COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Regional Office, 627 Main Street, Worcester, MA 01608

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Secretary

LAURIE BURT
Commissioner

February 26, 2010

Millis Town Administrator
Attn: Charles J. Aspinwall
7 Water Street
Millis, MA 02054

Town: Millis
PWS Number: 2187000
Program: Water Management Act (WMA)
WMA Permit #: 9P4-2-20-187.03
Action: Final 20 Year Permit Renewal

Dear Mr. Aspinwall:

Please find the attached documents:

- Findings of Fact in Support of the Final WMA Permit Renewal Decision; and
- Final Water Management Act Permit 9P4-2-20-187.03 for the Town of Millis in the Charles River Basin.

The signature on this cover letter indicates formal issuance of the attached document. If you have any questions regarding the permit, please contact Susan Connors of my staff at (508) 767-2701.

Sincerely,

Marielle Stone
Section Chief
Drinking Water Program

ecc: Charles River Watershed Association
Massachusetts Water Works Association
Duane LeVangie, MassDEP-WMA-Boston

Enclosure: March 1, 2010 Summary of Changes to the Final Renewed Water Management Permit

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

English

This document is important and should be translated immediately.

Spanish

Este documento es importante y se debe traducir inmediatamente.

Portuguese

Este original é importante e deve ser traduzido imediatamente.

Italian

Questo documento è importante e dovrebbe essere tradotto immediatamente.

Greek

Αυτό το έγγραφο είναι σημαντικό και πρέπει να μεταφραστεί αμέσως.

French

Ce document est important et devrait être traduit immédiatement.

Chinese (traditional)

這 個 文件 重要 和 應該 立刻 被翻譯 。
这个文件重要 和应该立刻被翻译。

February 25, 2010 Summary of changes to the Final Renewed Water Management Permit

1. Findings of Fact, Safe Yield Permit Factor, last paragraph changed to:

   This permit is issued under the Interim Safe Yield methodology adopted by MassDEP on December 14, 2009. Under MGL c 21G, §11 MassDEP cannot issue permits when the combined existing, permitted, and proposed withdrawal volumes exceed the safe yield of the water source. If MassDEP determines that the Long-Term Safe Yield is less than the Interim Safe Yield calculated for this basin, the volumes authorized in all Water Management permits in this basin shall be reviewed and the permitted volumes adjusted accordingly. The final Long-Term Safe Yield for the Charles River Basin will be developed by November 3, 2010. Permit review in accordance with the Long-Term Safe Yield shall be no later than the 5-year review in 2014. Access to water volumes authorized beyond Period One (Years 2-5) of this permit is contingent upon all permitted withdrawals in the basin being within the Long-Term Safe Yield, and on MassDEP completing a 5-year review modification or a permit amendment incorporating the Long-Term Safe Yield determination.

2. Findings of Fact, Additional section added entitled "Response to Comments"

3. Permit, Special Condition 1, Maximum Authorized Annual Average Withdrawal Volume, bullet item under table changed to:

   *This permit is issued under the Interim Safe Yield methodology adopted by MassDEP on December 14, 2009. Under MGL c 21G, §11 MassDEP cannot issue permits when the combined existing, permitted, and proposed withdrawal volumes exceed the safe yield of the water source. If MassDEP determines that the Long-Term Safe Yield is less than the Interim Safe Yield calculated for this basin, the volumes authorized in all Water Management permits in this basin shall be reviewed and the permitted volumes adjusted accordingly. The final Long-Term Safe Yield for the Charles River Basin will be developed by November 3, 2010. Permit review in accordance with the Long-Term Safe Yield shall be no later than the 5-year review in 2014. Access to water volumes authorized beyond Period One (Years 2-5) of this permit is contingent upon all permitted withdrawals in the basin being within the Long-Term Safe Yield, and on MassDEP completing a 5-year review modification or a permit amendment incorporating the Long-Term Safe Yield determination.

4. Permit, Special Condition, Seasonal Limits on Nonessential Outdoor Water Use, deleted:

   To the extent feasible, all summer outdoor water use should take place before 9 am and after 5 pm when evaporation and evapotranspiration rates are lower.

5. Permit, Special Condition, Seasonal Limits on Nonessential Outdoor Water Use, in Table, Section for Permittees not meeting 65 RGPCD time language added to 1. b) :

   b) **Nonessential outdoor water use is allowed ONE DAY per week** before 9 am and after 5 pm; whenever a Drought Advisory or higher is declared by the Massachusetts Drought Management Task Force.

6. Permit, Special Condition, Water Withdrawals that Exceed Baseline Withdrawal Volumes, second paragraph changed to:

   Permittee shall perform an Offset Feasibility Study the first time its water withdrawals for a calendar year exceed its Baseline. Permittee shall make a written analysis of the cost effectiveness of each of the following Best Management Practices (BMPs) and any other BMPs selected by the Permittee to offset withdrawal increases.

   BMPs to be evaluated shall include, but are not limited to:

7. Permit, Special Condition, Water Withdrawals that Exceed Baseline Withdrawal Volumes, additional BMP added:

   Local Infiltration of Waste Water

8. Permit, General Conditions, deleted:

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

9. Appendix A, Section MassDEP RGPCD Functional Equivalence Plan, first paragraph changed to:

   MassDEP RGPCD Functional Equivalence Plan

   In order to be considered functionally equivalent with the RGPCD performance standard, the permittee must be in compliance with the permit Special Condition, Seasonal Limits on Nonessential Outdoor Water Use, and must adopt and implement the MassDEP RGPCD Functional Equivalence Plan that requires all the following residential conservation programs:

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Findings of Fact in Support of the Final Permit Decision
Town of Millis, Water Management Permit 9P4-2-20-187.03

The Massachusetts Department of Environmental Protection (MassDEP) has completed its review of the Water Management Act (WMA) 20 Year Permit Renewal application for the Town of Millis (Millis) in the Charles River Basin pursuant to the Water Management Act, M.G.L. ch. 21G. As a result of the review and Millis's response to the Order to Complete issued May 8, 2009, and general comments received on the Draft Permit issued February 11, 2010, MassDEP hereby issues this Final Water Management Act Permit #9P4-2-20-187.03 (the "Permit") in accordance with the Water Management Act ("the Act").

MassDEP makes the following Findings of Fact in support of the attached permit renewal, and includes herewith its reasons for approving the Permit and for the conditions of approval imposed, as required by MGL c 21G, §11 and the "Massachusetts Water Resources Management Program", 310 CMR 36.00 ("the Regulations").

Millis's Water Withdrawal History

Millis holds a registration statement (2-20-187.02) for an average annual daily withdrawal volume of 0.63 million gallons per day (MGD) from Wells 1, 2, 3, and 4 in the Charles River Basin. Millis was issued a Water Management Act permit (9P-3-20-187.01) in November 1989 in order to increase the total authorized volume. In August 1999 a new permit (9P4-2-20-187.03) was issued to Millis (superseding the previous permit) in order to again increase the total authorized volume and to add Wells 5 and 6 (the Paine Property Wells) as approved sources. This permit expired on February 28, 2009, however an interim permit was issued authorizing the continued withdrawal of the previously permitted volume. Millis's reported withdrawal volumes for 2008, 2007, and 2006 were 0.61 MGD, 0.66 MGD, and 0.65 MGD, respectively.

