

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND - REGION I  
ONE CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

**FACT SHEET**

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES PURSUANT TO THE  
CLEAN WATER ACT (CWA)

NPDES PERMIT NUMBER: **MA0040177**

NAME AND MAILING ADDRESS OF APPLICANT:

**Brox Industries Inc.  
1471 Methuen Street  
Dracut, MA 01826**

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**Brox Industries Inc.  
1480 Methuen Street  
Dracut, MA 01826**

RECEIVING WATER(S): **wetland system adjacent to the Merrimack River and its  
tributaries (MA84A-03)**

RECEIVING WATER CLASSIFICATION(S): **B**

SIC CODE: **1429 Crushed and Broken Stone (not elsewhere classified)  
2951 Asphalt Paving Mixtures and Blocks**

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

The above named applicant has applied to the U.S. Environmental Protection Agency (EPA) for re-issuance of a National Pollutant Discharge Elimination System (NPDES) permit to discharge treated storm water and process generated waste water into the designated receiving water. The current permit was signed September 3, 2003 and became effective thirty (30) days later. This permit expired September 30, 2006. EPA received a completed permit renewal application from Brox Industries, Inc. dated March 21, 2006. Since the permit renewal application was deemed complete and timely by EPA, the permit has been administratively continued.

The Brox Industries facility, located at 1480 Methuen Street in Dracut, Massachusetts, manufactures bituminous concrete from crushed stone and recycled material. The NPDES discharge from this facility consists of storm water and process generated waste water through Outfall 003 (also referred to as DSN-003). For the location of the facility and discharge see Attachment A.

On June 2, 2000 the facility received coverage under the Multi-Sector General Permit for Industrial Activities (MSGP) number MAR05B561. This permit authorized the discharge of storm water and mine de-watering through outfall 003 as well as three other outfalls. On March 19, 2002 the permittee applied for coverage under an individual NPDES permit in order to include the discharge of aggregate wash water through outfall 003. Upon issuance of the individual permit, the authorization to discharge storm water and mine dewatering under the MSGP was terminated. The other three outfalls, previously covered under the MSGP, are no longer in operation.

## **II. Description of Discharge**

A quantitative description of the effluent parameters based on recent discharge monitoring reports (DMRs) is shown on Attachment B of this fact sheet.

## **III. Receiving Water Description**

The facility discharges through Outfall 003 to a wetland system that is adjacent to the Merrimack River Segment, MA84A-03, and to streams that are tributary to the Merrimack River. The wetland system and tributaries are classified as Class B pursuant to §§ 4.06(2)(a) and (b) of the Massachusetts surface water quality standards (314 Code of Massachusetts Regulations (“CMR”) §§ 4.06(2)(a) and (b). Section 4.05(3)(b) of the water quality standards 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.* The narrative and numeric criteria that apply to the wetland system are those that apply to Class B waters.

#### **IV. Limitations and Conditions**

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

#### **V. Permit Basis: Statutory and Regulatory Authority**

The Clean Water Act (CWA) prohibits the discharge of pollutants to waters of the United States without a NPDES permit unless such a discharge is otherwise authorized by the CWA. The NPDES permit is the mechanism used to implement technology and water quality-based effluent limitations and other requirements including monitoring and reporting. This Draft NPDES permit was developed in accordance with various statutory and regulatory requirements established pursuant to the CWA and applicable State regulations. During development, EPA considered the most recent technology-based treatment requirements, water quality-based requirements, and all limitations and requirements in the current/existing permit. The regulations governing the EPA NPDES permit program are generally found at 40 CFR Parts 122, 124, 125, and 136. The general conditions of the Draft Permit are based on 40 CFR §122.41 and consist primarily of management requirements common to all permits. The effluent monitoring requirements have been established to yield data representative of the discharge under authority of Section 308(a) of the CWA in accordance with 40 CFR §122.41(j), §122.44(i) and §122.48.

#### **A. Technology-Based Requirements**

Subpart A of 40 CFR §125 establishes criteria and standards for the imposition of technology based treatment requirements in permits under Section 301(b) of the CWA, including the application of EPA promulgated effluent limitations and case-by-case determinations of effluent limitations under Section 402(a)(1) of the CWA.

Technology-based treatment requirements represent the minimum level of control that must be imposed under Sections 301(b) and 402 of the CWA (See 40 CFR §125 Subpart A) to meet best practicable control technology currently available (BPT) for conventional pollutants and some metals, best conventional control technology (BCT) for conventional pollutants, and best available technology economically achievable (BAT) for toxic and non-conventional pollutants.

