

**RESPONSE TO COMMENTS
ISSUANCE OF NPDES PERMIT NO. NH0100382
HINSDALE WASTEWATER TREATMENT PLANT
HINSDALE, NEW HAMPSHIRE**

The U.S. Environmental Protection Agency (EPA) and the New Hampshire Department of Environmental Services, Water Division (NHDES-WD) solicited public comments from August 17, 2007 through September 15, 2007, on the draft National Pollutant Discharge Elimination System (NPDES) permit to be issued to the Town of Hinsdale, New Hampshire. This permit authorizes the discharge of treated effluent into the Ashuelot River.

During the public comment period, the National Marine Fisheries Service and the Ashuelot River Local Advisory Committee submitted comments on the draft permit. Following is a response to these comments, including identification and explanation of changes made to the draft permit.

These responses and associated comments complement the fact sheet and the draft permit. The fact sheet was prepared to support the draft permit. The "Response To Comments" is a response to each significant written comment received by EPA. The reader will need to be familiar with the draft permit and fact sheet, the applicable federal NPDES permit regulations, and the State of New Hampshire's surface water quality standards regulations and State Statutes to understand the responses and associated comments. The New Hampshire water quality standards establish designated uses for the State's waters and contain narrative and numeric criteria to protect such uses - see 50 RSA § 485-A:8 and the N.H. Code of Administrative Rules, Env-Ws 1700-1709 (December 1999).

The original comments form a part of the NPDES Permit file and are summarized and condensed in this document.

National Marine Fisheries Service

COMMENT NO 1: The Protected Resources Division (PRD) of the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) provided these comments in response to the public notice of the draft NPDES permit for the Hinsdale Wastewater Treatment Facility in Hinsdale, New Hampshire (Public Notice NH-20-07 dated August 17, 2007). The commenter notes the receiving water for the Hinsdale Wastewater Treatment Facility is the Ashuelot River. While several species of listed whales and sea turtles occur in water off the New Hampshire coast, no listed species are known to occur in the Ashuelot River. As such, no further coordination with NMFS, PFD is necessary.

RESPONSE NO. 1: EPA acknowledges receipt of these comments submitted by the National Marine Fisheries Service, Protected Resources Division in a letter dated August 20, 2007. These comments and the original letter are filed in the administrative record for this final permit in NPDES permit file NH0100382. During the development of this draft permit for public notice, EPA did not seek coordination with the NMFS because listed species under NMFS's jurisdiction were not present in the vicinity of the Hinsdale discharge.

Ashuelot River Local Advisory Committee

COMMENT NO. 1: The Ashuelot River Local Advisory Committee (ARLAC) has reviewed the draft permit and supporting materials for the Hinsdale Wastewater Treatment Plant (WWTP). Of greatest concern is the lack of any provisions for phosphorus monitoring in the permit. ARLAC has been monitoring the water quality, including phosphorus, of the Ashuelot River for six years at a location (see enclosed map) downstream from the Hinsdale WWTP. The following Hinsdale phosphorus levels, in mg/l, are the monitoring data at this location. One phosphorus value is available for 2007.

<u>Year</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>
2002	0.025	0.027	0.045	0.236	0.143
2003	0.023	0.045	0.068	0.046	0.041
2004	0.033	0.039	0.059	0.045	0.050
2005	0.055	0.046	0.044	0.029	0.057
2006	0.030	0.039	0.025	0.038	0.044
2007			0.043		

We understand that USEPA uses the Gold Book criterion for phosphorus of 0.1 mg/l; however, the levels shown here frequently approach and sometimes exceed the New Hampshire Department of Environmental Services (NHDES) "*Level of Concern*" of 0.05 mg/l. This should warrant at least a requirement for monitoring phosphorus levels in the Hinsdale WWTP effluent, if not for setting a discharge limit.

RESPONSE NO. 1: EPA appreciates ARLAC's interest in the water quality of the Ashuelot River and the submission of the phosphorus monitoring data. These data are collected at a location approximately 500 feet downstream from the Hinsdale WWTP according to the location map (portion of the US Geological Survey, 1984, topographic quadrangle map, Winchester, New Hampshire – Vermont) submitted by the commenter.

The New Hampshire 2006 §303(d) list of impaired waters identifies surface waters which do not currently meet state water quality standards. Segments of the Ashuelot River near Hinsdale have been identified as violating water quality standards for aluminum, pH, and *Escherichia coli*, but are not listed for nutrients or nutrient-related impacts such as low dissolved oxygen (D.O.). EPA also did not have water quality information for this segment indicating such impairments. The ARLAC data, which we did not have when drafting the permit, shows that instream phosphorus concentrations have exceeded the Gold Book-recommended value and the NHDES "level of concern," with the highest values occurring during the months of August and September (2002) when streamflows would have been typically low.

The New Hampshire Surface Water Quality Regulations do not include a numeric criterion for phosphorus; when interpreting the State's narrative water quality criteria, EPA looks primarily to EPA technical support documents and peer-reviewed scientific literature as opposed to the NHDES level of concern. When determining whether a discharge has the reasonable potential to violate the nutrient-related water quality standards, EPA uses available effluent and receiving

water data. In this case, EPA has extremely limited data to make this analysis, and so is not including a phosphorus effluent limit at this time. The instream concentrations downstream of Hinsdale do support the need for effluent phosphorus monitoring of the Hinsdale discharge to better understand its contribution to instream concentrations. The final permit requires monthly monitoring of total phosphorus during the months of April through October.

EPA recently issued final permits to the upstream communities of Keene and Swanzev, which included effluent limitations for total phosphorus. The segment of the Ashuelot River receiving the Keene discharge was listed for a D.O. impairment, and large amounts of data were collected from the Keene and Swanzev treatment plants, and from the Ashuelot River at a number of locations from upstream of Keene to downstream of Swanzev. Based on these data, EPA was able to determine that the receiving water was violating water quality standards due to phosphorus discharged from the treatment plants and to establish limits for the discharges. Reduction of phosphorus discharged from the Keene and Swanzev discharges should result in a reduced concentration upstream of the Hinsdale discharge.

The phosphorus data to be collected by Hinsdale, coupled with any further instream monitoring collected during the term of the permit, will be used to help inform a future permit decision concerning the need to limit the discharge of phosphorus from the Hinsdale wastewater treatment plant. If such new information shows that Hinsdale's discharge of phosphorus has the reasonable potential to cause or contribute to violations of water quality standards, the permit may be reopened and modified to include such a limit.

September 28, 2007