AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

Fletcher Granite Company 534 Groton Road Westford, MA 01886

is authorized to discharge from the facility located at

534 Groton Road Westford, MA 01886

to receiving water named Gilson Brook, tributary to Stony Brook,

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit will become effective on the first day of the calendar month following sixty (60) days after the date of signature.

This permit and the authorization to discharge expire at midnight, five (5) years from the last day of the month preceding the effective date.

This permit supersedes the last permit issued on April 8, 2003.

This permit consists of 5 pages in Part I including effluent limitations and monitoring requirements and 25 pages in Part II including General Conditions and Definitions.

Signed this 24th day of June, 2010

/S/ SIGNATURE ON FILE

Stephen S. Perkins, Director Office of Ecosystem Protection Environmental Protection Agency Boston, MA Glenn Haas, Director Division of Watershed Management Department of Environmental Protection Commonwealth of Massachusetts Boston, MA

PART I A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

 During the period beginning with the effective date and lasting through expiration, the permittee is authorized to discharge quarry water, consisting of the quarry process water, groundwater and stormwater, all of which collects at the bottom of quarry and discharges through **Outfall Serial Number 001** to Gilson Brook, tributary to Stony Brook. Such discharge shall: 1) be limited and monitored by the permittee as specified below; and 2) not cause a violation of the State Surface Water Quality Standards of the receiving water.

Effluent	Monitoring Requirement						
Characteristic							
	Average	Maximum Daily	Measurement	Sample Type ¹			
	Monthly		Frequency ²				
Flow (GPD)	Report	Report	Monthly	Estimate			
$pH(SU)^3$	6.5	-8.3	Monthly	2 grabs/day ⁴			
Total Suspended	20	40	Monthly	3 grabs/day ⁵			
Solids (TSS)							
(mg/L)							
Turbidity (NTU)	25	50	Monthly	3 grabs/day ⁵			

Footnotes:

Samples taken in compliance with the monitoring requirements specified above, with the exception of flow, shall be taken at the following location: overflow from the quarry water supply pond to Gilson Brook, to be representative of the flow through Outfall 001.
Sampling frequency of "monthly" is defined as the sampling of one (1) discharge event in each calendar month, when discharge occurs. The permittee shall submit the results to EPA

of any additional testing done to that required herein, if it is conducted in accordance with EPA approved methods consistent with the provisions of 40 CFR §122.41(l)(4)(ii).

3. Required for State Certification.

4. The pH shall be monitored one day per month. The range of the two grabs shall be reported.

5. TSS and turbidity shall be monitored one day per month. The average for each set of three grab samples shall be reported.

Part I.A. (Continued)

- 2. The discharges either individually or in combination shall not cause a violation of State Water Quality Standards of the receiving waters.
- 3. The pH of the effluent shall not be less than 6.5 or greater than 8.3 standard units (SU), unless these values are exceeded as a result of natural causes (which may be determined by comparison to the upstream pH). The pH of the effluent shall not be more than 0.5 units outside of the naturally occurring range.
- 4. The discharge shall not cause objectionable discoloration of the receiving waters.
- 5. The effluent shall contain no visible oil sheen, foam, nor floating solids at any time.

- 6. The discharges shall not contain materials in concentrations or combinations which are hazardous or toxic to human health, aquatic life of the receiving water or which would impair the uses designated by its classification.
- 7. The discharges shall not impart color, taste, turbidity, toxicity, radioactivity or other properties which cause those waters to be unsuitable for the designated uses and characteristics ascribed to their use.
- 8. Notwithstanding specific conditions of this permit, the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.
- 9. The results of sampling for any parameter above its required frequency must also be reported, in accordance with 40 CFR § 122.41(l)(4)(ii).
- 10. EPA may modify this permit in accordance with EPA regulations in 40 Code of Federal Regulations (CFR) §122.62 and §122.63 to incorporate more stringent effluent limitations, increase the frequency of analyses, or impose additional sampling and analytical requirements.
- 11. All existing manufacturing, commercial, mining and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. One hundred micrograms per liter (100 μ g/l);
 - ii. Two hundred micrograms per liter $(200 \ \mu g/l)$ for acrolein and acrylonitrite; five hundred micrograms per liter $(500 \ \mu g/l)$ for 2,4-dinitrophenol; and one milligram per liter $(1 \ mg/l)$ for antimony;
 - iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. §122.21(g)(7); or
 - iv. Any other notification level established by the Director in accordance with 40 C.F.R. 122.44(f).
 - b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. Five hundred micrograms per liter (500 μ g/l);
 - ii. One milligram per liter (1 mg/l) for antimony;
 - iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. §122.21(g)(7).
 - iv. Any other notification level established by the Director in accordance with 40 C.F.R. 122.44(f).
 - c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.
- 12. Toxics Control
 - a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.

