



# PHOTOFABRICATION ENGINEERING INC.

500 FORTUNE BLVD. • MILFORD, MA 01757 • TEL: 508-478-2025 • FAX: 508-478-3582 • <http://www.photofabrication.com>

*chemically machined precision and decorative metal parts...*

*rec'd 9/24/08  
ofrawe*

September 22, 2008

NPDES # MAG250333

US EPA Region 1  
NCCW GP Processing  
Municipal Assistance Unit (CMU)  
1 Congress Street Suite 1100  
Boston, MA 02114-2023

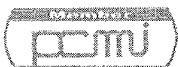
To Whom It May Concern:

Please find enclosed Photofabrication Engineering Inc.'s Transmittal Form for Permit Application submitted January 24, 2005, Transmittal # W059387; completed Appendix 5 Notice of Intent (NOI); Best Technology Available (BTA) General Requirements; Facility-Specific BTA Requirements; locus map with location of both the facility and the source of non-contact cooling water marked; aerial view of facility and source of non-contact cooling water; email, Endangered Species List and map from Emily Holt of the Natural Heritage & Endangered Species Program certifying no Endangered Species are in the immediate vicinity of PEI's discharge of non-contact cooling water and list of locations in town of Milford, MA that are on the National Register of Historical sites verifying PEI's discharge of non-contact cooling water is not in vicinity of any listed historical sites. If you have any questions I can be reach during normal business hours Monday through Friday at 508 478-2025.

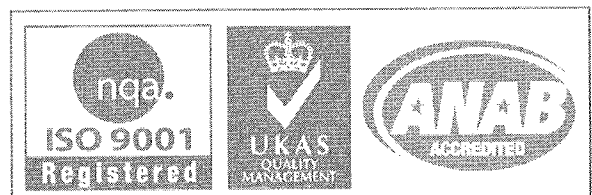
Sincerely

  
Michael Mastrullo  
EHS Manager, PEI

C: MADEP, Division of Watershed Management



*photo-chemical machining institute - - -*



MAG 2

**APPENDIX 5****Suggested Form for Notice of Intent (NOI) for the Noncontact Cooling Water General Permit****1. General facility information. Please provide the following information about the facility.**

|                                                                                                                                                                                                                            |                                                                                                                                                      |                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| <b>a) Name of facility:</b> Photofabrication Engineering, Inc.                                                                                                                                                             |                                                                                                                                                      | <b>Type of Business:</b> Chemical Etching                 |
| <b>Facility Location Address :</b><br>500 Fortune Blvd<br>Milford, MA 01727<br><b>longitude:</b> -71 29' 23"<br><b>latitude:</b> 42 09' 15"                                                                                | <b>Facility SIC codes:</b> 3479                                                                                                                      | <b>Facility Mailing Address (if not location address)</b> |
| <b>b) Name of facility owner:</b> Elenel Industries                                                                                                                                                                        |                                                                                                                                                      | <b>Email address of owner:</b>                            |
| <b>Owner's Tel #:</b> 508 478-2025                                                                                                                                                                                         | <b>Owner is (check one):</b> 1. Federal ____ 2. State ____ 3. Tribal ____<br>4. Private <input checked="" type="checkbox"/> 4. Other ____ (Describe) |                                                           |
| <b>Owner's Fax #</b> 508 478- 3582                                                                                                                                                                                         |                                                                                                                                                      |                                                           |
| <b>Address of owner (if different from facility address)</b>                                                                                                                                                               |                                                                                                                                                      |                                                           |
| <b>Legal name of Operator, if not owner:</b> William Lehrer                                                                                                                                                                |                                                                                                                                                      |                                                           |
| <b>Operator Contact Name:</b> William Lehrer                                                                                                                                                                               |                                                                                                                                                      |                                                           |
| <b>Operator Tel Number:</b> 508 478-2025 <b>Fax Number:</b> 508 478-3582                                                                                                                                                   |                                                                                                                                                      |                                                           |
| <b>Operator's email:</b> _____                                                                                                                                                                                             |                                                                                                                                                      |                                                           |
| <b>Operator Address (if different from owner)</b>                                                                                                                                                                          |                                                                                                                                                      |                                                           |
| <b>d) Attach topographic map indicating the locations of the facility and the receiving water; all NCCW discharge points; upstream and downstream monitoring points. Map attached?</b> <input checked="" type="checkbox"/> |                                                                                                                                                      |                                                           |
| <b>e) Check Yes or No for the following:</b>                                                                                                                                                                               |                                                                                                                                                      |                                                           |
| 1. Has a prior NPDES permit been granted for the discharge? Yes <input checked="" type="checkbox"/> No ____ If Yes, Permit Number: MAG250333                                                                               |                                                                                                                                                      |                                                           |
| 2. Is the discharge a "new discharge" as defined by 40 CFR Section 122.22? Yes ____ No <input checked="" type="checkbox"/>                                                                                                 |                                                                                                                                                      |                                                           |
| 3. Is the facility covered by an individual NPDES permit? Yes ____ No <input checked="" type="checkbox"/> If Yes, Permit Number ____                                                                                       |                                                                                                                                                      |                                                           |
| 4. Is there a pending application on file with EPA for this discharge? Yes <input checked="" type="checkbox"/> No ____ If Yes, date of submittal: January 24, 05                                                           |                                                                                                                                                      |                                                           |