The previous fact sheet contained the following text, which is still applicable to this permit issuance:

*On July 12, 1977 EPA promulgated revised effluent limitation guidelines (ELGs) for the Mineral Mining and Processing Point Source Category, 40 CFR Part 436. Subpart B of the ELGs, the Crushed Stone Subcategory, and Subpart C, 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 (a 30 day average of 25 mg/l and a maximum daily average 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 as mentioned above.*

*The October 30, 2000 MSGP was reviewed to determine the technology-based limitations for this industrial category. Sector J of the MSGP contains effluent limitations for mine dewatering activities at crushed stone mining facilities, as well as benchmark monitoring concentrations for storm water discharges. The limitations for mine dewatering activities include monthly average TSS limits of 25 mg/l, maximum daily limits of 45 mg/l and pH limits of 6-9 standard nits. The benchmark monitoring concentrations for storm water is 100 mg/l [of TSS].*

There are no effluent limitation guidelines (ELGs) for storm water discharges from the Paving and Roofing Materials Point Source Category, 40 CFR Part 443, Subpart B Asphalt Concrete subcategory. The October 30, 2000 MSGP was reviewed to determine technology-based limitations for this industrial category. Sector D of the MSGP contains BMP practices and numerical effluent limitations for storm water associated with the production of asphalt paving and roofing emulsions. The limitations include monthly average TSS limits of 15.0 mg/l, maximum daily TSS limits of 23.0 mg/l, monthly average Oil and Grease limits of 10.0 mg/l, maximum daily Oil and Grease limits of 15.0 mg/l, and pH limits of 6.0-9.0 standard units.

#### Best Professional Judgement (BPJ)

EPA can impose technology based treatment requirements on a case-by-case basis under Best Professional Judgement (BPJ) to the extent that EPA-promulgated effluent limitations are inapplicable. The authority for BPJ is contained in Section 402(a)(1) of the CWA, which authorizes the EPA administrator to issue a permit containing “such conditions as the Administrator determines are necessary to carry out the provisions of the Act.” The NPDES regulations in 40 CFR § 125.3(c)(2) state that permits developed on a case-by-case basis under Section 402 (a)(1) of the CWA must consider (i) the appropriate technology for the category class of point sources of which the applicant is a member, based on available information, and (ii) any unique factors relating to the applicant.

## **B. Water Quality-Based Requirements**

Water quality-based criteria are required in NPDES permits when EPA and the State determine that effluent limits more stringent than technology-based limits are necessary to maintain or achieve state or federal water-quality standards (See Section 301(b) (1)(C) of the CWA). Water quality-based criteria consist of three (3) 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) of the water body; and 3) anti-degradation requirements to ensure that once a use is attained it will not be degraded. The Massachusetts State Water Quality Standards, found at 314 CMR 4.00, include these elements. The State Water Quality Regulations limit or prohibit discharges of pollutants to surface waters and thereby assure that the surface

water quality standards of the receiving water are protected, maintained, and/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, be used unless site-specific criteria are established. EPA regulations pertaining to permit limits based upon water quality standards and state requirements are contained in 40 CFR §122.44(d).

Section 101(a)(3) of the CWA specifically prohibits the discharge of toxic pollutants in toxic amounts. The State of Massachusetts has a similar narrative criteria in their water quality regulations that prohibits such discharges [See Massachusetts 314 CMR 4.05(5)(e)]. The effluent limits established in the Draft Permit assure that the surface water quality standards of the receiving water are protected, maintained, and/or attained.

### **C. Anti-Backsliding**

EPA's anti-backsliding provision as identified in Section 402(o) of the Clean Water Act and at 40 CFR §122.44(l) prohibits the relaxation of permit limits, standards, and conditions unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued. Anti-backsliding provisions apply to effluent limits based on technology, water quality, BPJ and State Certification requirements. Relief from anti-backsliding provisions can only be granted under one of the defined exceptions [See 40 CFR §122.44(l)(i)]. Since none of these exceptions apply to this facility, the effluent limits in the Draft Permit must be as stringent as those in the Current Permit.

### **D. Anti-Degradation**

The Massachusetts Anti-Degradation Policy is found at Title 314 CMR 4.04. All existing uses of the Merrimack River and its tributaries must be protected. The EPA anticipates that the MADEP shall make a determination that there shall be no significant adverse impacts to the receiving waters and no loss of existing uses as a result of the discharge authorized by this permit. This Draft Permit is being reissued with allowable effluent limits as stringent as or more stringent than the Current Permit and accordingly will continue to protect the existing uses of the Merrimack River and its tributaries.