- b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.
- c. EPA or MassDEP may use the results of chemical analyses conducted pursuant to this permit, as well as national water quality criteria developed pursuant to 304(a)(a) of the Clean Water Act (CWA), state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 CFR §122.

B. UNAUTHORIZED DISCHARGES

This permit authorizes the permittee to discharge only in accordance with the terms and conditions of this permit and only from the 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 shall be reported in accordance with Section D.1.e.(1) of the Standard Conditions of this permit (twenty-four hour reporting).

C. REOPENER CLAUSES

1. This permit shall be modified, or alternately, revoked and reissued, to comply with any applicable standard or limitation promulgated or approved under sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

b. Controls any pollutants not limited in the permit.

D. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Form(s) postmarked no later than the 15th day of the month following the effective date of the permit. Signed and dated originals of these, and all other reports required herein, shall be submitted to EPA at the following address:

U.S. Environmental Protection Agency Water Technical Unit (SMR-04) 5 Post Office Square - Suite 100 Boston, MA 02109-3912

Signed and dated Discharge Monitoring Report Form(s) and all other reports required by this permit shall also be submitted to the State at the following addresses:

Massachusetts Department of Environmental Protection Northeast Regional Office Bureau of Waste Prevention

205B Lowell Street Wilmington, Massachusetts 01887

and

Massachusetts Department of Environmental Protection Division of Watershed Management Surface Water Discharge Permit Program 627 Main Street, 2nd Floor Worcester, Massachusetts 01608

E. STATE PERMIT CONDITIONS

This authorization to discharge includes two separate and independent permit authorizations. The two permit authorizations are (i) a federal National Pollutant Discharge Elimination System permit issued by the U.S. Environmental Protection Agency (EPA) pursuant to the Federal Clean Water Act, 33 U.S.C. §§1251 et seq.; and (ii) an identical state surface water discharge permit issued by the Commissioner of the Massachusetts Department of Environmental Protection (MassDEP) pursuant to the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53, and 314 C.M.R. 3.00. All of the requirements contained in this authorization, as well as the standard conditions contained in 314 CMR 3.19, are hereby incorporated by reference into this state surface water discharge permit.

This authorization also incorporates the state water quality certification issued by MassDEP under § 401(a) of the Federal Clean Water Act, 40 C.F.R. 124.53, M.G.L. c. 21, § 27 and 314 CMR 3.07. All of the requirements (if any) contained in MassDEP's water quality certification for the permit are hereby incorporated by reference into this state surface water discharge permit as special conditions pursuant to 314 CMR 3.11.

Each agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the agency taking such action, and shall not affect the validity or status of this permit as issued by the other agency, unless and until each agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared invalid, illegal or otherwise issued in violation of state law such permit shall remain in full force and effect under federal law as a NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal or otherwise issued in violation of federal law, this permit shall remain in full force and effect under state law as a permit issued by the Commonwealth of Massachusetts.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY NEW ENGLAND - REGION I 5 POST OFFICE SQUARE – OEP06-04 BOSTON, MA 02109-3912

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: MA0020231

PUBLIC NOTICE START AND END DATES: April 16, 2010 – May 15, 2010

NAME AND MAILING ADDRESS OF APPLICANT:

Fletcher Granite Company 534 Groton Road Westford, MA 01886

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Fletcher Granite Company 534 Groton Road Westford, MA 01886

RECEIVING WATER(S): Gilson Brook, a tributary to Stony Brook (MA84B-04)

RECEIVING WATER CLASSIFICATION(S): B, Warm Water Fishery

SIC Code: 3281

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

Fletcher Granite Company (hereinafter, Fletcher Granite) has applied to the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) for the re-issuance of its National Pollutant Discharge Elimination System (NPDES) permit for discharge through Outfall 001 into Gilson Brook, tributary to Stony Brook. The permit, issued to Fletcher Granite on April 8, 2003, became effective sixty (60) days from the date of issuance and expired in June 2008. EPA received a permit renewal application December 3, 2007 and supplemental stormwater sampling results January 2, 2008. As EPA deemed the permit renewal application complete, the permit has been administratively continued.

Fletcher Granite quarries granite at its facility located at 534 Groton Road in Westford, MA. The quarry is located north of Groton Road. Quarry water that collects at the bottom of the quarry is pumped to a nearby settling pond. Quarry water discharges through Outfall 001 to Gilson Brook, an unclassified water that eventually flows to Stony Brook.

2. Description of Discharge

A quantitative description of the discharge in terms of significant effluent parameters based on the permit application and in terms of recent effluent monitoring data from January 31, 2003 through June 30, 2009 was reviewed and used in the development of the draft NPDES permit (draft permit). A summary of the quantitative description is provided in the Discharge Monitoring Report (DMR) provided as Attachment C of this fact sheet.