The Water Management Act

Permit Factors

Section 7 of he Act requires that MassDEP issue permits that balance a variety of factors including:

- Reasonable protection of existing water uses, land values, investments and enterprises;
- Reasonable conservation consistent with efficient water use;
- Reasonable protection of public drinking water supplies, water quality, wastewater treatment capacity, waste assimilation capacity, groundwater recharge areas, navigation, hydropower resources, water-based recreation, wetland habitat, fish and wildlife, agriculture, flood plains; and
- Reasonable economic development and job creation.

Safe Yield Permit Factor

Among the minimum permit factors Section 7 requires is a determination by MassDEP that permitted water withdrawals are within the safe yield of the water source from which they are made. Section 2 of the Act defines "safe yield" as: "the maximum dependable withdrawal that can be made continuously from a water source including ground or surface water during a period of years in which the probable driest period or period of greatest water deficiency is likely to occur; provided however, that such dependability is relative and is a function of storage and drought probability".

For the purposes of the Water Management Program, MassDEP considers a water source to be any one of Massachusetts' 27 major river basins. A map of the 27 major river basins has been developed by the Department of Conservation and Recreation and can be viewed at: http://www.mass.gov/dcr/waterSupply/intbasin/basins.jpg

On December 14, 2009, MassDEP, with the assistance and concurrence of a group of stakeholders, identified a methodology for determining an Interim Safe Yield while a final Long-Term Safe Yield is developed. The Interim Safe Yield methodology is described at: http://www.mass.gov/dep/water/resources/watercon.htm#managemt.

This permit is issued under the Interim Safe Yield methodology adopted by MassDEP on December 14, 2009. Under MGL c 21G, §11 MassDEP cannot issue permits when the combined existing, permitted, and proposed withdrawal volumes exceed the safe yield of the water source. If MassDEP determines that the Long-Term Safe Yield is less than the Interim Safe Yield calculated for this basin, the volumes authorized in all Water Management permits in this basin shall be reviewed and the permitted volumes adjusted accordingly. The final Long-Term Safe Yield for the Charles River Basin will be developed by November 3, 2010. Permit review in accordance with the Long-Term Safe Yield shall be no later than the 5-year review in 2014. Access to water volumes authorized beyond Period One (Years 2-5) of this permit is contingent upon all permitted withdrawals in the basin being within the Long-Term Safe Yield, and on MassDEP completing a 5-year review modification or a permit amendment incorporating the Long-Term Safe Yield determination.

Findings of Fact for the Performance Standards

MassDEP has determined that there is documented evidence that water withdrawals and an increase in development and impervious area, combined with the out-of-basin export of wastewater, substantially contribute to low flow in the Commonwealth. These low flows impact the ability of rivers and tributaries to adequately serve all of the competing uses described in the Act. To better achieve the balance of competing water uses mandated by the Act, the MassDEP refers to the Water Conservation Standards adopted by the Water Resources Commission. Specific performance standards are applied to new Water Management permits and to existing permits at the time they are amended, during 5-year permit review, or permit renewal.

Consistent with Section 3 of the Act, the performance standards of 65 residential gallons per capita day or less and 10% or less of unaccounted for water, summer limits on withdrawals, and efforts to offset the impacts of increasing withdrawal volumes are based on the Massachusetts Water Conservation Standards approved by the Water Resources Commission in July 2006. These standards can be found at: http://www.mass.gov/Eoeea/docs/eea/water/water_conservation_standards.pdf.

MassDEP believes these standards are reasonable based on studies and data developed throughout the country, the 1996 AWWA Leak Detection and Water Accountability Committee report on water accountability (AWWA Journal; July 1996; pp. 108-111), and the fact that the average values in 2008 for Massachusetts were 62 RGPCD, and 14% UAW. While these performance standards represent the minimum standards required for compliance with the Permit, MassDEP believes that through the implementation of all the terms and conditions of Water Management permits, municipalities can meet the performance standards for RGPCD and UAW.

Millis will be required to meet the 65 residential gallons per capita day (RGPCD) and 10% unaccounted-for-water (UAW) performance standards for calendar year 2011. MassDEP will consider any permittee that has been unable to meet the 65 RGPCD or 10% UAW performance standard within 5 years of receiving its permit to be achieving functionally equivalent compliance with the performance standards, if they:

- are complying with the Water Conservation requirements included in the permit,
- have implemented the required limits on nonessential outdoor water use, and
- are making demonstrable efforts to finance, implement and enforce a MassDEP-approved compliance plan.

Because circumstances vary, a permittee may present an analysis of the cost effectiveness of implementing certain conservation measures required by MassDEP and offer alternative measures. The analysis must explicitly consider environmental impacts and must produce environmental benefits. MassDEP will allow permittees to:

- 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 Functional Equivalence Plan(s) (See Appendix A & B).

MassDEP will review permittees' detailed, written cost effectiveness analysis to determine whether unique circumstances make specific Best Management Practices (BMPs) less cost-effective than alternatives, or not feasible for a particular PWS when developing the compliance plan.

Findings of Fact for Special Permit Conditions

In issuing permits, MassDEP looks primarily at site-specific impacts and other issues specific to the system, such as impacts to nearby streams, wetlands, or other water users, justification of long-term demand projections and the capacity of permitted withdrawal points. The conditions are intended to ensure the efficient use of water and to mitigate the potential impact of withdrawals.

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

The existing permit included a condition that Millis complete Zone II delineations for each of its sources. MassDEP records indicate that all of Millis's sources have approved Zone II delineations. Public Water Systems are required to obtain MassDEP approval of Zone II delineations during the source approval process and prior to activating any new sources; therefore this condition has been removed as a condition for the permit renewal.

The permit also included condition to report on the ground water quality monitoring at Norfolk's landfill due to the proximity of the Paine Property wells. Annual water quality summary reports submitted by Millis include data since 2000. Water quality summaries indicate volatile organic compounds (VOCs) are below Maximum Contaminant Levels (MCLs). Review of the monitoring data indicates the results are consistent with historical results and do not indicate an increasing concentration trend. The landfill has been capped and at least partially lined. Monitoring of the landfill is on-going by the Town of Norfolk; therefore increases in contaminant concentrations migrating from the landfill will be detected. This reporting requirement has been removed as a condition of this permit.

Special Condition 1, Maximum Authorized Annual Average Withdrawal Volume, reflects the registered withdrawal volume of 0.63 MGD and a permitted increase of 0.17 MGD for a total authorized withdrawal of 0.80 MGD through Period One (February 28, 2014). The volumes allocated for Periods Two through Four are the maximum authorized in your expiring permit. The authorized volumes are interim allocations for your system and are reserved pending the preparation of a water needs forecast for Millis.

