)

After discussions with CSCC, they have committed to meeting the 9 indirect mitigation credits by obtaining certification in multiple components of the Audubon Cooperative Sanctuary Program (ACSP) within three years of the issuance of this permit. To satisfy the full mitigation requirement, CSCC will be required to complete the prerequisite components (Environmental Planning and Water Conservation) and achieve certification in all three eligible components that are each worth 3 credits (Wildlife and Habitat Management, Chemical Use Reduction and Safety, and Water Quality Management). The Department will verify CSCC’s progress toward achieving and maintaining these certifications throughout the term of the permit, consistent with the mitigation obligations.

Other Water Management Act Considerations

Minimization of Groundwater Withdrawal Impacts in Stressed Subbasins

Permittees with groundwater sources in subbasins having August net groundwater depletion (August NGD) of 25% or greater are required to develop a plan to minimize the impacts of their withdrawals. As noted in Table 9 CSCC’s permitted groundwater sources are located in subbasin 17030, which has August net groundwater depletion of 2.6%. Therefore, CSCC is not required to prepare a Minimization Plan.

Coldwater Fish Resource Protection

Permittees with withdrawals that impact streamflow of a CFR (identified on subbasin maps^{iv}) must evaluate reducing impacts to CFRs through feasible optimization. CSCC's subbasin in the Chicopee Basin contains a CFR identified by the Department of Fish and Game (DFG). Understanding that all of CSCC are within the same subbasin, with limited ability to shift withdrawals and after consulting with DFG, MassDEP concluded that no Coldwater Fishery optimization will be required from CSCC at this time.



Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs

Department of Environmental Protection

Address: 100 Cambridge Street, Suite 900, Boston MA 02114 | Phone: 617-292-5500

FINAL WITHDRAWAL PERMIT #9P2-1-08-024.02 COLD SPRING COUNTRY CLUB

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

PERMIT NUMBER: 9P2-1-08-024.02

RIVER BASIN: Chicopee

PERMITTEE: Cold Spring Country Club
330 Chauncey Walker Street
Belchertown, MA 01007

EFFECTIVE DATE: June 11, 2026

EXPIRATION DATE: May 31, 2033

NUMBER OF WITHDRAWAL POINTS: 5 (4 Groundwater & 1 Surface Water)

USE: Golf Course Irrigation & Public Water Supply

DAYS OF OPERATION: Irrigation: 180 days / Potable : 365 days

LOCATIONS:

Table 1: Withdrawal Point Identification

Source	Source ID#	Latitude	Longitude	Location
PW-1	WM7800-01G	42°14'32"	72°24'36"	off Chauncey Walker St., Belchertown
PW-2	WM7800-02G	42°14'32"	72°24'36"	off Chauncey Walker St., Belchertown
PW-4	1024013-01G	42°14'43"	72°24'53"	off Chauncey Walker St., Belchertown
PW-5	1024013-02G	42°14'43"	72°24'53"	off Chauncey Walker St., Belchertown
Irrigation Pond	WM7800-05S	42°14'25"	72°24'42"	off Chauncey Walker St., Belchertown

SPECIAL PERMIT CONDITIONS

1. Maximum Authorized Annual Average Withdrawal Volume

This permit authorizes Cold Spring Country Club (CSCC) to withdraw water from the Chicopee River Basin at the rate described below in Table 2. The permitted volume is expressed both as an annual average daily withdrawal rate (million gallons per day or MGD), and as a total annual withdrawal volume (million gallons per year or MGY) for each permit period over the term of this permit. The values below apply to withdrawals from

irrigation Wells PW-1, PW-2, which directly supply the irrigation pond, and potable wells PW-4 and PW-5.