3. Receiving Water Description

Stony Brook is designated as a Class B warm water body by the Massachusetts Surface Water Quality Standards (314 CMR 4.06). Class B waters are designated as a habitat for fish, other aquatic life, and wildlife, and for primary and secondary recreation. Where designated, these waters shall be suitable as a source of public water supply with appropriate treatment. These waters 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 [314 CMR 4.05 (3) b]. Section 303 (d) of the Federal Clean Water Act (CWA) requires states to identify those water bodies that are not expected to meet surface water quality standards after the implementation of technology-based controls, and as such, require the development of total maximum daily loads (TMDLs).

The receiving water for discharge through Outfall 001 is the segment of Stony Brook located northeast of Chamberlin Road in Westford, MA is listed as segment MA84B-04. In the "Final Massachusetts Year 2008 Integrated List of Waters (CWA Sections 303d and 305b)," segment MA84B-04 is a Category 5 "Water requiring a TMDL" for nutrients, pH, Organic enrichment/low Dissolved Oxygen (DO), and pathogens.

4. 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.

5. Permit Basis: Statutory and Regulatory Authority

5.1 General Requirements

The Clean Water Act (CWA) prohibits the discharge of pollutants to waters of the United States without a National Pollutant Discharge Elimination System (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. The draft permit was developed in accordance with various statutory and regulatory requirements established pursuant to the CWA and applicable State regulations. During development of the draft permit, EPA considered the most recent technology-based 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 in 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 to discharge under authority of Section 308 (a) of the CWA in accordance with 40 CFR §122.41(j) and 122.41(i), and 122.84. In this permit, EPA considered (a) technology-based requirements, (b) water quality-based requirements, and (c) all limitations and requirements in the current/existing permit, when developing the permit limits.

5.2 Technology-based requirements

40 CFR §125 Subpart A 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 (40 CFR §125 Subpart A) to meet best practicable control technology currently available (BPT) for conventional pollutants (BOD, TSS, pH, Oil & Grease, Fecal Coliform) and some metals, best conventional control technology (BCT) for conventional pollutants, and best available technology economically achievable (BAT) for toxic and non-conventional pollutants. In general, technology-based effluent guidelines for non-POTW facilities must be compiled as expeditiously as practicable but in no case later than three years after the date such limitations are established and in no case later than March 31, 1989 (40 CFR §125.3(a)(2)). Compliance schedules and deadlines not in accordance with the statutory provisions of the CWA cannot be authorized by a NPDES permit.

In the absence of technology based guidelines, EPA is authorized to use Best Professional Judgment (BPJ) in accordance with Section 402(a) (1) of the Clean Water Act. There are no federal effluent guidelines for the granite quarry industry, thus permit requirements are based on BPJ.

5.3 Water Quality-based requirements

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 not attain or maintain the water quality of the receiving water.

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.

Water quality-based criteria 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) of the water body; and (3) antidegradation requirements to ensure that once a use is attained it will not be degraded. The Massachusetts State Water Quality Standards, found in 314 CMR 4.00, include these elements. The state will limit or prohibit discharges of pollutants to surface waters and thereby assure that the surface water quality standards of the receiving water 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, be used unless site-specific criteria are established.

The draft permit limits any pollutant or pollutant parameter (conventional, nonconventional, and toxic) 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 permittee's reissuance application, monthly DMR data, and state and federal water quality reports; (3) sensitivity of the indicator species used in toxicity testing; (4) known water quality impacts of process on waste waters; and (5) where appropriate, dilution of the effluent in the receiving water.

5.4 Antibacksliding

EPA's antibacksliding 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. Antibacksliding provisions apply to effluent limits based on technology, water quality, BPJ and State Certification requirements. Relief from antibacksliding provisions can only be granted under one of the defined exceptions (reference 40 CFR §122.44(l) (I)). As none of these exceptions apply to this facility, the effluent limits in the draft permit are at least as stringent as those in the existing permit.

5.5 Antidegradation

The Commonwealth of Massachusetts' antidegradation provisions found in 314 CMR 4.04

ensure that provisions in 40 CFR §131.12 are met. These provisions ensure that all existing uses in the receiving water, along with the level of water quality necessary to protect those existing uses, are maintained and protected. The effluent limits in the draft permit should ensure that provisions in 314 CMR 4.04 are met. The state is also asked to certify that the antidegradation provisions in the state law are met.

6. Proposed Permit Effluent Limitations and Explanation of Effluent Limitations

6.1 Facility Information

Fletcher Granite quarries granite at its facility located at 534 Groton Road in Westford, MA. As shown in the facility map provided as Attachment A, the quarry is located north of Groton Road. Quarry water, which consists of quarry process water, groundwater and stormwater, all of which collect at the bottom of the quarry. Quarry process water is water used as the source for lubricating and cooling wire saws that cut the granite. A constant water source is used while sawing the granite. The granite is generally cut in a two-step process in which the saws cut the two ends of the target slab of granite and then the saw cuts the target slab itself. Approximately 0.014 million gallons per day (MGD) of water is used to cut both ends of the granite and 0.0065 MGD of quarry process water is used to cut the granite slab.

