Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Department of Environmental Protection
Address: 100 Cambridge Street, Suite 900, Boston MA 02114 | **Phone**: 617-292-5500

Maura T. Healey Governor | **Kim Driscoll** Lieutenant Governor | **Rebecca Tepper** Secretary | **Bonnie Heiple** Commissioner

June 18, 2026

Bernardston Fire and Water District
Board of Water Commissioners
295 South Street
Bernardston, MA 01337-

RE: Bernardston – BRP/WMA
Bernardston Fire & Water District
PWS ID #1029000
Water Management Act Permit Renewal
Permit #9P2-1-06-029.01

Dear Commission Members:

Attached please find:

- Final Findings of Fact in support of Bernardston Fire and Water District's Water Management Act (WMA) Permit #9P2-1-06-029.01, in the Connecticut River Basin; and
- Final WMA Permit #9P2-1-06-029.01 for the Bernardston Fire and Water District (BFWD) in the Connecticut River Basin.

The signature on this cover letter indicates formal issuance of the attached documents. If you have any questions regarding this information, please contact Jen D'Urso via e-mail at: jen.durso@mass.gov .

Sincerely,

Duane LeVangie
Chief, Water Management Act Program
Bureau of Resource Protection

Sharepoint: DEP BWP\DWP Archive\WERO\Bernardston-1029000-WMA Final Permit #9P2-1-06-029.01-6.18.2026- a11y

Ecc: William Pachallis, Bernardston Fire and Water District
Keith Freyenhagen, Bernardston Fire and Water District
Aaron Budine, Bernardston Fire and Water District

Anne Carroll, DCR OWR
Jen Pederson, MWWA
Lydia Olson, MA Rivers Alliance
Melissa Shapiro, MA Rivers Alliance
Andrew Kelly, Drinking Water Program Chief, MassDEP Springfield
Ron Rhodes, Connecticut River Conservancy

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Findings of Fact in Support of Permit Issuance
Water Management Permit #9P2-1-06-029.01
Bernardston Fire and Water District

The Department of Environmental Protection (the "Department" or "MassDEP") makes the following Findings of Fact in support of the attached Water Management Permit #9P2-1-06-029.01 and includes herewith its reasons for issuing the Permit and for conditions of approval imposed, as required by M.G.L. c. 21G, § 11. The issuance of this permit is in response to a water withdrawal permit renewal application by the Bernardston Fire and Water District, (BFWD or Bernardston) for the purpose of public water supply.

Bernardston holds a WMA Permit in the Connecticut River Basin for 0.17 Million Gallons per Day (MGD), and a WMA Registration (#10302901) in the Deerfield River Basin also for 0.17 MGD. Bernardston's original Connecticut River Basin permit identified that system-wide withdrawals were limited to 0.17 MGD, while failing to recognize that because of the permitting threshold of 0.10 MGD Bernardston had the ability to withdraw up to 0.27 MGD in the Deerfield Basin. This renewed permit clarifies Bernardston's ability to withdraw between the two basins and notes that actual withdrawals have been below the rate of 0.27 MGD that would require Bernardston to apply for a new WMA permit.

The expiration date for this permit going forward in the Connecticut Basin will be November 30, 2033, in order to restore the staggered permitting schedule set forth in the regulations.

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 (see the Safe Yield in the Connecticut Basin section of this document);
- 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 (https://www.mass.gov/massachusetts-water-conservation-standards), 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; and
    - 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.

Safe Yield in the Connecticut Basin

This permit is being issued under the safe yield methodology adopted by the Department on November 7, 2014, and described in the regulations at 310 CMR 36.13. As of the date of issuance of this permit, the safe yield for the Connecticut Basin is 1,866.5 million gallons per day (MGD), and total registered and permitted withdrawals are 149.87 MGD. The issuance of this permit will not increase the allocation in the Connecticut Basin. The maximum withdrawal that will be authorized in this permit, and all other permits currently under review by the Department within the Connecticut River Basin, will be within the safe yield and may be further conditioned as outlined in the regulations.

