



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

December 23, 2025

Mr. Michael Silvia  
Oak Bluffs Water District  
P.O. Box 1297  
96 Vineyard Avenue  
Oak Bluffs, MA 02557

**RE:** Oak Bluffs- BRP\WMA  
PWS ID: 4221000  
WMA Permit #: 9P-4-23-221.01  
Program: Water Management Act  
Action: BRPWM03-Draft Permit

Dear Mr. Silvia:

Please find the attached documents:

- Findings of Fact in Support of the **Draft** Water Management Act Permit Decision; and,
- **Draft** Water Management Act Permit #**9P-4-23-221.01** for the Oak Bluffs Water District in the Islands Basin.

Consistent with 310 CMR 36.27(6)-(8) of the Water Management Act Regulations, the Department intends to publish notice in the Environmental Monitor that a **DRAFT** Permit is available for review and comment for 30 days following the April 23, 2025 publication in the Environmental Monitor. Notice of the public comment period will also be sent to all registrants, permittees and those having non-consumptive use statements within the Islands Basin. The Department expects to issue the final permit within 30 days of the close of the public comment period.

If you have any questions regarding this information, please contact Linjun Yao at [linjun.yao@mass.gov](mailto:linjun.yao@mass.gov) or me, Duane LeVangie, at [duane.levangie@mass.gov](mailto:duane.levangie@mass.gov) or (617) 780-1962.

Sincerely,

Duane LeVangie, Chief  
Water Management Act Program  
Bureau of Water Resources

<https://massgov.sharepoint.com/:f:/r/sites/DEP-BWR/DWPArchive/SERO/2025\ Oak Bluffs-4221000-DRAFT Permit- WMA-9P-4-23-221.01-2025-12-23>

Enclosures

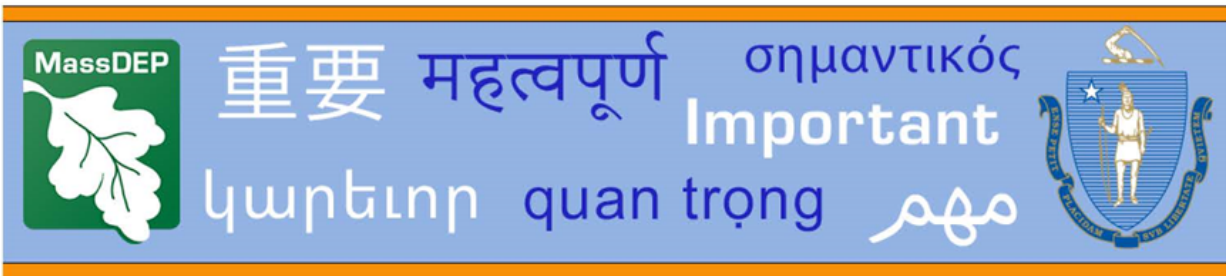
Ecc: Lydia Olson, Mass River's Alliance

Jennifer Pederson, Mass Water Works Association

James McLaughlin, MassDEP SERO

Sheri Caseau, Martha's Vineyard Commission

William R. Schaetzke, Apex Companies, LLC



## Communication for Non-English-Speaking Parties

### English

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

### Español Spanish

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，应立即翻译。如果您需要翻译这份文件，请用下面列出的电话号码与 MassDEP 的多元化主任联系。

### Ayisyen Kreyòl Haitian Creole

Dokiman sa-a se yon bagay enpòtan epi yo ta dwe tradwi l imedyatman. Si ou bezwen dokiman 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

ឯកសារនេះគឺសំខាន់ហើយគួរត្រូវបានបកប្រែភ្លាមៗ។ ប្រសិនបើអ្នកត្រូវការឱ្យគេបកប្រែឯកសារនេះ:

សូមទាក់ទងមកនាយកផ្នែកពិពិធកម្មរបស់ MassDEP តាមលេខទូរស័ព្ទខាងក្រោម។

### Kriolu Kabuverdianu Cape Verdean

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

Contact Melixza Esenyie at 617-626-1282

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

TTY# MassRelay Service 1-800-439-2370 • <https://www.mass.gov/environmental-justice>  
(Version revised 7.22.2022) 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.

## Język Polski Polish

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 मासडेप्स डाइवर्सिटी के निदेशक से संपर्क करें.

Contact Melixza Esenyie at 617-626-1282

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**DRAFT Finding of Fact in Support of**  
**Water Management Permit # 9P-4-23-221.01**  
**OAK BLUFFS WATER DISTRICT**

The Department of Environmental Protection (the Department or MassDEP) has completed its review of the Water Management Act Permit application filed by the Oak Bluffs Water District (Oak Bluffs). The Department hereby issues Water Management Permit #9P-4-23-221.01 (the “WMA Permit”) in accordance with the Water Management Act (M.G.L. c. 21G) and the regulations promulgated thereunder at 310 CMR 36.00. The new WMA Permit supersedes the 2006 WMA Permit. The Department makes the following Findings of Fact in support of the attached new WMA Permit and includes herewith its reasons for issuing the WMA Permit and for conditions of approval imposed, as required by M.G.L. c. 21G, § 11, and 310 CMR 36.00. The new WMA Permit is being issued since such action is necessary for the promotion of the purposes of M.G.L. c. 21G. The Department may amend, suspend, or terminate the Renewed WMA 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 Water Management Act (M.G.L. c. 21G)**

The Water Management Act (Act) 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;
- Water needs forecasts for public water suppliers developed by the Department of Conservation and Recreation, Office of Water Resources (DCR), using a methodology reviewed and approved by the Massachusetts WRC;
- Water supply protection measures for public water supplies including Zone II delineations for groundwater sources, and wellhead and surface water protection measures as required by Massachusetts Drinking Water Regulations (310 CMR 22.00);
- Water conservation and performance standards reviewed and approved by the WRC in July 2018 ([Details on the 2018 Massachusetts Water Conservation Standards | Mass.gov](#)); including without limitation;
  - performance standard of 65 residential gallons per capita day or less;
  - performance standard of 10% or less unaccounted-for-water;
  - seasonal limits on nonessential outdoor water use;
  - a water conservation program that includes leak detection and repair, full metering of the system and proper maintenance of the meters, periodic review of pricing, and education and outreach to residents and industrial and commercial water users; and
- 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 Islands 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 Islands Basin is 104.4 million gallons per day (MGD), and total registered and

permitted withdrawals are increasing from 8.01 MGD to 8.27 MGD with the additional 0.26 MGD being allocated in this permit. The maximum withdrawals that will be authorized in this permit, and all other permits currently under review by MassDEP within the Islands Basin, will be within the safe yield and may be further conditioned as outlined in the regulations.