Approximately 0.1 MGD of quarry process water and 1.2 MGD stormwater collect at the bottom of the quarry. As shown in the water flow schematic provided in Attachment B, the quarry water, consisting of quarry process water, stormwater and groundwater, is pumped to a man-made settling pond, which is located southwest of the quarry. Quarry water is pumped from the bottom of the quarry for approximately four consecutive days every two months. The settling pond serves as both a water supply pond for sawing as well as a settling pond to remove fine stone dust and silicon carbide fines. During extended periods of rain and/or snow, the settling pond will overflow and then discharge through Outfall 001 by gravity to Gilson Brook, which eventually flows to Stony Brook.

The process of cutting and splitting of granite into the finished product takes place in a building on the south side of the property separate from the quarry cutting process. In the process, watercooled diamond-tipped saws cut stone into various shapes and dimensions. Cooling water for the saws is recycled using a recycling system within the mill, with make-up water drawn from the municipal water system. A discharge line from the operation is present, but Fletcher Granite affirms that there will be no discharge from the outfall, designated Outfall 003 in the existing permit. Therefore, the draft permit terminates coverage of the discharge from Outfall 003.

6.2 Permitted Outfall

Fletcher Granite discharges quarry water, which consists of quarry process water, groundwater and stormwater that collects at the bottom of the quarry and then discharges from the facility though Outfall 001. The outfall is located at a settling pond that feeds into Gilson Brook, tributary to Stony Brook.

A. Flow

The existing permit reporting requirements for average monthly and maximum daily have been retained in the draft permit. DMR data from January 2003 through June 2009 indicate an average monthly flow (average) and a daily maximum flow (average) of both 1.2 MGD. The facility reports that the flow is estimated by observing the depth of flow at the end of the circular outfall pipe, given that a maximum depth of flow through the pipe is equivalent to 6.46 MGD. The draft permit maintains the monitoring frequency requirement from the existing permit of once per month. This shall be monitored by estimation and recorded for use in calculating the maximum daily and the average monthly value for the monthly DMR reports.

B. Total Suspended Solids (TSS)

The TSS effluent limitations, measured once per month, of 40 mg/L maximum daily and 20 mg/L average monthly have been retained in the draft permit based on antibacksliding requirements found in 40 CFR §122.44(l). DMR data from January 2003 through June 2009 indicate a maximum daily TSS concentration (average) and an average monthly TSS concentration (average) of both 7.8 mg/L. Both maximum daily and average monthly TSS limits have not been exceeded. The sampling frequency for TSS will remain unchanged at once per month.

C. Turbidity

Due to the nature of the operation, which involves the treatment of solids washed from the granite, there is reasonable potential for turbidity in the discharge. In order to minimize this turbidity, an average monthly limit of 25 NTU and a maximum daily limit of 50 NTU is included in the draft permit. These requirements have been retained in the draft permit in accordance with the antibacksliding requirements found in 40 CFR §122.44(1). DMR data from January 2003 through June 2009 indicate a maximum daily turbidity (average) of 9.6 NTU and an average monthly turbidity (average) of 8.7 NTU. Maximum daily and average monthly turbidity limits have not been exceeded. The sampling frequency for turbidity will remain unchanged at once per month.

D. pH

The pH limits are based on the Massachusetts Surface Water Quality Standards, 314 Code of Massachusetts Regulations ("CMR") Inland Water, Class B at 4.05 (3)(b) 3. These standards require that the pH of the receiving water be in the range of 6.5 to 8.3 standard units (SU) and no more than 0.5 units outside the background range. There shall be no change from background conditions that would impair any use assigned to this Class. The water quality criteria have been adopted as discharge limitations based on certification requirements under Section 401(a)(1) of the CWA, as described in 40 CFR Parts 124.53 and 124.55.

DMR data from January 2003 through June 2009 indicate a minimum pH (average) of 7.3 SU and a maximum pH (average) of 7.5 SU. Maximum daily and average monthly pH limits have not been exceeded. The sampling frequency for pH will remain unchanged at once per month.

7. Essential Fish Habitat (EFH)

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 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" as waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. U.S.C. §1802(10). Adverse impact means any impact, which reduces the quality and/or quantity of EFH. 50 CFR §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 species for which federal fisheries management plans exist. 16 U.S.C. §1855(b)(1)(A). The U.S. Department of Commerce approved EFH designations for New England on March 3, 1999.

The species listed in the table below are believed to be the only managed species present during one or more life stages within the Merrimack River, to which Stony Brook is a tributary. No "habitat area of particular concern" as defined under § 600.815(a)(9) of the Magnuson-Stevens Act, has been designated for this site.