Table 2: Maximum Authorized Withdrawal Rates

Permit Periods	Daily Average (MGD)	Total Annual (MGY)
6/11/2026 to 5/31/2033	0.108	39.46

2. Maximum Authorized Daily Withdrawal from Withdrawal Point

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

Table 3: Maximum Authorized Daily Withdrawal Volumes

Source Name	Source ID#	Maximum Daily Rate (MGD)
PW-1	WM7800-01G	0.0288
PW-2	WM7800-02G	0.1152
PW-4	1024013-01G	0.0216
PW-5	1024013-02G	0.0410
Irrigation Pond	WM7800-05S	0.36

3. Surface and Groundwater Water Quality Monitoring Program

MassDEP requires initial annual water quality monitoring at the locations and frequencies found in Table 4. Nutrient indicators to be analyzed for each monitoring event at each location include Nitrate, Total Kjeldahl Nitrogen, Dissolved Phosphorus, and pH. Inorganic Compounds (IOC) include all chemicals listed in 310 CMR 22.06(2). Monitoring for annual nutrient indicators in groundwater and surface water listed in Table 4 shall be sampled in July of each year. Monitoring for IOC and pH analytes in OW-2B shall be conducted in July of each year. Monitoring for nutrient indicators in the assigned stormwater locations shall occur in August of each year **within 12 hours of any storm event greater than 0.5 inches of rain in 24 hours. CSCC is not required to conduct more than one (1) stormwater sampling event annually.** Table 4 describes the extent and frequency of the required initial annual water quality monitoring program.

Table 4: Initial Annual Water Quality Monitoring Requirements

Monitoring Location	July Nutrients	August Storm event > 0.5 Inches	July IOC and pH
MW-6R	X		
MW-101	X		
OW-2B	X		X
PW-2	X		
SW-3	X	X	
SW-7	X	X	

MassDEP requires that an up-to-date Integrated Pest Management (IPM) plan is required at all times. Because the IPM program requires flexibility to change the chemicals which are presently approved for use at the golf course, any proposed changes or new herbicides, pesticides, and/or fertilizers must be submitted to MassDEP with sufficient information on fate, transport, and health effects and with sufficient time for MassDEP to make a determination on the acceptability of its use at CSCC before it is applied. **Whenever CSCC proposes to change its IPM chemicals, action levels, or procedures, MassDEP requires that it submit an amended IPM Plan for approval. The information required by this paragraph shall also be sent to the Belchertown Conservation Commission and the Springfield Water and Sewer Commission at the same time as the submission is made to MassDEP so that they may present their comments to MassDEP. Application of chemicals not listed in the IPM and approved by MassDEP in writing is a violation of this permit condition. MassDEP reserves the right to require implementing the Emergency Plan of Action based on any detection of an IPM chemical.**

Triggered Repeat Water Quality Monitoring:

Any detection of the indicator chemicals from the July sampling event that is greater than the concentrations listed in Table 5 triggers a more intensive sampling repeat water quality monitoring event. Stormwater monitoring does not trigger repeat water quality monitoring.

Table 5: Trigger Levels of Indicator Chemicals

Chemical	Trigger Level
Nitrate	Greater than 5.0 mg/L
Total Kjeldahl Nitrogen (TKN)	Greater than 5.0 mg/L
Total Nitrogen (Nitrate + TKN)	Greater than 5.0 mg/L
Dissolved Phosphorus	Greater than 5.0 mg/L
Total Phosphorus	Greater than 5.0 mg/L
pH	Less than 4.5 or greater than 9.5

Triggered water quality monitoring shall be conducted within seven (7) days of notification that the concentration of the Indicator Chemical exceeds the Trigger Level listed in Table 5.

Triggered water quality monitoring will be conducted in the location where the indicator chemical was observed to exceed the Trigger Level in Table 5. The triggered water quality parameters to be sampled and analyzed at the triggered monitoring location are listed as follows:

Synthetic Organic Compounds (SOCs) both regulated and unregulated as listed in 310 CMR 22.07A(1) and 22.07C(7) including glyphosate [includes 2,4-D];

Nutrient indicators including Nitrate, Total Kjeldahl Nitrogen, Dissolved Phosphorus, Total Phosphorus, and pH;

Volatile Organic Compounds (VOCs) both regulated and unregulated as listed in 310 CMR 22.07B(1) and 22.07C(5);

Integrated Pest Management (IPM) chemicals listed in the IPM Plan using appropriate analysis methods.