### **Oak Bluffs' Withdrawal History**

Oak Bluffs holds a Water Management Act Registration (42322101) for an average annual daily withdrawal volume of 0.58 million gallons per day (MGD) from two groundwater sources Lagoon Pond Wellfield (01G) and Farm Neck Road Wellfield (02G) in the Islands Basin. Oak Bluffs also received a permit on February 1, 1992 that authorized an additional average annual volume of up to 0.35 MGD from two groundwater sources: State Forest Well #3 (03G), Madison Alwardt Well #4 (04G). Oak Bluffs' permit was amended on June 2, 2006, when the John Randolph Jr. Well #5 (05G) was added. Oak Bluffs' total authorized average annual withdrawal volume under its existing Water Management Act Permit #9P-4-23-221.01 (the 2006 WMA Permit) and Registration is 0.93 MGD. Oak Bluffs' annual average daily withdrawals over the past five years have exceeded their total authorized withdrawal volume. See Table 1.

**Table 1. Actual Annual Average Daily Water Withdrawal Volumes (MGD)**

Year	2020	2021	2022	2023	2024	Average 2019-2024
<b>Reported Withdrawals (MGD)</b>	1.08	1.05	1.13	1.13	1.09	1.10

On July 20, 2015, the Department of Conservation and Recreation's Office of Water Resources (DCR) issued a Water Needs Forecast (WNF) for Oak Bluffs. The WNF set forth one projection based on the assumption that Oak Bluffs' current trends with regard to residential gallons per calendar day (RGPCD) and unaccounted for Water (UAW) would continue. The WNF included a 5% buffer to accommodate uncertainty in the growth projections. In the past 5 years, Oak Bluffs has withdrawn more than the DCR projection on occasion. See Tables 1 and 2.

**Table 2. DCR Water Needs Forecast**

Year	2021	2026	2031
<b>Current Trend Projection (MGD)</b>	1.03	1.05	1.08*
<b>Five Percent Buffer:</b>			+ 0.05
* 5% buffer = 0.05 MGD may at MassDEP's discretion be added when the additional 5% buffer is warranted for the system.			

On March 9, 2017, the Water Resources Commission issued a decision (the 2017 WRC Decision) for communities with significant seasonal populations (Cape Cod and Islands), that authorized the potential addition of a 10% buffer in place of the 5% buffer. A 10% buffer would authorize a potential withdrawal of up to 1.19 MGD.

In its 2024 WMA Permit Application (BRPWM03), Oak Bluffs requested that MassDEP issue a new permit that would give Oak Bluffs a total authorized annual average daily withdrawal volume of 1.16 MGD through 2029, and 1.19 MGD until June 4, 2032 the highest volume set forth in the DCR WNF with the 10% buffer. MassDEP will use its permitting discretion to apply the 10% buffer as warranted based on a demonstration of compliance with the permit or through the approval of a permit amendment application.

### **The Permit Extensions**

In addition to the permit application for additional withdrawals, Oak Bluffs filed in November of 2010 a 20-year permit renewal application for their existing WMA permit originally issued in February 1992 and last amended on June 2, 2006. Subsequently, the expiration dates for all Water Management permits were extended for four years by Chapter 240 of the Acts of 2010 as amended by Chapter 238 of the Acts of 2012, collectively known as the Permit Extension Act. Therefore, WMA permits for withdrawals in the Islands Basin were extended until February 28, 2015.

In April of 2015, MassDEP informed the applicant and other permittees in the Islands Basin that MassDEP would need additional time before making a determination on the application in order to ensure that all permit renewal applicants fully understood the new Water Management Regulations (discussed below), and to give proper consideration to all permit renewal applications within the basin. Pursuant to M.G.L. c. 30A, § 13, and 310 CMR 36.18(7), the applicant's permit, continues in force and effect until MassDEP issues a final decision on the permit renewal application.

This permit application review evaluated Oak Bluffs' compliance with the existing permit and will resolve the permit renewal application. Note that in accordance with 310 CMR 36.17 (1), the expiration date for this new permit will be June 4, 2032.

### **Findings of Fact for Permit Conditions in Oak Bluffs' Water Management Act Permit**

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

### **Special Condition 1, Maximum Authorized Annual Average Withdrawal Volumes**

Special Condition 1 of the 2006 WMA Permit Amendment authorized Oak Bluffs to withdraw an annual average daily volume of 0.35 MGD from its permitted sources in the Islands Basin. This permitted volume is in addition to the 0.58 MGD that Oak Bluffs is authorized to withdraw from the Islands Basin under its Registration, giving Oak Bluffs a total authorized volume of 0.93 MGD.

Oak Bluffs' total authorized withdrawal of 1.08 MGD for the final period of this permit may be increased by an additional 10% (up to 1.19 MGD or 435.35 Million Gallons per Year (MGY)) to accommodate uncertainty in the Water Needs Forecast, and/or to accommodate the water demand of a public water system that has met the conditions in their permit or has not met the 10%



UAW performance standard, but has met the functional equivalence requirements included in this permit. MassDEP will use its permitting discretion to apply the 10% buffer as warranted through specific advance written approval.

