The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner

AMENDED
WATER CONSERVATION PLAN APPROVAL

January 28, 2016

Mill Pond Crossing Condominium Association
c/o Sallyann Hawko, President
17 Mill Pond Road
Brentwood, NH 03833

Subject: **Brentwood – Mill Pond Crossing (PWS ID: 0282010)**
Water Conservation Plan

Dear Ms. Hawko:

On December 18, 2015 and January 17, 2016, the Department of Environmental Services ("DES") Drinking Water and Groundwater Bureau received a water conservation waiver request and an Amended Water Conservation Plan from Mill Pond Crossing ("MPC") signed on January 14, 2016. On March 22, 2006, DES approved the original Water Conservation Plan ("WCP") and on December 5, 2013, DES approved an Amended Water Conservation Plan for MPC. A waiver and Amended WPC have been submitted in response to a request from MPC to make changes to the WPC to better reflect the operations of the condominium association and structure of the community.

MPC submitted a request to waive Env-Wq 2101.11, a requirement to bill each condo unit quarterly based on usage. DES approves the waiver request based on the following:

1. The requirement being waived is not a statutory requirement;

2. The health and safety of the population served will not be compromised by waiving the rule;

3. The operational and economic consequences of complying with the rule currently do not outweigh the benefits. Billing will require additional time and costs related to the extra administrative work needed, and MPC is a retirement community with many part-time residents, making it difficult to set an effective rate; and

4. Granting a waiver will not contravene the intent of RSA 485:61 or Env-Wq 2101. MPC proposes to continue reading service meters quarterly and identifying and resolving any high usages as well as completing a water audit yearly to identify potential water losses, specifically leaks. MPC also proposes to continue implementing voluntary water restrictions during dry parts of the year and promoting water efficiency to residents.

Pursuant to Env-Wq 2101.23(h), a waiver is valid for four years. A request to renew this waiver may be submitted prior to January 28, 2020.

DES approves the waiver request and Amended WCP, per the following conditions (*All conditions are effective upon the date of this approval.):

1. **By March 1 of each year**, MPC shall submit a water balance for the prior year using the DES Water Balance online reporting tool. A water balance is the difference between the system input volume and the metered authorized consumption.

2. **By March 1 of each year**, MPC shall also submit to the DES Water Conservation Program via mail or email the previous year's quarterly consumption data broken down by residential unit, along with an explanation of how Section II.C. of the Amended WCP has been used to determine abnormal usage and what action was taken when abnormal usage was identified.

3. **Twice a year**, water efficiency materials shall be distributed to residents.

4. **Monthly**, but no sooner than 27 days and no later than 33 days from the last meter reading, source meters, and any other meters measuring water consuming process prior to distribution shall be read.

5. **On a quarterly basis**, MPC shall continue reporting monthly production volumes based on source meter readings in the pump house to the DES Water Use Registration and Reporting Program using the DES online reporting tool. MPC's Water User ID number is 20976.

6. **On a quarterly basis**, MPC shall read service meters at the condo units and the club house. Source meter readings and backwash meter readings in the pump house shall also be taken the same day.

7. All pump house meters and service meters shall be tested per the schedule proposed in the Amended WCP. The first round of tests will be in **2017**. Source meters, the backwash meter, and 10% of the service meters will be tested and repaired or replaced if inaccurate**.**

8. All meters shall be selected, installed, and maintained as described in the Amended WCP, and more specifically pursuant to American Water Works Association standards.

9. **Every three years** from the date of the original WCP Approval, a *Water Conservation Plan Ongoing Compliance Reporting Form* shall be submitted to DES documenting how the system has maintained compliance with the Amended WCP. The next report is due on **March 22, 2018**. The following records shall be maintained by the water system to include with the report:

    a. The title of water efficiency materials distributed and the date of distribution;

b. Date of installation and replacement of all meters, as well as testing and calibration records; and

c. A leak log including the date a leak was discovered, the date a leak was repaired, the type of leak (ex. water main, service line, hydrant, valve), the approximate size of the leak (gpm), and the nearest address to the leak.

10. MPC shall maintain an occupancy limit per unit to two adults.

11. Revisions to the Amended WCP shall not be implemented without further approval from DES.

12. MPC shall comply with all details of the Amended WCP, outside of these conditions.

A copy of the Amended WCP, the *Water Conservation Plan Ongoing Compliance Form*, and the water balance reporting tool may be located by going to the DES website, www.des.nh.gov, clicking on the "A-Z List" in the top right corner of the page, and clicking on "Water Conservation."