A water needs forecast was not prepared for Millis by the Department of Conservation and Recreation (DCR) because of questions with the available data for your system. Specific concerns include unaccounted for water that exceeded an average of 15% and suspected errors in metering and billing.

Special Condition 2, Maximum Authorized Daily Withdrawals from each Withdrawal Point, reflects the maximum daily withdrawal rates by source, according to MassDEP approved Zone II rates.

Special Condition 3, Ground Water Supply Protection, requirements have been met for the Zone II areas within Millis's municipal boundary. MassDEP records indicate that the Town of Millis has adopted a Ground Water Protection District zoning bylaw and a Board of Health floor drain regulation that comply with MassDEP's drinking water regulations at 310 CMR 22.21(2). Millis's Zone II areas extend into the towns of Medfield, Norfolk, and Sherborn. Millis has submitted copies of letters to these communities requesting protection of Millis' Zone II areas in those towns. Until each community passes Ground Water Supply Protection requirements that satisfy the Regulations, MassDEP' Best Effort Requirement must be met for new source approvals (including replacement wells); monitoring waiver applications; WMA water withdrawal permit reviews or amendments; Zone II re-delineations; and Sanitary Survey stipulations. Millis may be required to repeat the "Best Effort" requirement during the next 5-Year Review.

Special Condition 4, Stream Flow Restrictions, reflects the requirement for Millis to cease withdrawals from Wells 5 and 6 due to concerns about the impact of water withdrawals on aquatic habitat during times of low stream flow in the Charles River Basin. MassDEP inadvertently removed language in the draft permit for this special condition that allows Millis to operate the wells when selling water to the Town of Franklin even if the stream trigger has been reached. That language has been added to this Final Permit.

Special Condition 5, Performance Standard for Residential Gallons Per Capita Day Water Use, discussed previously. In 2008 the RGPCD for Millis was 55 gallons as determined by MassDEP from information submitted in the 2008 Annual Statistical Report.

Special Condition 6, Performance Standard for Unaccounted for Water (UAW), discussed previously. In 2008 the percentage of unaccounted for water for Millis was 12% as determined by MassDEP from information submitted in the 2008 Annual Statistical Report.

Special Condition 7, Seasonal Limits on Nonessential Outdoor Water Use is based upon Millis's Residential Gallons per Capita Day (RGPCD) for the preceding year, and will be implemented according to either: 1) calendar triggered restrictions; or 2) streamflow triggered restrictions.

1. **Calendar triggered restrictions:** Restrictions shall be implemented from May 1st through September 30th. Many public water suppliers will find this option easier to implement and enforce than the streamflow triggered approach.

2. **Streamflow triggered restrictions:** Restrictions shall be implemented at those times when streamflow falls below designated flow triggers measured at an assigned, web-based, real-time U.S. Geologic Survey (USGS) stream gage from May 1st through September 30th. At a minimum, restrictions shall commence when streamflow falls below the trigger for three consecutive days. Once implemented, the restrictions shall remain in place until streamflow at the assigned USGS local stream gage meets or exceeds the trigger streamflow for seven consecutive days.

   The basis for streamflow triggers is derived from Aquatic Base Flow (ABF) values calculated by the Sustainable Yield Estimator (SYE)[1] for simulated natural flow applied to the assigned local USGS stream gage. The two-tiered trigger values are based on flow levels that are protective of aquatic habitat for fish spawning during the spring bioperiod, designated with the June ABF; and protective flows for fish rearing and growth during the summer bioperiod, designated with the August ABF trigger. Protective flow levels are derived from index gage flow data which represent the least altered stream flows in Massachusetts, and are further described in the Department of Conservation and Recreation (DCR)[2] and USGS Index Reports[3].

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[1] Archfield, S.A., Vogel, R.M., Steeves, P.A., Brandt, S.L., Weiskel, P.K., and Garabedian, S.P., 2010, The Massachusetts Sustainable-Yield Estimator: A decision-support tool to assess water availability at ungaged stream locations in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2009–5227, 41 p. plus CD-ROM. See http://pubs.usgs.gov/sir/2009/5227/

[2] Massachusetts Department of Conservation and Recreation (DCR), 2008 Index Streamflows for Massachusetts, May 2008, Prepared by Office of Water Resources for the Massachusetts Water Resources Commission, 45 p., plus CD-ROM.

[3] Armstrong, D.S., Parker, G.W., and Richards, T.A., 2008, Characteristics and classification of least altered streamflows in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2007-5291, 113 p., plus CD-ROM.

If Millis selects the streamflow approach, it has been assigned the USGS local stream gage of of #01103280 – Charles River at Medway, MA. The June ABF estimated using SYE is 0.90 cfsm and the August ABF value is 0.31 cfsm. These cfsm units translate to your local gage streamflow triggers as 59 cubic feet per second (cfs) for May and June, and 20 cfs for July, August and September.

Should the reliability of flow measurement at the Charles River gage be so impaired as to question its accuracy, the Permittee may request MassDEP's review and approval to transfer to another gage to trigger restrictions. MassDEP reserves the right to require use of a different gage.

Drought triggered restrictions are incorporated into the seasonal limits on outdoor water use as outlined in this Special Condition. Times of low streamflow and drought do not always coincide, but both low streamflow and drought conditions can have adverse effects on water supplies, natural resources and aquatic life. Please note that many communities impose drought-based outdoor water use restrictions before the Massachusetts Drought Management Task Force declares a Drought Advisory because drought conditions can begin to impact local water supplies before a regional advisory is declared.

Special Condition 8, Requirement to Report Raw and Finished Water Volumes, ensures that the information necessary to evaluate compliance with the conditions included herein is accurately reported.

Special Condition 9, Water Conservation Requirements, incorporates the Water Conservation Standards for the Commonwealth of Massachusetts reviewed and approved by the Water Resources Commission in July 2006.

Special Condition 10, Water Withdrawals that Exceed Baseline Withdrawal Volumes. Baseline withdrawal is the volume withdrawn in compliance with the Act during the calendar year 2005, the average volume withdrawn in compliance with the Act from 2003 to 2005, or the registered volume whichever is highest. The calculated baseline withdrawal volume for Millis is 0.80 MGD, or 292.56 MGY, the 2005 withdrawal volume. Water use above the 0.80 MGD Annual Average Daily Baseline for Millis will require offsets if feasible.