## **VI. Explanation of the Permit's Effluent Limitation(s)**

### **A. Facility Information**

Brox Industries, Inc. is a bituminous concrete batching facility that has been in operation since the 1950's. The facility covers more than 400 acres and includes a quarry, an aggregate crushing plant, an aggregate washing plant, two Hot Mix Asphalt (HMA) plants, stockpiles of material, and various treatment ponds. The facility remains open year round for the sale of materials; however the HMA plants, the quarry, the aggregate crushing plant, and the aggregate washing plant generally operate only from April to December.

The HMA process uses recycled asphalt and recycled non-hazardous petroleum contaminated soil (PCS) as well as aggregate that was crushed at the facility to form asphalt paving mixtures in two HMA plants (one batch type and one drum type). A portion of the recycled asphalt is also sold as a base product for surface preparation prior to the application of hot mix asphalt. The use of recycled PCS is authorized by a Class A- Level III permit (No. NEW081590) issued from the Metropolitan Boston/ Northeast Region Department of Environmental Protection (“MassDEP”). The PCS stockpiles are located in a storage building with a pitched floor that does not allow storm water discharge to any on-site point. Periodically the soil is screened and any rock, asphalt pavement and concrete are deposited in a separate area in the storage building. These materials are crushed to less than  $\frac{3}{4}$  of an inch and either added to the hot mix asphalt or sold as a base product. The finished HMA is transported off-site and is therefore not exposed to storm water.

The Brox facility also receives recycled concrete and wood. A portable crusher is used to crush these materials, as well as the recycled asphalt, which are then separated into stockpiles that drain storm water to areas of no discharge. The crushed recycled concrete is sold as a base material for paving. The wood is reduced to wood chips and used on-site for erosion control.

Rock is blasted from bedrock in the quarry and transported for crushing at the aggregate crushing plant. There, the stone is reduced to fragments measuring 5-6 inches and transported by an overhead conveyer belt to a screen deck equipped with spray nozzles. The spray nozzles suppress the dust generated during the crushing process and the screen separates out the coarse aggregate. Fragments in dimensions of 0.75 inches or smaller are transported to stockpiles separated according to size, while larger fragments pass through a secondary crusher. The final crushed product passes through a sand screw, which further separates out the coarse aggregate from the fine and deposits the latter in ‘washed sand’ stockpiles. These piles are allowed to dry for a month before the ‘washed sand’ is incorporated in the HMA plant. The finest aggregate and excess wash water from the aggregate washing plant are mixed with floc to enhance settling and then transported by pipe to a series of treatment/settling ponds (Attachment C).

Storm water run off and water that leaches from the aggregate stockpiles and, especially, the washed sand stockpile, is channeled into catch basins. The catch basins drain to retention ponds that discharge to the treatment/settling ponds both directly via a pipe and indirectly via underground leaching. For this facility, the term “process generated waste water” includes ‘any waste water used in the transport of mined material, air emissions control... processing exclusive of mining...or other water which becomes commingled with such waste water...’ as defined at 40 CFR § 436.21.

## **B. Permitted Outfall**

The drainage area for Outfall 003 consists of 4,600,000 square feet, approximately 484,000 square feet of which is impervious. The outfall is located after a series of treatment/settling ponds, which receive aggregate wash water directly from the aggregate washing plant as well as storm water and stockpile run off from the retention ponds. Both the quarry and the HMA plants have areas that drain storm water that is ultimately discharged through outfall 003. Water flows

between the ponds via stone weirs, pipes, and underground leaching. Discharge from the fourth treatment/settling pond occurs via a 1,100 GPM pump that operates four to six hours per day and pumps to a manhole located in the southwest corner of the facility. The flow continues through an 18 inch culvert, the end of which is designated as Outfall 003 (also referenced as DSN 003), and empties into a wetland system that is adjacent to the Merrimack River and its tributaries (Attachment D).

Water is also recycled from the fourth basin back to the aggregate wash plant via a 1,500 GPM pump. Water is applied to the surfaces of processed stone to control potential particulate emissions. Water is also used in water trucks and sprinklers for service roads and areas dust control. Water use is relative to climatological conditions and does not generate any discharge flow.

