

**ATTORNEY GENERAL
DEPARTMENT OF JUSTICE**

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May 31, 2007

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Dear Attorney Pollack:

The New Hampshire Department of Environmental Services ("DES") has asked me to respond to your November 17, 2006, letter to Brandon Kernen of DES. In your letter, you explained that your client, Pruven Aggregates, Inc. ("Pruven"), currently withdraws water from the Bellamy River for its sand and gravel excavation operation, and is considering using the existing intake to extract up to 150,000 additional gallons per day, treat the water, and sell it in bulk for use as a source of bottled water. You sought an "agency opinion" summarizing the regulatory requirements for permitting a new source of bottled water, where the source of the water is surface water rather than groundwater. The criteria for assessing and addressing water quality and water resource impact issues are briefly described below; however, for a full understanding of these standards, you should perform your own review of the applicable statutes and rules. The purpose of this letter is to provide general guidance, but DES reserves the right to require any testing, reports, information or other material as may be appropriate in response to a filed application.

As you note in your letter, DES is responsible for approving new sources used in the manufacture of bottled water. See RSA 485:1, II(g), RSA 485:3, XI and RSA 143:16. DES has adopted rules, N.H. Code of Admin. R. Env-Ws 389, for permitting new sources of water for the manufacture of bottled water ("Bottled Water Rules"). Although the rules are entitled "GROUNDWATER SOURCES OF BOTTLED WATER," it is clear the authorizing statutes that the rules are intended to apply to all sources used for the manufacture of bottled water. RSA 485:1, II(g), RSA 485:3, XI and RSA 143:16. The Bottled Water Rules focus on drinking water quality standards and ensuring that new groundwater withdrawals do not adversely impact the environment. Under these rules, an applicant must assess the quality of a proposed source of bottled water as well as the interaction of a proposed withdrawal with water resources. Consistent with the objective of RSA 485:3 and Env-Ws 389, DES would require that Pruven assess and address water

quality and water resource impacts before the agency approves a new surface water source of bottled water.

Source Water Protection

The Bottled Water Rules require an applicant for a bottled water permit to complete a source water protection assessment to identify potential contamination sources and ensure that there are no uncontrolled sources of contamination that may impact the quality of the water source. Env-Ws 389.20. To identify existing or potential contamination sources, an engineer or geologist would need to delineate the watershed contributing water to the Bellamy River above the intake at the Pruven facility. Utilizing DES and municipal records, Pruven would need to obtain an inventory of potential contamination sources for the delineated watershed, then review soil and topographic maps to determine if any potential contamination sources could quickly be transported to the river via steep topographic gradients or transmissive soils. The company would need to identify existing land uses, significant recreational uses of land and river water, zoning and other land use regulations, any proposed major developments, earth removal activities and nonpoint contamination sources located within the delineated watershed. After obtaining this information, Pruven would need to complete an on-the-ground survey of the delineated watershed to verify the accuracy and completeness of the data.

Water Quality and Surface Water Treatment Requirements

Under the Bottled Water Rules, all bottled water produced in New Hampshire must meet the drinking water quality standards specified in Env-Ws 310-316 and He-P 2100. In addition, any surface water source of drinking water must also meet the surface water quality and treatment standards of Env-Ws 380, which require a combination of filtration and disinfection that inactivates or removes:

- 99% of *Cryptosporidium* oocysts
- 99.9% of *Giardia Lamblia* cysts
- 99.99% of viruses.

Some of the removal/inactivation requirements for *Giardia Lamblia* must be met through disinfection, to maintain a redundant barrier to pathogens. For filtration methods other than conventional, direct, slow sand, or diatomaceous earth filtration, the removal capability of a proposed filtration system must be demonstrated through a pilot study approved by DES. A pilot study is highly recommended in any case, to demonstrate that a given treatment technology will successfully treat the water source under consideration.

For most treatment technologies, the DES permit will require monitoring including, at a minimum, continuous measurement of both turbidity, following filtration, and chlorine residual following a pre-determined contact period, as well as monthly reporting of daily treatment performance including chlorine residual and filtered water turbidity.