Response to Comments

A draft Water Management Permit was issued on February 11, 2010. The Town of Millis did not submit written comments on the draft permit, however requested via telephone that the USGS gage referenced in the Seasonal Limits on Nonessential Outdoor Water Use be changed to the Medway USGS Gage. MassDEP has granted this request based on the existing Stream Flow Restrictions condition for Wells 5 and 6 and has returned language regarding the sale of water to Franklin that was inadvertently removed from the draft permit. Comments were received from the Charles River Watershed Association, Massachusetts Audubon, and the Ipswich River Watershed Association. While the comments addressed a wide range of concerns, many of the comments were directed at larger statewide policy questions or issues that had been previously discussed by the Water Resources Management Advisory Committee. MassDEP did modify the final permit primarily to clarify its position on several issues, including, its position regarding allocation volumes should they exceed the final Long-Term Safe Yield as outlined in Special Condition #1, and to clarify that the cost-effectiveness of the various Best Management Practices (BMPs) be analyzed should the offset requirement be triggered.

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WATER WITHDRAWAL PERMIT
MGL C 21G

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

PERMIT NUMBER: 9P4-2-20-187.03 **RIVER BASIN:** Charles

PERMITTEE: Town of Millis

ISSUANCE DATE: March 1, 2010

EXPIRATION DATE: February 28, 2029

NUMBER OF WITHDRAWAL POINTS: 6
Groundwater: 6 Surface Water: 0

USE: Public Water Supply

DAYS OF OPERATION: 365

LOCATION(S):

Table 1: Withdrawal Point Identification

Source Name	PWS Source ID Code	Source Name	PWS Source ID Code
Well #1	2187000-01G	Well #4	2187000-04G
Well #2	2187000-02G	Well #5	2187000-05G
Well #3	2187000-03G	Well #6	2187000-06G

SPECIAL PERMIT CONDITIONS

1. Maximum Authorized Annual Average Withdrawal Volume

This permit authorizes the Town of Millis to withdraw water from the Charles River Basin at the rate described below in Table 2. The permitted volume is in addition to the 0.63 million gallons per day (229.95 million gallons per year) previously authorized to Millis under Water Management Act Registration 2-20-187.02 for withdrawal from the Charles River Basin. The permitted volume is an interim allocation 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 five-year period of the permit term until a water needs forecast is completed for Millis by the Department of Conservation and Recreation. Within four (4) years of the date of issuance of this Permit, Millis must submit documentation in accordance with the Policy for Developing Water Needs Forecasts for Public Water Suppliers and Communities and Methodology for Implementation, effective December 13, 2007. In particular, it will be necessary to further address those issues identified by the Department of Conservation and Recreation which resulted in Millis receiving an interim allocation.

The Department of Environmental Protection (MassDEP) bases these withdrawal volumes on the raw water withdrawn from the authorized withdrawal points, and will use the raw water amount to assess compliance with the registered and permitted withdrawal volumes.

Table 2: Maximum Authorized Annual Withdrawal Volumes

5-Year Periods		Total Raw Water Withdrawal Volumes			
		Permit		Permit + Registration	
		Daily Average (MGD)	Total Annual (MGY)	Daily Average (MGD)	Total Annual (MGY)
Period One Years 1-5	3/1/2010 to 2/28/2014	0.17	62.05	0.80	292.00
Period Two* Years 6-10	3/1/2014 to 2/29/2019	0.36	131.40	0.99	361.35
Period Three* Years 11-15	3/1/2019 to 2/28/2024	0.36	131.40	0.99	361.35
Period Four* Years 16-20	3/1/2024 to 2/28/2029	0.36	131.40	0.99	361.35

*This permit is issued under the interim river basin safe yield methodology. Volumes authorized in all Water Management permits in the Charles River Basin will be reviewed and adjusted if necessary according to the final Long-Term Safe Yield determination no later than the 5-year review in 2014. Access to water volumes authorized for Periods Two through Four (Years 6-20) of this permit is contingent upon all permitted withdrawals in the Charles River Basin being within the Long-Term Safe Yield, and MassDEP completing a 5-Year Review or a permit amendment that incorporates the Long-Term Safe Yield determination into this permit.

2. Maximum Authorized Daily Withdrawals from Each Withdrawal Point

Withdrawals from individual 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 of each source. In no event shall the combined withdrawals from the individual withdrawal points exceed the withdrawal volumes authorized above in Special Condition 1.

Table 3: Maximum Authorized Daily Withdrawal Volumes

Source Name	PWS Source ID Code	Maximum Daily Rate (MGD)
Well #1	2187000-01G	0.72
Well #2	2187000-02G	0.50
Well #3	2187000-03G	0.75
Well #4	2187000-04G	0.86
Well #5	2187000-05G	1.50
Well #6	2187000-06G	

3. Ground Water Supply Protection

MassDEP records indicate that Millis's permitted ground water sources meet MassDEP's ground water supply protection requirements of the Drinking Water Regulations at 310 CMR 22.21(2), including a floor drain regulation, for the Zone II areas within Millis's municipal boundary. Millis's Zone II areas extend into the towns of Medfield, Norfolk, and Sherborn.

The Best Effort Requirement will need to be repeated, at MassDEP's direction, for WMA water withdrawal permit reviews or amendments; new source approvals (including replacement wells); monitoring waiver applications; Zone II re-delineations; and Sanitary Survey stipulations, until those communities adopt the appropriate controls and include Millis's Zone II areas in their protection districts.

4. Stream Flow Restrictions

The Town of Millis must cease the use and operation of the Paine Property Wells (Well #5 and Well #6) when stream flow in the Charles River falls to 0.21 cubic feet per second per square mile (13.80 cubic feet per second) at the United States Geological Survey Gage located on the Charles River in Medway (#01103280), except when selling water to the Town of Franklin. Millis may continue to operate the source below this minimum stream flow threshold provided that prior to the sale of water to the Town of Franklin, or to any other municipality or water district located in the Charles River Basin upstream from Millis, that the receiving supplier and the Town of Millis have implemented mandatory restrictions on nonessential outdoor water use in accordance with the Special Condition Seasonal Limits on Nonessential Outdoor Water Use.

5. Performance Standard for Residential Gallons Per Capita Day Water Use

Permittee's performance standard for residential gallons per capita day (RGPCD) is 65 gallons. Permittee shall be in compliance with the performance standard by December 31, 2011 and each year thereafter. Permittee shall report its RGPCD and the calculation used to derive that figure as part of its ASR including, without limitation, the source of the data used to establish the service population and the year in which this data was developed. See Appendix A for additional information on the requirements if the performance standard for RGPCD is not met.

6. Performance Standard for Unaccounted for Water

Permittee's performance standard for unaccounted for water (UAW) is 10% of overall water withdrawal. Permittee shall be in compliance with the performance standard by December 31, 2011. Permittee is required to report its UAW annually in its Annual Statistical Report (ASR) and the ASR shall include the calculation used to derive that figure as part of its ASR including, without limitation, the source of data used, the methodology for calculating UAW and any assumptions used in making the calculation. Any adjustment in the calculation of UAW made as a result of confidently estimated uses shall be fully documented as required in the ASR. See Appendix B for information on requirements if the performance standard for UAW is not met.

UAW is defined as the residual resulting from the total amount of water supplied to a distribution system as measured by master meters, minus the sum of all amounts of water measured by consumption meters in the distribution systems, and minus confidently estimated and documented amounts used for certain necessary purposes.