Species	Eggs	Larvae	Juveniles	Adults	Spawning Adults
Atlantic salmon (Salmo salar)			F,M	F,M	
Atlantic cod (Gadus morhua)					
haddock (Melanogrammus aeglefinus)					
pollock (Pollachius virens)	М	М	М		
whiting (Merluccius bilinearis)	М				
offshore hake (Merluccius albidus)					
red hake (Urophycis chuss)					
white hake (Urophycis tenuis)	М				

redfish (Sebastes fasciatus)	n/a				
witch flounder (Glyptocephalus cynoglossus)					
winter flounder (Pleuronectes americanus)	М	М	М	М	М
yellowtail flounder (Pleuronectes ferruginea)	S	S			
windowpane flounder (Scopthalmus aquosus)					
American plaice (Hippoglossoides platessoides)					
ocean pout (Macrozoarces americanus)					
Atlantic halibut (Hippoglossus hippoglossus)	S	S	S	S	S
Atlantic sea scallop (Placopecten magellanicus)					
Atlantic sea herring (Clupea harengus)		М	М		
Atlantic sea herring (<i>Clupea harengus</i>) monkfish (<i>Lophius americanus</i>)		М	М		
Atlantic sea herring (Clupea harengus) monkfish (Lophius americanus) bluefish (Pomatomus saltatrix)		M	М		
Atlantic sea herring (Clupea harengus) monkfish (Lophius americanus) bluefish (Pomatomus saltatrix) long finned squid (Loligo pealei)	n/a	M n/a	M		
Atlantic sea herring (Clupea harengus) monkfish (Lophius americanus) bluefish (Pomatomus saltatrix) long finned squid (Loligo pealei) short finned squid (Illex illecebrosus)	n/a n/a	M n/a n/a	M		
Atlantic sea herring (Clupea harengus)monkfish (Lophius americanus)bluefish (Pomatomus saltatrix)long finned squid (Loligo pealei)short finned squid (Illex illecebrosus)Atlantic butterfish (Peprilus triacanthus)	n/a n/a	M n/a n/a	M		
Atlantic sea herring (Clupea harengus)monkfish (Lophius americanus)bluefish (Pomatomus saltatrix)long finned squid (Loligo pealei)short finned squid (Illex illecebrosus)Atlantic butterfish (Peprilus triacanthus)Atlantic mackerel (Scomber scombrus)	n/a n/a M	M n/a n/a M	M		
Atlantic sea herring (Clupea harengus)monkfish (Lophius americanus)bluefish (Pomatomus saltatrix)long finned squid (Loligo pealei)short finned squid (Illex illecebrosus)Atlantic butterfish (Peprilus triacanthus)Atlantic mackerel (Scomber scombrus)summer flounder (Paralicthys dentatus)	n/a n/a M	M n/a n/a M	M		

black sea bass (Centropristus striata)				
surf clam (Spisula solidissima)	n/a	n/a		
ocean quahog (Artica islandica)	n/a	n/a		
spiny dogfish (Squalus acanthias)	n/a	n/a		
tilefish (Lopholatilus chamaeleonticeps)				

*Note (Source: <u>http://www.nero.noaa.gov/hcd/ma5.html</u>):

S = The EFH designation for this species includes the seawater salinity zone of this bay or estuary (salinity > or = 25.0%).

M = The EFH designation for this species includes the mixing water/ brackish salinity zone of this bay or estuary (0.5% < salinity < 25.0%).

F = The EFH designation for this species includes the tidal freshwater salinity zone of this bay or estuary (0.0% < or = salinity < or = 0.5%).

n/a = The species does not have this lifestage in its life history (dogfish/ redfish), or has no EFH designation for this lifestage (squids, surf clam, ocean quahog). With regard to the squids, the surf clam, and the ocean quahog, juvenile corresponds with pre-recruits, and adult corresponds with recruits in these species' life histories.

EPA has structured the permit to be sufficiently stringent to assure that state water quality standards will be met for Class B waters. The effluent limitations in this permit ensure the protection of aquatic life and maintenance of the receiving water as an aquatic habitat. The permit limitations in the draft permit are at least as stringent as those in the current permit.

Although EFH has been designated for this general location, EPA has concluded that this activity is not likely to adversely affect EFH or its associated species for the following reasons:

- This is a reissuance of an existing permit;
- The quantity of discharge from the facility is 1.2 MGD monthly average;
- The discharge facility is located two miles away from the Merrimack River;
- The permit will prohibit any violation of state water quality standards.

Accordingly, EPA has determined that a formal EFH consultation with NMFS is not required. EPA has determined that no EFH consultation with NMFS is required at this time. The effluent limitations and other permit requirements that are identified in this fact sheet are designated to be protective of all aquatic species. If adverse effects are detected as a result of this permit action, NMFS will be notified and an EFH consultation will promptly be initiated. During the public comment period, EPA has provided a copy of the draft permit and fact sheet to NMFS.