### **Special Condition 2, Maximum Authorized Daily Withdrawal Volumes**

Special Condition 2 of the 2006 WMA Amended Permit limited Oak Bluffs pumping to only two of their three permitted wells (Well #3, #4, #5) at any one time. This limitation has been removed from the new permit.

Special Condition 2 of the New WMA Permit reflects the MassDEP-approved Zone II maximum daily pumping rate for each of Oak Bluffs' permitted wells based on the prolonged pumping tests. Withdrawals in excess of these maximum daily rates require approval from the Department.

### **Special Condition 3, Zone of Contribution (Zone II or Zone III) Delineations**

All of Oak Bluffs' permitted sources have DEP approved Zone II's delineated. No further Zone II work is required as a condition of this permit.

### **Special Condition 4, Wellhead Protection**

This condition of the permit requires that Oak Bluffs establish land use controls and water supply protection measures within the Zones of Contribution of its groundwater sources in order to comply with 310 CMR 22.21(2). Department records show that Oak Bluffs is and continues to be in compliance with the Wellhead Protection requirements for all of its existing wells. No further wellhead protection work is required as a condition of this permit.

### **Special Condition 5, Pond Level Impacts**

Special Condition 5 of the 2006 WMA Amended Permit required Oak Bluffs to conduct a hydrologic investigation (Pond Monitoring Program) for Duarte Pond (~0.5 miles northwest of Wells 3, 4, & 5) and Little Pond (~0.65 miles southeast of Wells 3, 4, & 5) following the completion and operation of Well #5. The Pond Monitoring Program was to investigate the hydraulic connection between the aquifer and both ponds. Both Duarte Pond and Little Pond are glacial outwash kettle ponds located in topographic depressions. Based on USGS topographic maps in MassGIS, Little Pond has an elevation slightly less than 20 feet, while Duarte Pond is at 18 feet, placing both ponds at similar elevations. Their relative positions and similar elevations of the ponds are consistent with the position and configuration of Zone 2 of the wells, indicating that groundwater flows to the northeast and that both ponds lie along a similar water table contour perpendicular to the direction of groundwater flow.

The monitoring data submitted by Oak Bluffs included Duarte Pond's water level measurements and pond fluctuation for the years 2007-2014. MassDEP reviewed this data and found no significant measurable impact to water levels in Duarte Pond due to the pumping of their permitted wells. This is not unexpected, given the high transmissivity of the aquifer, the direction of groundwater flow, the distance from the pond to the wells, and the relative positions of the wells and the pond in the groundwater flow field. Since Little Pond is further from the wells than Duarte

Pond and no impact was observed in Duarte Pond, monitoring of Little Pond's water levels is not necessary. However, because the 2006 WMA Amended Permit limited pumping to only two of their three permitted wells at any one time, the potential impacts on Duarte Pond are unknown when all three wells are pumping simultaneously at the anticipated higher rates.

MassDEP has revised but continued the monitoring condition to evaluate the impacts of pumping all three permitted wells at any one time. Oak Bluffs is required to continue monitoring and recording daily water levels in the existing staff gauges approved by MassDEP and installed in 2004. Monitoring for the years 2026 and 2027 is required when all three permitted wells (Wells 3, 4, & 5) are pumping simultaneously. Oak Bluffs shall submit this monitoring data annually with their Annual Statistical Report for the years 2026 and 2027, at which point MassDEP will review the data and determine if the monitoring program needs to be extended or discontinued.

#### **Special Condition 6, Performance Standard for Unaccounted for Water (UAW)**

This condition of the permit has changed from 15% UAW required annually in Oak Bluffs' 2006 WMA Amended Permit. The UAW performance standard required for all PWS permittees is now 10 % for two out of the most recent three years throughout the life of the permit.

Permittees that cannot comply within the timeframe in the permit must meet Functional Equivalence requirements based on the AWWA/IWA Water Audits and Loss Control Programs, Manual of Water Supply Practices M36, as outlined in Appendix A. As accepted by the Department, Oak Bluffs' UAW for the most recent three years has been:

Year	2022	2023	2024
UAW (%)	5.6	9.7	7.0

#### **Special Condition 7, Water Conservation Requirements**

This condition requires Oak Bluffs to meet minimum water conservation performance standards activities including metering, leak detection, leak repair, pricing, plumbing, and water audits. This Condition reflects the Water Conservation Standards for the Commonwealth of Massachusetts adopted by the MA Water Resources Commission in July 2018 ([Massachusetts Water Conservation Standards | Mass.gov](#)).

#### **Special Condition 8, Seasonal Limits on Nonessential Outdoor Water Use**

This condition requires Oak Bluffs to implement restrictions on nonessential outdoor water use from May 1<sup>st</sup> - September 30<sup>th</sup> when:

- groundwater levels fall to the monthly 25<sup>th</sup> percentile for 60 consecutive days at the assigned groundwater monitoring well; **and**
- a Drought Level 1- Mild Drought, or greater, is declared by the Secretary of the Executive Office of Energy and Environmental Affairs for the Islands Drought Region.

Oak Bluffs has been assigned USGS well gauge # 412346070353403 (ENW-52) in Edgartown, MA.

Oak Bluffs may choose to implement limits on nonessential outdoor water use that are stricter than those required by the permit. This permit condition does not confer enforcement authority to the permittee. A requirement to ensure Oak Bluffs' has authority to enforce the restrictions is included in Special Condition 7, Water Conservation Requirements.

**Special Condition 9, Mitigation of Impacts for Withdrawals that Exceed Baseline Withdrawals,** requires mitigation where feasible for withdrawals over a 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.

Baseline Withdrawal and Mitigation Calculation: Oak Bluffs' baseline is 0.88 MGD which was their authorized withdrawal volume in 2005. Oak Bluffs existing and requested withdrawal volumes both exceed 0.88 MGD, therefore mitigation is required.