An Emergency Plan of Action was submitted by CSCC as part of the response to an Order to Complete. Until CSCC revises the existing Emergency Plan written by CSCC, and obtains written approval from MassDEP for the revisions, the provisions are incorporated as conditions of this permit. Any Emergency Plan of Action must include the following elements:

- Any exceedance of a Maximum Contaminant Level (MCL) must be reported to MassDEP within 48 hours of the Permittee's receipt of the knowledge of the exceedance.
- The Belchertown Conservation Commission and the Springfield Water and Sewer Commission must also be notified within the same 48-hour period.
- Confirmatory samples must be collected for the chemical which exceeded the reporting limits at the same sampling location within 24 hours of reporting to MassDEP. At the time of reporting the incident to MassDEP, the necessity for, timing, and type of response action will be determined.

If any spills or reportable concentrations occur at the site, then CSCC must follow the proper reporting procedures and timing as required by the Massachusetts Contingency Plan (MCP, 310 CMR 40.00).

Modifications and changes to the monitoring programs— MassDEP will review any written proposal by CSCC for a modification to the monitoring program and will approve or disapprove changes as MassDEP deems appropriate. MassDEP will review all information based on sampling results, complaints, or site conditions, and may modify the current permit to refine the Groundwater and Surface Water Monitoring Program.

4. Water Conservation Requirements

On June 2, 2012, Fuss & O’Neill submitted a Water Conservation Plan on behalf of CSCC. Part of that plan included a Seasonal Demand Management Plan (SDMP). MassDEP approved and included the provisions of the Water Conservation Plan including the SDMP as conditions of the 2014 modified permit. Table 6 shows the reduction in irrigated acreage required for the different drought levels. Note that the drought levels names have changed.

Table 6: Required Conservation Measures Cold Spring Country Club

	Irrigated Less Acreage as Drought Severity Increases Watering allowed up to designated percent							
Massachusetts Drought Level	Irrigated Tees & Greens		Irrigated Fairways		Irrigated Roughs		Irrigated Landscape & Ornamentals	
	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres
Normal	100%	4.5	100%	22	100%	20	100%	1
Level 1- Mild Drought	100%	4.5	80% [†]	17.6	50% [†]	10	0%**	
Level 2- Significant Drought	100%	4.5	60% [†]	13.2	0%			
Level 3- Critical Drought	100%	4.5	40% [†]	8.8			0%	
Level 4- Emergency Drought*	TBD		TBD		0%			
*Irrigation acreage levels to be determined by Executive Order at the time of the emergency drought declaration **Courses whose core business includes a special event venue may continue to irrigate gardens, flowers and ornamental plants by means of hand-held hose or drip irrigation during a Mild, Significant, or Critical Drought. † Irrigation shall not occur between the hours of 9 am and 5 pm, except that hand-watering of hot spots may occur at any time.								

Golf permittees must notify MassDEP within 14 days of the effective date for triggering and implementing their SDMP. Notification is required for the initial implementation only each year.

Copies of the notification forms for golf courses can be found at

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

Additionally, CSCC shall implement the following conservation measures forthwith (Table 7). Compliance with the water conservation requirements shall be reported to MassDEP upon request, unless otherwise noted below.

