



The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES



Thomas S. Burack, Commissioner

WATER CONSERVATION PLAN APPROVAL

August 4, 2014

Granite State Campground LLC
c/o George Benway
P.O. Box 1854
Mashpee, MA 02649

RE: Belmont – Granite State Campground (PWS ID #: 0203070)
Water Conservation Plan, NHDES #

Dear Mr. Benway:

On May 8, 2014, the New Hampshire Department of Environmental Services (“DES”) Drinking Water and Groundwater Bureau received a Water Conservation Plan (the “WCP”), signed on April 29, 2014, for the Granite State Campground water system located in Belmont, New Hampshire. Pursuant to RSA 485:61 and Env-Wq 2101, community water systems seeking permits from DES for 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 Belmont and the Lakes Region Planning Commission were provided a copy of the WCP, along with other required materials.

DES approves the WCP based on the following conditions:

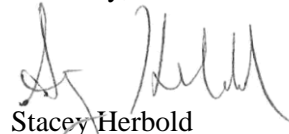
1. Within one year of final source approval, all source meters and the distribution meter shall be installed.
2. Within one year of final source approval, source meters and distribution meters shall be read monthly, no sooner than 27 days and no later than 33 days from the last meter reading.
3. Within one year of final source approval, a night flow analysis using the distribution meter shall be conducted at least twice a year, 6 months apart, in accordance with the night flow methodology in the WCP.
4. Within one year of final source approval, all meters shall be tested and maintained based on the schedule proposed in the WCP.
5. Within one year of final source approval, water efficiency education materials shall be distributed twice a year to residents in accordance with the WCP.
6. From the date of this approval, all newly installed non-metallic pipes shall be outfitted with detectable tracer tape or detectable tracer wire, or be GPS located and maintained in a GIS system.

7. Every three years from the date of this approval, a *Water Conservation Plan Ongoing Compliance 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), and the approximate size of the leak (gpm).
 - b. The title of water efficiency materials distributed and the date of distribution.
 - c. Date of installation and replacement of all meters and testing and calibration records.
 - d. Data from biannual night flow analysis and a brief summary of the analysis.
8. The system shall begin reporting monthly production volumes to the NHDES Water Use Registration and Reporting program on a quarterly basis. DES has assigned **WUID 20995** to the facility. The total monthly volume withdrawn from each source shall be reported to DES on a quarterly basis. The first quarter report is due **October 15**. The water system shall register as a data provider and utilize the DES OneStop reporting tool to submit water use data. Instructions for using the tool are enclosed with this letter. If you have any questions about Water Use Registration and Reporting or registering as a data provider please contact James Tilley at (603) 271-6685 or James.Tilley@des.nh.gov.
9. Proposed changes to the WCP shall not be implemented unless approved by DES.

The *Water Conservation Plan Ongoing Compliance 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, and scrolling down to Water Conservation

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

Sincerely,

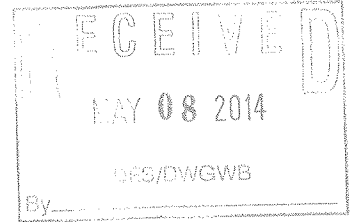


Stacey Herbold
Water Conservation Program
Drinking Water and Groundwater Bureau

cc: Christine Bowman, NHDES
Cindy Klevens, NHDES
Town of Belmont
Lakes Region Planning Commission
LD

Water Conservation Plan for Granite State Campground

April 29, 2014



Introduction:

Granite State Campground LLC

George Benway PO Box 1854 Mashpee Ma 02649

508 477 5754

Granite State Campground (GSC) currently has an existing water system which we are seeking to reclassify from a transient classification back to a community water system. The campground is landlord owned and the water is included in the rent. There are currently 20 connections and we are bringing the property back to its original state of 49 year round connections and a seasonal bathhouse to serve the 10 primitive sites.

Source Meters and Distribution Meter:

The source meter is a 2" Rockwell Sensus meter #36110244 that was installed new in Nov 2013.

The meter will be tested/calibrated every 4 years in accordance with AWWA/PUC for 2" meters. If the meter accuracy warranty is beyond four years, the meter will be tested upon the end of the warranty period and every 4 year thereafter.