Findings of Fact for Permit Conditions in Bernardston's 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. Bernardston's authorized volume in this permit does not increase Bernardston's Connecticut River Basin withdrawal volume from its previous permit issued in 2004, which was 0.17 MGD. However, uncertainty existed on BFWD's system-wide withdrawals particularly when considering their registered withdrawal of 0.17 MGD and the ability to withdraw up to 0.10 MGD per day above that allocation before needing a permit in the Deerfield River Basin. Table 1 is intended to clarify Bernardston's ability to withdraw up to 0.17 MGD in Connecticut River Basin, and up to 0.27 MGD system-wide or in the Deerfield River Basin without allocating any additional volumes by recognizing the threshold volume for permitting in the Water Management Act regulations. Bernardston's actual average system wide withdrawal rate over the past 5 years is 0.20 MGD. Again see Table 1.

Table 1: Bernardston Reported System-Wide Water Withdrawals 2021-2025

Basin	Actual Withdrawals (MGD)					
	2021	2022	2023	2024	2025	Allocated Volume
Connecticut	0.12	0.18	0.09	0.07	0.11	0.17
Deerfield	0.07	0.07	0.13	0.10	0.09	0.17*
System-wide Total	0.19	0.25	0.22	0.17	0.20	0.17*

* Per Water Management Regulations 310 CMR 36.16(1)(b), for persons with a registration for withdrawals within a water source (river basin), a withdrawal of more than the threshold volume (100,000 Gallons per Day (GPD)) in excess of the registered volume requires a permit. Deerfield basin sources can be withdrawn up to 0.27 before needing a permit, based on the permitting threshold of 100,000 GPD.

Special Condition 2, Maximum Daily Withdrawals from Groundwater Withdrawal Points, reflects the MassDEP-approved Zone II maximum daily pumping rate for each of Bernardston's permitted wells based on prolonged pumping tests. Withdrawals in excess of these maximum daily rates require approval from the Department.

Special Condition 3, Zone II Delineation, requirements have been met and is up to date as of the issuance of this permit.

Special Condition 4, Wellhead Protection, requirement has been met and is up to date as of the issuance of this permit.

Special Condition 5, Performance Standard for Residential Gallons Per Capita Day Water, is 65 gallons. Permittees that cannot comply within the timeframe in the permit must meet Functional Equivalence (FEP) requirements outlined in Appendix A. Bernardston's DEP-approved 2024 RGPCD was 59. Since this is the first time Bernardston will have the 65 RGPCD requirement in its permit, Bernardston shall be in compliance with this performance standard by December 31, 2027. Please see Table 2 for historical RGPCD values.

Table 2: Bernardston's Historical RGPCD and UAW

	2025	2024	2023	2022	2021
RGPCD	50	59	87	57	51
UAW (%)	53	35	Unavailable	54	37

Special Condition 6, Performance Standard for Unaccounted for Water, is 10% for two out of three most recent years. 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 B. Bernardston's DEP-approved 2024 UAW was 35%. Since this is the first time Bernardston will have the UAW requirement in its permit, Bernardston shall be in compliance with this performance standard by December 31, 2027. Please see Table 2 for historical UAW values.

Special Condition 7, Seasonal Limits on Nonessential Outdoor Water Use,
BFWD's Nonessential Outdoor Water Use Restrictions ("Restrictions") are based on whether the permittee's reported RGPCD for the previous year met the RGPCD Performance Standard of 65 residential gallons per capita day of less (see Special Condition #5).

In addition, outdoor water use restrictions for permittees with wells in subbasinsii that are 25% or more August net groundwater depleted (Aug NGD)iiii are set to minimize withdrawals from depleted subbasins. While BFWD does not have any sources located in an Aug NGD subbasin, BFWD has decided to go with the more protective outdoor water use restrictions as part of its minimization plan. Therefore, nonessential outdoor water use is limited to 1 or 2 days per week.

Each year, BFWD shall choose one of two options for implementing nonessential outdoor water use restrictions:

- **Calendar triggered restrictions** are in place from May 1 through September 30. Many public water suppliers find this option easier to implement and enforce than the streamflow triggered approach.
- **Streamflow triggered restrictions** are 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 1 through September 30. At a minimum, restrictions commence when streamflow falls below the trigger for three consecutive days. Once implemented, the restrictions remain in place until streamflow at the assigned USGS local stream gage meets or exceeds the trigger streamflow for seven consecutive days.

If BFWD selects the streamflow trigger approach, it has been assigned **USGS Gage #01170100 – Green River near Colrain, MA.** The May-June streamflow trigger is **46 cubic feet per second (cfs**), and the July-September streamflow trigger is **17 cfs**. Should the reliability of flow measurement at this gage be so impaired as to question its accuracy,
the permittee may request that MassDEP review and approve the transfer to another gage that will trigger restrictions. MassDEP reserves the right to require use of a different gage.

