

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1 - NEW ENGLAND
ONE CONGRESS STREET - SUITE 1100
BOSTON, MA 02114-2023**

FACT SHEET

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

NPDES PERMIT NO. MA0000671

DATE OF PUBLIC NOTICE:

NAME AND ADDRESS OF APPLICANT:

Crane & Company, Inc.
30 South Street
Dalton, MA 01226

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Crane & Company, Inc.
Crane Avenue
Dalton, MA 01226

RECEIVING WATER: East Branch of the Housatonic River (Segment MA21-02)

CLASSIFICATION: Class B (Warm Water Fishery)

LATITUDE: 42° 28' 19" N **LONGITUDE:** 73° 11' 31" W

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

Located along the banks of the East Branch of the Housatonic River in Dalton, Massachusetts, Crane & Company, Inc. owns and operates six paper manufacturing facilities, the Byron, Weston, Waconah-Old Berkshire, Pioneer, Bay State, and Government mills. Crane & Co., Inc (the permittee) is engaged in the manufacture of specialty papers made principally from linen and cotton fibers recovered from the cotton ginning and manufacturing processes and selected remnants from the textile industry. The Company manufactures fine quality specialty papers including banknote, security papers, commercial and social grades as well as non-woven technical papers. All six mills discharge their industrial wastewaters to the Crane & Company, Inc. owned and operated wastewater treatment facility. Sanitary wastes from the six mills are

discharged to the Dalton collection system and treated at the Pittsfield municipal wastewater treatment facility.

Groundwater used in the manufacturing process is obtained from the company owned and operated well system. Potable water purchased from the municipality is used for sanitary systems and limited manufacturing usage. About two million gallons per day (MGD) of river water is used for non-contact cooling water. The Company has obtained coverage under the EPA NPDES General Permit for Non-Contact Cooling Water Discharges for two discharges of non-contact cooling water to the Housatonic River (MAG 250956 and MAG 250995).

The permittee has applied to the U.S. Environmental Protection Agency and the Massachusetts Department of Environmental Protection (MA DEP) for the reissuance of its NPDES permit to discharge treated wastewater to the East Branch of the Housatonic River via Outfall 001. The facility location is shown on Figure 1.

II. Description of Discharge

The treatment facility provides chemical-assisted primary treatment and secondary biological treatment using a conventional activated sludge system. The effluent is discharged to the East Branch of the Housatonic River.

Sludge is thickened and dewatered using a belt thickener and screw press, at a rate of 10-12 tons per day. The sludge is transported to the Springfield Regional Wastewater Treatment Facility in West Springfield where it is composted with other organic material.

Quantitative descriptions of the discharge in terms of significant effluent parameters based upon recent effluent monitoring data is shown in Attachment 1.

III. Limitations and Conditions

The effluent limitations and all other requirements described herein may be found in the draft permit. The basis for the limits and other permit requirements are described below.

IV. Permit Basis and Explanation of Effluent Limitation Derivation

Formed from tributaries in the towns of Peru, Windsor, and Hinsdale the East Branch of the Housatonic River flows in a south-westerly direction to its confluence with the West Branch near the City of Pittsfield. Crane & Company, Inc. discharges into a segment of the River that is classified as a Class B - warm water fishery waterbody by the MA DEP in the Massachusetts Surface Water Quality Standards (314 CMR 4.00). The Massachusetts Surface Water Quality Standards (314 CMR 4.05(3)(b)) state that Class B waters shall have the following designated uses:

“These waters are designated as habitat for fish, other aquatic life and wildlife, and for primary and secondary contact recreation. Where designated they shall be suitable as a source of public water supply with appropriate treatment. They shall be suitable for irrigation and other agricultural uses and for compatible industrial cooling and process uses. These waters shall have consistently good aesthetic value.”