UAW shall include, without limitation: unavoidable leakage, recoverable leakage, meter inaccuracies (unless they fall under the category of source meter calibration which allows for adjustment per results of source meter calibration); errors in estimation of stopped meters, unauthorized hydrant openings, illegal connections, stand pipe overflows, data processing errors; and undocumented fire fighting uses. The need for water main flushing and the use of water in construction or meter calibration shall be metered or estimated as appropriate to assist in determining actual demand. Volumes flushed to waste shall be reported on permittee's ASR.

Uses that can be confidently estimated and documented in writing include: storage tank overflow and drainage; water main flushing and flow testing; fire fighting; bleeding or blow-offs; sewer and storm water system flushing; and cleaning and street cleaning. Any adjustments made as a result of the properly documented source meter calibration shall be provided as required by the ASR. Any adjustment in the calculation of UAW made as a result of confidently estimated uses shall be fully documented as required in the ASR.

7. Seasonal Limits on Nonessential Outdoor Water Use

Permittee shall limit nonessential outdoor water use through mandatory restrictions from May 1st through September 30th as outlined in Table 4 below.

Permittee shall be responsible for tracking streamflows and drought advisories and recording when restrictions are implemented if streamflow triggered restrictions are implemented. See *Accessing Streamflow and Drought Advisory Website Information* in Table 4 for instructions.

Permittee shall document compliance with the summer limits on nonessential outdoor water use annually in its Annual Statistical Report (ASR), and indicate whether it anticipates implementing calendar triggered restrictions or streamflow triggered restrictions during the next year.

Nothing in this permit shall prevent Permittee from implementing water use restrictions that are more restrictive than those set forth in this permit.

Water Uses Restrictions

Nonessential outdoor water uses that are subject to mandatory restrictions include:

- irrigation of lawns via sprinklers or automatic irrigation systems;
- washing of vehicles, except in a commercial car wash or as necessary for operator safety; and
- washing of exterior building surfaces, parking lots, driveways or sidewalks, except as necessary to apply surface treatments such as paint, preservatives, stucco, pavement or cement.

The following uses may be allowed when mandatory restrictions are in place:

- irrigation to establish a new lawn and new plantings during the months of May and September;
- irrigation of public parks and recreational fields by means of automatic sprinklers outside the hours of 9 am to 5 pm; and
- irrigation of lawns, gardens, flowers and ornamental plants by means of a hand-held hose.

Water uses NOT subject to mandatory restrictions are those required:

- for health or safety reasons;
- by regulation;
- for the production of food and fiber;
- for the maintenance of livestock; or
- to meet the core functions of a business (for example, irrigation by golf courses as necessary to maintain tees, greens, and limited fairway watering, or irrigation by plant nurseries as necessary to maintain stock).

Table 4 Seasonal Limits on Nonessential Outdoor Water Use

Permittees meeting the 65 RGPCD standard for the preceding year (as reported in the ASR and accepted by MassDEP) must implement either:

1. **Calendar Triggered Restrictions from May 1st through September 30th**
   No nonessential outdoor water use from 9 am - 5 pm

2. **Streamflow Triggered Restrictions from May 1st through September 30th**
   No nonessential outdoor water use from 9 am - 5 pm whenever:
   a) Streamflow at the assigned USGS local stream gage 01103280 - Charles River, Medway, MA falls below the following designated flow triggers for **three (3)** consecutive days:
      - May 1st through June 30th: **59 cfs** (based on minimum flows that are protective of habitat for fish spawning during **20 cfs** (based on minimum flows that are protective of habitat for fish rearing and growth during the summer bioperiod).

      Once implemented, the restrictions shall remain in place until streamflow at the assigned USGS local stream gage meets or exceeds the trigger streamflow for **seven (7)** consecutive days; or

   b) A Drought Advisory or higher is declared by the Massachusetts Drought Management Task Force.

Permittees NOT meeting the 65 RGPCD standard for the preceding year (as reported in the ASR and accepted by MassDEP) must implement either:

1. **Calendar Triggered Restrictions from May 1st through September 30th**
   a) **Nonessential outdoor water use is allowed TWO DAYS per week** before 9 am and after 5 pm; and

   b) **Nonessential outdoor water use is allowed ONE DAY per week** before 9 am and after 5 pm; whenever a Drought Advisory or higher is declared by the Massachusetts Drought Management Task Force.

2. **Streamflow Triggered Restrictions from May 1st through September 30th**
   Nonessential outdoor water use is allowed ONE DAY per week before 9 a.m. and after 5 p.m. whenever:
   a) Streamflow at the assigned USGS local stream gage 01103280 - Charles River, Medway, MA falls below the following designated flow triggers for **three (3)** consecutive days:
      - May 1st through June 30th: **59 cfs** (based on minimum flows that are protective of habitat for fish spawning during the spring bioperiod), and
      - July 1st through September 30th: **20 cfs** (based on minimum flows that are protective of habitat for fish rearing and growth during the summer bioperiod).

      Once implemented, the restrictions shall remain in place until streamflow at the assigned USGS local stream gage meets or exceeds the trigger streamflow for **seven (7)** consecutive days; or

   b) A Drought Advisory or higher is declared by the Massachusetts Drought Management Task Force.

Instructions for Accessing Streamflow and Drought Advisory Website Information
Streamflow information is available at the USGS National Water Information System (NWIS): Web Interface. The USGS NWIS default shows Massachusetts streamflows in real time, i.e., the most recent, usually quarterly hourly, reading made at each USGS stream gage. Seasonal Limits on Nonessential Outdoor Water Use are implemented when the mean daily streamflow falls below the designated trigger. The mean daily flow is not calculated until after midnight each day when the USGS computes the hourly data into a mean daily streamflow. As a result, permittees must use the mean daily streamflow from the preceding day when tracking streamflows. **Mean daily streamflow gage** readings are available at the USGS NWIS Web Interface at http://waterdata.usgs.gov/ma/nwis/current/?type=flow. • Scroll down to 01103280 - Charles River, Medway, MA. • Click on the gage number. • Scroll down to "Provisional Date Subject to Revision – Available data for this site" and click on the drop down menu. • Click on "Time-series: Daily data" and hit GO. • Scroll down to the "Available Parameters" box. Within the box, be sure "Discharge (mean)" is checked, then, under "Output Format" click "Table" and hit GO. • Scroll down to "Daily Mean Discharge, cubic feet per second" table and find the current date on the table. • Compare the cubic feet per second (cfs) measurement shown on the table to the cfs shown under Streamflow Triggered Restrictions above.
Drought Advisory information is available at the Massachusetts Department of Conservation and Recreation (DCR) Drought Status Website at http://www.mass.gov/dcr/waterSupply/rainfall/drought.htm. • Under "Drought Status Reports", click on "drought map" on the right-hand side of the page. The color coded map displays the six drought regions in Massachusetts. Restrictions are implemented when a Drought Advisory, Watch, Warning or Emergency is announced through the DCR website.

