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WATER CONSERVATION PLAN

prepared pursuant to

Env-Ws 390, *Water Conservation Rules*

as required for a proposed

1.44 MGD Municipal Water Supply Well

North Conway Water Precinct

Conway, New Hampshire

November, 2006

North Conway Water Precinct Draft Water Conservation Plan

In accordance to NHDES Administrative Rule Env-Ws 390, *Water Conservation Rules*, effective May 13, 2005, the North Conway Water Precinct (NCWP) will conduct the following water conservation measures subsequent to approval of the proposed 1.44 MGD well (NCWP Well #6).

1) In accordance to Env-Ws 390.05 (b), the NCWP is 100% metered. These meters are installed on services that supply water to public sector customers and private sector customers. Water meters are installed on all sources of water to the NCWP. The size of the water meters is based on manufacturer specifications (Env-Ws 390.05 (c)).

2) The water meters were selected, installed and maintained as described in "Manual of Water Supply Practices, Water Meters-Selection, Installation, Testing and Maintenance", document identification number AWWA M6, 1999. (Env-Ws 390.05 (d)).

3) Meters to water service customers are read at least once ever 90 days. (Env-Ws 390.05 (e)). Meters on water supply sources are read at least once every 30 days (Env-Ws 390.05 (f)).

4) The NCWP will conduct a water audit and leak detection program within one year of obtaining approval for NCWP well #6. This water audit and leak detection program will be conducted as described in " Manual of Water Supply Practices, Water Audits and Leak Detection", document identification number AWWA M36, 1999 (Env-Ws 390.05 (g)).

5) The NCWP will repair all leaks found during the water audit and leak detection program within 60 days of their discovery. This requirement may be waived in accordance with Env-Ws 390.09. (Env-Ws 390.05 (h)).

6) The NCWP will estimate the volume and percentage of unaccounted-for water in the water system once every year using methods and procedures as described in AWWA manual M36, 1999, as referenced in task #4 above. (Env-Ws 390.05 (i))

7) If the water audit conducted in task #4 above indicates the percent of unaccounted-for water exceeds 15 % of the water introduced into the water system, then NCWP will prepare and submit a response plan to NHDES within 60 days of the completion of the water audit. This response plan will describe activities the NCWP will conduct to reduce the percentage of unaccounted-for water to below 15% within 2 years. Leaks repaired as part of task #5 will not be part of this response plan. (Env-Ws 390.05 (j & k))

8) Upon receipt of NHDES approval of the response plan, NCWP will conduct the activities outlined in the response plan following the approval schedule. (Env-Ws 390.05 (m))

9) The NCWP already has a pressure reduction system implemented in the water system that is consistent with water system industry standards and regulation and consistent with other public health and safety considerations. (Env-Ws 390.05 (n))

10) The NCWP has adopted a rate structure that promotes conservation within 5 years of NHDES approval of well #6. The rate structure is based on unit price of water and the quantity used by each water customer. The unit price of water for residential customers shall remain the same or increase with the volume of water consumed. (Env-Ws 390.05 (o))

11) The NCWP is performing water conservation educational outreach/initiative using information and materials available from NHDES. The NCWP will conduct public notification activities and outreach activities as required by Env-Ws 390.11. The NCWP will also conduct a water conservation educational outreach initiative for its customers upon obtaining approval for well # 6. (Env-Ws 390.05 (p)).

12) Activities outlined in this conservation plan will be completed by NCWP personnel under the direction of a water system operator that has been certified pursuant to Env-Ws 367. (Env-Ws 390.05 (q)).



Water Conservation Rules (Env-Ws 390)

Applicants applying for permits to develop new sources of water need to be aware that they are subject to new water conservation requirements required by RSA 485:61 which became law in July 2002. The law requires that the Department of Environmental Services (Department) adopt and administer water conservation rules for applicants developing the following type of new water sources:

1. New sources of groundwater for community water systems subject to RSA 485:3;
2. New sources of groundwater for bottled and bulk water operations subject to RSA 485:3;
3. New sources of groundwater that exceed 57,600 gallons over any 24-hour period subject to RSA 485-C; and
4. New sources of surface water associated with projects that require a water quality certification pursuant to Section 401 of the Federal Clean Water Act.

The Department met with an advisory committee consisting of representatives of municipalities, community water systems, environmental organizations, and business and industry to develop the water conservation rules. The rules were formally adopted by the Department in May 2005.

A general summary of the requirements of the water conservation rules is provided below.

Requirements for All Large Community Water Systems and All New Small Community Water Systems Developing New Sources of Water

1. Install and maintain meters for all water withdrawals and service connections.
2. Implement a water audit, leak detection and leak repair program in accordance with the "Manual of Water Supply Practices, Water Audits and Leak Detection", document identification number AWWA M36, American Water Works Association, 1999.
3. When applicable, development and implementation of response plans to reduce unaccounted for water to less than 15%.
4. Implement a rate structure that encourages efficient water use.
5. Implement a water conservation educational outreach initiative.

**Requirements for Existing Small Community Water Systems
Developing New Sources of Water**

1. Either: a) Install source and service connection meters and implement a water audit, leak detection and leak repair program in accordance with the "Manual of Water Supply Practices, Water Audits and Leak Detection", document identification number AWWA M36, American Water Works Association, 1999; or b) Complete a system-wide leak detection once every two years.
2. Repair all leaks within 60 days of identification.
3. Implement a water conservation educational outreach initiative.

**Requirements for Applicants Developing New Sources of Water for Industrial,
Commercial, or Institutional Water Uses**

1. Install water meters for all water sources.
2. Retrofit or replace single pass water-cooling systems when feasible based upon an economic analysis that includes a four-year payback period.
3. Install controls to stop the overflow or discharge of water to waste when feasible based upon an economic analysis that includes a four-year payback period.
4. Identify water conservation best management practices or best available technologies that may be applicable to the types of water-using processes at the subject facility, and implement these measures when feasible based upon an economic analysis that includes a four-year payback period.
5. For all new lawn areas, install six (6) inches of loam and devices to shut-off automatic irrigation systems when not needed.

For more information about the water conservation rules, contact Brandon Kerncn at 271-0660 or bkerncn@des.state.nh.us.