The *Housatonic River Basin 1997/1998 Water Quality Assessment Report* indicates that the river segment receiving the Crane & Company, Inc.’s discharge is not attaining its uses for aquatic life and fish consumption, with other uses not assessed. The report indicates that lack of attainment is due, in part, to moderate benthic impacts attributable to a substantial layer of floc immediately downstream of the Crane discharge and elevated PCB levels in the sediment from the GE Pittsfield site below Crane’s discharge. Unpublished observations made by field personnel conducting the assessment indicated extensive algal coverage at Hubbard Avenue, with filamentous and matted forms covering more than half the sampling reach and indicative of nutrient loads to this portion of the river. The data and field observations in the assessment report have lead EPA to consider enhanced monitoring and/or effluent limitations on the discharge of TSS and phosphorus in this draft permit. The discussion regarding these considerations can be found in the appropriate part of the **Permit Limitations** section of this fact sheet.

The *2002 Integrated List of Waters* [Clean Water Act, Section ‘303(d) list’] identifies unknown toxicity, priority organics, and pathogens as pollutants causing violations of water quality standards in this segment of the river. Based on this information, we have re-evaluated the adequacy of the whole effluent toxicity limits, and the limits on other toxics in the discharge as part of developing the draft permit. The discussion regarding these evaluations can be found in the appropriate part of the **Permit Limitations** section of this fact sheet. The facility does not contain sanitary wastewater and so does not discharge pathogens.

The CWA requires that the effluents of point source discharges satisfy both minimum treatment technology and receiving stream water quality requirements. The minimum technology requirements which are presently available are Best Practicable Control Technology Currently Available (BPT), Section 301 (b)(1)A; Best Available Technology Economically Achievable (BAT) for toxic pollutants, Section 301(b)(2)A; and Best Conventional Pollution Control Technology (BCT), Section 301(b)(2)E which applies to conventional pollutants. In the absence of technology based guidelines EPA is authorized to use Best Professional Judgement (BPJ) in accordance with Section 402(a)(1) of the CWA. 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. In accordance with regulations found at 40 CFR Section 131.12, MA DEP has developed and adopted a statewide antidegradation policy to maintain and protect existing in-stream water quality. The Massachusetts Antidegradation Provisions are found at Title 314 CMR 4.04. No lowering of water quality is allowed, except in accordance with the antidegradation provisions. In addition, the anti-backsliding provisions of

Section 402(o) of the Clean Water Act (CWA) and 40 CFR §122.44(l) require existing permit limits be retained unless specific exception criteria are met.

EPA established minimum control technology requirements for the paper industry in the form of effluent guidelines promulgated under *40 CFR 430 - Pulp, Paper, and Paperboard Point Source Category*. Although the facility does not fit one of the subcategories, the Crane & Company, Inc. facility is most closely categorized by Subpart K - "Fine and Lightweight Papers from Purchased Pulp Subcategory". This subcategory can be used to develop technology-based BOD and TSS limits for comparison to those based on water quality.

The MA DEP established waste load allocations for BOD and TSS in the Housatonic River 1981 Water Quality Management Plan and updated them in 1983.

The pollutants listed in the effluent guidelines and all other pollutants presented in the priority pollutant reporting section of the permit application were also considered on a water quality basis. The limitations derived from the water quality criteria were compared with the effluent guidelines and also with the existing permit limits.

Permit Limitations

The following explains the rationale for the permit limits and takes into account any changes in permit application, applicable industrial category, results of past effluent monitoring, and any industrial process change.

Flow and Dilution Factor:

Massachusetts Water Quality Standards require that water quality standards be met at all but the most extreme hydrologic conditions. For rivers and streams, the lowest flow condition at and above which water quality criteria must be met is the lowest mean flow for seven consecutive days to be expected once in ten years (7Q10, see 314 CMR 4.03(3)(a)). Therefore, for water quality based effluent limits which are calculated using a dilution factor, the dilution factor must be based on this receiving water flow condition.

For the purposes of evaluating flow and dilution calculations, a monthly average flow of 4.2 MGD from the previous Fact Sheet is used. The permit application indicated an average flow of 5.0 MGD, while current data indicates a somewhat lower monthly average flow due to a lower demand for product. The 4.2 MGD flow in the current permit is based on the flow actually discharged at that time of permit reissuance and is also the flow on which the wasteload allocation is based. We believe, therefore, that the 4.2 MGD flow is more representative of the long-term operating conditions of the mills. Similarly, a maximum daily limit of 5.8 MGD is used.