8. Endangered Species Act (ESA)

Section 7(a) of the Endangered Species Act of 1973, as amended, 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 or Commerce, 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 administers Section 7 consultations for freshwater species, and the National Marine Fisheries Services (NMFS) administers Section 7 consultations for marine species and anadromous fish.

Based on EPA's review of federally-listed species information for New England waters, it appears that shortnose sturgeon (*Acipenser brevirostrum*) is the only species that may be present in the vicinity of the facility's discharge. Therefore, there does not appear to be any listed species present that are under the purview of the USFWS. According to the Final Recovery Plan for the Shortnose Sturgeon (*Acipenser brevirostrum*), dated December 1998, there is a small known population in the lower Merrimack River.

It is EPA's opinion that the operation of the facility, as governed by the reissuance of this NPDES permit, is not likely to adversely affect shortnose sturgeon, or its critical habitat. The following information supports this determination:

- This is a reissuance of an existing permit;
- The quantity of discharge from the facility is 1.2 MGD monthly average;
- The discharge facility is located two miles away from the Merrimack River;
- EPA has structured the permit to be sufficiently stringent to assure that state water quality standards will be met for Class SB waters. The effluent limitations in this permit ensure the protection of aquatic life and maintenance of the receiving water as an aquatic habitat. The permit limitations in the draft permit are at least as stringent as those in the current permit.

EPA has initiated informal consultation with both NOAA Fisheries and USFWS concerning listed species under their purviews. 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 USFSWS and NMFS.

9. Monitoring

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

9. State Certification Requirements

EPA may not issue a permit unless the MassDEP 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 or

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unless certification is waived. The staff of the MassDEP has reviewed the draft permit and advised EPA that the limitations are adequate to protect water quality. EPA has requested the permit certification by the State pursuant to 40 CFR §124.53 and expects that the draft permit will be certified.

10. Public Comment Period and Procedure for Final Decision

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 Jessica Hing, U.S. EPA, Office of Ecosystem Protection, Industrial Permits Branch, 5 Post Office Square – OEP06-04, Boston, MA 02109-3912 or via email to <u>hing.jessica@epa.gov</u>. The comments should reference the name and permit number of the facility for which they are being provided.

Any person, prior to such date, may submit a request in writing to EPA and the States Agency for a public hearing to consider the draft permit to EPA and the State Agency. Such requests should state the nature of the issues proposed to be raised in the hearing. A public hearing may be held if the criteria stated in 40 CFR §24.12 are satisfied. A public hearing may be held after at least thirty days public notice whenever the EPA finds that the response to this notice indicates significant public interest. 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 thirty (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 CFR §124.19.

11. EPA and MassDEP Contact

Additional information regarding the draft permit may be obtained between the hours of 9:00am and 5:00pm, Monday through Friday, excluding holidays from the EPA and MassDEP contacts:

Jessica Hing Industrial Permits Branch U.S. Environmental Protection Agency 5 Post Office Square – OEP06-04 Boston, MA 02109-3912 Telephone: (617) 918-1560 Fax: (617) 918-0560 Email: hing.jessica@epa.gov

Kathleen Keohane, Massachusetts Department of Environmental Protection Division of Watershed Management, Surface Water Discharge Permit Program 627 Main Street, 2nd Floor Worcester, MA 01608 Telephone: (508) 767-2856 Fax: (508) 791-4131 Email: Kathleen.keohane@state.ma.us

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

12. Attachments

Attachment A: Map of Site and Receiving Water Attachment B: Water Flow Schematic Attachment C: Discharge Monitoring Report (DMR) Data

Attachment A: Map of Site and Receiving Water

Fletcher Granite Company 534 Groton Road Westford, MA 01886



Attachment B: Water Flow Schematic



ATTACHMENT C Fletcher Granite Company, Inc. (MA0020231) Outfall 001A- DMR Data Summary January 2003 – June 2009 Page 1 of 3