- **The 7-Day Low-flow Trigger**, at which restrictions increase is incorporated into both Calendar and Streamflow Triggered restrictions to
provide additional protection when flows are very low. The 7-day low flow trigger is based on the median value of the annual 7-day low flows for the period of record. The 7-day low flow trigger for **USGS Gage 01170100** is **8.4 cfs**.

The permittee may choose to implement limits on nonessential outdoor water use that are stricter than those required by the permit.

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

Note that if the permittee holds a Water Management registration, **the nonessential outdoor water use restrictions in this permit supersede restrictions in the permittee's registration**.

Special Condition 8, Water Conservation Requirements, incorporates the Water Conservation Standards for the Commonwealth of Massachusetts reviewed and approved by the WRC in July 2018. (Details on the 2018 Massachusetts Water Conservation Standards | Mass.gov).

Special Condition 9, Minimization, requires that BFWD develop and implement a plan to minimize impacts. Since all of BFWD sources are in subbasins with CFRs, and BFWD does not have the ability to release water, BFWD Minimization Plan focuses on additional conservation measures that can be implemented.

Special Condition 10, Mitigation of Impacts for Withdrawals that Exceed Baseline[1], requires mitigation of the impacts of withdrawals above the permittee's baseline by direct and/or indirect mitigation activities. Bernardston's Baseline in the Connecticut Basin (0.15 MGD) is based on its 2005 withdrawal volume plus 5%. Mitigation of the impacts of increasing withdrawals can be through:

- Direct mitigation that will result in enhanced streamflow through
    - Purchase and retirement of other registered or permitted withdrawals,
    - Surface water releases,
    - Stormwater recharge, or
    - Infiltration and inflow removal from sewer systems.

- Indirect mitigation activities that will result in streamflow and habitat improvements.

In addition, since the additional volumes proposed to be withdrawn are expected to serve areas with on-site septic systems, the Department assumes that a percentage of the water withdrawn above the baseline will be returned to the subsurface. This permit authorizes Bernardston to withdraw up to 0.17 MGD in the Connecticut River Basin, which is 0.02 MGD above the baseline rate 0.15 MGD. Please see Table #1 below.

Table 1: System-Wide Mitigation Volume Calculation at 0.17 MGD Allocation
Permitted amount above Baseline = 0.02 MGD • Permitted amount above Baseline: 0.17 – 0.15 = 0.02 MGD
Adjustment for Wastewater Discharge to Local Groundwater = 0.017 MGD • 100% of increased withdrawals are delivered to areas with on-site septic systems: 0.02 MGD x 1.0 (100%) = 0.02 MGD • 85% of water delivered to areas with on-site septic systems returns to groundwater: 0.02 MGD x 0.85 (85%) = 0.017 MGD
Amount to be Mitigated after Adjustment for Wastewater Discharge to Local Groundwater = 0.003 MGD • Permitted amount above baseline (0.02 MGD) – adjustment for wastewater discharge to local groundwater (0.017 MGD) = 0.003 MGD or 3,000 gallons per day

After accounting for the wastewater return adjustment, 0.003 MGD of future additional withdrawals from the Connecticut River Basin must be mitigated. Bernardston's mitigation need is met by 1.0 credit in indirect mitigation from a Stormwater Bylaw passed by the Town of Bernardston and approved by the Town for the BFWD's use as mitigation. Please see Appendix C.

Special Condition 10, Reporting Requirements, ensures that the information necessary to evaluate compliance with the conditions included herein is accurately reported.

Other WMA Considerations

Coldwater Fisheries Resource (CFR) Protection

Permittees with withdrawals point(s) impacting a CFR must evaluate options for shifting withdrawals to other withdrawal points and/or utilizing potentially alternative withdrawal sources to minimize the impacts to CFRs through feasible optimization. Bernardston's has three (3) registered withdrawal points (01G, 02G, and 04G) located in subbasin #16033 in the Deerfield River Basin, and the one (1) permitted withdrawal point (Sugarhouse Well-03G) located in subbasin #14020 in the Connecticut River Basin, with both subbasins having CFRs. Therefore, an evaluation of options for shifting withdrawals to the permittee's other withdrawal points, if any, was evaluated in this permit review. With the additional flexibility afforded by the permitted well to share their registered withdrawal amounts, no CFR requirements are required as a condition of this permit at this time.

