



The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES



Thomas S. Burack, Commissioner

WATER CONSERVATION PLAN APPROVAL

February 12, 2016

Fran McCarthy
Kasher Corp.
PO Box 626
Billerica, MA 01821

**Subject: Sandown – Wells Village
Water Conservation Plan, NHDES # 160003**

Dear Mr. McCarthy:

On February 8, 2016, the New Hampshire Department of Environmental Services (“DES”) Drinking Water and Groundwater Bureau received a Water Conservation Plan (the “WCP”), signed on January 22, 2016, for Wells Village located in Sandown, New Hampshire. Pursuant to RSA 485:61 and Env-Wq 2101, community water systems seeking permits from DES for new sources of groundwater shall submit a water conservation plan to DES. Based on review of the WCP, DES has determined the WCP complies with Env-Wq 2101, *Water Conservation* rules.

Pursuant to Env-Wq 2101, the Town of Sandown and the Rockingham Planning Commission were provided a copy of the WCP, along with other required materials.

DES approves the WCP based on the following conditions:

1. No later than source activation, all source meters, distribution meters, meters measuring water consuming processes, and any transfer meters and data loggers shall be installed.
2. Upon source activation, source meters and any other meters measuring water consuming processes prior to distribution shall be read monthly, no sooner than 27 days and no later than 33 days from the last meter reading.
3. No later than the source activation date, service connections shall be outfitted with meters and drive-by reading capabilities.
4. For residential homes/units constructed after the source activation date, the service connections shall be outfitted with meters and drive-by reading capabilities no later than system connection to the service.
5. Upon source activation, service meters shall be read on a monthly basis.

6. All meters shall be installed per the manufacturer's instructions or American Water Works Association standards.
7. Upon source activation, all meters shall be tested and maintained based on the schedule proposed in the WCP.
8. Upon source activation, a rate structure shall be implemented. Residents shall be charged based on the amount of water each residence uses, and the rate shall be structured so that the cost per gallon(s) is either constant or increasing with the amount of water used.
9. Upon source activation, monthly billing shall commence.
10. Upon source activation, a water balance, the difference between the system input volume and the metered authorized consumption, shall be reported annually to DES. The water balance shall be reported by March 1 for the prior year using the online reporting tool.
11. Upon source activation, a leak detection and repair program shall be implemented in accordance with the WCP, including monthly water audits.
12. From the date of this WCP Approval, all new non-metallic pipes installed in the system shall be outfitted with detectable tracer tape or detectable tracer wire, or be surveyed and included in the record drawing.
13. Upon source activation, a water conservation outreach and education program shall be implemented in accordance with the WCP, including the distribution of water efficiency outreach materials twice a year.
14. Upon source activation, monthly source production volumes shall be reported to the DES Water Use Registration and Reporting program on a quarterly basis. Upon source activation, DES will assign the system a WUID number and provide instructions for registering as a data provider and utilizing the DES OneStop reporting tool.
15. Every three years from the date of this approval, a *Water Conservation Plan Ongoing Compliance Reporting Form* shall be submitted to DES documenting how the system has maintained compliance with the WCP. The following records shall be maintained by the water system to include with the report:
 - a. 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.
 - b. The title of water efficiency materials distributed and the date of distribution.
 - c. Date of installation and replacement of all meters as well as testing and calibration records.

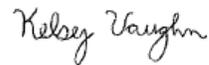
d. Description of leak detection actions taken during the reporting period.

16. Proposed changes to the WCP shall not be implemented unless approved by DES.

The online *Annual Water Balance Reporting Form* and the *Water Conservation Plan Ongoing Compliance Reporting Form* 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, clicking “Water Conservation,” and scrolling down to “Forms/Applications.”

