

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I - NEW ENGLAND  
OFFICE OF ECOSYSTEM PROTECTION  
ONE CONGRESS STREET  
BOSTON, MASSACHUSETTS 02114-2023

**FACT SHEET**

**DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES**

**DATE OF PUBLIC NOTICE:** 9/25/03

**NPDES PERMIT NO.:** MA0000132

**NAME AND ADDRESS OF APPLICANT:**

Ashland Sand and Stone Company, Inc.  
Division of H.A. Fafard & Sons Construction Inc.  
290 Eliot Street  
Ashland, MA 01721

**NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:**

Ashland Sand and Stone Company, Inc.  
Division of H.A. Fafard & Sons Construction Inc.  
Chestnut Street  
Ashland, MA 01721

**RECEIVING WATERS:** Cold Spring Brook to Sudbury River (Concord River Basin - 82)

**CLASSIFICATION:** B

**I. Proposed Action, Type of Facility, and Discharge Location.**

The above named applicant has requested that the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MADEP) reissue the NPDES permit to discharge into the designated receiving water. The facility produces treated wastewater from washed sand, stone and gravel aggregates and discharges through the outfall number 001. For location of the facility see Attachment A.

## **II. Description of Discharge.**

Recent plant effluent monitoring data are summarized in Fact Sheet Table 1. This data were extracted from the Discharge Monitoring Reports (DMRs) submitted to EPA by the permittee.

## **III. Limitations and Conditions.**

The effluent limitations of the draft permit, the monitoring requirements, and implementation schedule (if required) may be found in the draft NPDES permit.

## **IV. Facility Preamble.**

### **Company Description**

Unsorted sand/gravel/stone is fed into the screen and wash, where stone and sand products are separated. Approximately 400,000 gpd (average) wastewater is generated from washing sand, stone and gravel aggregates. The treatment of wash water is provided by 3 settling tanks. Discharge from the settling tanks flows by gravity through 3 earthen settling ponds, separated by stone filters. Discharge from the last settling pond (third pond) flows through drainage swales and a 24 inch culvert to Cold Spring Brook to Sudbury River (see Attachment B). A review of Discharge Monitoring Reports (DMRs) for 19 months from 12/99 to 8/02 reveals that there were no discharge reported from 12/99 to 6/02. The permittee failed to submit the DMRs during this period of operation. The only discharges which were reported were during the months of July and August of 2002. The operation of this facility is intermittent, averaging approximately 3 months per year.

On March 20, 2003, a site visit was performed by EPA. During this visit it was revealed that a discharge occurs from the facility during months when the washing operation is shut down. The discharge during the non operational periods is through the joints of the stone filters, to an open trench to Cold Spring Brook through outfall 001. The flow during the non operational period is simply leakage from the settling ponds. At the present time, the permittee monitors at a frequency of once per month only during periods when the washing operation is in use. This monitoring requirement will continue in the draft permit, but in addition, the draft permit requires monitoring once every two months during periods when the washing operation is not in use.

### **Watershed Initiative**

The facility is in the Concord watershed basin. The MADEP began concentrating efforts to reissue NPDES permits within this watershed during the Calendar Year 2000. To preserve the watershed approach strategy, and its five year cycle, MADEP requested that this permit expire in Calendar Year 2008. This permit, after it becomes effective, will expire in 2008, consistent with the Massachusetts Watershed Initiative cycle.

## **V. Permit Basis and Explanation of Effluent Limitation Derivation.**

The Clean Water Act (CWA) requires that the effluent of point source discharges satisfy minimum technology and water quality requirements. Section 301(b)(2)(A) and (E) of the CWA

provided that by July 1, 1984, industry must have met limitations based on Best Available Technology Economically Achievable (BAT) for toxic pollutants and Best Conventional Pollutant Control Technology (BCT) for conventional pollutants (BOD, TSS, pH, Oil & Grease and Fecal Coliform). Section 301(b)(1)(C) of the CWA requires that effluent limitations based on water quality considerations be established for point source discharges when such limitations are necessary to meet state or federal water quality standards that are applicable to the designated receiving water. This is necessary when technology based limitations would interfere with the attainment or maintenance of water quality in the receiving water. In the absence of technology-based guidelines, EPA is authorized to use Best Professional Judgement (BPJ) to establish effluent limitations, in accordance with Section 402(a)(1) of the CWA..