### **C. Derivation of Effluent Limits under the Federal CWA and/or the Commonwealth of Massachusetts' or State of New Hampshire Water Quality Standards**

From a review of the permit application and the manufacturing process, EPA has established effluent limitations for Outfall 003 that discharges storm water and process generated waste water. The Draft Permit establishes effluent limitations and/or monitoring requirements for flow, total suspended solids (TSS), pH, oil and grease, turbidity, nitrate and ammonia. The effluent limits and monitoring requirements are described below:

#### Flow

The existing maximum daily flow limit of 1100 gpm will continue in the draft permit. This limit was based on the maximum discharge capacity of the pump associated with outfall 003, which, during dry weather, activates daily for four to six hours. During certain conditions, such as heavy storms and snow melt, the pump operates on a more frequent schedule. No monthly average limit is established, but the permittee is required to report the monthly average flow. In the past, use of a supplemental pump during extreme storm conditions has resulted in maximum daily flow limit exceedances in October and November of 2005.

#### TSS

As discussed previously, there are no ELGs for TSS. However, based on a BPJ determination, the Draft Permit includes a monthly average limit of 24 mg/l and a maximum daily limit of 43 mg/l. In determining these values, the existing permit limits and the limits outlined in Sector D and Sector J of the MSGP (included in Section V.A.) were considered. The existing limits (a monthly average of 25 mg/l and a daily maximum of 45 mg/l), which were based on those included in Sector J of the MSGP, take into account drainage from the quarry, aggregate crushing plant, and aggregate washing plant. The limits in Sector D of the MSGP (a monthly average of 15 mg/l and a daily maximum of 23 mg/l) cover storm water discharges from the two on-site asphalt plants. Both sets of limits were considered because the final effluent will contain run off from each of the aforementioned activities. Final limits were prorated based on the drainage areas of the quarry/aggregate plants and the HMA plants. Brox Industries indicated in



their application that the total drainage area of the site is 4,600,000 square feet (ft<sup>2</sup>). In subsequent correspondence they recorded the drainage area of the HMA plants as 9.3 acres (405,108 ft<sup>2</sup>). The limits included in the Draft Permit were calculated using the combined waste formula provided below:

$$\frac{\text{Quarry/Aggregate Plant Limits} * \text{Drainage Area Quarry/Aggregate Plant} + \text{Asphalt Plant Limits} * \text{Drainage Area Asphalt Plant}}{\text{Total Drainage Area Outfall 003}} = \text{Draft Permit Limits}$$

A sample calculation of the maximum daily limit using this formula is provided below:

$$\frac{(45\text{mg} / \text{l} * (4,600,000\text{ft}^2 - 405,108\text{ft}^2)) + (23\text{mg} / \text{l} * 405,108\text{ft}^2)}{(4,600,000\text{ft}^2)} = 43\text{mg} / \text{l}$$

The existing daily maximum limit was exceeded once, on November 3, 2004. Brox Industries responded with several BMP changes to the facility. However, it is possible the one-time high value was due to a laboratory error.

#### Oil & Grease

The Draft Permit contains a maximum daily limit of 15 mg/l and a monthly average limit of 10 mg/l for Oil and Grease. These values were determined from the existing permit limits and the MSGP numerical limits for storm water discharges associated with asphalt production (included in Section V.A.). The existing permit limit was based on state water quality standards (see 314 CMR 4.05(3)(b)(7)) and limits for similar facilities in Massachusetts.

#### pH

Although the technology based limits for pH are 6-9 standard units, the pH range of the effluent is limited to 6.5-8.3 standard units, based on Massachusetts Water Quality Standards for Class B streams, state certification requirements, and the anti-backsliding requirements found in 40 CFR § 122.44 since the existing permit limits pH to 6.5-8.3 standard units.

#### Turbidity

Due to the nature of operation, which involves the treatment of fine solids washed from the rock, there is reasonable potential for turbidity in the discharge. In order to minimize this turbidity, to ensure compliance with state water quality standards pertaining to aesthetics (see 314 CMR 4.05(3)(b)), and to abide by the anti-backsliding regulations in 40 CFR § 122.44, the existing permit maximum daily limit of 25 NTU will continue in the draft permit.

