RESPONSE TO PUBLIC COMMENTS

The Holden Trap Rock Company, Holden, Massachusetts

On October 11, 2002, the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MA DEP) released for public notice and comment, a draft National Pollutant Discharge Elimination System (NPDES) permit developed pursuant to an application from the Holden Trap Rock Company, for the re-issuance of the permit to discharge mine de-watering and non contact cooling water (NCCW) to Austin Brook, via a wetland. The public comment period for this draft permit expired on November 9, 2002. Comments were received from the following:

Webster Associates, A. Russell Webster, P.E., dated November 7, 2002 .
Commonwealth of Massachusetts Riverways Program, Cindy Delpapa, dated November 7, 2002.

After a review of the comments received, EPA has made a final decision to issue the permit authorizing this discharge. The following response to comments describes the changes that have been made to the permit from the draft and briefly describes and responds to the comments on the draft permit. Clarifications which EPA considers necessary are also included below. A copy of the final permit may be obtained by writing or calling Jonathan Britt, EPA Massachusetts NPDES Permits Program (CPE), 1 Congress Street, Suite 1100, Boston, MA 02114-2023; telephone: (617) 918-1563.

Webster Associates comment

Comment 1: "We have reviewed with the Holden Trap Rock Company the October 11, 2002 FACT SHEET. We have expanded the description of Holden Trap Company's development to produce washed manufactured stone sand and the impact on water use described in the first paragraph of page 4 of the FACT SHEET."

"The crusher non contact cooling water (nccw) will be used as a water source on the days that the sand wash and classifying system is operated. There will be little or no nccw discharge (Outfall 002) on those days. Annual Outfall 002 discharge will be greatly reduced. It is anticipated that washed stone sand will be produced 70% to 90% of plant operating days. Most of the sand process water is recovered for reuse. The stone sand retains 5% to 8% moisture. No process water discharge."

"Revisions to the nccw system including elimination of the detention pond will be submitted when complete."

Response 1: The Fact Sheet (dated June 28, 2002) was finalized and issued with the public notice draft permit. Since the Fact Sheet is not part of the final permit decision, it will not be modified. However, the information you have submitted is now part of the permit record. EPA supports all efforts by the Company to reduce or eliminate its discharges to Austin Brook. The permittee shall notify EPA and MA DEP of all changes to the facility, including the elimination

of discharge(s). EPA will review the new information submitted by the permittee and the permit maybe modified based on conditions that warrant a permit modification, listed in 40 CFR § 122.62.

Commonwealth of Massachusetts Riverways Program comments

Comment 1: The Fact Sheet states that Austin Brook is attaining water quality standards as stated in the state's 303 d list. This is not actually the case. A review of the 1998 305 b Assessment of the Nashua River shows that Austin Brook was not directly assessed. The Quinapoxet River (Segment MA 81-32) lists the Holden Trap Rock Company as the sole NPDES discharge in this segment. The assessment for this segment occurred downstream of River Stream, at the Harris Street Bridge, and in West Boylston near the circular dam. All of these assessment sites are well removed from Austin Brook which flows through several ponds and a large stretch of the Quinapoxet River which receives flow from several tributaries, including the Asnebumskit, before nearing the sampling locations used in the 305 b assessment. The wording in the Fact Sheet could be interpreted that the brook was assessed and been found meeting standards, when in fact it is the Quinapoxet that was assessed and not in the vicinity of Austin Brook.

Response 1: The EPA and MA DEP concur that the wording in the Fact Sheet should be more clear: Austin Brook is not listed on the State's 303 d list of impaired waters. The Fact Sheet (dated June 28, 2002) was finalized and issued with the public notice draft permit. Since the Fact Sheet is not part of the final permit decision, it will not be modified. However, the information you have submitted is now part of the permit record.

Comment 2: Table 1 attached to the Fact Sheet lists the flow discharged from outfall 001. The units in Table 1 are GPD, but from the information enclosed in the permit, I believe the units should be gpm.

Response 2: The EPA and MA DEP concur that the units are incorrect. The contents of Fact Sheet Table 1, Holden Trap Rock Discharge Monitoring Report Data, were obtained from EPA's Permit Compliance System (PCS). Upon further review, the tracking system contains the incorrect units for flow through Outfall 001A (mine de-watering). The units should be gpm, which is a characteristic of the de-watering pump, and not gpd. EPA recently changed the units in PCS. The Fact Sheet (dated June 28, 2002) was finalized and issued with the public notice draft permit. Since the Fact Sheet is not part of the final permit decision, it will not be modified. However, the information you have submitted is now part of the permit record.

Comment 3: A reduction in the pH minimum and maximum appears in this permit but there is no information on which to assess whether the discharges are impacting Austin Brook, a Class A water such as information stating the dilution ratio, information on the relative health of aquatic community in the brook, the 7Q10 of Austin Brook and the proximity of the two Holden Trap Company outfalls are to each other. The acceptable range for pH for Class A and Class B water is 6.5-8.3 s.u. Even Class C waters have a minimum pH of 6.5 s.u. I do not believe the case has been made, under the anti degradation policy, to justify such a substantial change outside the

state's water quality standards. This outfall, unlike the smaller and not continuously discharging outfall 002, has never had toxicity test performed on the effluent to determine if it poses acute or chronic toxicity threats that could be caused or exacerbated by low pH.