Table 7: Water Conservation Requirements for Golf Courses

Employee training in water conservation and management
<p>Metering</p> <ul style="list-style-type: none"> • Water use is 100% metered. • Source meters are calibrated annually
<p>Irrigation System Inspection and Maintenance Program</p> <ul style="list-style-type: none"> • Weekly leak detection and repair during the irrigation season • Weekly sprinkler head maintenance/replacement during the irrigation season • Irrigation ponds are lined with impervious material
<p>Implementation of a Turf Management Plan</p> <ul style="list-style-type: none"> • Regular inspection of course to determine irrigation needs • Use of soil sensors or soil samples to determine soil moisture content • Regulator aerating of turf to increase the percolation of water into the soil • Use of drought tolerant grasses and shrubs • Raising turf height during dry weather and drought conditions • Eliminating of irrigation whenever possible, such as in rough areas • Limited ornamental watering
Reuse, where feasible, wastewater and/or stormwater for irrigation

5. Mitigation of Impacts for Withdrawals that Exceed Baseline

The baseline volume for CSCC is 0.04 MGD, the amount of irrigation water withdrawn during calendar year 2005 plus 5%. CSCC shall mitigate for the impacts of its authorized withdrawals (0.108 MGD) beyond the baseline volume. To mitigate for this volume (0.068 MGD), CSCC has committed to obtain a partial Audubon Cooperative Sanctuary Program (ACSP) certification by June 11, 2029. CSCC will be required to complete the prerequisite components (Environmental Planning and Water Conservation) and achieve certification in all three eligible components that are each worth 3 credits (Wildlife and Habitat Management, Chemical Use Reduction and Safety, and Water Quality Management). The Department will verify CSCC’s progress toward achieving and maintaining these certifications throughout the term of the permit, consistent with the mitigation obligations. CSCC shall maintain its ACSP recognition during the life of this permit.

CSCC shall also submit copies of those certifications to MassDEP for its review within three years of the issuance of the final permit. Should those certifications not be received within three years of the final permit’s issuance date, then CSCC’s authorized withdrawals are limited to the baseline of 0.04 MGD.

6. Annual Reporting

MassDEP requires that CSCC submit annual reports of its water quality efforts in addition to the standard annual statistical reporting of withdrawal volume. CSCC is required to report groundwater withdrawals directly from Wells PW-1, PW-2, PW-4, and PW-5. The deadline for submitting the annual report is February 28 of each year.

Annual water quality monitoring reports shall include the locations, dates, and results of all water quality monitoring conducted to comply with the Special Condition 3 of this permit, and all other water quality monitoring data collected for diagnostic purposes.

Annual report shall list all updates to the IPM Plan that have been approved by MassDEP and any new chemical proposed to be added to the IPM Plan for the following irrigation season.

Annual reports shall include details of CSCC's water conservation compliance, including details of any events where irrigation acreage has been restricted due to streamflow triggers and meter calibration dates.

GENERAL CONDITIONS (applicable to all permittees)

1. Duty to Comply: The permittee shall comply at all times with the terms and conditions of this permit, the Act and all applicable State and Federal statutes and regulations.

2. Operation and Maintenance: The permittee shall at all times properly operate and maintain all facilities and equipment installed or used to withdraw up to the authorized volume so as not to impair the purposes and interests of the Act.

3. Entry and Inspections: The permittee or the permittee's agent shall allow personnel or authorized agents or employees of MassDEP at reasonable times to enter and examine any property or inspect and copy any records for the purpose of determining compliance with this permit, the Act or the regulations published pursuant thereto, upon presentation of proper identification and an oral statement of purpose.

4. Water Emergency: Withdrawal volumes authorized by this permit are subject to restriction in any water emergency declared by MassDEP pursuant to M.G.L. c. 21G, s. 15-17, M.G.L. c. 111, s. 160, or any other enabling authority.

5. Transfer of Permits: This permit shall not be transferred in whole or in part unless and until MassDEP approves such transfer in writing, pursuant to a transfer application on forms provided by MassDEP requesting such approval and received by MassDEP at least thirty (30) days before the effective date of the proposed transfer. No transfer application shall be deemed filed unless it is accompanied by the applicable transfer fee established by 310 CMR 36.33.

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

7. Annual Compliance Fee: The permittee shall submit any applicable annual compliance fee as established in 310 CMR 4.00.

8. Duty to Maintain Records: The permittee shall be responsible for maintaining withdrawal records in sufficient detail to assess compliance with the conditions of this permit.