#### Ammonia

Nitrogen compounds are used to blast the rock. Nitrate and ammonia are therefore mixed with storm water runoff and with mine dewatering. Data from the past three years (see Appendix B)

showed an average effluent ammonia concentration of 0.04 mg/l and a maximum concentration of 1.3 mg/l. The EPA document titled 1999 Update of Ambient Water Quality Criteria for Ammonia recommends an instream ammonia criterion of 1.00 mg/l at a pH of 8.1 and a temperature of 26° C in both the presence and absence of early life stages of sensitive invertebrates. These values represent the most extreme conditions found in the discharge stream.

In average conditions, with a pH of 7.5 and a temperature of 15° C, the recommended instream ammonia criterion is approximately 4.23 mg/l. Based on the available data, the draft permit does not contain effluent limitations, but does continue, from the existing permit, the monitoring requirements for ammonia and other nitrogen compounds including nitrate, nitrite, and TKN.

#### Whole Effluent Toxicity Testing

In a Section 308 information request letter dated January 21, 2003, EPA required the permittee to perform a chronic toxicity test with two species - Daphnia and Fat head minnows. EPA reviewed the results of the submitted tests and no acute whole effluent toxicity was detected (LC<sub>50</sub>'s >100% effluent and A-NOEC 100%). A chronic toxicity evaluation was also conducted and exposures over both 6 and 7 days yielded C-NOEC of 100% and an LOEC of >100%. Subsequently, no requirements for toxicity testing are included in the draft permit.

#### Effluent Limit Summary

EPA has determined that these limitations satisfy the technology and water quality requirements of the CWA mentioned above. EPA expects that these limitations are adequate to achieve state water quality standards and that the state will certify the draft permit.

#### Storm Water Pollution Prevention Plan (SWPPP)

This facility engages in activities which could result in the discharge of toxic and hazardous pollutants to waters of the United States either directly or indirectly through storm water runoff. These operations include at least one of the following: material storage, in-facility transfer, material processing, material handling, or loading and unloading. To control the activities/operations, which could contribute pollutants to waters of the United States, potentially violating the State's Water Quality Standards, the Draft Permit requires the facility to develop a Storm Water Pollution Prevention Plan (SWPPP) containing BMPs appropriate for this specific facility (See Sections 304(e) and 402(a)(1) of the CWA and 40 CFR §125.103(b)). Specifically, at this facility, crushed stone and asphalt storage areas are examples of material storage, processing and handling operations that shall continue to be included in the SWPPP.

The goal of the SWPPP is to eliminate or reduce the potential for the discharge of pollutants through the storm water system. The SWPPP requirements in the Draft Permit are intended to provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions or the permit. The SWPPP shall be prepared in accordance with good engineering practices and identify potential sources of pollutants, which may reasonably be expected to affect the quality of storm water

discharges associated with industrial activity from the facility. The SWPPP, upon implementation, becomes a supporting element to any numerical effluent limitations in the Draft Permit. Consequently, the SWPPP is as equally enforceable as the numerical limits.

This process involves the following four main steps:

- (1) Forming a team of qualified facility personnel who will be responsible for updating the SWPPP and assisting the plant manager in its implementation;
- (2) Reassessing the potential storm water pollution sources;
- (3) Selecting and implementing appropriate management practices and controls for these potential pollution sources; and
- (4) Reevaluating, periodically, the effectiveness of the SWPPP in preventing storm water contamination and in complying with the various terms and conditions of the Draft Permit.

EPA's NPDES Storm Water Multi-Sector General Permit for Industrial Activities (MSGP), issued by EPA on October 30, 2000 includes BMP and SWPPP requirements for both Asphalt Paving and Roofing Materials and Lubricant Manufacturers (Sector D) and Mineral Mining and Dressing (Sector J). Therefore, the permittee is encouraged to review both SWPPP plans and incorporate those requirements, to the degree practicable, into the amended SWPPP. These can be found in the Federal Register, Vol. 65, pgs 64821-64822 for Sector D and 64830-64832 for Sector J.

#### Unauthorized Discharges

This permit authorizes the permittee to discharge only in accordance with the terms and conditions of this permit and only from outfall listed in Part I A. of this permit. Discharges of wastewater from any other point sources which are not authorized by this permit or other NPDES permits and shall be reported in accordance with Section D.1.e. of the General Requirements of this permit.

#### **VII. Essential Fish Habitat**

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. Sect. 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. Sect. 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. Sect. 1802(10). Adverse impact means any impact which reduces the quality and/or quantity of EFH. 50 CFR Sect. 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.