Response to Comments

Bernardston's Draft WMA Permit was available for public comment in the Massachusetts Environmental Monitor from April 8th, 2026 to May 8th, 2026. Comments were filed by the Massachusetts Rivers Alliance. Below is a summary of those comments and MassDEP's response.

Comment #1:

This permit should be revised to accurately explain Bernardston's authorized withdrawals under its permit and registration. Bernardston has exceeded their total authorized withdrawals for the past five years. Data on the annual average withdrawal rates for each basin should be included, instead of a statement of their averaged annual average withdrawal rate over the past five years. With yearly information, DEP and the public can evaluate by how much the permit applicant is exceeding the actual withdrawal, and in which basin the withdrawals were exceeded.

Response #1:

Tables have been added, and language has been clarified to better express Bernardston's authorized withdrawals. The original permit failed to recognize that Bernardston, like all registrants, has the ability due to the permitting threshold to withdraw less than 0.10 MGD above their registered volume before needing to permit those volumes. The renewed permit clarifies their authorized volumes by basin and their ability to withdraw beyond that in the Deerfield Basin and system-wide.

Comment #2:

As part of their Minimization plan under Special Condition 9 of the Draft Permit, the completion of "an American Waterworks M36 Audit by January 1, 2027, and [submission of] a UAW Compliance Plan to MassDEP by April 1, 2027" is listed. Since Bernardston's minimization plan requires the development of a water loss control plan, we are satisfied with that permit requirement, but request that MassDEP keep track of Bernardston's UAW and implement a stricter schedule for a water loss control program if their levels do not decrease significantly.

Response #2:
MassDEP will review Bernardston's Annual Statistical Report and their calculation of UAW just as we do with every Public Water System. That reviewed calculation will be posted on our website and system's exceeding 10% will be tracked to confirm receipt and implementation of their UAW Compliance Plan.

Comment #3:
Summary tables for RGPCD and UAW, system wide withdrawals, and system wide authorizations were not included in the draft permit.

Response #3:
A summary table showing RGPCD and UAW for 2021-2025 has been added to the Findings of Fact and tables showing system wide authorizations have been added to the Findings of Fact and Special Condition #1 of the permit.

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

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WATER WITHDRAWAL PERMIT
Permit #9P2-1-06-029.01
Bernardston Fire and Water District

This issuance of Permit #9P2-1-06-029.01 is approved pursuant to the Massachusetts Water Management Act (WMA) for the sole purpose of authorizing the withdrawal of a volume of water as stated below and subject to the following special and general conditions. This permit conveys no right in or to any property.

PERMIT NUMBER: **9P2-1-06-029.01** **RIVER BASIN**: Connecticut

PERMITTEE: Bernardston Fire and Water District
Board of Water Commissioners
295 South Street
Bernardston, MA 01337-

EFFECTIVE DATE: June 18, 2026
EXPIRATION DATE: November 30, 2033
TYPE AND NUMBER OF WITHDRAWAL POINTS: Groundwater: 1 Surface Water: 0
USE: Public Water Supply
DAYS OF OPERATION: 365
AUTHORIZED WITHDRAWAL POINTS:

Table 1: Withdrawal Point Identification	
Source Code	**Source**
1029000-03G	SUGARHOUSE WELL

SPECIAL CONDITIONS

1. Maximum Authorized Annual Average Withdrawal
This permit authorizes the Bernardston Fire and Water District (BFWD) to withdraw water from the Connecticut River Basin at the rate described below in Table 2. BFWD is also registered (#10302901) to withdraw 0.17 million gallons per day (MGD) under the Water Management Act in the Deerfield River Basin. The permitted volume is expressed both as an average daily withdrawal rate (million gallons per day or MGD), and as a total annual withdrawal volume (million gallons per year or MGY) for each permit period. 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 rates. Please see Table 3 for a discussion of BFWD's System-wide Volume Triggering a New Permit.