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
Water Conservation Program
Drinking Water and Groundwater Bureau

ec: Charles Lanza, Hampstead Area Water Services Co.
Town of Sandown
Rockingham Planning Commission
Christine Bowman, DES
Steve Roy, DES



HAWSCO

HAMPSTEAD AREA WATER SERVICES, CO.
Serving the Water Community for over 40 years

**PROPOSED WATER
CONSERVATION PLAN
FOR THE TOWNHOUSES AT
WELLS VILLAGE**

**Hampstead Area Water Services, Co.
Wells Village
Town of Sandown, New Hampshire**

Prepared for:
**FRAN MCCARTHY
KASHER CORP.
PO BOX 626
BILLERICA, MA 01821**

Prepared by:
**CHARLES LANZA, PROJECT MANAGER
HAMPSTEAD AREA WATER SERVICES, CO.
54 SAWYER AVENUE
ATKINSON, NH 03811**

Water Conservation Plan

WATER CONSERVATION PLAN: **Wells Village - Sandown**

A community water system seeking authorization for a new source of water must submit a water conservation plan to the New Hampshire Department of Environmental Services (NHDES) for approval demonstrating how the water system proposes to comply with water conservation standards pursuant to Env-Wq 2101, *Water Conservation* rules. Wells Village is a new **small** community water system.

Activities outlined in the water conservation plan will be completed by water system personnel under the supervision of a certified water system operator.

I. Introduction

A. Contact Information

1. Name and location of system: **Wells Village located on Wells Village Rd. Sandown**
2. Owner of system and mailing address: **Kasher Corp. PO Box 626 Billerica, MA 01821**
3. Name and mailing address of designer of water conservation plan: **Charlie Lanza 54 Sawyer Avenue Atkinson, NH 03811**

B. System Overview

1. Brief description of the project and water sources, including water sources to be developed for non-potable uses such as irrigation: **The Wells Village Water System is going to consist of 125 bedrooms in (50) 2 and 3 bedroom town houses. There are two proposed bedrock wells and there is no irrigation proposed.**
2. Name designation of each proposed water source: **BRW-1 and BRW-2**
3. Number of connections proposed for each of the following classes:
 - a) Residential: **50 units**
 - b) Industrial/commercial/institutional: **0**
 - c) Municipal: **0**
4. The water system does not plan to provide water to any consecutive water systems or privately owned redistribution systems.
5. There are no proposed connections that will receive more than 20,000 gpd.

C. Transfer of Ownership

1. **The ownership of the water system is proposed to be transferred to a private utility company.**

II. System Side Management

A. Water Meters

1. Source and Other System Side Meters

- a) No later than the source activation date, meters will be installed on each water source.
- b) No later than the source activation date a distribution meter will be installed to measure flow at the point of entry into the water system. An irrigation well is not proposed.
- c) Meter make, model, size, and flow range of proposed meters for each new water source and other system side meters (if known): **Unknown at this time.**
- d) No later than the source activation date, source meters and other system side meters will be read **Monthly** (At least every 30 days).

2. Service Meter Installation, Reading, and Maintenance

- a) Service meters will be installed on all service connections including public sector service connections and all points of transfer to consecutive water systems or privately owned distribution systems.
- b) Service meters will be installed no later than the source activation date, or if a home/unit is constructed after source activation, no later than connection of the home/unit to the water system.
- c) Service meters will be read: **Monthly** (at least every 90 days).
- d) Service Meters will be read by: drive by read
- e) It is expected it will take one hour to read all service meters.
- f) Service meters will be maintained in accordance with II.A.3.e), below.

3. 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.

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 Balance & Water Audit

1. A yearly water balance (system input volume – authorized metered consumption) will be reported to NHDES using the NHDES online water balance reporting tool, and will be submitted no later than March 1. (The electronic reporting form is located on the Water Conservation homepage of the NHDES website.)
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. A leak detection program will be implemented upon source activation. The leak detection program will be as follows: Leak Detection will be performed by performing a monthly water audit by comparing the service meters to the pump house distribution meter. If water loss begins to increase the water system will be investigated by visually inspecting the system and if unsuccessful in locating the leak(s) a leak detection specialist will be contracted to locate the leak(s).
2. All non-metal pipes will either be Surveyed and included in the record drawing or equipped with detectable tracer tape or detectable tracer wire.
3. Leak detection will be conducted in accordance with “Manual of Water Supply Practices M36, Water Audits and Loss Control Programs” (American Water Works Association, 2009).