Comment 4 : The addition of the requirement to not have the pH deviate more than 0.5 s.u. should be able to take care of the occasional problem with background levels if worded in the permit to allow below 6.5 s.u. only when the background level is below 6.5 s.u. and the effluent does not deviate more than 0.5 s.u., The permit is not clear on where the background pH and temperature levels will be measured, an important factor since the effluent is discharged into a wetland not directly into Austin Brook. Also, if background level are a deciding factor, why does outfall 002 have a pH range limit consistent with Class A standards, 6.5-8.3 s.u.? The logic to having the two different pH ranges and rationale is convoluted.

Response 3 and 4: The pH limits of 6.0 - 9.0 s.u. for Outfall 001 (mine de-watering) in the draft permit are consistent with federal regulations listed in Chapter 40 of the Code of Federal Regulations Section 436 and EPA's NPDES Storm Water Multi-Sector General Permit for Industrial Activities, *Sector J -- Mineral Mining and Dressing*, Table J-1.

Groundwater and storm water accumulate in the bottom of the quarry, and are discharged through Outfall 001. In the 34 months between January 1999 and January 2002 in which groundwater and stormwater were pumped from the bottom of the quarry and discharged through Outfall 001, there were seven pH violations in which the pH was below the permitted range. In the 22 months between January 1999 and January 2002 in which non contact cooling water from Austin Brook was discharged through Outfall 002 back into Austin Brook, there were two pH violations in which the pH was below the permitted range. Because Outfall 001 was violating the pH limit 21% of the time and the only potential pollutant added by the applicant is TSS, the permittee asked for if the pH can be modified for Outfall 001, only, and be consistent with mine de-watering conditions listed in EPA's NPDES Storm Water Multi-Sector General Permit for Industrial Activities.

MA DEP has determined that these limits are protective of state water quality standards. However, MA DEP can require more stringent pH limits as a condition for obtaining state certification of the permit.

The exiting NPDES permit issued September 5, 1995 also required that pH be "... not more than 0.5 units outside the naturally occurring range" as listed in Footnote 4 on Page 3 of 7. Even though the 1995 permit contained this as a limit, there were no specific monitoring requirements. Groundwater and storm water accumulate in the bottom of the quarry, and are discharged through Outfall 001. In the 34 months between January 1999 and January 2002 in which groundwater and stormwater were pumped from the bottom of the quarry and discharged through Outfall 001, there were seven pH violations in which the pH was below the permitted range. In the 22 months between January 1999 and January 2002 in which non contact cooling water from Austin Brook was discharged through Outfall 002 back into Austin Brook, there were two pH violations in which the pH was below the permitted range. Because Outfall 001 was violating the pH limit 21% of the time and the only potential pollutant added by the applicant is

TSS, the permittee asked for if the pH can be modified for Outfall 001, only, and be consistent with mine de-watering conditions listed in EPA's NPDES Storm Water Multi-Sector General Permit for Industrial Activities.

EPA and MA DEP agree that the permit does not indicate where background pH and temperature levels will be measured. Language in Footnote 4 on Permit Page 4 of 8 had been re-worded: Upstream sampling for background pH and temperature shall be conducted at a location in Austin Brook prior to the permittee's intake and discharge pipe(s).

Comment 5: Both effluent streams have TSS limits but the limits are assigned independently of each other. Without a diagram showing the relationship between the discharge points, the creek and the receiving wetland, it is hard to ascertain the possible combined affect of each. This could be a problem if both discharges had high concentrations of TSS. Take April of 2000, outfall 001 had a flow of 300 gpm (432,000 gpd) and a TSS concentration of 12 mg/l while outfall 002 had a concentration of 16 mg/l and a flow of 32,500 for a TSS load of nearly 50 pounds in one day. This is a large deposit into the wetland and receiving water that is partially masked because each outfall has it's own limits.

Response 5: Each point source to a water of the United States must contain appropriate limits as to preserve the current designated uses of the receiving water. Limits for Outfall 001 (mine de-watering) contain a more stringent TSS limit than required by EPA's NPDES Storm Water Multi-Sector General Permit for Industrial Activities. Limits for Outfall 002 (NCCW) are more stringent than the categorical limits for Crushed Stone listed in 40 CFR § 436, Subpart B. No change has been made to the draft permit.

Comment 6: Toxicity testing was only required on outfall 002 and only two individual test were performed before the facility's request to curtail toxicity testing was granted. Two tests and on only one of the discharges does not seem adequate to determine if there is the potential to cause chronic and or acute toxicity to the aquatic biota of the receiving waters. A toxicity test that is a flow weighted composite would offer a better indication of the impacts of the discharges and at least two years (4 tests).

Response 6: The 1995 permit required acute toxicity testing on the non contact cooling water that gets discharged through Outfall 002 to determine if the discharge had an effect on the receiving water. Footnote 7 on Page 3 of 7 of the 1995 permit allows that "After 2 consecutive satisfactory test results, the permittee may submit to EPA and the MA DEP a written request for a permit modification of its toxicity test requirements." The MADEP reviewed the results and determined that eliminating toxicity testing was acceptable. No toxicity testing has been conducted since 1997. EPA and MA DEP feel that toxicity testing on the mine de-watering through Outfall 001 is not necessary as the only parameter that is potentially added to the waters in their natural state is TSS. No change has been made to the draft permit.