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed)

a) Name of receiving water into which discharge will occur: Quarry  
State Water Quality Classification: B Freshwater: X Marine Water: \_\_\_\_\_

b) Describe the discharge activities for which the owner/applicant is seeking coverage: Non Contact Cooling Water Discharge

c) FOR MASSACHUSETTS FACILITIES ONLY: Engineering Calculations: Submit the completed engineering calculation of the surface water temperature rise as shown in Attachment A of the General Permit. Check if attached: \_\_\_\_\_

d) Number of outfalls 1 **CAN NOT CALCULATE BECAUSE A 7Q10 WAS NOT PROVIDED FOR QUARRY - PER DAMIEN HOWLIHAN**

For each outfall:

e) What is the maximum daily and average monthly flow of the discharge? Note that EPA will use the flow reported here as the facility's permitted effluent flow limit. Max Daily Flow 108,000 GPD Average Flow 108,000 GPD

f) What is the maximum daily and average monthly temperature of the discharge (in degrees F)? Max Temp. 77 Average Temp. 60

g) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 6.8 Min pH 6.6

h) FOR MASSACHUSETTS FACILITIES ONLY: Is the source water of the NCCW potable water? Yes \_\_\_\_\_ No ✓ If Yes, EPA will calculate the Total Residual Chlorine limit for facilities located in Massachusetts.

i) Is the discharge continuous? Yes \_\_\_\_\_ No ✓ If no, is the discharge periodic (P) (occurs regularly, i.e., monthly or seasonally, but is not continuous all year) or intermittent (I) (occurs sometimes but not regularly) or both (B) \_\_\_\_\_  
If (P), number of days or months per year of the discharge 275 and the specific months of discharge Mid September to mid June ;  
If (I), number of days/year there is a discharge \_\_\_\_\_

j) Latitude and longitude of each discharge within 100 feet: outfall 1: long. -71°29'25" lat. 42°09'17"; outfall 2: long. NA lat. NA ;  
outfall 3: long. NA lat. NA (See [http://www.epa.gov/tri/report/siting\\_tool](http://www.epa.gov/tri/report/siting_tool))

k) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water Quarry cfs

Please attach any calculation sheets used to support stream flow and dilution calculations. See General Permit Attachment B for equations and additional information. **CAN NOT CALCULATE BECAUSE A 7Q10 WAS NOT PROVIDED FOR QUARRY -**

MASSACHUSETTS FACILITIES: See Part 3.4 and Appendix 1 of the General Permit for more information on ACEC.

Areas of Critical Environmental Concern (ACEC): Does the discharge occur in an ACEC? Yes \_\_\_\_\_ No ✓

If yes, provide the name of the ACEC: \_\_\_\_\_

**PER DAMIEN HOWLIHAN**

**3. NCCW Source Water Information.** Please provide information about the NCCW source water, using separate sheets as necessary:

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>a) Indicate source of the NCCW (i.e., municipal water supply, private well, surface water withdrawal, groundwater):</p> <p>Source: <u>Surface water withdrawal</u></p> <p>Name of Source Water: <u>Quarry</u></p> <p>Is the source registered/permitted under MA Water Management Act or NHDES Water User Registration Rule (Env Wq 2202)?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>If yes, registration number: _____</p> | <p>b) If source water is surface water:</p> <p>i) Is it a freshwater river or stream Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>ii) Is it a lake? _____ reservoir? <u>QUARRY</u></p> <p>iii) Is it tidal river? _____ estuary? _____ ocean? _____</p> <p>c) Is the source water groundwater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, see Appendix 8 and submit effluent and surface water test results, as required in Part 5.4 of the General Permit.</p> <p>d) Does the facility use both a primary and backup source of noncontact cooling water?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>If yes, attach information that identifies and explains the primary and backup sources of noncontact cooling water for and how often the backup supply was used in last three years.</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**4. Best Technology Available for CWIS**