Table 2: Bernardston's Authorized Withdrawals in Connecticut Basin

Permit Periods	Total Raw Water Withdrawal Volumes			
	Permit		Permit and Registration	
	Daily Average (MGD)	Total Annual (MGY)	Daily Average (MGD)	Total Annual (MGY)
6/18/2026 to 11/30/2033	0.17	105.90	0.17	105.90

Table 3: Summary of Bernardston Fire & Water District's WMA Volumes

WMA Volumes	Volume Authorized
WMA Permit #9P2-1-06-029.01 (Connecticut River Basin)	0.17 MGD (62.05 MGY)
WMA Registration #10302901 (Deerfield River Basin)	0.17 MGD (62.05 MGY)*
System-wide Volume Triggering a New Permit	0.27 MGD (98.55 MGY)*

*Per Water Management Regulations 310 CMR 36.16(1)(b), for persons with a registration for withdrawals within a water source (river basin), a withdrawal of more than the threshold volume (100,000 gallons per day) in excess of the registered volume requires a permit. Deerfield basin can be withdrawn up to 0.27 before it needs a permit, based on the permitting threshold of 100,000 GPD.

2. Maximum Daily Withdrawals from Groundwater Withdrawal Points

Withdrawals from permitted groundwater sources are not to exceed the approved maximum daily rates listed in Table 4 below without advance approval from the Department.

Table 4: Maximum Daily Withdrawal Rates from Authorized Groundwater Withdrawal Points

Source	Maximum Daily Rate (MGD)
SUGAR HOUSE WELL – 10290000-03G	0.62

3. Zone II Delineation

Department records show that all withdrawal points have DEP approved Zone II delineations. Therefore, no further Zone II work is required as a condition of this permit.

4. Wellhead and Surface Water Protection

Department records indicate that the Bernardston Fire & Water District meets the requirements of 310 CMR 22.21(2) for its groundwater withdrawal points. Therefore, no further wellhead protection work is required as a condition of this permit.

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

Bernardston's performance standard for residential gallons per capita day (RGPCD) is 65 gallons or less. Bernardston shall be in compliance with this performance standard by December 31, 2027. If Bernardston does not meet the standard in future years, it shall be in compliance with the RGPCD functional equivalence requirements (Appendix A).

6. **Performance Standard for Unaccounted for Water**
   Bernardston's Performance Standard for Unaccounted for Water (UAW) is 10% or less of overall water withdrawal for 2 of the most recent 3 years throughout the permit period. Bernardston shall be in compliance with this performance standard by December 31, 2027. If Bernardston does not meet the standard, it shall be in compliance with the UAW functional equivalence requirements (Appendix B).

   Nothing in the permit shall prevent a permittee who meets the 10% performance standard from demonstrating compliance with the UAW performance standard by developing and implementing a water loss control program following the *AWWA M36 Water Audits and Loss Control Programs*.

   Permittees meeting the Performance Standard for Unaccounted for Water through implementation of a water loss control program based on AWWA M36 annual water audits and guidance shall continue to report UAW annually as required in the Annual Statistical Report for public water suppliers.

7. **Seasonal Limits on Nonessential Outdoor Water Use**
   BFWD shall limit nonessential outdoor water use through mandatory restrictions from May 1 through September 30, as outlined in Table 5 below. BFWD shall be responsible for tracking streamflow gages and recording and reporting when restrictions are implemented (see Table 6). The permittee shall document compliance with the limits on nonessential outdoor water use annually in its ASR.

   When RGPCD for the previous year was 65 or below, BFWD shall choose either Calendar Triggered Restrictions or Streamflow Triggered Restrictions.

Table 5: Limits on Nonessential Outdoor Water Use

For Permittees Meeting the 65 RGPCD Standard for the Preceding Year When RGPCD was 65 or below as reported in the ASR and accepted by MassDEP, choose either Calendar Triggered Restrictions or Streamflow Triggered Restrictions from this section of the Table
CALENDAR Triggered Restrictions
Nonessential outdoor water use is allowed before 9 a.m. and after 5 p.m.: a. **Two (2) days per week,** unless, b. **USGS Gage #01170100 –Green River near Colrain, MA** falls below **8.4 cfs** for three (3) consecutive days, then **one (1) day per week** is allowed. Once streamflow triggered restrictions are implemented, they shall remain in place until streamflow at gage meets or **exceeds 8.4 cfs** for seven (7) consecutive days.
STREAMFLOW Triggered Restrictions
Nonessential outdoor water use is allowed before 9 a.m. and after 5 p.m.: a. **Two (2) days per week** when **USGS Gage #01170100 –Green River near Colrain, MA** falls below: • **46 cfs** for three (3) consecutive days from **May 1 – June 30**, and