The summary below outlines Oak Bluffs' mitigation requirement based on the volume requested in their permit application (1.19 MGD). The mitigation calculation assumes that Oak Bluffs' future withdrawals will continue to be discharged to local groundwater discharge locations, or at on-site septic systems at the same rate (100%) as current water withdrawals. A "wastewater adjustment" is calculated for water withdrawn that is returned to the ground as wastewater within the same major basin. MassDEP will assume that 85% of water delivered to customers with septic systems will be returned to the ground within the same major basin as the withdrawal, thus reducing the amount of mitigation needed. After calculating the adjustment for authorized withdrawals over baseline that will be returned through local groundwater discharge, Oak Bluffs' total mitigation requirement will be up to 46,500 gallons per day, or 4.65 indirect mitigation credits. One indirect mitigation credit is the equivalent of 10,000 gallons per day, in this case, 4.65 credits is equal to 46,500 gallons per day.

<b>Permitted amount above Baseline = 0.31 MGD</b> <ul style="list-style-type: none"><li>Permitted amount above Baseline: <math>1.19 - 0.88 = 0.31</math> MGD</li></ul>
<b>Adjustment for Wastewater Discharge to Local Groundwater = 0.264 MGD</b> <ul style="list-style-type: none"><li>100% of increased withdrawals are delivered to areas where wastewater is discharged to groundwater after treatment: <math>0.31 \text{ MGD} \times 1.0 (100\%) = 0.31 \text{ MGD}</math></li><li>85% of water delivered to areas with local groundwater discharge returns to groundwater: <math>0.31 \text{ MGD} \times 0.85 (85\%) = 0.264 \text{ MGD}</math></li></ul>
<b>Amount to be Mitigated after Adjustment for Wastewater Discharge to Local Groundwater = 0.0465 MGD</b> <ul style="list-style-type: none"><li>Permitted amount above baseline (0.31 MGD) – adjustment for wastewater discharge to local groundwater (0.264 MGD) = 0.0465 MGD or 46,500 gallons per day</li></ul>

Mitigation measures that have been put into place since January 1, 2005, and that are still operable or effective, are eligible components of a Mitigation Plan. Additional mitigation activities may be phased in over the life of this permit provided that any volumes withdrawn over the 0.88 MGD baseline are mitigated prior to when those volumes are withdrawn.

Direct Mitigation, which will improve streamflow as a result of increased groundwater recharge, decreased stormwater runoff to streams, or surface water releases, must be considered first in mitigation planning.

Oak Bluffs' public sewage system infrastructure and discharge point are completely within a single watershed, therefore, infiltration/inflow removal do not provide a net volume benefit to in-basin groundwater recharge. Oak Bluffs has no eligible stormwater projects completed since 2005, and no surface water sources from which to make releases to improve streamflow. Therefore, Oak Bluffs has identified no direct mitigation credit at this time.

Indirect Mitigation, activities that result in environmental improvements that will help to compensate for streamflow impacts, is required when a permittee has insufficient direct mitigation credit.

**Oak Bluffs' Indirect Mitigation Credit**

Town of Oak Bluffs Board of Health Fertilizer Regulations, Section 21.0	1 credit for performance standards that are more restrictive than the Department of Agricultural Resources requirements	1 credit: 10,000 gpd
Town of Oak Bluffs Conservation Commission General Wetlands Bylaw, Section 6 (Adopted 8/15/1994)	1 credit for enforceability of the bylaw 1 credit for jurisdiction to resource areas " <i>whether or not they border surface waters</i> " 1 credit for jurisdiction to extend Riverfront status to intermittent streams 1 credit for performance standards tailored to specific resource areas <ul style="list-style-type: none"><li>• Velocity zone prohibition</li><li>• Limitation of expansion in the buffer zone area</li><li>• Piers design specifications and performance standards</li></ul>	4 credits: 40,000 gpd
Total Credits		5 credits: 50,000 gpd

**Other WMA Considerations**

**Performance Standard for Residential Gallons per Capita Day (RGPCD).** In areas that experience significant seasonal fluctuations in residential population, as is the case with public water suppliers on Martha's Vineyard, calculation of an accurate RGPCD is difficult and has not been standardized to date. Therefore, MassDEP has removed this condition (formerly Special Condition #6 of your 2006 Permit) from this new permit. The removal of a numerical RGPCD

standard from Oak Bluffs' permit is not intended to imply that water conservation is not important for resource protection, and Oak Bluffs should still take every opportunity to encourage water conservation, especially during the high use summer season.

**Coldwater Fishery Resources.** The Water Management Regulations revised and promulgated in November 2014 also require WMA permits to address protection of Coldwater Fishery Resources (CFR). Coldwater Fish Resource protection is not a condition of this Permit, because Oak Bluffs' withdrawals do not impact any waters that the Massachusetts Division of Fisheries and Wildlife has identified as supporting coldwater fish at this time.

**Minimization.** The Water Management Regulations also require WMA permits for groundwater sources in subbasins<sup>1</sup> with a net groundwater depletion of 25% or more during August, a groundwater depleted subbasin, to minimize their withdrawal impacts on those subbasins to the greatest extent feasible, through optimization of groundwater source use, surface water releases to improve streamflows, outdoor water use restrictions and water conservation programs that go beyond the standard Water Management Act permit requirements. Oak Bluffs' sources are located in an area where there are no delineated subbasins; therefore, minimization is not a requirement of this permit.

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<sup>1</sup> Subbasins used for WMA permitting are the 1,395 subbasins delineated by the U.S. Geological Survey in *Indicators of Streamflow Alteration, Habitat Fragmentation, Impervious Cover, and Water Quality for Massachusetts Stream Basins* (Weiskel et al., 2010, USGS SIR 2009-5272).