	Flow (N	/lgal/d)	Total Suspended Solids (TSS) (mg/L)		Turbidity (NTU)		pH (s.u.)	
DATE	Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	Minimum	Maximum
1/31/2003	0.95	0.95	4.68	4.68	5.35	5.04	6.85	7.15
2/28/2003	1.7	1.7	6.5	6.5	14.14	12.65	7.45	7.63
3/31/2003	1.6	1.6	6.8	5.6	15.63	14.75	7.1	7.3
4/30/2003	-	-	-	-	-	-	_	-
5/31/2003	1.85	1.85	7.5	7.5	7.25	6.34	7.35	7.58
6/30/2003	-	-	-	-	-	-	-	-
7/31/2003	0.24	0.24	5	5	6.52	6.11	6.8	7.2
8/31/2003	0.35	0.35	7.5	7.5	7.35	6.84	7.1	7.3
9/30/2003	0.65	0.65	8.5	8.5	6.53	6.24	6.95	7.1
10/31/2003	0.85	0.85	5	5	7.28	6.45	6.9	7.1
11/30/2003	1.2	1.2	7.6	7.6	8.31	7.48	7.1	7.4
12/31/2003	1.2	1.2	6.6	6.6	8.75	8.24	6.8	7.3
1/31/2004	0.8	0.8	4.5	4.5	10.36	9.84	7.25	7.64
2/29/2004	-	-	-	-	-	-	-	-
3/31/2004	1.4	1.4	2.7	2.7	7.24	6.51	7.24	7.48
4/30/2004	1.6	1.6	8.7	8.7	7.45	6.82	7.25	7.65
5/31/2004	0.85	0.85	10.5	10.5	8.65	7.85	7.24	7.75
6/30/2004	1.2	1.2	6.8	6.8	11.2	10.5	7.42	7.61
7/31/2004	0.8	0.8	8.4	8.4	8.14	7.62	7.34	7.48
8/31/2004	1.1	1.1	10.43	10.43	8.04	6.72	7.38	7.62
9/30/2004	1.1	1.1	8.65	8.65	8.14	7.89	6.8	7.2
10/31/2004	0.8	0.8	10.65	10.65	8.97	8.32	7.2	7.4
11/30/2004	0.5	0.5	8.5	8.5	7.18	6.74	7.35	7.52
12/31/2004	0.8	0.8	10	10	7.18	6.85	6.94	7.18
1/31/2005	1.45	1.45	9	9	8.5	7.5	7.42	7.68
2/28/2005	0.8	0.8	7.5	7.5	9.75	9	7.24	7.38
3/31/2005	1.4	1.4	6.4	6.4	11.25	10.5	7.45	7.63
4/30/2005	1.8	1.8	5	5	10.25	8.5	7.24	7.46
5/31/2005	1.3	1.3	9.43	9.43	8.43	6.89	7.24	7.48
6/30/2005	-	-	-	-	-	-	-	-
7/31/2005	1.65	2.65	8.4	9.4	7.28	6.43	7.53	7.85
8/31/2005	-	-	-	-	-	-	-	-
9/30/2005	-	-	-	-	-	-	-	-
10/31/2005	1.8	2.8	8	9	14.65	10.5	7.44	7.68
11/30/2005	-	-	-	-	-	-	-	-
12/31/2005	0.8	0.8	8	8	5.58	5.51	7.24	7.46
1/31/2006	0.85	0.85	5.5	5.5	9.45	7.55	7.21	7.58
2/28/2006	0.5	0.5	7.5	7.5	6.98	6.24	7.34	7.51
3/31/2006	0.75	0.75	6.5	6.5	12.78	10.5	7.46	7.73
4/30/2006	-	-	-	-	-	-	-	-

ATTACHMENT C Fletcher Granite Company, Inc. (MA0020231) Outfall 001A- DMR Data Summary January 2003 – June 2009 Page 2 of 3

	Flow (N	/lgal/d)	Total Su Solids (TS	spended SS) (mg/L)	Turbidity (NTU)		pH (s.u.)	
DATE	Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	Minimum	Maximum
5/31/2006	2.1	2.1	4.8	4.8	7.8	5.6	7.41	7.64
6/30/2006	1.5	1.5	7.5	7.5	7.9	6.3	7.38	7.59
7/31/2006	-	-	-	-	-	-	-	-
8/31/2006	-	-	-	-	-	-	-	-
9/30/2006	-	-	-	-	-	-	-	-
10/31/2006	0.8	0.8	4.8	4.8	10.78	9.64	7.23	7.57
11/30/2006	1.4	1.4	8.4	8.4	9.38	8.75	7.43	7.68
12/31/2006	-	-	-	-	-	-	-	-
1/31/2007	-	-	-	-	-	-	-	-
2/28/2007	0.8	0.8	3.7	3.7	8.65	7.4	7.38	7.51
3/31/2007	1.5	1.5	8.4	8.4	9.48	8.75	7.43	7.62
4/30/2007	1.2	1.2	8.5	8.5	10.45	9.6	7.4	7.58
5/31/2007	0.75	0.75	7	7	12.4	11.8	7.2	7.4
6/30/2007	0.5	0.5	9.45	9.45	11.62	10.75	7.1	7.4
7/31/2007	2.2	2.2	5.65	5.65	8.2	7.45	7.3	7.5
8/31/2007	-	-	-	-	-	-	-	-
9/30/2007	-	-	-	-	-	-	-	-
10/31/2007	-	-	-	-	-	-	-	-
11/30/2007	-	-	-	-	-	-	-	-
12/31/2007	-	-	-	-	-	-	-	-
1/31/2008	-	-	-	-	-	-	-	-
2/29/2008	0.75	0.75	10.5	10.5	11.1	10.6	7.1	7.3
3/31/2008	1	1	7.4	7.4	10.21	9.58	7.24	7.45
4/30/2008	1.9	1.9	8.5	8.5	11.3	10.5	7.24	7.63
5/31/2008	0.75	0.75	10.5	10.5	14.1	12.7	7.18	7.32
6/30/2008	-	-	-	-	-	-	-	-
7/31/2008	-	-	-	-	-	-	-	-
8/31/2008	1.4	1.4	14.4	14.4	19.76	18.34	7.42	7.61
9/30/2008	1.5	1.5	8.6	8.6	9.84	9.37	7.38	7.51
10/31/2008	-	-	-	-	-	-	-	-
11/30/2008	1.5	1.5	7.6	7.6	11.1	10.3	7.42	7.71
12/31/2008	0.8	0.8	8.8	8.8	9.24	8.75	7.24	7.41
1/31/2009	-	-	-	-	-	-	-	-
2/28/2009	2.1	3.1	9.6	9.6	8.74	8.27	7.42	7.54
3/31/2009	1.4	1.4	8.5	8.5	9.4	8.94	7.48	7.63
4/30/2009	0.8	0.8	12.4	12.4	11.2	10.4	7.26	7.59
5/31/2009	-	-	-	-	-	-	-	-
6/30/2009	1.2	1.2	11.1	11.1	10.5	9.6	7.34	7.48