GSC will continue to read the source meter at least monthly, but not sooner than 27 days after and not later than 33 days after the previous reading.

Upon receiving a Water Use Number, GSC shall report to the DES Water Use Registration and Reporting Program. The total monthly volume withdrawn from each source shall be reported to DES on a quarterly basis.

The source meter will be selected, installed, and maintained in accordance with "Manual of Water Supply Practices M6, Water Meters-Selection, Installation, Testing, and Maintenance," (American Water Works Association, 2012) if replacement or repair is needed. The current source meters are AWWA certified. When these meters are replaced, the meters will be replaced with AWWA certified meters or the proposed model, make, and size will be forwarded to DES for review prior to installation.

Water Conservation Outreach and Education:

GSC will distribute water conservation educational materials to residents twice a year.

Educational materials will include DES water efficiency fact sheets or EPA WaterSense fact sheets.

Night Flow Leak Detection Methodology

1. Distribution Meter

- a. A 3/4" Neptune T-10 flow meter capable of measuring low flows will be installed on the distribution line and located after treatment and storage. The meter has a low flow accuracy guaranteed to 5 years or 500,000 gallons, whichever occurs first.
- b. The meter will be tested/calibrated or replaced when the warranty expires. If the meter is tested and meets low flow accuracy, the meter will be tested again in four years.
- c. The distribution meter will be selected, installed, and maintained in compliance with "Manual of Water Supply Practices M6, Water Meters- Selection, Installation, Testing, and Maintenance," (American Water Works Association, 2012).

2. Determining Water Use Thresholds

- a. Night time flow analysis will be conducted as described in 3.b., below. As the system is small, it will be expected that low flows should equal 0 gpm. If flows are above 0 gpm, leaks will be isolated and pinpointed as described in 3.e through 3.h., below.
- b. Leaks will be repaired.
- c. Again, night time flow analysis will be conducted as described in 3.b., below. The lowest flow will be considered the baseline.
- d. The threshold above the baseline will be 2 gpm.
- e. The baseline flow will be submitted to DES for review and approval. The submittal will also include the reasoning and evidence behind the proposed threshold.

3. Night Flow Analysis

- a. Night flow analysis will be conducted twice a year no sooner than 173 days apart and not later than 187 days apart.
- b. Water usage will be recorded every minute for one hour between 1:00 AM and 4:00 AM to avoid when water in house water softeners are running. Readings will be taken from the distribution meter.
- c. If flows are above the threshold, then flows will continue to be recorded for an additional hour.
- d. If the lowest flows are 2 gpm above the baseline the previous step will be repeated again in 7 days and if flows remain above baseline the next step will be implemented (Step e.). If flows are more than 2 gpm then the next step (Step e.) will be implemented immediately.
- e. If flows are yet again above the threshold, a leak will be assumed. Once the system is replaced this summer we will have valving in place to isolate areas of the system. Valves will be closed to isolate select portions of the system and to evaluate the change in flow as measured by the distribution meter to isolate the leak. For example, when one valve is closed, one person in the field (operating the valves) will then communicate with a second person observing the distribution meter to monitor for a change in the background flow.

f. No later than two weeks from isolating the leak to a certain branch of a system, a sub-contractor skilled in acoustic leak detection will be retained and assist with pinpointing the leak.

g. 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).

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

Compliance Reporting and Record Maintenance:

GSC will submit a Water Conservation Ongoing Compliance Form supplied by DES once every three years from the date of the Water Conservation Plan approval. The following records will be maintained and submitted with the compliance form:

1. GSC will maintain a leak log including the date a leak was discovered, the type of leak (ex. main, service, valve), the approximate size of the leak (gmp), and the nearest address to the leak.
2. GSC will maintain the title of water efficiency outreach materials and the date of distribution to residents.
3. GSC will maintain a log of meter installation, testing, calibration, and replacement dates. Testing and calibration certificates will also be maintained.
4. GSC will maintain records of the biannual night flow data including a summary of analysis explaining if a leak was suspected or not.

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

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

Owner Name (print): *George Benway* Date: *4/29/2014*

Owner Signature:

A handwritten signature in black ink, appearing to read "George A. Benway" followed by a stylized flourish.

Donald Hurd

Operator

Granite State Campground Water System