Public Notice of Water Use Restrictions

Permittee shall notify its customers of the restrictions and the consequences of failing to adhere to the restrictions.

- For calendar-triggered restrictions, customers shall be notified by April 15th each year.
- For streamflow-triggered restrictions, when streamflow at the assigned USGS local stream gage falls below a streamflow trigger for three 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 water use, especially 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 Water Use Restrictions Form at http://www.mass.gov/dep/water/approvals/wmgforms.htm#conserve.

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

8. Requirement to Report Raw and Finished Water Volumes

Millis shall report annually on its ASR the raw water volumes and finished water volumes for the entire water system and the raw water volumes for individual water withdrawal points.

9. Water Conservation Requirements

At a minimum, Millis shall implement the following conservation measures forthwith and shall be in compliance with these measures on or before February 28, 2014. Compliance with the water conservation requirements shall be reported to MassDEP upon request or by February 28, 2014, unless otherwise noted below.

Table 5: Minimum Water Conservation Requirements

System Water Audits and Leak Detection
1. At a minimum, conduct a full leak detection survey every three years. The first full leak detection survey shall be completed no later than 3 yrs from the date of last documented leak detection survey.
2. Perform a leak detection survey of those sections of the distribution system that have not been surveyed within the last year whenever the percentage of unaccounted for water 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, Permittee shall submit to MassDEP a report detailing the leak detection 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. Permittee shall have repair reports available for inspection by MassDEP. Permittee shall establish a schedule for repairing leaks that is at least as stringent as the following: • Leaks of 15 gallons per minute or more shall be repaired as soon as possible but not later than one month after leak detection.* • Leaks of less than 15 gallons per minute, but greater than 5 gallons per minute, shall be repaired as soon as possible but not later than two months after leak detection.* • Leaks of 5 gallons per minute or less shall be repaired as soon as possible but not later than six months after leak detection, except that hydrant leaks of one gallon or less per minute shall be repaired as soon as possible.* • Leaks shall be repaired in accordance with the priority schedule including leaks up to the property line, curb stop or service meter, as applicable. • Have water use regulations in place that require property owners to expeditiously repair leaks on their property.

(Continued on next page.)

Table 5 Continued: Minimum Water Conservation Requirements

System Water Audits and Leak Detection Continued
The following exceptions can 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 on roads to repair leaks.
5. Ensure placement of sufficient funds in the annual water budget to conduct water audits and leak detection and repair leaks as necessary.
Metering
1. Calibrate all source and finished water meters at least annually and report date of calibration on the ASR.
2. Ensure that the system is 100% metered, including all water use at municipal facilities (schools, school athletic fields, etc.).
3. All water distribution system users shall have properly sized service lines and meters that meet AWWA calibration and accuracy performance standards. AWWA References: AWWA Manual M22 – Sizing Water Service Lines and Meters AWWA Manual M6 – Water Meters, or as amended
4. Permittee shall have an ongoing program to inspect individual service meters to ensure that all service meters accurately measure the volume of water used by your customers. The metering program shall include regular meter maintenance, including testing, calibration, repair, replacement and checks for tampering to identify and correct illegal connections.
5. Ensure placement of sufficient funds in the annual water budget to calibrate, repair, or replace meters as necessary.
Pricing
1. Implement a water revenue structure that includes the full cost of operating the water supply system in compliance with state and federal requirements by the next 5-year review (February 2014). Evaluate revenues every three to five years and adjust rates as needed. Full cost pricing factors all costs - operations, maintenance, capital, and indirect costs (environmental impacts, watershed protection) - into the revenue structure. AWWA References for Additional Information on Pricing: AWWA Manual 1- Principals of Water Rates, Fees and Charges AWWA Manual 29- Fundamentals of Water Utility Financing
2. Permittee reports using an increasing block rate structure and shall continue to do so.
Residential and Public Sector Conservation
1. Permittee shall meet the standards set forth in the Federal Energy Policy Act, 1992 and the Massachusetts Plumbing Code.
2. Meter or estimate water used by contractors using fire hydrants for pipe flushing and construction.

Table 5 Continued: Minimum Water Conservation Requirements

Residential and Public Sector Conservation Continued
3. Municipal buildings • By January 1, 2011, submit to MassDEP a listing of all municipally owned public buildings served by the Permittee and a description of whether or not the buildings are fitted with water-saving devices (e.g. faucet aerators, toilet displacement devices or low flow toilets, low flow shower heads, etc.). • On or before January 1, 2014, Permittee shall ensure that all municipally owned public buildings in the service area are retrofitted. Note municipally owned public buildings that may be scheduled for rehab or demolition after the January 1, 2014 deadline for completing the retrofits, may with MassDEP's approval, be exempted from this condition based on the schedule of work. Status report required above should identify those buildings and schedule for repairs/demolition.
Industrial and Commercial Water Conservation
1. Permittee shall review the use records for its industrial, commercial and institutional water users and develop an inventory of the largest water users. Permittee shall develop and implement an outreach program designed to inform and (where appropriate) work with its largest industrial, commercial and institutional water users on ways to reduce their water use. Such outreach plans can include, but are not limited to: information on water audits, meter sizing, water reuse, low-flow plumbing fixtures, mandatory outdoor water use restrictions, suggestions for contacting trade associations for process specific information on water use reductions, and information on contacting the Executive Office of Environmental Affairs Office of Technical Assistance for Toxics Use Reduction (OTA) which offers a range of assistance and information to help facilities improve water use efficiency and reduce wastewater discharge. OTA can be contacted at (617) 626-1060 or at www.mass.gov/envir/ota.
2. Upon request by MassDEP, Permittee shall report on industrial, commercial and institutional water conservation including the results of its review of water use records for industrial, commercial and institutional water users, the inventory of the largest water users, copies of any outreach materials distributed to industrial, commercial and institutional water users, and to the extent practical, a summary of water use reductions or savings that have resulted. Upon receipt of this report, MassDEP will take whatever action it deems appropriate to promote the interests of the WMA, including without limitation requiring Permittee to take additional actions to reduce industrial, commercial and institutional water use.
Lawn and Landscape
1. Review Permittee's water use restriction bylaw to determine if it provides authority to implement and enforce water use restrictions required by the Special Condition, "Seasonal Limits on Nonessential Outdoor Water Use". If it does not, adopt a water use restriction bylaw, ordinance or regulation by May 1, 2011, to implement the new restrictions.