The 7Q10 flow used to calculate the dilution factor is based on the 7Q10 flow at the USGS Gage Station (No. 01197000), located downstream of the Crane discharge, adjusted to reflect the slightly smaller drainage area upstream of Crane discharge. According to the *USGS* -

Streamflow Statistics for Massachusetts, the 7Q10 at the gaging station in Dalton is 12.1 cfs. The calculated 7Q10 and dilution factor for the facility are as follows:

Drainage Area (at Station) 57.6 square miles (s.m.)
 Drainage Area (at outfall) 57.3 square miles
 Monthly average effluent flow = 4.2 mgd = 6.5 cfs
 Maximum daily effluent flow = 5.8 mgd = 9.0 cfs

7Q10@ Gage Station = 12.1 cfs
 7Q10@ discharge = ((12.1 cfs - 6.5 cfs) x (57.3 s.m./ 57.6 s.m)) = 5.6 cfs

Dilution Factor = (River 7Q10 + Discharge) ÷ Discharge
 Average Flow Dilution Factor = (5.6 cfs + 6.5 cfs) ÷ 6.5 cfs = 1.9
 Maximum daily Dilution Factor = (5.6 cfs + 9.0 cfs) ÷ 9.0 cfs = 1.6

BOD and TSS: As previously mentioned the effluent guidelines published under 40 CFR 430, Subpart K - “Fine and Lightweight Papers from Purchased Pulp Subcategory” most closely provide technology-based limits for Crane and Company, Inc. These guidelines establish limitations dependent on the production rate of product. The average daily total production of all six mills for the past two years is approximately 200 tons/day.

BOD: The cotton fiber technology-based limits for BOD are based on a production rate of 200 tons/day. The limits are calculated below and the results are compared to the water quality and existing permit limits.

average monthly: 9.1 lbs/1000 lbs. * 200 tons/day * 2000 lbs/ton = 3,640 lbs/day.
 maximum daily: 17.4 lbs/1000 lbs * 200 tons/day * 2000 lbs/ton = 6,960 lbs/day

The existing average monthly limits of 600 lbs/day for the low flow period and 900 for the high flow period are water quality-based limits based upon the wasteload allocation established by the MA DEP. The existing maximum daily limit of 900 lbs/day had been established at 150% of the average monthly wasteload allocation (1.5 * 600 = 900 lbs/day). Because the existing water quality-based permit limits are more stringent than the calculated technology-based limits and antidegradation applies, the current average monthly limit of 600 lbs/day and maximum daily limit of 900 lbs./day are maintained in the draft permit.

TSS: The cotton fiber technology-based limits are calculated below and the results are compared to the water quality and existing permit limits.

average monthly: 13.1 lbs/1000 lbs * 200 tons/day * 2000 lbs/ton = 5,240 lbs/day
 maximum daily: 24.3 lbs/1000 lbs * 200 tons/day * 2000 lbs/ton = 9,720 lbs/day

The current permit established monthly average TSS limits of 864 lbs/day and 1200 lbs/day for the low flow and high flow periods, respectively, based upon the wasteload allocation and proportional distribution study of BOD:TSS performed by the MA DEP. The existing maximum daily limits of 1260 lbs/day and 1,800 lbs/day for the low flow and high flow periods are set at 1.5 times the monthly average wasteload allocations in order to assure attainment of water quality standards and is retained in the draft permit. Because the existing limits are more stringent and antidegradation applies, the existing TSS limits are retained in the draft permit. While the permittee's discharge is generally well within the permit limits as shown in Attachment A, occasional spikes in TSS do occur and the deposition of particulates downstream has been noted. Consequently, the frequency of TSS monitoring is increased to 3 times per week in the draft permit.

