



The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES



Thomas S. Burack, Commissioner

WATER CONSERVATION PLAN APPROVAL

January 5, 2015

Lake Shore Park Association
c/o Alan Kirkman, Director
2600 Lakeshore Rd.
Gilford, NH 03249

RE: Gilford – Lake Shore Park (PWS ID #:0882150)
Water Conservation Plan, NHDES # 140004

Dear Mr. Kirkman:

On December 23, 2014, the New Hampshire Department of Environmental Services (“DES”) Drinking Water and Groundwater Bureau received a Water Conservation Plan (the “WCP”), signed on December 23, 2014, for Lakeshore Park located in Gilford, 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 Gilford 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:

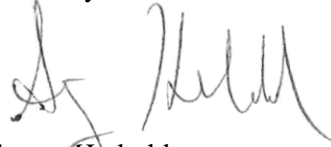
1. No later than source activation, all source meters, distribution meters, meters measuring water consuming processes, and any transfer meters and data loggers shall be installed.
2. No later than the source activation date, source meters, distribution meters, and any other meters measuring water consuming process prior to distribution shall be read on a monthly basis - no sooner than 27 days and no later than 33 days from the last meter reading.
3. Upon source activation, all meters shall be tested and maintained based on the schedule proposed in the WCP.
4. All meters shall be installed per the manufacturer’s instructions or American Water Works Association standards.
5. The system shall continue to report monthly source production volumes to the NHDES Water Use Registration and Reporting program on a quarterly basis.
6. Upon final source approval, every two years a comprehensive leak detection survey shall be completed in accordance with “Manual of Water Supply Practices, Water Audits and Loss Control Programs”, document identification number AWWA M36, American Water Works Association, 2009.

7. Leaks shall be repaired within 60 days of discovery.
8. No later than a year after final source approval, an outreach and education program shall be implemented as proposed in the WCP – water efficiency materials shall be issued to residents twice a year.
9. 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 GPS located and maintained in a GIS system.
10. 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. Leak detection survey reports.
11. Revisions to the Plan shall not be implemented without further approval from DES.

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, 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: Dan Riley, Lake Shore Park
Board of Selectman, Town of Gilford
Lakes Region Planning Commission
Christine Bowman, NHDES
Steve Roy, NHDES

**Water Conservation Plan
For Small Community Water
System of Lakeshore Park
Association, Gilford, NH 03249
November 2014**

Project Name: Lakeshore Park Association
Well # 006

Town: Gilford, New Hampshire

EPA ID # 0882150

Section 1.0 General Information

Well Siting:

Has a preliminary Well Siting report been submitted to the Department? (If your answer is NO, Please contact the Department at 603-271-2947 before you proceed further.)

Yes No

1.1 Project Contacts/ System Ownership

1.1a Project Contact:

Name: (LSP) Dan Riley
Address: 2600 Lakeshore Rd, Gilford, NH 03249
Company: Lakeshore Park Association
Phone Number: 603-331-2390

1.1b Project Owner

Name: Lakeshore Park Association
Director: Alan Kirkman
Address: 2600 Lakeshore Rd, Gilford, NH 03249
Company: Lakeshore Park Association
Phone Number: 603-293-7771

1.1c Person responsible for completing the activities outlined in this plan:

Name: (LSP) Dan Riley
Address: 2600 Lakeshore Rd, Gilford, NH
Company: Lakeshore Park Association
Phone Number: 603-331-2390

Section 2.0 System Overview

2.2b Reason for New Source

We currently have 3 bedrock wells located on our property. Our production of our Wells have been reducing steadily and we were getting critical meeting our demands during the Summer Holiday season. Earlier this year we fracked # 004 Well to help in increasing our well production. After fracking our Well, we realized that the Well

next to it, which is about 30'ft away was impacted. The water from Well #003 went to Well #004 due to it being deeper in the bedrock. At this point we can only use 2 Wells. The Well #006 that was installed in 2005, will be a replacement for Well #003. Yes, we will be abandoning Well # 003.