Under Section 301(b)(1)(C) of the CWA and EPA regulations, NPDES permits must contain effluent limits more stringent than technology-based limits where more stringent limits are necessary to maintain or achieve state or federal water quality standards.

On July 12, 1977 EPA promulgated effluent limitation guidelines (ELGs) for the Mineral Mining and Processing Point Source Category, 40 CFR Part 436. Subpart C of the ELGs, the Construction Sand and Gravel Subcategory, apply to the operations at this site. The promulgated ELGs contained limitations on the discharge of pH (6-9 standard units), and TSS. (30 day average of 25 mg/l and a maximum day discharge of 45 mg/l). However, on June 18, 1979 the TSS limitations were remanded to EPA for reconsideration and have not been re-proposed. The current ELGs therefore only contain discharge limitations for pH , at 6 - 9 standard units.

Water quality standards consist of three parts: (1) beneficial designated uses for a water-body or a segment of a water-body; (2) numeric and/or narrative water quality criteria sufficient to protect the assigned designated use(s); and (3) anti-degradation requirements to ensure that once a use is attained it will not be degraded. The Massachusetts Surface Water Quality Standards, found at 314 CMR 4.00, include these elements. The state will limit or prohibit discharges of pollutants to surface waters to assure that surface water quality standards of the receiving waters are protected and maintained or attained. These standards also include requirements for the regulation and control of toxic constituents and require that EPA criteria, established pursuant to Section 304(a) of the CWA, shall be used unless a site specific criteria is established.

Cold Spring Brook, which is the receiving water for the facility's discharge, has been designated as a Class B water in the Massachusetts Surface Water Quality Standards. The permit must limit any pollutant or pollutant parameter (conventional, non-conventional, toxic, and whole effluent toxicity) that is or may be discharged at a level that causes or has the "reasonable potential" to cause or contribute to an excursion above any water quality standard (40 CFR §122.44(d)). An excursion occurs if the projected or actual in-stream concentration exceeds an applicable water quality criterion. In determining "reasonable potential", EPA considers: (1) existing controls on point and non-point sources of pollution; (2) pollutant concentration and variability in the effluent and receiving water as determined from the permit's application, and State and Federal Water Quality Reports; (3) sensitivity of the indicator species used in toxicity testing; (4) known water quality impacts of processes on waste waters; and (5) where appropriate, dilution of the effluent in the receiving water.

## **Water Quality Standards and Designated Uses**

Cold Spring Brook has been classified as Class B under the Massachusetts Surface Water Quality Standards. Title 314 Code of Massachusetts Regulations ("CMR") 4.05(3)(b) states that Class B waters have the following designated uses: *These waters are designated as a habitat for fish, other aquatic life and wildlife, and suitable for primary and secondary contact recreation. These waters shall have consistently good aesthetic value. Where designated, they shall be suitable as a source of public water supply with appropriate treatment.*

### **State Certification**

Under Section 401 of the CWA, EPA is required to obtain certification from the state in which the discharge is located which determines that all water quality standards, in accordance with Section 301(b)(1)(C) of the CWA, will be satisfied. Regulations governing state certification are set forth in 40 CFR §124.53 and §124.55. EPA regulations pertaining to permit limits based upon water quality standards and state requirements are contained in 40 CFR §122.44(d).

### **Effluent Limit Derivation**

From a review of the permit application and the process, pollutants anticipated in the discharge include total suspended solids (TSS), pH, oil and grease and temperature. The requirements of effluent monitoring and limits are described below :

**Flow :** The existing average monthly and maximum daily flows of 0.4 mgd and 0.65 mgd respectively will continue in the draft permit.

**TSS :** As discussed previously, there is no ELG for TSS. However, based on the Best Professional Judgement (BPJ) determination, limits for similar discharges in Massachusetts varies between 20 mg/l to 25 mg/l for monthly average and 40 mg/l to 45 mg/l maximum daily. Limitations of 20 mg/l monthly average and 45 mg/l maximum daily, which are the same limits as in the current permit, are established by EPA and MADEP, based on BPJ and consistent with anti-backsliding requirements. We expect that these limitations are adequate to achieve state water quality standards and that the state will certify the permit.

**pH :** The pH range of the effluent is limited to 6.5 to 8.3 standard units, based on Massachusetts Water Quality Standards for Class B streams and state certification requirements.