Total Phosphorus: The Massachusetts Water Quality Standards do not contain numerical criteria for phosphorus. Narrative criteria, found at 314 CMR 4.05(5)(c) require that nutrients shall not exceed the site-specific limits necessary to control accelerated or cultural eutrophication, and further require, at 314 CMR 4.04(5), that any existing point source discharge containing nutrients in concentrations which encourage eutrophication or growth of weeds or algae shall be provided with the highest and best practical treatment to remove such nutrients.

As discussed earlier in this fact sheet, there have been observations of significant mats of weeds and algae immediately downstream of the Crane discharge. Therefore, an analysis of the reasonable potential for the discharge of phosphorus from the Crane discharge to cause or contribute to a violation of the state water quality standards was performed.

EPA has published national guidance documents which contain recommended total phosphorus criteria and other indicators of eutrophication. EPA's *Quality Criteria for Water 1986* (the Gold Book) recommends, in order to control eutrophication, that in-stream phosphorus concentrations should be less than 100 ug/l (0.100 mg/l) in streams or other flowing waters not discharging directly to lakes or impoundments. More recently, EPA released Ecoregional Nutrient Criteria, established as part of an effort to reduce problems associated with excess nutrients in water bodies in specific areas of the country. The published ecoregion-specific criteria represent conditions in waters minimally impacted by human activities, and thus representative of water without cultural eutrophication. The Crane & Co. treatment facility is within Ecoregion VIII, Nutrient Poor Largely Glaciated Upper Midwest and Northeast. Recommended criteria for this ecoregion is found in *Ambient Water Quality Criteria Recommendations, Information Supporting the Development of State and Tribal Nutrient Criteria, Rivers and Streams in Ecoregion VIII*, published in December, 2001, and include a monthly average total phosphorus criteria of 10 ug/l (0.010 mg/l).

Calculating a phosphorus limit using the Gold Book criteria of 0.1 mg/l and the dilution factor of 1.9 yields the following permit limit:

$$\text{monthly average limit} = 0.1\text{mg/l} * 1.9 = 0.19 \text{ mg/l}$$

Calculating a phosphorous limit using the more stringent ecoregion guidance and same dilution factor yields even more restrictive effluent limits:

$$\text{monthly average limit} = 0.01 \text{ mg/l} * 1.9 = 0.019 \text{ mg/l}$$

This analysis indicates that a water quality-based limit of about 0.2 mg/l would be necessary to achieve a receiving water concentration consistent with the Gold Book criteria.

A review of the phosphorus optimization study performed by the permittee as a requirement of its current permit indicates that the facility is capable of achieving a limit of 0.2 mg/ l during the summer when the discharge of phosphorus is most important. Consequently, the draft permit has a seasonal average monthly phosphorus limit of 0.2 mg/l and the monthly average limit of 1.0 mg/l phosphorus remains the same for the rest of the year as in the current permit.

Total Nitrogen: The Long Island Sound Comprehensive Conservation and Management Plan (CCMP) identifies excessive discharges of nitrogen from sewage treatment plants as the primary cause of low dissolved oxygen levels in the Sound. This condition is the most serious water quality impairment in the Sound and reduces the viable habitat to support fish. Because the Housatonic River is tributary to Long Island Sound, the EPA is requiring total nitrogen monitoring for all facilities discharging to the Housatonic River in Massachusetts. The development of nitrogen loadings of all tributaries to the Sound will be part of the Agency's approach to establish a nitrogen control strategy. To this end, the permit will continue to require monthly reporting of effluent nitrogen loadings from the facility.

pH: The pH range of 6.0 - 9.0 s.u. of the existing permit remains the same. It had been determined that the Housatonic River has sufficient buffering capacity so that the stream biota will not be affected.