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. The design pressures of the system are from **50 psi** to **75 psi**.

III. Consumption Side Management

A. Rate Structure and Billing

1. No later than the source activation date, a conservation rate structure will be implemented. Customers will be charged based on the customer's usage and the cost per unit of water will be uniform.

2. The rate structure will be as follows: \$10.00 per meter base charge plus consumption charge of \$5.02 per 100 cubic feet. This is subject to change and is approved by the NH Public Utilities Commission.

3. No later than the source activation date, customers will be billed **monthly** (minimum is quarterly).

B. Educational Outreach Initiative

1. No later than the source activation date, the system will distribute water efficiency outreach materials twice a year **with** bills and Consumer Confidence Reports. The materials distributed will be either NHDES Water Efficiency Fact Sheets located at <http://des.nh.gov/organization/commissioner/pip/factsheets/dwgb/index.htm#efficiency> or EPA WaterSense materials located at <http://www.epa.gov/watersense/>.

2. The system will maintain a log indicating how the system has complied with III. B.1., above. The log will include dates the outreach and education actions were taken and what was done.

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 (www.des.nh.gov).

B. The water system will report monthly production volumes, quarterly to the NHDES Water Use Registration and Reporting Program upon receiving a Water Use ID number. 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 system will use the meter, leak, and outreach and education log to complete the form.

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): Francis McLaughlin

Owner Signature:  _____ Date: 1/22/16

Appendix A Definitions

Authorized metered consumption: billed metered water plus unbilled metered water.

Community water system (CWS): a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

Consecutive water system: a public water system that buys or otherwise receives some or all of its finished water from one or more wholesale systems for at least 60 days per year.

Final Source Approval: the date of final well siting approval or the date of issuance of the large groundwater withdrawal permit.

Large community water system: a community water system that serves more than 1,000 persons.

Privately owned redistribution system (PORS): A system for the provision of piped water for human consumption which does not meet the definition of a public water system and meets all of the following criteria:

(1) Obtains all of its water from, but is not owned or operated by a public water system; (2) serves a population of at least 25 people, 10 household units, or 15 service connections, whichever is fewest, for a least 60 days per year; and (3) has exterior pumping facilities, not including facilities used to reduce pressure, or exterior storage facilities which are not part of building plumbing.

Public water system (PWS): a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Small community water system: a community water system that serves 1,000 people or less.

Source activation date: the date the source is placed into use.

System input volume: the volume of water input to the water supply system after treatment, analysis, and storage.

Water balance: the difference between the system input volume and authorized metered consumption.

Water conservation: any beneficial reduction in water losses, waste, or use.

Wholesale system: a public water system or an industrial, commercial, or institutional (ICI) water user that treats source water and then sells or otherwise delivers finished water to a consecutive water system or privately owned distribution system.

Appendix B Notification Process

Public Notification Instructions

Within 10 days of submitting the conservation plan to NHDES, the applicant is required to provide a copy of the plan via certified mail with return receipt requested to the governing board of the municipality in which a proposed source is located, all municipalities that will receive water from the water system (if any), all wholesale customers (if any), and the regional planning commission serving the location of the proposed source. In most cases, only the municipality and the regional planning commission will require notification. All signed copies of the certified mail return receipt (the green card) must be forwarded to NHDES.

Additional Attachments

The applicant must provide the governing boards with a summary of the requirements of Env-Wq 2101, which may be found at http://des.nh.gov/organization/divisions/water/dwgb/water_conservation/index.htm, and request that the governing board amend local site planning requirements to reflect the requirements of Env-Wq 2101 or to promote water efficiency.

Notification of Consecutive Water Systems and Privately Owned Redistribution Systems

Within 5 working days of obtaining final approval of the source from NHDES, the system is required to notify any consecutive water system or privately owned redistribution system receiving water from the system, that pursuant to Env-Wq 2101.13, the systems must implement a water conservation plan and should contact the NHDES Water Conservation Program using the contact information below.