Essential Fish Habitat is only designated for fish species for which federal Fisheries Management Plans exist. 16 U.S.C. Sect. 1855(b)(1)(A). EFH designations for New England

were approved by the U.S. Department of Commerce on March 3, 1999. EPA's review of available EFH information indicates that the wetland system to which the facility discharges is not designated EFH for any federally managed species. Thus EPA has determined that EFH consultation with NMFS is not required.

### **VIII. Endangered Species Act**

Section 7(a) of the Endangered Species Act of 1973, as amended (ESA) grants authority to and imposes requirements upon Federal agencies regarding endangered or threatened species of fish, wildlife, or plants ("listed species") and habitat of such species that has been designated as critical (a "critical habitat"). The ESA requires every Federal agency, in consultation with and with the assistance of the Secretary of Interior, to insure that any action it authorizes, funds, or carries out, in the United States or upon the high seas, is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. The United States Fish and Wildlife Service (USFWS) typically administer Section 7 consultations for bird, terrestrial, and freshwater species. The National Marine Fisheries Service (NMFS) typically administers Section 7 consultations for marine species and anadromous fish.

EPA has reviewed the federal endangered or threatened species of fish, wildlife, or plants to see if any such listed species might potentially be impacted by the re-issuance of this NPDES permit. EPA believes the proposed limits are sufficiently stringent to assure that water quality standards will be met and to ensure protection of aquatic life and maintenance of the receiving water as an aquatic habitat. The Region finds that adoption of the proposed permit is unlikely to adversely affect any threatened or endangered species or its critical 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 EPA will notify and consultation promptly initiated with both the United States Fish and Wildlife Service and National Marine Fisheries Service.

### **IX. Monitoring**

The permittee is obligated to monitor and report sampling results to EPA and the MADEP within the time specified within the permit. Timely reporting is essential for the regulatory agencies to expeditiously assess compliance with permit conditions.

### **X. State Certification Requirements**

EPA may not issue a permit unless the State of Massachusetts Department of Environmental Protection with jurisdiction over the receiving waters 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 State of Massachusetts Department of Environmental Protection has reviewed the draft permit, and advised EPA that the limitations are adequate to protect water quality. EPA has requested permit certification by the State pursuant to 40 CFR 124.53 and expects that the draft permit will be certified.

**XI. 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 Sara Green, U.S. EPA, Office of Ecosystem Protection, Industrial Permits Branch, 1 Congress Street, Suite 1100, Boston, Massachusetts 02114-2023. 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 meeting may be held if the criteria stated in 40 C.F.R. § 124.12 are satisfied. In reaching a final decision on the Draft Permit, the EPA 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 any public hearings, if such hearings are held, the EPA 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. Within 30 days following the notice of the Final Permit decision, any interested person may submit a petition for review of the permit to EPA's Environmental Appeals Board consistent with 40 C.F.R. § 124.19.

**XII. 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:

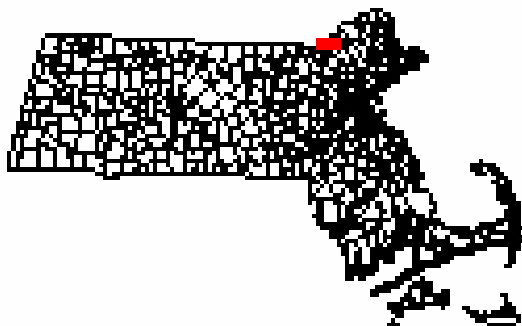
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January 9, 2007

**Stephen S. Perkins, Director  
Office of Ecosystem Protection  
U.S. Environmental Protection Agency**

ATTACHMENT A  
Brox Industries, Inc. (MA0040177)  
Site Locus Map



● - Outfall 003

Source: MassGIS USGS Topographic Maps  
United States December 1995

**ATTACHMENT B**  
**Brox Industries, Inc. (MA0040177)**  
**Outfall 003 – Sampling Results**  
**November 2003 through March 2006**