Are you subject to BTA requirements at Part 4.2 of the General Permit? (Facility's discharge is covered by this General Permit and the facility withdraws noncontact cooling water from surface source water). Yes ☒ No ☐ If No, explain: \_\_\_\_\_

If YES, attach the facility-specific BTA description as required in Part 4.3 of the General Permit. For additional information and guidance, see Questions 13-23 of the NCCW Fact Sheet, posted at <http://www.epa.gov/region1/npdes/nccwgp.html>. Provide a map showing the location of each CWIS intake structure; NCCW outfall(s) and any CWIS feature referred to in the BTA description.

Include in your description:

- \_\_\_\_\_ Measures to meet the General Permit Part 4.3.a general BTA requirements, including documentation that describes the facility's monitoring program for impinged fish and/or invertebrate; or the required alternative monitoring plan frequency and/or protocol
- \_\_\_\_\_ A characterization of the source water body's aquatic life habitat in the vicinity of each CWIS during the seasons when the CWIS may be in use
- \_\_\_\_\_ The attributes of the current CWIS
- \_\_\_\_\_ Design measures of the CWIS
- \_\_\_\_\_ Operation measures of the CWIS
- \_\_\_\_\_ Historical occurrence of impinged fish for the past five years
- \_\_\_\_\_ If applicable, a demonstration that the facility's intake rate is commensurate with a closed-cycle recirculation system
- \_\_\_\_\_ Other components to reduce impingement and/or entrainment of aquatic life

SEE ATTACHMENT BTA

#### 4. BTA FOR CWIS CONTINUED:

Provide the following information for each CWIS to support your attached facility-specific BTA description.

Design capacity of the of the CWIS .108 MGD

Maximum monthly average intake of the CWIS during the previous five years 0.83 MGD Month in which this flow occurred Continually

Maximum through-screen design intake velocity 0.62 feet/second (fps)

For facilities where the CWIS is located on a freshwater river or stream, provide the following information:

The source water's annual mean flow Quarry cubic feet/second (cfs) as available from USGS or other appropriate source

The design intake flow as a % of the source water's annual mean flow Quarry Attach calculations if equal to or less than 5% of annual mean flow.

The source water's 7Q10 Quarry cfs. See Attachment B of the General Permit for more information on 7Q10 determinations.

The design intake flow as a percent of the source water's 7Q10 \_\_\_\_\_

#### 5. Contaminant Information

If applicable, attach a listing of all non-toxic pH neutralization and/or dechlorination chemicals used, including chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the NCCW discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC<sub>50</sub> in percent for aquatic organism(s)). NA

#### 6. Determination of Endangered Species Act Eligibility: Provide documentation of ESA eligibility as required at Part 3.4 and Appendix 2, Part C, Step 4, of the General Permit. In addition, respond to the following questions.

- a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes \_\_\_ No ✓
- b) Has any consultation with the federal services been completed? Yes \_\_\_ No ✓
- c) Is consultation underway? Yes \_\_\_ No ✓
- d) What were the results of the consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries Service (check one):
  - a "no jeopardy" opinion NA or written concurrence NA on a finding that the discharges are not likely to adversely affect any endangered species or
- e) Which of the five eligibility criteria listed in Appendix 2, Section B (A,B,C,D or E) have you met? A
- f) Attach a copy of the most current federal listing of endangered and threatened species from the USF&W web site listed in Appendices 2, 2.1 and 4

#### 7. Documentation of National Historic Preservation Act requirements: Please respond to the following questions:

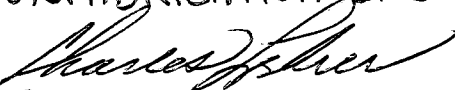
- a) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility site or in proximity to the discharge? Yes \_\_\_ No ✓
- b) Have any State or Tribal historic preservation officers been consulted in this determination? Yes \_\_\_ or No ✓ If yes, attach the results of the consultation(s).
- c) Which of the three National Historic Preservation Act requirements listed in Appendix 3, Section C (1,2 or 3) have you met? 1

8. Supplemental Information: Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit

9. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:

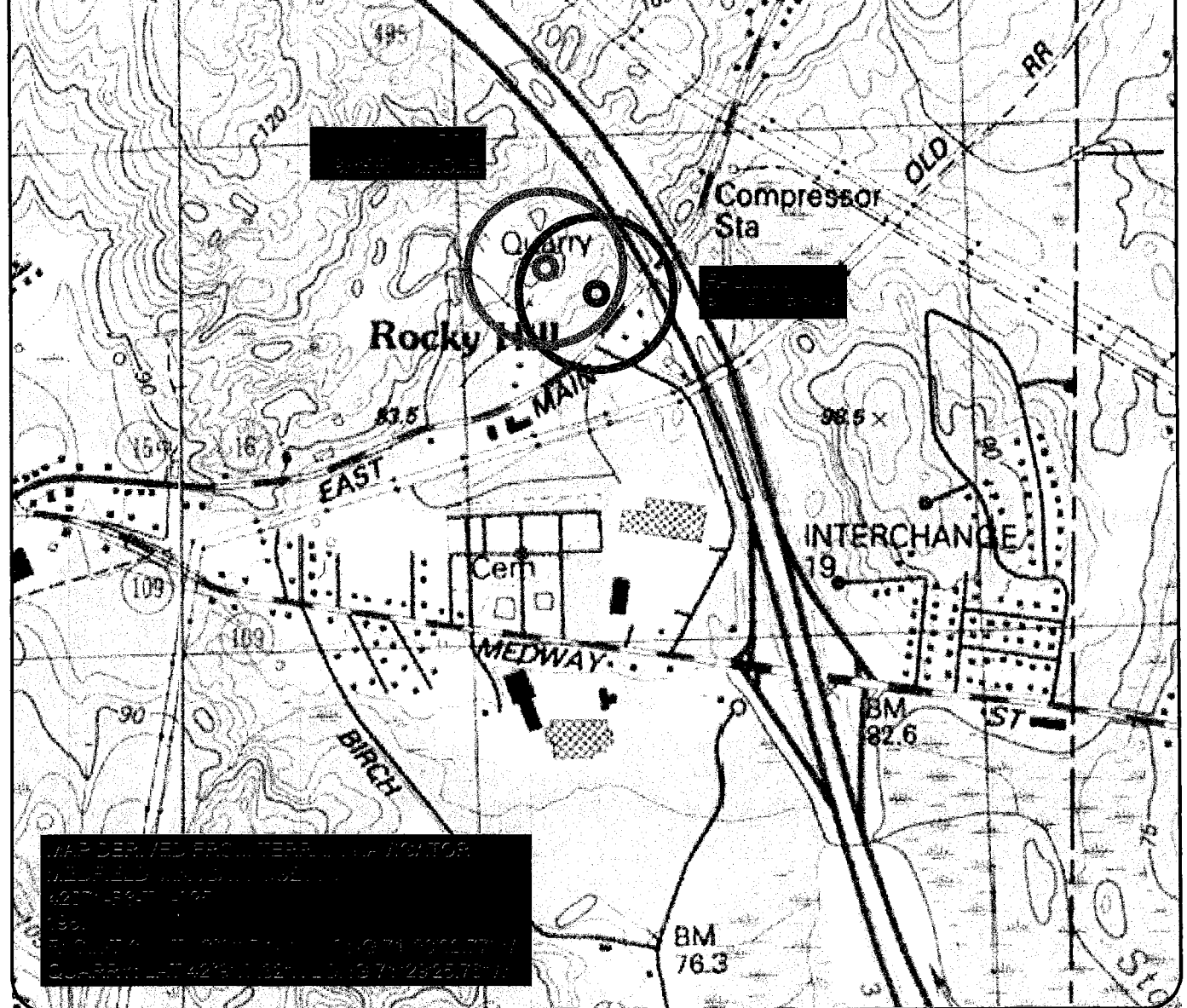
I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the noncontact cooling water (NCCW) system; (2) the discharge consists solely of NCCW (to reduce temperature) and authorized pH adjustment and/or dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product (other than heat) or finished product; (4) if the discharge of noncontact cooling water subsequently mixes with other wastewater (i.e. stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for noncontact cooling water; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

|                     |                                                                                   |
|---------------------|-----------------------------------------------------------------------------------|
| Facility Name:      | PHOTOFABRICATION ENGINEERING, INC                                                 |
| Operator signature: |  |
| Title:              | VP                                                                                |
| Date:               | 9/22/08                                                                           |

Federal regulations require this application to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.