• **17 cfs** for three (3) consecutive days from **July 1 – September 30**, unless, b. **USGS Gage #01170100** falls below **8.4 cfs** for three (3) consecutive days at any time from **May 1 – September 30**, then **one (1) day per week** is allowed**.** Once implemented, restrictions shall remain in place until streamflow at the gage meets or exceeds the trigger streamflow for seven (7) consecutive days.
For Permittees NOT Meeting the 65 RGPCD Standard for the Preceding Year When RGPCD was above 65 as reported in the ASR and accepted by MassDEP, choose either Calendar Triggered Restrictions or Streamflow Triggered Restrictions from this section of the Table
CALENDAR Triggered Restrictions
Nonessential outdoor water use is allowed before 9 a.m. and after 5 p.m. **one (1) day per week.**
STREAMFLOW Triggered Restrictions
Nonessential outdoor water use is allowed before 9 a.m. and after 5 p.m. **one (1) day per week** when **USGS Gage #01170100 –Green River near Colrain, MA** falls below: • **46 cfs** for three (3) consecutive days from **May 1 – June 30**, and, • **17cfs** for three (3) consecutive days from **July 1 – September 30.** Once implemented, restrictions shall remain in place until streamflow at the gage meets or exceeds the trigger streamflow for seven (7) consecutive days.

Table 6: Tracking Streamflows through the USGS Website

Instructions for Accessing Streamflow Website Information If the Permittee chooses Streamflow Triggered Restrictions, the Permittee shall be responsible for tracking streamflows and recording and reporting to MassDEP when restrictions are implemented.
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 for 3 consecutive days. 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, the Permittee must use the mean daily streamflow from the preceding day when tracking streamflows. For additional questions or for additional support, contact the MassDEP Water Management Program at DEP.WMA@mass.gov (preferred), or the WMA Program contact identified in this permit.

Should the reliability of flow measurement at the **USGS Gage USGS Gage #01170100 –Green River near Colrain, MA** be so impaired as to question its accuracy, BFWD may request MassDEP's review and approval to transfer to another gage to trigger restrictions.

MassDEP reserves the right to require the use of a different gage.

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

The 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 15 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 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" available on MassDEP's website (Outdoor Water Use Restrictions for Cities, Towns, and Golf Courses | Mass.gov.)

Enforcement Authority

This permit condition does not confer enforcement authority to the permittee. If BFWD does not have appropriate enforcement authority, then beginning as soon as possible, but no later

than 24 months after issuance of the permit, the permittee shall establish enforceable restrictions limiting nonessential outdoor water use.

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

8. Water Conservation Requirements

At a minimum, Bernardston shall implement the following conservation measures. Compliance with the water conservation requirements shall be reported to the Department upon request, unless otherwise noted below in Table 7.

Table 7: Minimum Water Conservation Requirements
Leak Detection
1. At a minimum, conduct a full leak detection survey every three years.
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 the Department 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. Bernardston shall have repair reports available for inspection by the Department. Bernardston shall establish a schedule for repairing leaks that is at least as stringent as the following: o Leaks of 3 gallons per minute or more shall be repaired within 3 months of detection. o Leaks of less than 3 gallons per minute at hydrants and appurtenances shall be repaired as soon as possible. o 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 Bernardston's priority schedule including leaks up to the property line, curb stop or service meter, as applicable. Bernardston shall have water use regulations in place that require property owners to expeditiously repair leaks on their property.
Metering
1. Calibrate all source and finished water meters at least annually and report date of calibration on the ASR.
2. Bernardston reports its system is 100% metered. 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.