ATTACHMENT C Fletcher Granite Company, Inc. (MA0020231) Outfall 001A- DMR Data Summary January 2003 – June 2009 Page 3 of 3

	Flow (Mgal/d)		Total Suspended Solids (TSS) (mg/L)		Turbidity (NTU)		pH (s.u.)	
2003 Permit Limits	Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	Minimum	Maximum
	Report	Report	40	20	50	25	6.5	8.3
Minimum	0.2	0.2	2.7	2.7	5.4	5.0	6.8	7.1
Maximum	2.2	3.1	14.4	14.4	19.8	18.3	7.5	7.9
Average	1.2	1.2	7.8	7.8	9.6	8.7	7.3	7.5
Standard Deviation	0.5	0.6	2.2	2.2	2.7	2.4	0.2	0.2
# Measurements	54	54	54	54	54	54	54	54
# Exceeds Limits	N/A	N/A	0	0	0	0	0	0

Response to Comments on Draft National Pollutant Discharge Elimination System (NPDES) Permit No. MA0020231 – Fletcher Granite Company

Introduction:

In accordance with the provisions of 40 CFR §124.17, this document presents EPA's responses to comments received on the draft NPDES permit (MA0020231). The responses to comments explain and support the EPA determinations that form the basis of the final permit. The Fletcher Granite Company draft permit public comment period began April 16, 2010 and ended May 15, 2010. EPA received one comment from Merrimack River Watershed Council, Inc. on the draft permit. The final permit is identical to the Draft Permit that was available for public comment. The information and arguments presented do not raise any substantial new questions concerning the permit. EPA did, however, make certain clarifications in the response to comments. The fact sheet is a final document and therefore EPA is not revising the fact sheet. The response to comment the following clarification.

Comments from Merrimack River Watershed Council, Inc.:

Comment 1: Oil & Grease

"In the previous expired permit Fletcher Granite was authorized to discharge process water from its cutting mill through outfall 003 in the event of a malfunction of the mill's water recycling system. Effluent limitations and monitoring requirements for outfall 003 had oil and grease discharge limitations of 15 mg/l for both average monthly and maximum daily requirements. The new permit indicates that no discharge will occur from outfall 003, and there is no requirement for monitoring oil and grease from outfall 001. How has Fletcher Granite's processing changed such that oil and grease are no longer of concern and outfall 003 is no longer in use? Also, is it possible that oil and grease from the cutting mill could be contaminating the discharge from outfall 001? If any contaminants have the potential to enter Stony Brook, monitoring requirements."

Response to Comment 1:

Fletcher Granite continues to use oil and grease at the cutting mill to lubricate machinery. Therefore, monitoring for oil and grease would be applicable if a discharge through outfall 003 occurred. The fact sheet, however, explains that the coverage of the discharge from outfall 003 has been discontinued because water that is used for cooling at the cutting mill is recycled. There has not been a discharge through outfall 003 for the entirety of the 2003 permit term and the facility affirms that there will be no discharge from the outfall.

Monitoring for oil and grease in the discharge through outfall 001 is not included in the final permit because it is unlikely that oil and grease from the cutting mill will contaminate outfall 001. The only discharge allowed by the final permit is quarry water, which consists of quarry process water, groundwater and stormwater. As shown in the topographic map below, the cutting mill is located across Groton Road, to the south of the quarry. Thus, it is unlikely that the process water will contact the quarry water.