Please feel free to contact me with any questions at (603) 271-0659 or via e-mail at kelsey.vaughn@des.nh.gov.

Sincerely,

Kelsey Vaughn

Kelsey Vaughn
Water Conservation Program
Drinking Water and Groundwater Bureau

ec: Bernie Rousseau, Pennichuck Water Service Co.
Catherine Deloge, Royal Management Co.
Stacey Herbold and Eric Skoglund, DES

Mill Pond Crossing
Amended Water Conservation Plan

January 2016

All new community water systems and community water systems seeking new sources of water are required to comply with Env-Wq 2101, Water Conservation Rules. Mill Pond's Water Conservation Plan was approved on March 22, 2006. An amended plan was submitted and approved on December 5, 2013. This is a third amendment to the plan. The plan reflects a waiver request to the requirement to bill residents quarterly for water usage.

I. Introduction

A. Contact Information

1. Name and location of system.

   Mill Pond Crossing
   Mill Pond Road
   Brentwood, NH

2. Owner of system and mailing address.

   Mill Pond Crossing Homeowners Association
   17 Mill Pond Road
   Brentwood, NH 03833

B. System Overview

1. Number of connections existing and proposed for each of the following classes:

   a) Existing Residential: 47
   b) 1 club house

2. Name designation of each water source:

   a) BRW 1
   b) BRW 2
   c) An irrigation system was installed around the club house only. There is a separate well for irrigation.

II. System Side Management

A. Water Meters

1. Source Meters and other Non-Service Meters

   a) Meters will be installed on all sources and all water using processes prior to distribution of water into the system.

   b) Meter make, model, and size:

      (1) BRW 1: Neptune T-10, 1" installed in 2012

      (2) BRW 2: Neptune T-10, 1" installed in 2012

      (3) Backwash Meter: DRJ 1" installed in 2012

      (4) An irrigation system was installed around the club house only. There is a separate well for irrigation. There is no meter on the irrigation system.

   c) The source meters and backwash meter will be read at least every 30 days and on the same day as the quarterly service meter readings.

2. Service Meters

   a) Service meters will be installed and maintained on all connections.

   b) Service meters will be read on the same day at least every quarter. Source meters and the backwash meter will also be read on the same day as service meters for water accounting purposes.

3. Service meters will be read using an outside read touch pad.

4. Meter Selection, Installation, and Maintenance

   a) All meters will be AWWA certified, with the exception of b), below.

   b) AWWA does not have standards for magnetic flow meters. If a magnetic flow meter is proposed, the meter make, model, size, and manufacturer specifications will be forwarded to the NHDES Water Conservation program for review. The meter will not be installed until receiving approval for its use.

   c) The selected size of the meters will be based on projected flow rates.

   d) Meters will be installed as specified by the manufacturer including requirements for horizontal or vertical placement, distance of straight run of pipe upstream and downstream of the

meter, and strainer installation. If the manufacturer does not supply installation specifics, meters will be installed in accordance with the "Manual of Water Supply Practices M6, Water Meters-Selection, Installation, Testing, and Maintenance," (American Water Works Association, 2012).

e) The following meter testing and calibration schedule or meter change-out schedule will be implemented. If the manufacturer's accuracy warranty extends beyond the below schedule, the meter will be tested or changed-out no later than the warranty expiration date and will be continue to be tested based on the below schedule.

The 1" Neptune T-10 meters have a five year warranty accuracy. These meters will first be tested or changed out in 2017.

Service meters will be changed out or tested at a rate of 10% per year starting in 2017, which is 10 years from the date of first meter installation. Meters will continue to be changed out or tested at this rate.

Meter Size (inches)	Testing Rate (yr)
<1"	10 yrs
1" - 2"	4 yrs
3"	2 yrs
>3"	1 yr

f) A log of the date meters were installed, tested, calibrated, repaired, and replaced will be maintained and calibration certificates will be kept on file.

B. Water Accounting

1. A water balance will be reported yearly using the NHDES online water balance reporting tool, and will be submitted no later than March 1 of the following year.