MONITORING PERIOD END DATE	Flow (GPM)		Total Suspended Solids (TSS) (mg/l)		pH (s.u.)	
	Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	Maximum	Minimum
31-Mar-06	880	353	0	0	7.9	7.1
28-Feb-06	980	874	0	0	7.8	7.8
31-Jan-06	780	818	0	0	7.9	7.8
31-Dec-05	780	771	0	0	7.8	7.7
30-Nov-05	1700	1026	4	1	7.8	7.7
31-Oct-05	1700	992	4	1	7.8	7.5
30-Sep-05	860	439	0	0	7.8	7.1
31-Aug-05	850	231	0	0	7.8	7.7
31-Jul-05	1040	382	0	0	7.8	7.6
30-Jun-05	1060	898	4	0.8	7.8	7.6
31-May-05	1040	426	0	0	8	7.8
30-Apr-05	1040	851	6	1.5	8	7.8
31-Mar-05	910	541	17	7.5	8.1	7.2
28-Feb-05	820	343	14	3.5	7.6	7.1
31-Jan-05	1020	606.68	0	0	7.9	7.3
31-Dec-04	1060	376	0	0	7.9	7.3
30-Nov-04	840	430.8	90	13	7.9	7.8
31-Oct-04	860	509.01	4	0.8	7.9	7.5
30-Sep-04	965	636	0	0	7.4	7
31-Aug-04	965	356	7	1.7	8	7.1
31-Jul-04	965	380	8	2	8	7.2
30-Jun-04	985	502	0	0	7.6	7.1
31-May-04	960	539	6	1.5	7.5	7
30-Apr-04	980	935	6	2.5	7.1	6.5
31-Mar-04	950	462	0	0	7.3	7.1
29-Feb-04	940	442	4	1	7.2	6.9
31-Jan-04	940	350	0	0	7.3	7.1
31-Dec-03	920	721	0	0	7.2	7
30-Nov-03	980	473	0	0	7.3	7.1

<b>2003 Permit Limits</b>	<b>1100</b>	<b>Report</b>	<b>45</b>	<b>25</b>	<b>8.3</b>	<b>6.5</b>
Minimum	780	231	0	0	7.1	6.5
Maximum	1700	1026	90	13	8.1	7.8
Average	992.07	574.60	6.00	1.30	7.70	7.33
Standard Deviation	211.49	227.54	16.74	2.74	0.29	0.35
# measurements	29	29	29	29	29	29
# exceed limits	2	NA	1	0	0	0

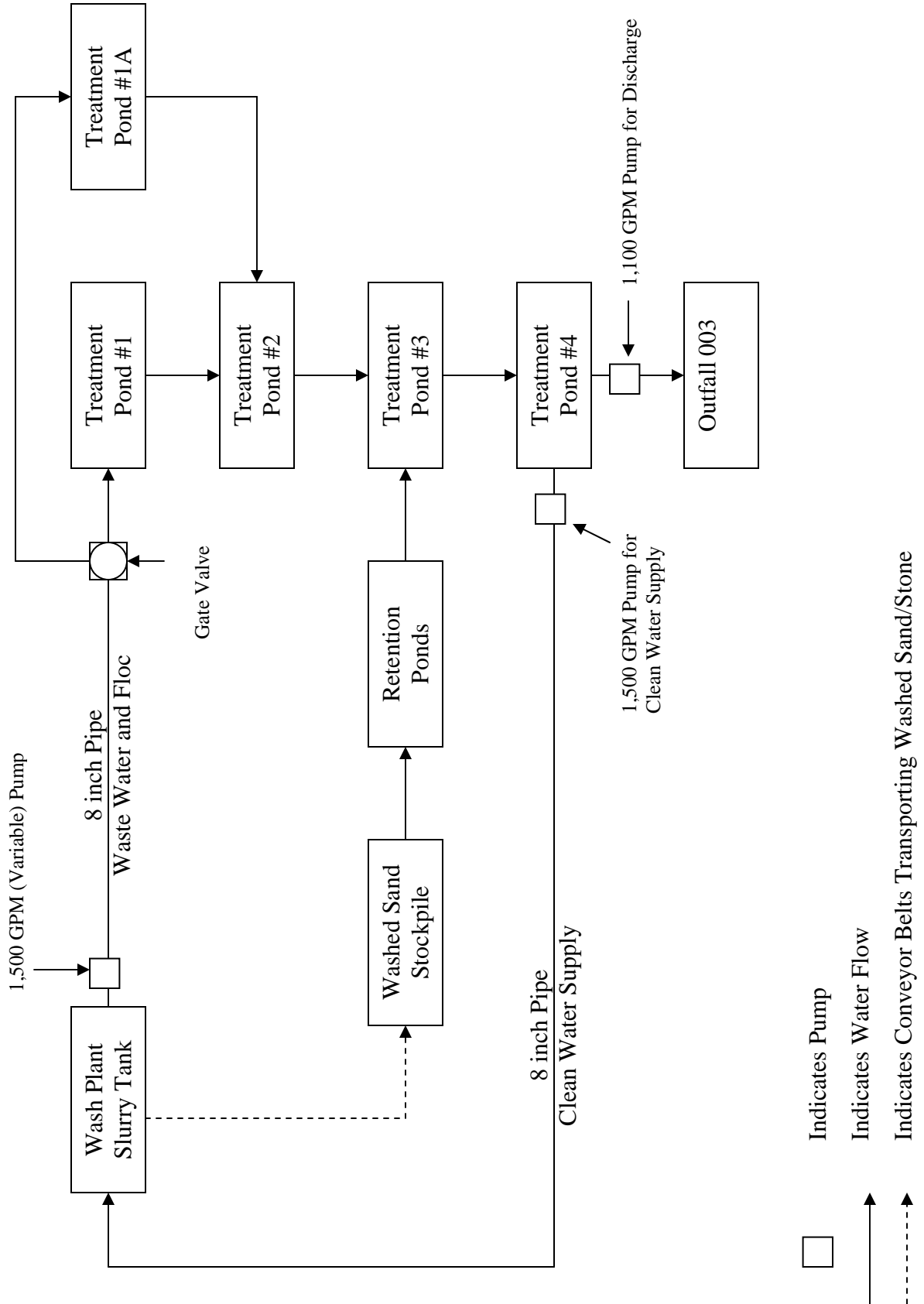
**ATTACHMENT B- Continued**  
**Brox Industries, Inc. (MA0040177)**  
**Outfall 003 – Sampling Results**  
**November 2003 through March 2006**