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

### **DRAFT** WATER WITHDRAWAL PERMIT

**#9P-4-23-221.01**

#### **OAK BLUFFS WATER DISTRICT**

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:** 9P-4-23-221.01

**RIVER BASIN:** Islands

**PERMITTEE:** Oak Bluffs Water District  
96 Vineyard Avenue  
Oak Bluffs, MA 02557

**EFFECTIVE DATE:** XXXXXXXXXX

**EXPIRATION DATE:** June 4, 2032

**NUMBER OF WITHDRAWAL POINTS:** 3

Groundwater: 3      Surface Water: 0

**USE:** Public Water Supply

**DAYS OF OPERATION:** 365

**LOCATION(S):**

**Table 1. Withdrawal Point Identification**

Source Name	Source Code
STATE FOREST WELL #3	4221000-03G
MADISON ALDWART WELL #4	4221000-04G
JOHN RANDOLPH JR WELL #5	4221000-05G



## **SPECIAL CONDITIONS**

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

This permit authorizes the Oak Bluffs Water District (Oak Bluffs) to withdraw water from the Islands Basin at the rate described in Table 2 below. The permitted withdrawal is in addition to the 0.58 MGD previously authorized to the Oak Bluffs under WMA Registration #4-23-221.01. The permitted volume is expressed both as an average daily withdrawal rate in million gallons per day (MGD), and as a total annual withdrawal volume in million gallons per year (MGY) for each five-year permit period.

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

**Table 2. Authorized Annual Average Withdrawal Volume**

Permit Periods	Total Raw Water Withdrawal Volumes			
	Permit		Registration + Permit	
	Daily Average (MGD)	Total Annual (MGY)	Daily Average (MGD)	Total Annual (MGY)
XXXX to 6/4/2027	0.47	171.55	$0.58 + 0.47 = 1.05$	383.25
6/5/2027 to 6/4/2032	0.50 (0.61*)	182.50 (222.65*)	$0.58 + 0.50 = 1.08$ $(0.58 + 0.61 = 1.19^*)$	394.20 (435.35*)

\*With specific advance written approval from the Department, Oak Bluffs is authorized to increase annual average daily withdrawals to 1.19 MGD provided Oak Bluffs is complying with the following conditions:

- Duarte Pond water level monitoring requirements in Special Condition 5;
- Unaccounted-for-water (UAW) of 10% or less, or all UAW functional equivalence requirements in Special Condition 6;
- Water conservation requirements in Special Condition 7;
- Seasonal limits on nonessential outdoor water use in Special Condition 8.

### **2. Maximum Authorized Daily Withdrawals from Groundwater Withdrawal Points**

Withdrawals from individual withdrawal points are not to exceed the approved maximum daily volumes listed in Table 3 without specific advance written approval from MassDEP. The authorized maximum daily volume is the approved rate of each source.

**Table 3. Authorized Maximum Daily Water Withdrawal Volume**

Source Name	Source ID	Maximum Daily Withdrawal Volume (MGD)
State Forest Well #3	4221000-03G	1.58
Madison Alwardt Well #4	4221000-04G	1.44
John Randolph Jr. Well #5	4221000-05G	1.44

### 3. Zone of Contribution (Zone II or Zone III) Delineations

MassDEP records show that Oak Bluffs' sources have approved Zone II delineations, therefore, no further Zone II work is required as a condition of this permit.

### 4. Wellhead Protection

The Oak Bluffs is required to continue to meet the requirements of 310 CMR 22.21(2).

### 5. Pond Level Impacts

The Oak Bluffs Water District is required to continue the Pond Monitoring Program for calendar year 2026 and 2027. Monitoring, and recording, of daily water levels in the Duarte Pond is required when Well #3, #4, and #5 are pumped simultaneously. A report interpreting, evaluating and summarizing the daily monitoring data shall be submitted to MassDEP with Oak Bluffs Annual Statistical Report for calendar year 2026, and 2027. The Department will review and determine if this monitoring program needs to be extended or discontinued after 2027.

### 6. Performance Standard for Unaccounted for Water (UAW)

The District's Performance Standard for Unaccounted for Water (UAW) is 10% or less for two of the most recent three years. If, at any time, Oak Bluffs does not meet this Performance Standard, it shall comply with the functional equivalence requirements set forth in Appendix A. Nothing in the permit shall prevent a permittee who meets the 10% performance standard from developing and implementing a water loss control program following the *AWWA M36 Water Audits and Loss Control Programs*. All permittees shall continue to report UAW annually as required in the Annual Statistical Report for public water suppliers.

### 7. Water Conservation Requirements

At a minimum, Oak Bluffs shall implement the following conservation measures in Table 4. Compliance with the water conservation requirements shall be reported to MassDEP upon request, unless otherwise noted below.

**Table 4. Minimum Water Conservation Requirements**

System Water Audits and Leak Detection	
1.	At a minimum, conduct a full leak detection survey every three years. A full leak detection survey should be completed by December 31, 2026.
2.	Conduct leak detection of the entire distribution system within one year whenever the percentage of UAW increases by 5% or more (for example an increase from 3% to 8%) over the percentage reported on the ASR for the prior calendar year. Within 60 days of completing the leak detection survey, submit to MassDEP a report detailing the survey, any leaks uncovered as a result of the survey or otherwise, dates of repair and the estimated water savings as a result of the repairs.
3.	Conduct field surveys for leaks and repair programs in accordance with the AWWA Manual 36.
4.	Repair reports shall be kept available for inspection by MassDEP. The permittee shall establish a schedule for repairing leaks that is at least as stringent as the following: <ul style="list-style-type: none"><li>• Leaks of 3 gallons per minute or more shall be repaired within 3 months of detection.</li><li>• Leaks of less than 3 gallons per minute at hydrants and appurtenances shall be repaired as soon as possible.</li></ul>

- Leaks of less than 3 gallons per minute shall be repaired in a timely manner, but in no event more than 6 months from detection, except that leaks in freeway, arterial or collector roadways shall be repaired when other roadwork is being performed on the roadway.
- Leaks shall be repaired in accordance with the permittee's priority schedule including leaks up to the property line, curb stop or service meter, as applicable.
- Permittee shall have water use regulations in place that require property owners to expeditiously repair leaks on their property.