**Oil and Grease :** This is a new requirement in the draft permit. The maximum daily limit for oil and grease is 15 mg/l based on Massachusetts Water Quality Standards for Class B streams and state certification requirements .

**Temperature :** The existing maximum daily temperature of 74 °F will continue in the draft permit.

EPA has determined that these limitations satisfy the technology and water quality requirements of the CWA mentioned above.

The effluent monitoring requirements have been established to yield data representative of the discharge by authority of §Section 308 (a) of the CWA in accordance with 40 CFR 122.41(j), 122.44, and 122.48.

## **Unauthorized Discharges**

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from outfall 001. Discharges of wastewater from any other point source are not authorized under this permit, but shall be reported in accordance with Part II.B.4 (Bypass) of this permit.

## **VI. Essential Fish Habitat.**

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq.(1998)), EPA is required to consult with the National Marine Fisheries Service (NMFS) if EPA's action or proposed actions that it funds, permits, or undertakes, "may adversely impact any essential fish habitat." 16 U.S.C. § 1855(b). The Amendments broadly define "essential fish habitat" (EFH) as: "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. 16 U.S.C. § 1802(10). Adversely impact means any impact which reduces the quality and/or quantity of EFH. 50 C.F.R. § 600.910(a). Adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey, reduction in species' fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. Id.

Essential fish habitat is only designated for fish species for which federal Fisheries Management Plans exist. 16 U.S.C. § 1855(b)(1)(A). EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999.

Based on the permit requirements and limitations identified in the draft permit and fact sheet that are designed to be protective of aquatic species, EPA has concluded that formal consultation with NMFS is not required because this authorized discharge is not likely to adversely affect federally managed species, their forage, or their habitat. If adverse effects do occur as a result of this permit action, or if new information becomes available that changes the basis for this conclusion, then NMFS will be notified and consultation promptly initiated.

## **VII. Anti-degradation.**

The Massachusetts Anti-degradation Policy is found at Title 314 CMR 4.04. All existing uses of Cold Spring Brook must be protected. There are no change in the process and outfall location from the existing permit. MADEP has determined that there will be no significant adverse impacts to the receiving waters and no loss of existing uses as a result of the discharge from this permit.

The remaining general and special conditions of the permit are based on the NPDES regulations, 40 CFR Parts 122 through 125, and consist primarily of management requirements common to all permits.

## **VIII. State Certification Requirements.**

EPA may not issue a permit in the Commonwealth of Massachusetts unless the Massachusetts Department of Environmental Protection (MADEP) certifies that the effluent limitations contained in the permit are stringent enough to assure that the discharge will not cause the receiving water to violate State Water Quality Standards. The staff of the MA DEP has reviewed the draft permit. EPA has requested permit certification by the state pursuant to 40 CFR 124.53 and expects that the draft permit will be certified.

## **IX. Comment Period, Hearing Requests, and Procedures for Final Decisions.**

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to Suprokash Sarker, the U.S. EPA, One Congress Street, Suite 1100, Mail Code CPE, Boston, Massachusetts 02114-2023 and Paul Hogan, Department of Environmental Protection, Division of Watershed Management, 627 Main Street, 2<sup>nd</sup> Floor, Worcester, MA 01608. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit, the Regional Administrator will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Regional Administrator of EPA and the Director of DEP/DWM will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice.

## **X. EPA Contact.**

Additional information concerning the draft permit may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays from:

Suprokash Sarker  
US Environmental Protection Agency  
One Congress Street  
Suite 1100 (CPE)  
Boston, Massachusetts 02114-2023  
Telephone: 617-918-1693  
fax: 617-918-1505  
e-mail: sarker.soupy@epa.gov

9/25/03

Linda M. Murphy, Director\*  
Office of Ecosystem Protection  
U.S. Environmental Protection Agency

\* Comments should be addressed to both Suprokash Sarker and Paul Hogan, not Linda M. Murphy.

**TABLE 1**

Date Temp. (°F)	Flow (mgd)		TSS (mg/l)		pH (s.u) Limit 6.5-8.3
	Monthly Ave. Limit 0.4	Max. Daily Limit 0.65	Monthly Ave. Limit 20	Max. Daily Limit 45	
12/99 to 6/02	NO DISCHARGE				
7/02 70	0.35	0.60	ND	ND	6.7 - 6.8
8/02 68	0.35	0.60	5.2	38	6.6 - 6.7