Water Conservation Requirements

In accordance with RSA 485:61, the bulk withdrawal of water for bottling purposes will be subject to the DES water conservation rules, Env-Ws 390. These rules require that cost-effective water conservation measures be implemented at facilities utilizing new sources of water for manufacturing bottled water. For a bulk water production and transfer facility, water efficiency practices pertaining to the water treatment process (reject or backwash water), leak detection, tank overflows, facility sanitation, and landscaping are likely to be areas where water use efficiency can be optimized.

Surface Water Quality and Quantity Impacts

You have indicated in conversations with DES that the proposed Pruven operation will not disturb any wetlands or implement any new activity in or on the banks of surface water bodies. Any new activity that impacted wetlands or surface water bodies would require that DES issue a wetlands permit under RSA 482-A:3 and, if federal permitting by the Army Corps of Engineers is triggered, a Clean Water Act § 401 Water Quality Certificate. Under the § 401 Water Quality Certificate review process, the impact of the existing and additional withdrawal of water from the Bellamy River would be assessed relative to seasonal low flows to determine if any designated uses of the river are being adversely impacted.

The clear intent of the New Hampshire statutes governing withdrawals for the manufacture of bottled water is to ensure that new sources of bottled water meet water quality standards and do not adversely impact water resources. In addition, as a matter of common law, the State owns surface waters including the Bellamy River and holds these rivers in trust for the benefit of the public. Accordingly, DES will require Pruven to assess the impact of the proposed withdrawal of water on the designated uses of the Bellamy River, and to demonstrate that the proposed withdrawals will not cause the affected section of the River (specifically, the area between the Bellamy Reservoir and where the tidal portion of the river begins) to violate state surface water quality standards, Env-Ws 1700.

A 2002 report prepared for the Madbury Water Commissioners assessed the water budget for the Bellamy River, and found that municipal water supply needs in the river approach estimated flow in the river during the summer months. See <http://lefh.net/madbury/BellamyWaterBudgetToM.pdf>. If this report is accurate, the Bellamy River may already have surface water quality violations during low-flow periods. It should be noted that the 2002 report did not account for: 1) The existing withdrawals at Pruven (300k-500k gallons per day); 2) Proposed withdrawals by Pruven for the manufacture of bottled water; 3) The withdrawals from a new well owned by the City of Dover located near the Bellamy Reservoir; 4) Increased withdrawals that will be required for future water supply needs by the City of Dover and Portsmouth; and 5) Impacts to river flow if the City of Portsmouth raises the elevation of the dam for the

Bellamy Reservoir, which has at least historically been considered. If impaired flow conditions are present, then Pruven will need to develop a management plan in cooperation with other water users in the watershed to ensure surface water quality standards are met.¹

Water Use Registration and Reporting Requirements

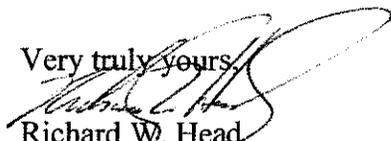
As stated in your letter dated November 17, 2006, if Pruven begins extracting water from the Bellamy River for the purpose of manufacturing bottled water, the company will need to register and report water usage in accordance with RSA 488 and the rules that will be adopted later this year.

Department of Health and Human Service - Beverage and Bottled Water Licensing

The Department of Health and Human Services (HHS) is responsible for the regulation of food safety, including bottled water and beverages. As part of their beverage and bottled water regulations (He-P 2100), bottled water manufacturers must classify the water based on the source of the water. However, He-P 2100 has no provisions for surface water sources unless the source is approved as a community or municipal source and the bottled water is labeled as such. We encourage Pruven to coordinate with HHS to determine how the water it will produce will be classified and labeled. Also, Pruven should coordinate with HHS to verify that it will be able to comply with all aspects of the beverage and bottled water regulations it administers.

I hope this information is helpful. If you have further questions, please do not hesitate to contact me.

Very truly yours,



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David Allen, City of Portsmouth
Water Commission - Town of Madbury

¹ The 1959 letter from the Army Corps of Engineers to Mr. Proulx, attached to your letter, does not demonstrate that the Bellamy River meets current surface water quality standards, including the seasonal flow requirements to support the ecological needs of the river. Water use in the reservoir and watershed has changed since 1959, so a current analysis of compliance with surface water quality rules is necessary. Further, the City of Portsmouth, not the Army Corps, presently owns and operates the Bellamy Reservoir.