The following exceptions may be considered:

- Repair of leakage detected during winter months can be delayed until weather conditions become favorable for conducting repairs;\* and
- Leaks in freeway, arterial or collector roadways may be coordinated with other scheduled projects being performed on the roadway\*\*.

\*Reference: MWRA regulations 360 CMR 12.09

\*\*Mass Highway or local regulations may regulate the timing of tearing up pavement to repair leaks.

### **Metering**

1. Calibrate all source, treatment and finished water meters at least annually and report date of calibration on the ASR.
2. Oak Bluffs shall continue to ensure that its system is one hundred percent (100%) metered.
3. All water distribution system users shall have properly sized service lines and meters that meet AWWA calibration and accuracy performance standards as set forth in AWWA Manual M6 – Water Meters.

### **Pricing**

1. Oak Bluffs shall continue to implement a water pricing structure that includes the full cost of operating, maintaining and protecting the water supply system.
2. Oak Bluffs shall continue to evaluate its rate structure annually.
3. Oak Bluffs reports using an increasing block rate structure and shall continue to do so.

### **Residential and Public Sector Conservation**

1. Oak Bluffs shall continue to meet all standards set forth in the Federal Energy Policy Act, 1992, and the Massachusetts Plumbing Code.
2. Oak Bluffs shall meter or estimate water used by fire hydrants for pipe flushing, construction, and other uses not related to fire fighting.
3. Oak Bluffs reports that it has installed water saving devices in Town Hall, Fire Station and Library. Oak Bluffs shall continue to ensure that water savings devices are installed in all municipal buildings as they are renovated and shall ensure water conserving fixtures and landscaping practices are incorporating into the design of new municipal capital projects.
4. Within 24 months of issuance of this permit, Oak Bluffs shall ensure that it has enforcement authority in place for the specific Seasonal Limits on Nonessential Outdoor Water Use contained in Special Condition 8 of this permit.

### **Industrial and Commercial Water Conservation**

1. Oak Bluffs shall ensure implementation of water conservation practices, including the installation of Water Sense compliant low flow plumbing fixtures where applicable, and low water use landscaping in all development proposals.

### **Public Education and Outreach**

1. Oak Bluffs shall continue to implement a public education plan that include annual bill stuffers, information enabling customers to calculate their water use, usage history, information on water-wise landscaping, gardening, efficient irrigation, and lawn care practices, and public service announcements.

## 8. Seasonal Limits on Nonessential Outdoor Water Use

Oak Bluffs shall limit nonessential outdoor water use through mandatory restrictions from May 1<sup>st</sup> through September 30<sup>th</sup> as outlined in Table 5.

Oak Bluffs shall be responsible for tracking groundwater levels and drought declarations and recording and reporting when restrictions are implemented. See Table 6 for *Instructions for Accessing U.S. Geologic Survey Groundwater Level and Massachusetts Drought Advisory Website Information*. Oak Bluffs shall also document compliance with the summer limits on nonessential outdoor water use annually in its Annual Statistical Report (ASR).

**Table 5. Seasonal Limits on Nonessential Outdoor Water Use**

**Permittee shall limit nonessential outdoor water use through mandatory restrictions from May 1<sup>st</sup> through September 30<sup>th</sup> as outlined below.**

Nonessential outdoor water use is restricted to no more than **two (2) days per week** before 9 am and after 5 pm when:

- a) the daily depth to water (measured as depth to water) at **USGS Groundwater Monitoring Well 412346070353403 (ENW-52) in Edgartown, MA**, declines to or below the groundwater trigger level for sixty (60) consecutive days. Restrictions could start on May 1, so monitoring shall begin on March 1 of each year.

<b>USGS Groundwater Monitoring Well 412346070353403- ENW-52 Edgartown, MA</b>							
<b>Monthly 25<sup>th</sup> Percentile Trigger Values*</b>							
Month	March	April	May	June	July	August	Sept
Depth to water level, feet below land surface	19.04	18.39	17.97	17.88	18.14	18.51	18.89

\*Updated values based on USGS 2025 Stats

**AND**

- b) A Level 1- Mild Drought or greater is declared by the Secretary of the Executive Office of Energy and Environmental Affairs.

Once implemented, the restrictions shall remain in place until depth to water level is less than (water level is higher than) the trigger level at the monitoring well for thirty (30) consecutive days.

**Reporting Requirements:**

- a) Permittee shall file notice that restrictions have been put in place with MassDEP within 14 days of the restriction's effective date. Filing shall be in writing on the form "Notification of Water Use Restrictions" available on MassDEP's website.
- b) Permittee shall document compliance with the Seasonal Nonessential Outdoor Water Use Restrictions annually in its Annual Statistical Report (ASR).