2.2c Connections

Residential- 310 connections for cottages and homes
No customers receiving more than 20,000 GPD are currently, or expected to be connected.

Section 2.3 Water use Trends and supporting data/population

2.3a Existing, if applicable, and anticipated seasonal fluctuation in the water use and reason for fluctuation:

The population in the park in the summer time during the Holidays increases.

The anticipated growth in population throughout the years has increased, both for the summer and winter.

The maximum day yield of existing sources is approximately 42,000 GPD based on 24 hour pumping. The average daily water use in the summer is 35,000 GPD. The maximum daily water use is 58,000 GPD. The minimum hourly flows is approximately 17 GPH.

2.3b Name designation of each water Source.

Well # 003
Well # 004
Well # 005
Well # 006 (New to system), To replace Well #003

2.3c Meter make, model, size, flow range, and date of last calibration.

Well # 003- Sensus SR 11/2" 49040884, 11/2-100gpm- 10/30/14
Well # 004- Sensus SR 11/2" 49040885, 11/2-100gpm- 10/30/14
Well # 005- Sensus SR 11/2" 44940536, 11/2-100gpm- 10/30/14
Well # 006- Rockwell TTR SR 2" 2-160gpm- 10/30/14

2.3d Frequency that source meters will be tested/calibrated.

All source meters have been calibrated on 10/30/14. Thereafter, we will calibrate every 4 years.

2.3e Frequency that source meters will be read.

All source meters are read daily.

2.3f Meter Selection and Installation

- A. All proposed meters to be installed will meet AWWA meter standards.
- B. The selected size of the meters will be based on projected flow rates.
- C. 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 DES water Conservation program for review. The meter will not be installed until receiving approval for its use from DES.
- 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).

Section 2.4 System side Management

To conduct a comprehensive leak detection survey of the system every 2 years.
(Option B).

2.4a Every fall we do an extensive leak detection plan to listen to all resident curb Stops and record these findings with further evaluation if needed.

2.4b Summary of findings for the most recent leak detection surveys including the following:

- A. Years conducted
2012-present
- B. Number of leaks found.
3
- C. Estimated losses recovered.
5GPM

- D. Percent of system surveyed.
98%
- E. Are pipe locations known?
We have maps of pipe locations
- F. Breakdown of pipe material, age, and length.
PVC 4" 1980's and 6750' ft of pipe
PVC 2" 1980's and 7650' ft of pipe
- G. Availability of contact points and adequacy of spacing.
Valves on main are used for contact and spacing is adequate.
- H. Is pipe material non-metallic? If yes, as leaks are difficult to acoustically detect in non-metallic systems, what additional measures will be taken to detect leaks.
Yes, We monitor our water consumption daily with the Dicksonware reader that lets us know of any spikes in the system.
- I. Will zone meters be installed to assist with leak detection identification and Location?
No
- J. Will future leak detection surveys be conducted in-house or contracted out?
Leak detection surveys will be conducted in-house
- K. If in-house, what equipment will be used and what training will be required?
Utilitronics headset. We attend to different classes yearly for leak detection.
- L. If in-house, describe the leak detection method used?
A visual look of area's around curb stops and valve boxes. We listen to all Of our curb stops in the fall. We monitor our water consumption daily to see if we have any spikes in the system and if found we isolate zones to identify the leak.
- M. Frequency of leak detection
A comprehensive leak detection survey will be conducted every 2 years.
Targeted leak detection will be done more frequently upon suspicion of leaks
In any specific area.
- N. Will leak detection be done all at one time or staggered throughout the two Years ? If staggered, what is the timeline and what percentage of the system will be surveyed during each initiative?
Leak detection is part of our daily routine. Water is very important to us and we strive to capture leaks at its intern state and immediately correct.