Table 5 Continued: Minimum Water Conservation Requirements

Public Education and Outreach
1. Develop and implement a Water Conservation Education Plan. Permittee's Water Conservation Education Plan shall be designed to educate Permittee's water customers of ways to conserve water. Without limitation, Permittee's plan may include the following actions: • Annual work sheets, included in water bills or under separate cover, to enable customers to track water use and conservation efforts and estimate the dollar savings; • Public space advertising/media stories on successes (and failures); • Conservation information centers perhaps run jointly with electric or gas company; • Speakers for community organizations; • Partner with garden clubs, or other private and non-profit organizations, to promote efficient water use; • Provide information on water-wise landscaping, gardening, efficient irrigation and lawn care practice; • Public service announcements; radio/T.V./audio-visual presentations; • Joint advertising with hardware stores to promote conservation devices; • Water conservation workshops for the general public • Use of civic and professional organization resources; • Special events such as Conservation Fairs; • Develop materials that are targeted to schools with media that appeals to children, including materials on water resource projects and field trips; and • Make multilingual materials available as needed. References and additional information available through the USEPA Water Sense Program at http://www.epa.gov/watersense.
2. Upon request of MassDEP, Permittee shall report on its public education and outreach effort, including a summary of activities developed for specific target audiences, any events or activities sponsored to promote water conservation and copies of written materials.

10. Water Withdrawals that Exceed Baseline Withdrawal Volumes

Millis's baseline withdrawal volume (Baseline) in the Charles River Basin is 0.80 MGD, or 292.56 MGY, the 2005 withdrawal volume

Permittee shall perform an Offset Feasibility Study the first time its water withdrawals for a calendar year exceed its Baseline. Permittee shall make a written analysis of the cost effectiveness of each of the following Best Management Practices (BMPs) and any other BMPs selected by the Permittee to offset withdrawal increases.

BMPs to be evaluated shall include, but are not limited to:

Development Guidelines

- Low Impact Development, Conservation Development and Smart Growth bylaws or regulations in addition to those implemented through the November 2001 Best Development Practices Guidebook
- Land clearing/development bylaws (loam, native vegetation site clearing limitation, lawn size limitations) in addition to those implemented through the November 2001 Best Development Practices Guidebook

Water Bank

- Traditional water and/or sewer bank
- Institute "hook-up" fee for all new development with revenues to be dedicated to water conservation programs such as rebate programs for homeowners (efficient appliances)

Stormwater Management and Recharge

- Stormwater Utility or dedicated stormwater fees used to build and maintain stormwater infiltration facilities
- By-law implementing MA stormwater recharge standards townwide beyond the wetland areas required in the MA Stormwater Policy
- By-law requiring stormwater recharge above the rates required in the MA Stormwater Policy

Infiltration and Inflow

- Enhanced I/I program going forward for the next 5 years

Local Infiltration of Waste Water

If Permittee is required to perform a Study, Permittee shall:

- Within 60 days of the filing of an ASR indicating that a Study is required, submit a Study Scope of Work to MassDEP for approval;
- Within 6 months of MassDEP's approval of the Study Scope of Work, submit the completed Study to MassDEP for approval;
- MassDEP's approval of the Study Scope of Work and the completed Study will be presumed if MassDEP does not issue a written approval or denial of such submission within 60 days of the date submitted to MassDEP for approval.

If Permittee files a subsequent ASR indicating that withdrawals for a calendar year again have exceeded its Baseline, then Permittee shall:

- Implement the results of the Study;
- Document such implementation annually at the time it files its ASR; and
- Continue to implement the results of the Study as long as withdrawals exceed Baseline.

GENERAL PERMIT 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 water so as not to impair the purposes and interests of the Act.

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

4. **Water Emergency** Withdrawal volumes authorized by this permit are subject to restriction in any water emergency declared by MassDEP pursuant to MGL c 21G ss 15-17, MGL c 150 s 111, 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 36.37.

6. **Duty to Report** The permittee shall complete and submit annually, on a form provided by MassDEP, all of the information required by said form including, without limitation, a certified statement of the withdrawal. Such report shall be received by MassDEP by the date specified on the form each year. Such report must be mailed or hand delivered to:

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

7. **Duty to Maintain Records** The permittee shall maintain withdrawal records and other information in sufficient detail to demonstrate compliance with this permit.

8. **Metering** The withdrawal point(s) included within this permit are metered and shall be calibrated annually. Meters shall be maintained and replaced as necessary to ensure the accuracy of the withdrawal records.

APPEAL RIGHTS AND TIME LIMITS

This permit is a decision of MassDEP. Any person aggrieved by this decision may request an adjudicatory hearing under the provisions of MGL c 30A. Any such request must be made in writing, by certified mail and received by 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(s) is located; and for any person appealing this decision, who is not the applicant, unless such person notifies the permit applicant of the appeal in writing by certified mail or by hand within five (5) days of mailing the appeal to MassDEP.

CONTENTS OF HEARING REQUEST

310 CMR 1.01(6)(b) requires the request to include a clear and concise statement of the facts which are the grounds for the request and the relief sought. In addition, the request must include a statement of the reasons why the decision of MassDEP is not consistent with applicable rules and regulations, and for any person appealing this decision who is not the applicant, a clear and concise statement of how that person is aggrieved by the issuance of this permit.

FILING FEE AND ADDRESS

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

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

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

EXEMPTIONS

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

WAIVER

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.

Appendix A – Residential Gallons Per Capita Day (RGPCD)

I. Compliance Plan Requirement

If the permittee fails to achieve and document compliance with the RGPCD performance standard in its Annual Statistical Report (ASR), then the permittee must file with that ASR a Residential Gallons Per Capita Day Compliance Plan (RGPCD Plan) which shall:

a. meet the requirement set forth below in Section II;
b. include measures to be implemented to meet the performance standard); and
c. include the schedule for implementing such measures.

The filing of an RGPCD Plan shall not constitute a return to compliance, nor shall it affect MassDEP's authority to take action in response to the permittee's failure to meet the performance standard.

If an RGPCD Plan is required, the permittee must:

a. submit information and supporting documentation sufficient to demonstrate compliance with its RGPCD Plan annually at the time it files its ASR; and
b. continue to implement the RGPCD Plan until it complies with the performance standard and such compliance is documented in the permittee's ASR for the calendar year in which the standard is met.

II. Contents of an RGPCD Plan

A permittee that does not meet the 65 RGPCD performance standard within 2 years, has the choice to file an RGPCD Plan containing measures that the permittee believes will be sufficient to bring the system into compliance with the performance standard (Individual RGPCD Plan) or may adopt the MassDEP RGPCD Functional Equivalence Plan that includes mandated Best Management Practices (BMPs).

A permittee that has been unable to meet the 65 RGPCD performance standard within 5 years must implement the MassDEP RGPCD Functional Equivalence Plan to be considered functionally equivalent with the performance standard.

At a minimum, all RGPCD Compliance Plans must include a detailed:

a. description of the actions taken during the prior calendar year to meet the performance standard;
b. analysis of the cause of the failure to meet the performance standard;
c. description and schedule of the actions that will be taken to meet the performance standard; and
d. analysis of how the actions described in c. will address the specific circumstances that resulted in the failure to meet the performance standard.

RGPCD Plans may be amended to revise the actions that will be taken to meet the performance standard.