<b>Instructions for Accessing U.S. Geologic Survey Groundwater Level and Massachusetts Drought Website Information</b>
<p>The Permittee shall be responsible for tracking groundwater levels and drought advisories and recording and reporting to MassDEP when restrictions are implemented.</p>
<p><b>Groundwater level information</b> is available at the USGS National Water Information System (NWIS): Web Interface. The USGS NWIS default shows Massachusetts groundwater levels in real time, i.e., the most recent, usually hourly, water level measured and recorded at each USGS monitoring well.</p> <p>Seasonal Limits on Nonessential Outdoor Water Use are implemented when the depth to water level exceeds the designated trigger for 60 consecutive days (note: depth to water becomes greater as the water table elevation declines). To determine if restrictions must be implemented on May 1<sup>st</sup> it is necessary to review the daily water levels for March and April.</p> <p><b>Mean daily groundwater level</b> readings are available at the USGS NWIS Web Interface at <a href="#">USGS Current Conditions for USGS 412346070353403 MA-ENW 52 EDGARTOWN, MA</a></p> <ul style="list-style-type: none"> <li>• Scroll down to 412346070353403 - ENW-52 Edgartown, MA.</li> <li>• Click on the station number.</li> <li>• On the pull-down menu “Available data for this site” choose “Daily data”.</li> <li>• Under “Available Parameters ” click on “WaterLevel, BelowLSD (Mean)”.</li> <li>• Under “Output Format” click on “Table” and enter the number of days of records (the default is 7 days; entering 60 will give you 60 days of data) and hit “GO”</li> <li>• The table provides the “Daily Mean Depth to water level, feet below land surface” for the most recent number of days chosen.</li> <li>• Compare each daily value to its 25<sup>th</sup> percentile trigger value in your permit. Outdoor water use restrictions must be implemented when the daily value exceeds the 25<sup>th</sup> percentile for 60 consecutive days.</li> </ul>
<p><b>Drought</b> information is available at the Massachusetts Department of Conservation and Recreation (DCR) Drought Status Website at <a href="#">Drought Status   Mass.gov</a></p> <ul style="list-style-type: none"> <li>• Under “Drought Status Reports”, click on “drought map” on the right-hand side of the page. The color coded map displays the seven drought regions in Massachusetts. Restrictions are implemented when a Level-1-Mild Drought or higher is announced through the DCR website.</li> </ul>

### **Nonessential Outdoor Water Use and Water Use Restrictions**

Nonessential Outdoor Water Use means a use that is not required:

- (a) for health or safety reasons, including public facilities used for cooling such as splash pads and swimming pools, and for washing of boats, engines, or marine equipment to prevent negative saltwater impacts or the transfer of invasive aquatic species;
- (b) by permit, license, statute or regulation;
- (c) for the production of food, including vegetable gardens, and fiber;
- (d) for the maintenance of livestock;
- (e) to meet the core functions (those functions essential to the commercial operations) of a business, including but not limited to:
  1. plant nurseries as necessary to maintain stock;

2. golf courses as necessary to maintain greens and tees, and limited fairway watering per 310 CMR 36.07(2)(c)2.a. through c.;
  3. venues used for weddings or similar special events that limit watering to hand-held hose or drip irrigation as necessary to maintain gardens, flowers and ornamental plants;
  4. professional washing of exterior building surfaces, parking lots, driveways and/or sidewalks as necessary to apply surface treatments such as paint, preservatives, stucco, pavement, or cement in the course of construction, reconstruction or renovation work;
- (f) for irrigation of public parks before 9:00 a.m. and after 5:00 p.m.,
- (g) for irrigation of public and private recreation fields, including those operated by schools, colleges, universities and athletic associations, before 9:00 a.m. and after 5:00 p.m.,
- (h) for irrigation of publicly-funded shade trees and trees in the public right-of way; or
- (i) to establish a new lawn as necessary to stabilize soil in response to new construction or following the repair or replacement of a Title 5 system.

### **Public Notice of Seasonal Nonessential Outdoor Water Use Restrictions**

Permittee shall notify its customers of the restrictions and penalties for violating the restrictions.

- For groundwater level-triggered restrictions, when the daily depth to water level at the assigned USGS monitoring well declines to or below the trigger for 60 consecutive days, customers shall be notified as soon as possible, but within three days of implementing the restrictions.

Notice to customers shall include the following:

- A detailed description of the restrictions and penalties for violating the restrictions;
- The need to limit nonessential outdoor water use to ensure a sustainable drinking water supply and to protect natural resources and streamflow for aquatic life; and
- Ways individual homeowners can limit water use, especially nonessential outdoor water use.

Notice that restrictions have been put in place shall be filed each year with MassDEP within 14 days of the restriction's effective date. Filing shall be in writing on the form **Notification of Water Use Restrictions**, which can be found on MassDEP's website [Outdoor Water Use Restrictions for Cities, Towns, and Golf Courses | Mass.gov](#)

Notice to customers and MassDEP need not be provided if Oak Bluffs has already implemented water use restrictions that conform to the applicable restrictions and those restrictions are still in force.

## **9. Mitigation of Impacts for Withdrawals that Exceed Baseline Withdrawals**

Oak Bluffs is required to mitigate up to 0.0465 MGD (46,500 gpd) for its permitted withdrawals over its 0.88 MGD baseline withdrawal rate. The mitigation requirement is partially met through the following indirect mitigation measures.



**Table 6. Indirect Mitigation Credit Calculation**

Town of Oak Bluffs Board of Health Fertilizer Regulations, Section 21.0	1 credit for performance standards that are more restrictive than the Department of Agricultural Resources requirements	1 credit: 10,000 gpd
Town of Oak Bluffs Conservation Commission General Wetlands Bylaw, Section 6 (Adopted 8/15/1994)	1 credit for enforceability of the bylaw 1 credit for jurisdiction to resource areas " <i>whether or not they border surface waters</i> " 1 credit for jurisdiction to extend Riverfront status to intermittent streams 1 credit for performance standards tailored to specific resource areas <ul style="list-style-type: none"> <li>• Velocity zone prohibition</li> <li>• Limitation of expansion in the buffer zone area</li> <li>• Piers design specifications and performance standards</li> </ul>	4 credits: 40,000 gpd
Total Credits		5 credits: 50,000 gpd

**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 Statistical Report (eASR) 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. 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.
- 8. Metering:** All withdrawal points included within the permit shall be metered. Meters are to be calibrated annually.
- 9. 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.

#### **APPEAL RIGHTS AND TIME LIMITS**

This permit is a decision of MassDEP. Any person aggrieved by this decision and any person who has been allowed pursuant to 310 CMR 1.01(7) to intervene in the adjudicatory proceeding that resulted in this decision may request an adjudicatory hearing. Any such request must be made in writing, by certified mail or hand delivered, and received by MassDEP within twenty-one (21) days of the date of receipt of this permit. No request for an appeal of this permit shall be validly filed unless a copy of the request is sent by certified mail, or delivered by hand to the local water resources management official in the city or town in which the withdrawal point 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 MassDEP.