Water Balance = system input volume – metered authorized use

System input volume = volume pumped-backwash water

2. The water system will prepare and submit a water audit and response plan if more than 15% of system input volume cannot be accounted for by authorized metered consumption. The response plan will identify how the water system intends to reduce losses to below 15% within two years.

3. Water audits will be calculated in accordance with "Manual of Water Supply Practices M36, Water Audits and Loss Control Programs" (American Water Works Association, 2009).

C. Leak Detection

1. Leaks on will be identified by analyzing trends in monthly water pumped , as well as the yearly water balance.

2. In home leaks will be identified by analyzing usage trends by each residential connection.

3. Usage per day per connection will be calculated at the end of each quarter the service meters are read. In New Hampshire, during the winter months when there is no outdoor water usage, the average usage per capita is 63 gallons per day and in the summer this increases to 93 gpcd, which is on the high end for new residential units of 55+ communities such as Mill Pond. These numbers will be used as the baseline for usage along with the knowledge of the association on residents per unit and residents who leave for the winter. Abnormally high usage will warrant investigation into potential leakage or excessive use.

4. Leaks will be repaired within 60 days of discovery unless a waiver is obtained in accordance with Env-Wq 2101.09.

5. A log of all leaks will be maintained including the date the leak was discovered, the date the leak was repaired, the type of leak (ex. service, main, hydrant, valve), the size of leak (gpm), and the closest street address.

D. Pressure Management

1. Existing minimum distribution pressure (anticipated pressure for new landlord owned systems). 67.5

2. Existing maximum distribution pressure (anticipated for new landlord owned systems). 72.5

III. Consumption Side Management

A. Educational Outreach Initiative

1. Every 6 months water conservation education materials will go out to all residents via an e-mail blast or via mail.

2. Materials issued will include NHDES Water Efficiency fact sheets: http://des.nh.gov/organization/commissioner/pip/factsheets/dwgb/index.htm#efficiency

Or from the EPA WaterSense Program: http://www.epa.gov/watersense/our_water/learn_more.html

B. Water Use Restrictions

The Board will notify homeowners of any water usage restrictions. The board has implemented outdoor water restrictions in the past during dry periods, as well has spoken with residents on curbing outdoor water use.

IV. Reporting and Implementation

A. Upon source activation, and by no later than March 1 of each year, a water balance for the previous year will be submitted to NHDES using the electronic reporting form located on the Water Conservation homepage at the NHDES website (Go to www.des.gov, click on the A-Z list, scroll down to Water Conservation and click).

B. The water system will continue reporting monthly production volumes, quarterly to the NHDES Water Use Registration and Reporting Program. Monthly

means once every calendar month, but not sooner than 27 days after and no later than 33 days after the previous reading.

C. The water system will submit a form supplied by NHDES once every three years documenting how compliance with the requirements of Env-Wq 2101 *Water Conservation* is being achieved. The report will include:

1. Dates outreach materials were distributed and what was distributed;

2. Meter testing certificates and new meter calibration certificate which come with new meters;

3. A leak log as described above; and

4. A spreadsheet with the previous three years quarters worth of service meter readings, gallons used per unit per day, and actions taken to address high usage.

I certify that I have read this Water Conservation Plan, understand the responsibilities of the water system as referenced in the plan, and that all information provided is complete, accurate, and not misleading.

Owner Name (print): Mill Pond Crossing Condominium

Owner Signature: Sallyann Hawko Date: 1/14/16

President Board of Directors

for

Mill Pond Crossing Condominium

Water Conservation Plan Action Timeline	
Read source meters and backwash meters and analyze volumes for abnormal trends	Monthly
Read service meters and analyze usage per unit.	Quarterly
Leak repair	To be repaired within 60 days of discovery.
Water efficiency materials/tips	To be emailed or mailed twice a year.
Water Use Reporting	Report monthly production (well pumpage) volumes on a quarterly basis to DES using the DES OneStop online reporting tool.
Annual Water Balance	To be submitted to DES yearly, no earlier than January 1 and no later than March 1 of the following year, using the Water Balance Online Reporting Tool.
Source meters and backwash meter testing/calibration or replacement	To be completed in 2017 and then completed per the schedule in II.A.4.e.
Service meter testing	To be completed in 2017 and then completed per the schedule in II.A.4.e.
Submit an Ongoing Compliance Report	Every three years from the original WCP approval (March 22, 2006). The next report is due in 2018.