Individual RGPCD Plan

Individual RGPCD Plan will document a plan to adopt and implement measures tailored to the specific needs of the water supply system that the permittee believes will be sufficient to bring the system into compliance with the performance standard within three years.

At a minimum, all Individual RGPCD Plans for failure to meet the RGPCD performance standard must include implementation of at least one of the following residential conservation programs:

a. a program that provides water saving devices such as faucet aerators and low flow shower heads at cost;
b. a program that provides rebates or other incentives for the purchase of low water use appliances (washing machines, dishwashers, and toilets); or
c. the adoption and enforcement of an ordinance, bylaw or regulation to require the installation of moisture sensors or similar climate related control technology on all automatic irrigation systems.

If the permittee is already implementing one or more of these programs, it must include in its Individual RGPCD Plan the continued implementation of such program(s), as well as implementation of at least one additional program. All programs must include a public information component designed to inform customers of the program and to encourage participation in the program.

Without limitation, the Individual RGPCD Plan for failure to meet the RGPCD performance standard may include any of the actions set forth in the MassDEP RGPCD Functional Equivalence Plan below.

MassDEP RGPCD Functional Equivalence Plan

In order to be considered functionally equivalent with the RGPCD performance standard, the permittee must be in compliance with the permit Special Condition, Seasonal Limits on Nonessential Outdoor Water Use, and must adopt and implement the MassDEP RGPCD Functional Equivalence Plan that requires all the following residential conservation programs:

a. a program that provides water saving devices such as faucet aerators and low flow shower heads at cost;
b. a program that provides rebates or other incentives for the purchase of low water use appliances (washing machines, dishwashers, and toilets);
c. the adoption and enforcement of an ordinance, bylaw or regulation to require the installation of soil moisture sensors or similar climate related control technology on all automatic irrigation systems;
d. the use of an increasing block water rate or a seasonal water rate structure as a tool to encourage water conservation;
e. the adoption and enforcement of an ordinance, bylaw or regulation to require that all new construction include water saving devices and low water use appliances; and
f. the implementation of monthly or quarterly billing.

Hardship

A permittee may present an analysis of the cost effectiveness of implementing certain conservation measures included in the MassDEP RGPCD Functional Equivalence Plan and offer alternative measures. Any analysis must explicitly consider environmental impacts and must produce equal or greater environmental benefits. Suppliers will be able to present:

a. Reasons why specific measures are not cost effective because the cost would exceed the costs of alternative methods of achieving the appropriate standard;
b. Alternative 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 RGPCD Functional Equivalence Plan; and
c. When applicable, an analysis demonstrating that implementation of specific measures will cause or exacerbate significant economic hardship.

Appendix B – Unaccounted for Water (UAW)

I. Compliance Plan Requirement

If the permittee fails to document compliance with the UAW performance standard in its Annual Statistical Report (ASR), then the permittee must file with that ASR an Unaccounted for Water Compliance Plan (UAW Plan) which shall:

a. meet the requirements set forth below in Section II;
b. include measures to be implemented to meet the performance standard; and
c. include the schedule for implementing such measures.

The filing of a UAW Plan shall not constitute a return to compliance, nor shall if affect MassDEP's authority to take action in response to the permittee's failure to meet the performance standard.

If a UAW Plan is required, the permittee must:

a. submit information and supporting documentation sufficient to demonstrate compliance with its UAW Plan annually at the time it files its ASR; and
b. continue to implement the UAW Plan until it complies with the performance standard and such compliance is documented in the permittee's ASR for the calendar year in which the standard is met.

II. Contents of a UAW Compliance Plan

A permittee that does not meet the 10% UAW performance standard within 2 years, has the choice to file a UAW Plan containing measures that the permittee believes will be sufficient to bring the system into compliance with the performance standard (Individual UAW Plan) or may adopt the MassDEP UAW Functional Equivalence Plan that includes mandated Best Management Practices (BMPs).

A permittee that has been unable to meet the 10% UAW performance standard within 5 years must implement the MassDEP UAW Functional Equivalence Plan to be considered functionally equivalent with the performance standard.

At a minimum, all UAW plans must include a detailed:

a. description of the actions taken during the prior calendar year to meet the applicable performance standard;
b. analysis of the cause of the failure to meet the performance standard;
c. description and schedule of the actions that will be taken to meet the performance standard; and
d. analysis of how the actions described in c. will address the specific circumstances that resulted in the failure to meet the performance standard.

UAW plans may be amended to revise the actions that will be taken to meet the performance standard.

Individual UAW Compliance Plan

Individual UAW Plan will document a plan to adopt and implement measures tailored to the specific needs of the water supply system that the permittee believes will be sufficient to bring the system into compliance with the performance standard within three years. Individual UAW compliance plans may include any of the actions set forth in the MassDEP UAW Functional Equivalence Plan compliance plan below.

MassDEP UAW Functional Equivalence Plan

In order to be considered functionally equivalent with the UAW performance standard, the permittee must adopt and implement the MassDEP UAW Functional Equivalence Plan that, at a minimum, requires all the following measures:

a. within one year of filing the MassDEP UAW Functional Equivalence Plan, complete a water audit and leak detection survey of the entire system and submit completed audit and survey to MassDEP;
within one year of completing the audit and leak detection survey, conduct sufficient repairs to reduce by 75% (by water volume) all leaks detected in the survey;
within one year of completing such repairs, conduct additional repairs of leaks detected in the survey as may be necessary to reduce permittee's UAW to 10% or the minimum level possible;

b. if UAW remains above 10%, repeat the steps outlined in paragraph a.;

c. implementation of a program that ensures the inspection and evaluation of all water meters and, as appropriate, the repair, replacement and calibration of water meters in accordance with the following schedule:
Large Meters (2" or greater) - within one year of filing the MassDEP UAW Functional Equivalence Plan
Medium Meters (1" or greater and less than 2") - within two years of filing the MassDEP UAW Functional Equivalence Plan
Small Meters (less than 1") - within three years of filing the MassDEP UAW Functional Equivalence Plan;

d. implementation of monthly or quarterly billing within three years of fling the MassDEP UAW Functional Equivalence Plan; and

e. within one year of filing the MassDEP UAW Functional Equivalence Plan, implementation of a water pricing structure that achieves sufficient revenues to pay the full cost of operating the system including, without limitation, the costs of repairs under paragraph a., the costs of meter repairs, replacements and calibrations under paragraph c., the costs of employees and equipment, and ongoing maintenance and capital costs.

Hardship

A permittee may present an analysis of the cost effectiveness of implementing certain conservation measures included in the MassDEP UAW Functional Equivalence Plan and offer alternative measures. Any analysis must explicitly consider environmental impacts and must produce equal or greater environmental benefits. Suppliers will be able to present:

a. Reasons why specific measures are not cost effective because the cost would exceed the costs of alternative methods of achieving the appropriate standard;

b. Alternative 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 Functional Equivalence Plan; and

c. When applicable, an analysis demonstrating that implementation of specific measures will cause or exacerbate significant economic hardship