#### **CONTENTS OF HEARING REQUEST**

The request for a hearing shall state specifically, clearly and concisely the facts which are the grounds for the appeal, the relief sought, and any additional information required by 310 CMR 1.01(6)(b) or other applicable law or regulation. For any person appealing this decision who is not the applicant, the request must include sufficient written facts to demonstrate status as a person aggrieved and documentation to demonstrate previous participation where required.

#### **FILING FEE AND ADDRESS**

The hearing request, together with a valid check, payable to the Commonwealth of Massachusetts in the amount of \$100 must be mailed to:

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

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

**EXEMPTIONS**

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

**WAIVER**

MassDEP may waive the adjudicatory hearing filing fee for any person who demonstrates to the satisfaction of MassDEP 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.

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Duane LeVangie  
Chief, Water Management Program  
Bureau of Water Resources

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Date

## **Appendix A – Functional Equivalence with the 10% Unaccounted for Water (UAW) Performance Standard**

MassDEP will consider PWS permittees who cannot meet the 10% UAW performance standard to be functionally equivalent, and in compliance with their permit, if they have an on-going program in place that ensures “best practices” for controlling water loss. The water loss control program will be based on annual water audits and guidance as described in the AWWA/IWA *Manual of Water Supply Practices – M36, Water Audits and Loss Control Programs* (AWWA M36).

If the permittee fails to document compliance with the UAW performance standard (UAW of 10% or less for 2 of the 3 most recent years throughout the permit period), then the permittee shall develop and implement a water loss control program following the *AWWA M36 Water Audits and Loss Control Programs* within 5 full calendar years of failing to meet the standard as follows:

1. Conduct an annual “top down” water audit, calculate the data validity level/score using AWWA Water Loss Control Committee’s Free Water Audit Software, and submit the AWWA WLCC Free Water Audit Software: Reporting Worksheet and data validity score annually with its Annual Statistical Report (ASR).
  - If a PWS’s data validity level/score is less than Level III (51-70), steps recommended through the audit(s) shall be taken to improve the reliability of the data prior to developing a long-term program to reduce real and apparent water losses.
  - Data with a validity score of 50 or less are considered too weak to be used to develop a component analysis or for infrastructure planning and maintenance.
  - Developing data with an acceptably strong validity score can be a multi-year process.
2. When the data validity score meets the Level III (51-70) requirement, conduct a component analysis to identify causes of real and apparent water loss and develop a program to control losses based on the results of the component analysis.
3. Within 5 full calendar years of failing to meet the standard, submit the component analysis and water loss control program with a proposed implementation schedule to MassDEP.
4. Continued implementation will be a condition of the permit in place of meeting the 10% UAW performance standard.
5. Upon request of MassDEP, the permittee shall report on its implementation of the water loss control program.

A PWS permittee may choose to discontinue the water loss program implementation if UAW, as reported on the ASR and approved by MassDEP, is below 10% for four consecutive years, and the water audit data validity scores are at least Level III (51-70) for the same four years.

**NOTE FOR SMALL SYSTEMS:** For small systems with less than 3,000 service connections or a service connection density of less than 16 connections per mile of pipeline, the Unavoidable Annual Real Loss (UARL) calculation and the Infrastructure Leak Index (ILI) developed as the final steps of the top down water audit may not result in valid performance indicators, and may not be comparable to the UARL and ILI calculations for larger systems.

However, these small systems can benefit from developing reliable data and conducting an annual top down water audit. Small systems can rely on the real losses (gallons per mile of main per day) performance indicator developed in the water audit as a measure of real water loss when developing a water loss control program. The M36 Manual discusses the audit process for small systems, and includes a chapter to guide small systems in understanding the results of their audits and in developing a water loss control program (*Manual of Water Supply Practices – M36, Fourth Edition, Chapter 9: Considerations for Small Systems*, pp. 293-305).

**MassDEP UAW Water Loss Control Measures:** If the permittee is required to develop a Functional Equivalence Plan for the 10% Unaccounted for Water Performance Standard, and the permittee does not have a MassDEP-approved Water Loss Control Program in place within 5 full calendar years of failing to meet the standard, the permittee will be required to implement the MassDEP UAW Water Loss Control Measures outlined below:

- An annual water audit and leak detection survey, as described in the AWWA M36 Manual, of the entire system.
  - Within one year, repair 75% (by water volume) of all leaks detected in the survey that are under the control of the public water system;
  - Thereafter, repair leaks as necessary to reduce permittee's UAW to 10% or the minimum level possible.
- Meter inspection and, as appropriate, repair, replace and calibrate water meters:
  - Large Meters (2" or greater) – within one year
  - Medium Meters (1" or greater and less than 2") – within 2 years
  - Small Meters (less than 1") - within three years
  - Thereafter, calibrate and or replace all meters according to type and specification.
- Bill at least quarterly within three years.
- Water pricing structure sufficient to pay the full cost of operating the system.

**Hardship** - A permittee may present an analysis of the cost-effectiveness of implementing certain conservation measures included in the MassDEP UAW Water Loss Control Measures and offer alternative measures. Any analysis must explicitly consider environmental impacts and must produce equal or greater environmental benefits.

A permittee's hardship analysis shall:

- Document economic hardship and present an analysis demonstrating that implementation of specific measures will cause or exacerbate significant economic hardship;
- Present reasons why specific measures are not cost-effective because the cost would exceed the costs of alternative methods of achieving the appropriate standard; and
- Propose specific conservation measures that would result in equal or greater system-wide water savings or equal or greater environmental benefits than the conservation measures included in the MassDEP UAW Water Loss Control Measures.

MassDEP will review a permittee's detailed, written analysis to determine whether unique circumstances make specific Best Management Practices (BMPs) less cost-effective than alternatives, or infeasible for the permittee.