Table 7: Minimum Water Conservation Requirements
3. Bernardston shall have an ongoing program to inspect individual service meters to ensure that all service meters accurately measure the volume of water used by its customers. The metering program shall include regular meter maintenance, including testing, calibration, repair, replacement and checks for tampering to identify and correct illegal connections. The plan shall continue to include placement of sufficient funds in the annual budget to calibrate, repair, or replace meters as necessary.
Pricing
1. Bernardston shall maintain a water pricing structure that includes the full cost of operating the water supply system. Bernardston shall evaluate rates at a minimum every three to five years and adjust costs as needed. Full cost pricing factors all costs - operations, maintenance, capital, and indirect costs (environmental impacts, watershed protection) - into prices.
2. Bernardston shall not use decreasing block rates. Decreasing block rates which charge lower prices as water use increases during the billing period, are not allowed by M.G.L. Chapter 40 Section 39L.
Residential and Public Sector Conservation
1. Bernardston 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.
3. Bernardston has reported that all municipally owned public buildings have not been retrofitted with water saving devices (faucet aerators, low flow shower heads and low flow toilets). Bernardston shall require 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.
Industrial and Commercial Water Conservation
1. Bernardston shall ensure water conservation practices in all development proposals, particularly low flow devices and water-wise landscaping practices.
Public Education and Outreach
1. Bernardston shall implement a water conservation and education effort designed to educate the BFWD's water customers on ways to conserve water. Without limitation, Bernardston's plan may include the following actions: o Include in bill stuffers and/or bills, a work sheet to enable customers to track water use and conservation efforts and estimate the dollar savings; o Public space advertising/media stories on successes (and failures); o Conservation information centers perhaps run jointly with electric or gas company; o Speakers for community organizations; o Public service announcements; radio/T.V./audio-visual presentations; o Joint advertising with hardware stores to promote conservation devices;

Table 7: Minimum Water Conservation Requirements
○ 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 ○ Provide multilingual materials as needed.
2. Upon request of the Department, the BFWD 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.

9. Minimization

Bernardston's Minimization Plan focuses on additional minimization measures that can be implemented. In addition to receiving the more protective Outdoor Water Use Restrictions, Bernardston shall:

- Evaluate rate structure every two years and increase rates for the highest rate block.
- Use an increasing block water rate or a seasonal water rate structure as a tool to encourage water conservation.
- On water bills, provide customers with water consumption information in gallons and show consumption history.
- Identify highest water users or users with significant increases in their water use. Target with monthly outreach about their use from May 1 through Sept. 30. Provide information comparing their use with most efficient customers.
- Complete an American Waterworks M36 Audit by January 1, 2027, and submit a UAW Compliance Plan to MassDEP by April 1, 2027.

10. Mitigation of Impacts for Withdrawals that Exceed Baseline

Bernardston is required to mitigate 0.003 MGD for its permitted withdrawals (0.17 MGD) over baseline (0.15 MGD) in the Connecticut Basin. The Connecticut mitigation requirement of 0.003 MGD will be met with the 1.0 credit in indirect mitigation from a Stormwater Bylaw passed by the Town of Bernardston and approved by the Town for the BFWD's use as mitigation. Please see Appendix C.

11. Reporting Requirements

Bernardston shall report annually as required by completing the electronic Annual Statistical Report (eASR) for public water suppliers and shall provide other reporting as specified in the Special Conditions above.

General Permit Conditions (applicable to all Permittees)

1. <u>Duty to Comply</u> The Permittee shall comply at all times with the terms and conditions of this permit, the Act and all applicable State and Federal statutes and regulations.

2. <u>Operation and Maintenance</u> 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 to enter and examine any property, inspect and monitor the withdrawal, and inspect and copy any relevant 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, §§ 15-17, M.G.L. c. 111, § 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 36.37.

6. **Duty to Report** The Permittee shall submit annually, on a form provided by MassDEP, a certified statement of the withdrawal. Such report is to be received by MassDEP by the date specified by MassDEP. Such report must be mailed or hand delivered to the address specified on the report form.

7. **Duty to Maintain Records** The Permittee shall be responsible for maintaining withdrawal records as specified by this permit.

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

9. **Amendment, Suspension or Termination** The Department may amend, suspend or terminate this permit in accordance with M.G.L. c. 21G or 310 CMR 36.29.

NOTICE OF APPEAL RIGHTS

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

The Notice of Claim and supporting documentation, including a copy of the fee transmittal form and a copy of the check, must be sent by certified mail or hand delivered to:

Case Administrator
Office of Appeals and Dispute Resolution
Department of Environmental Protection

100 Cambridge Street, Suite 900
Boston, MA 02114

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

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

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

Duane LeVangie

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

6/18/2026
Date

Appendix A – Functional Equivalence with the 65 Residential Gallons Per Capita Day Performance Standard

MassDEP will consider PWS permittees who cannot meet the 65 RGPCD 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 residential water use as described below.