Aluminum: The calculations for the monthly average and maximum daily limits based upon the chronic water criteria of 87 ug/l and the acute criteria of 750 ug/l and the dilution factors of 1.9 and 1.6, respectively, are shown below

$$\text{monthly average: } 87 \text{ ug/l} * 1.9 = 165 \text{ ug/l} = 0.17 \text{ mg/l}$$

$$\text{maximum daily: } 750 \text{ ug/l} * 1.6 = 1200 \text{ ug/l} = 1.2 \text{ mg/l}$$

The monitoring data indicates there is a reasonable potential to cause exceedances of the average monthly water quality criteria. Because the existing monthly average aluminum limit is more stringent than the monthly average limit calculated above and antibacksliding applies, the current average monthly aluminum limit is maintained in the draft permit. The maximum daily limit requirement for aluminum will remain the same as in the current permit.

Total Residual Chlorine: The calculations for the monthly average and maximum daily limits based upon the chronic water criteria of 11 ug/l and the acute criteria of 19 ug/l and the dilution factors of 1.9 and 1.6, respectively, are shown below.

$$\text{monthly average: } 11 \text{ ug/l} * 1.9 = 20.9 \text{ ug/l} = 21 \text{ ug/l}$$

$$\text{maximum daily: } 19 \text{ ug/l} * 1.6 = 30.4 \text{ ug/l} = 30 \text{ ug/l}$$

Because the existing monthly average TRC limit is more stringent than the monthly average limit calculated above and antibacksliding applies, the current average monthly TRC limit is maintained in the draft permit. The maximum daily limit is the same as in the current permit and is maintained in the draft permit.

Copper: The *EPA Quality Criteria for Water, 1986 (Gold Book)* set forth the methodology for establishing water quality criteria for copper, a hardness dependent pollutant. In the *National Recommended Water Quality Criteria: 2002* EPA updated its national recommended water quality criteria for pollutants. 314 CMR 4.05(5)(e) Toxic Pollutants of the State Water Quality standards specifies “*The Department shall use the water quality criteria for the protection of aquatic life expressed in terms of the dissolved fraction of metals.*” Using a hardness of 80 mg/l for the East Branch of the Housatonic River and a conversion factor (CF) to convert recoverable to dissolved copper, the chronic and acute criteria calculations for the State water quality standards are as follows.

$$\begin{aligned} \text{chronic instream criteria: } & e^{(0.8545 * \ln 80) + (-1.702)} * 0.96 \text{ (CF)} = 7.38 \text{ ug/l} \\ \text{acute instream criteria: } & e^{(0.9422 * \ln 80) + (-1.700)} * 0.96 \text{ (CF)} = 10.86 \text{ ug/l} \end{aligned}$$

EPA regulation 40 CFR §122.45(c) *Metals* requires that all permit effluent limitations for a metal be expressed in terms of “total recoverable metal”. Thus, the copper limits in the permit are derived by multiplying the criteria by the dilution factor and dividing by a conversion factor. The calculations are shown below.

$$\begin{aligned} \text{chronic copper limit: } & 7.38 \text{ ug/l} * 1.9 \div 0.96 \text{ (CF)} = 14.6 \text{ ug/l} \\ \text{acute copper limit: } & 10.86 \text{ ug/l} * 1.6 \div 0.96 \text{ (CF)} = 18.1 \text{ ug/l} \end{aligned}$$

Because the existing monthly average copper limit is more stringent than the monthly average limit calculated above, and antibacksliding applies, the current average monthly copper limit is maintained in the draft permit. The maximum daily limit is the same as in the current permit and is maintained in the draft permit.

Color: The biological integrity and habitat quality assessment report required by the current permit indicated a noticeable brown color to the effluent during a site reconnaissance in November, 2001. In that report, the presence of the color is ascribed to the processing of pulp at the facility. The State Water Quality Standards require that the receiving water be free from color or turbidity that are aesthetically objectionable or would impair any assigned uses. Consequently, this draft permit includes a weekly color monitoring requirement for the period of one year.

Whole Effluent Toxicity: Whole effluent toxicity testing is conducted to assess whether certain effluents are discharged in a combination which produces a toxic amount of pollutants in a receiving water. Toxicity testing is used in conjunction with pollutant specific control procedures to control the discharge of toxic pollutants.