- O. Leak detection will be conducted in accordance with “ Manual of Water Supply Practices M36, Water audits and Loss Control programs” (American Water Works Association).
- P. Leaks will be repaired within 60 days of discovery unless a waiver is obtained
In accordance with Env-Wq 2101.09

2.4c Pressure management

- A. Existing minimum distribution pressure.
40 psi pressurized, 20 psi gravity
- B. Existing maximum distribution pressure
62 psi
- C. How is pressure currently monitored and how will pressure continue to be Monitored?
System pressure is set by the booster pumps and hydropneumatic tank system.
- D. What method will be used to reduce pressures in zones found to be in excess Of 80 psi?
None exists currently. The system balances the lows and highs.
- E. What will be the timeframe for reduction (at least within 1 year of source Water approval)?
Pressure reduction identified as necessary will be installed concurrently with new water mains and services.
- F. If pressure reduction is not technically feasible, please explain why and Describe what additional steps the water system will take to monitor and repair leakage within these zones?
It is assumed that pressure will be technically feasible where necessary.

2.4d Intentional water loss

- A. Are there “ Bleeders” used within the system at dead ends to improve water Quality or freeze-ups? If yes, what looping opportunities exist?
No, we do not rely on “Bleeders” to prevent freeze-ups or to improve water quality.
- B. Are storage tanks intentionally allowed to overflow because of system Hydraulics or water quality concerns?
No.

2.5 Consumption Side Management

A. Informational materials that will be used.

Water efficiency tips or fact sheets will be distributed to residents. Tips and fact sheets will be from the following sources:

NH Department of Environmental Services Water Efficiency Practice Fact Sheets

<http://des.nh.gov/organization/commissioner/pip/factsheets/dwgb/index.htm#efficiency> (scroll to bottom of page)

EPA WaterSense Program

http://www.epa.gov/watersense/or_water/learn_more.html

B. Rate of dissemination.

Twice a year as required. Tips or fact sheets will be included with the Consumer Confidence Report and Park newsletter.

C. Does the water system intend on becoming a water sense partner?

Yes

D. Will a rebate program be offered to replace fixtures with watersense certified Fixtures?

We offer information on different aids and helpful tips to save water.

E. Will customer audits be offered?

Yes, we encourage residents to contact us for any water issues.

F. Other outreach plans?

Yes, we are a community and we all understand the importance that water plays in our lives. We always stress to conserve and to notify us of any leaks that are evident in there area's.

2.6 Zoning Ordinance/Bylaws

A. Are connections to the water system subject to any of the following water Efficiency ordinances or bylaws?

a. Indoor- Water efficient fixtures beyond the existing plumbing code.

No

b. Landscaping- Minimum topsoil requirements.

No

c. Use of native/drought tolerant plants and grass.

Yes

B. Irrigation System

a. Prohibition or restrictions to irrigation systems
Yes

b. Require soil moisture sensors
No

c. Require rain sensors
No

C. Other water efficiency ordinances?
No

2.7 Water use Restrictions

A. What is the water system's plan relative to implementing water restrictions?
In case of an emergency due to power failure of higher than normal water demands.

B. Who is responsible for enforcing restrictions?
Park Director

2.8 Maintain logs, reporting and implementation

- A. The water system will report monthly source production volumes on a quarterly basis to the DES water use and registration program upon receiving a water use ID #.
- B. The water system will submit a form supplied by DES once every three years documenting how compliance with the requirements of Env-Wq 2101 is being achieved. The compliance report shall include information from the records referred to in B. – E., below
- C. The system will maintain a leak log indicating the date a leak is discovered, the date a leak (gpm), and the closest address of the leak.
- D. The system will maintain testing and calibration records for the water meters.
- E. The system will maintain records of the results of leak detection surveys.

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

2.9 Public notification of Water Conservation Plan

Within seven days of submitting the conservation plan to DES, Lakeshore Park Association will provide a copy of the application and report via Certified mail to:

- a. Town Of Gilford – Board of Selectman
- b. Lakes region Planning Commission

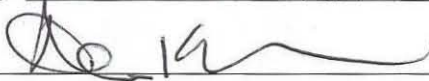
All signed copies of the certified mail return receipt (the green card) shall be forwarded to DES.

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-Wq2101 or to promote water efficiency.

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): Alan Kirkman

Owner Signature:  Date: 12/23/14