If the permittee fails to document compliance with the RGPCD performance standard in its 2018 Annual Statistical Report (ASR), or in any ASR thereafter, then the permittee must file with that ASR a Residential Gallons Per Capita Day Compliance Plan (RGPCD Plan) which shall include, at a minimum:

1. A description of the actions taken during the prior calendar year to meet the performance standard;
2. An analysis of the cause of the failure to meet the performance standard;
3. A description of the actions that will be taken to meet the performance standard which must include, at a minimum, at least one of the following:
    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, by-law or regulation to require the installation of moisture sensors or similar climate related control technology on all automatic irrigation systems;
    and may include, without limitation, the following:
    d) the use of an increasing block water rate or a seasonal water rate structure as a tool to encourage water conservation;
    e) a program that provides rebates or other incentives for the installation of moisture sensors or similar climate related control technology on automatic irrigation systems;
    f) the adoption and enforcement of an ordinance, by-law or regulation to require that all new construction include water saving devices and low water use appliances;
    g) the adoption and enforcement of an ordinance, by-law or regulation to require that all new construction minimize lawn area and/or irrigated lawn area, maximize the use of drought resistant landscaping, and maximize the use of top soil with a high water retention rate;
    h) the implementation of a program to encourage the use of cisterns or rain barrels for outside watering;
    i) the implementation of monthly or quarterly billing.
4. A schedule for implementation; and
5. An analysis of how the planned actions will address the specific circumstances that resulted in the failure to meet the performance standard.

If the permittee is already implementing one or more of these programs, it must include in its 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.

RGPCD plans may be amended to revise the actions that will be taken to meet the performance standard. Amended RGPCD plans must include the information set forth above.

If a RGPCD plan is required, the permittee must:

1. submit information and supporting documentation sufficient to demonstrate compliance with its RGPCD plan annually at the time it files its ASR, and
2. 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.

Appendix B – Functional Equivalence with the 10% Unaccounted for Water 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, as of December 31, 2019, the permittee fails to document compliance with the Unaccounted for Water 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.

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, the permittee shall 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. The Permittee shall submit the component analysis and water loss control program with a proposed implementation schedule to the Department.
3. Continued implementation will be a condition of the permit in place of meeting the 10% UAW performance standard.
4. Upon request of the Department, 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 DEP, 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: Permittees who do not have MassDEP approved Water Loss Control Programs in place by 6th calendar year after 2019 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. Suppliers will be able to present:

- Reasons why specific measures are not cost effective because the cost would exceed the costs of alternative methods of achieving the appropriate standard;
- 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
- When applicable, an analysis demonstrating that implementation of specific measures will cause or exacerbate significant economic hardship.

Appendix C – Bernardston's Indirect Mitigation Credit

Indirect Credit
Stormwater Bylaw

Town of Bernardston 38
Church Street
Bernardston, Massachusetts 01337

Agreement to Use Stormwater Bylaw as Mitigation for Water Withdrawals in Accordance with a MassDEP Water Management Act (WMA} Permit

I, Karen Kelly, of the Town of Bernardston, hereby certify that:

1. On October 29, 2025, the Selectboard of the Town of Bernardston approved the use of its stormwater bylaw as mitigation for water withdrawals by the Bernardston Fire and Water District in accordance with Water Management Act Permit# 9P2-1-06-029.01.
2. The information in the following table is complete and accurate:

A	Town Bylaw (name and citation)	Town of Bernardston Zoning Bylaw, Section 3.5(A) and (D), and Section 5.1 (B)
B	Date Enacted	Adopted May 26, 1987; Amended through May 25, 2022

I hereby agree:

1. That in the event of any amendment of the stormwater bylaw described above, the Town Administrator will notify the Massachusetts Department of Environmental Protection's Water Management Program and Bernardston Fire and Water District in writing within 10 business days of the amendment.

Printed name of Town Administrator:

Karen Kelly

Total Indirect Credits: 1

[i] Baseline is the volume of water withdrawn in 2005 plus 5%, or the average volume withdrawn from 2003 to 2005 plus 5%, which is greater. Baseline cannot be less than the registered volume, and cannot be more than the authorized volume during the 2003-2005 period. For suppliers with authorizations in multiple major basins, baseline is computed for each basin and for the entire system.

[ii] 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).

[iii] The Water Management Regulations, 310 CMR 36.03, define August net groundwater depletion to mean the unimpeded median flow for August minus 2000-2004 groundwater withdrawals plus 2000-2004 groundwater returns described by U.S. Geological Survey in Indicators of Streamflow Alteration, Habitat Fragmentation, Impervious Cover and Water Quality for Massachusetts Stream Basins. A subbasin is groundwater, depleted if it has an August NGD of greater than 25%.