MONITORING PERIOD END DATE	Turbidity (NTU)	Oil & Grease (mg/l)	NITROGEN, AMMONIA TOTAL (AS N) (mg/l)	NITROGEN, NITRITE TOTAL (AS N) (mg/l)	NITROGEN, NITRATE TOTAL (AS N) (mg/l)	NITROGEN, KJELDAHL TOTAL (AS N) (mg/l)
	Daily Max	Daily Max	Daily Max	Daily Max	Daily Max	Daily Max
31-Mar-06	1.4	0	0	0	1.67	0
28-Feb-06	3.6	0	0	0	2.1	0
31-Jan-06	0	0	0	0	2.95	1.1
31-Dec-05	1.6	0	0	0	3.37	0
30-Nov-05	1.8	0	0	0	4	0
31-Oct-05	5.4	0	0	0	2.46	0
30-Sep-05	0	0	0	0	1.95	0
31-Aug-05	1.9	0	0	0	1.78	0
31-Jul-05	0	0	0	0	2.06	0
30-Jun-05	1	0	0	0	2.52	0
31-May-05	0	0	0	0	2	0
30-Apr-05	2.4	0	0	0	1.97	0
31-Mar-05	3.6	0	0	0	1.51	0
28-Feb-05	5.8	0	1.3	0	1.32	0
31-Jan-05	0	0	0	0	3.44	0
31-Dec-04	2.6	0	0	0	4.31	0
30-Nov-04	1.4	0	0	0	3.05	0
31-Oct-04	1.1	0	0	0	3.49	0
30-Sep-04	0	0	0	0	4.5	0
31-Aug-04	0	0	0	0	1.5	0
31-Jul-04	0	0	0	0	1.5	0
30-Jun-04	0	0	0	0	2.1	0
31-May-04	0	0	0	0	2.3	0
30-Apr-04	10	0	0	0	3.3	0
31-Mar-04	0	0	0	0	1.3	0
29-Feb-04	1.4	0	0	0	0	1.5
31-Jan-04	0	0	0	0	2.1	0
31-Dec-03	1.7	0	0	0	1.9	0
30-Nov-03	0	0	0	0	2.4	0

<b>2003 Permit Limits</b>	<b>25</b>	<b>15</b>	<b>Report</b>	<b>Report</b>	<b>Report</b>	<b>Report</b>
Minimum	0	0	0	0	0	0
Maximum	10	0	1.3	0	4.5	1.5
Average	1.61	0	0.04	0	2.37	0.09
Standard Deviation	2.29	0	0.24	0	1.00	0.34
# measurements	29	29	29	29	29	29
# exceed limits	0	0	NA	NA	NA	NA



**ATTACHMENT C**  
**Brox Industries, Inc. (MA0040177)**  
**Process Generated Waste Water Flow Diagram**



**ATTACHMENT D**  
**Brox Industries, Inc. (MA0040177)**  
**Discharge Location**



● - Outfall 003

Source: MassGIS Color Ortho Imagery  
April, 2005