Sections 402(a)(2) and 308(a) of the Clean Water Act provide EPA and the States the legal basis for establishing toxicity testing requirements and toxicity-based permit limits in NPDES permits. Section 308 specifically describes biological monitoring methods as techniques which may be used to carry out the objectives of the Act. Under certain narrative State water quality standards and Sections 301, 303, and 402 of the Clean Water Act, EPA and the States may establish toxicity-based limits to implement the narrative “no toxics in toxic amounts”.

The regulation at 40 CFR Part 122.44(d)(ii) states, “When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a State water quality standard, the permitting authority shall use procedures which account for existing controls on point and nonpoint sources of pollution “...(including) the sensitivity of the species to toxicity testing...” The EPA and DEP believe that the complexity of the wastewater from this discharge is such that toxicity testing and limitations are required to evaluate and address any water quality impacts.

Pursuant to EPA Region 1 policy, and MADEP’s Implementation Policy for the Control of Toxic Pollutants in Surface Waters February 23, 1990, discharges having a dilution ratio less than 10:1 require acute toxicity testing four times per year with an LC₅₀ equal to 100%. Also in accordance with that policy, the chronic (c-NOEC) whole effluent toxicity limit of 1.A.1. is calculated using the instream waste concentration (IWC) of the WWTF effluent. The IWC is the inverse of the dilution.

$$IWC = 1 \div 1.9 * 100\% = 52.6 = 53\%$$

Because the existing monthly average chronic WET limit (63%) is more stringent than the limit calculated above, antibacksliding applies and the current chronic limit is maintained in the draft permit. This limit will be protective of ambient criteria since the limit is established at critical low flow of the receiving water.

The whole effluent toxicity testing will only require quarterly testing of the daphnid, *Ceriodaphnia dubia*, the more sensitive species as in the current permit.

PCBs: As previously mentioned, the river segment receiving the Crane & Co., Inc.’s discharge has elevated PCB levels. The permit application indicates the PCB levels in the effluent are below the detection limit according to current EPA approved method 608. It is unlikely that the Crane & Co., Inc.’s discharge is the cause of the elevated PCB levels in the Housatonic River. If EPA approves a method which provides for a lower detection limit, future permits may contain limits for PCBs depending upon the results of such tests.

V. Essential Fish Habitat Determination (EFH)

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16U.S.C. §1801 et seq. (1998)), EPA is required to consult with the National Fisheries Services (NMFS) if EPA’s action or proposed actions that it funds, permits, or undertakes, may adversely impact any essential fish habitat 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. § 600.010 (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 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.

The East Branch of the Housatonic River is not covered by the EFH designation for riverine systems and thus EPA and MA DEP have determined that a formal EFH consultation with the NMFS is not required.

VI. State Certification Requirements

EPA may not issue a permit unless the Massachusetts Department of Environmental Protection (MA DEP) certifies that the effluent limitations included in the permit are stringent enough to assure that the discharge will not cause the receiving water to violate State Water Quality Standards. The MA DEP 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 the draft permit will be certified.

VII. Comment Period and Procedures the Final Decision

All persons, including applicants, who believe any condition of the 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 the U.S. Environmental Protection Agency, Municipal Permits Branch (CMP), One 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 to be raised in the hearing. A public hearing may be held after at least thirty (30) 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 the public hearing, if held, the Regional Administrator will issue a final permit decision and forward a copy of the final decision to the applicant and to each person who has submitted written comments or requested notice.

VIII. EPA and Massachusetts Department of Environmental Protection Contacts

Additional information concerning the draft permit may be obtained between the hours of 9am-5pm, Monday through Friday from:

Mark Malone (CMP)
Municipal Permits Branch
U.S. EPA
One Congress Street - Suite 1100
Boston, MA 02114-2023
TEL. (617) 918-1619
FAX:(617) 918-2064

email: malone.mark@epa.gov

Paul Hogan
MA Department of Environmental Protection
Division of Watershed Management
627 Main Street
Worcester, MA 01608
TEL: (508) 767-2796
FAX: (508)791-4131

paul.hogan@state.ma.us

Linda M. Murphy, Director
Office of Ecosystem Protection