9. Metering: Withdrawal points shall be metered. Meters shall be calibrated annually. Meter shall be maintained and replaced as necessary to ensure the accuracy of the withdrawal records.

10. Amendment, Suspension or Termination: MassDEP may amend, suspend or terminate the permit in accordance with M.G.L. c. 21G and 310 CMR 36.29.

APPEALS

Any person aggrieved by this decision may request an adjudicatory hearing on this Permit by timely filing a Notice of Claim for an Adjudicatory Appeal (“Notice of Claim”) in accordance with 310 CMR 36.37 and 310 CMR 1.01 within twenty-one (21) days of its receipt of this Permit. The Notice of Claim shall state specifically, clearly and concisely the facts that are grounds for the appeal, the relief sought, and any additional information required by applicable law or regulation. A copy of this Permit shall be included with a Notice of Claim. No request for an appeal of this Permit shall be validly filed unless a copy of the request is sent at the same time by certified mail, or delivered by hand, to the local water resources management official in the community in which the withdrawal point is located; and for any person appealing this decision, who is not the Permittee, unless such person notifies the Permittee of the appeal in writing by certified mail or by hand within five (5) days of mailing the appeal to the Department.

The Notice of Claim and supporting documentation must be sent by certified mail or hand delivered to:

Case Administrator
Office of Appeals and Dispute Resolution
Department of Environmental Protection
100 Cambridge Street, Suite 900
Boston, MA 02114

In addition, the Department's fee transmittal form, together with a valid check made payable to the Commonwealth of Massachusetts in the amount of \$100 for the appeal filing fee, if required, must be mailed to:

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

The Notice of Claim may be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver. The filing fee is not required if the appellant is a city, town (or municipal agency), county, district of the Commonwealth of Massachusetts, or a municipal housing authority. The Department may waive the adjudicatory filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, along with the hearing request, an affidavit setting forth the facts believed to support the claim of undue financial hardship.



Duane LeVangie
Water Management Program Chief
Bureau of Water Resources

6/11/2026

Date

ⁱ Aggregation of annual flow volumes is accomplished as follows:

Annual PWS withdrawal volume + Annual irrigation withdrawal volume = Total annual withdrawal

Annual PWS withdrawal volume = 0.0371 MGD * 365 = 13.54 MGY

Annual irrigation withdrawal volume = 0.144 MGD * 180 = 25.92 MGY

Total annual withdrawal = 13.54 MGY + 25.92 MGY = 39.46 MGY. Expressed as a daily rate = 0.108 MGD.

ⁱⁱ The Water Management Regulations, 310 CMR 36,14(1)(a), establish a biological category (BC) for each subbasin based on the simulated 2000 to 2004 existing condition of aquatic habitat using fluvial fish community characteristics as the surrogate indicator variable. Each biological category represents the percent alteration within the range of these fluvial fish community characteristics as a function of the following subbasin parameters: 1. Impervious cover; 2. Cumulative groundwater withdrawal as a portion of the unimpacted August median flow; 3. Stream channel slope; and 4. Percent wetland within the stream buffer area. The percent alteration for each BC is as follows: BC 1, 0% to 5%; BC 2, > 5% to 15%; BC 3 >15% to 35%; BC 4, > 35% to 65%; BC 5, >65%.

ⁱⁱⁱ The Water Management Regulations 310 CMR 36.14(1)(b), establishes a groundwater withdrawal category (GWC) based on the ratio of 2000 to 2004 groundwater withdrawal volume to the unimpacted median monthly flow for August and represents conditions during the late summer bioperiod (July thru September). Each GWC represents the range of this ratio that would result in the BC of the same number under conditions of low (15%) impervious cover. The GWC for each

withdrawal ratio for the late summer bioperiod is as follows: GWC 1, 0% to 3%; GWC 2, >3% to 10%; GWC 3, >10% to 25%; GWC 4, >25% to 55%; and GWC 5, >55%

^{iv} 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).