CLIENT:  
 Photofabrication Engineering, Inc.  
 500 Fortune Blvd, Milford, MA 01757

Figure 1

**Capaccio**  
 Environmental Engineering, Inc.  
 293 Boston Post Road-West  
 Marlborough, MA 01752  
 (508) 970-0033 • www.capaccio.com  
 "Helping Industry and the Environment Prosper"

TITLE:  
 Site Location Map

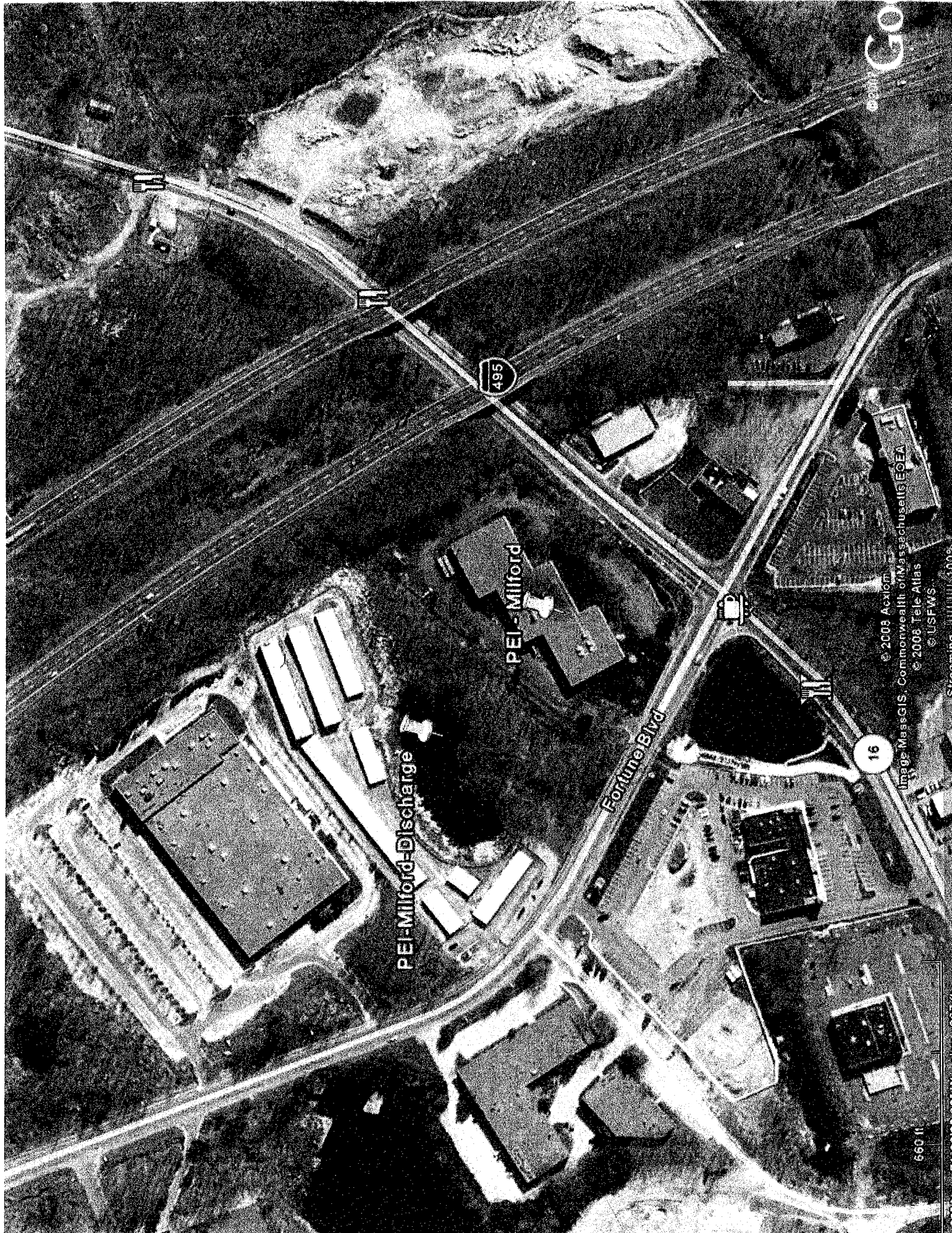


SCALE: 1" = 1000'-0"  
 JOB #  
 DATE: 09-04-08

DR BY: TJL  
 CK BY: LCS  
 REV: A

SIZE:  
 A



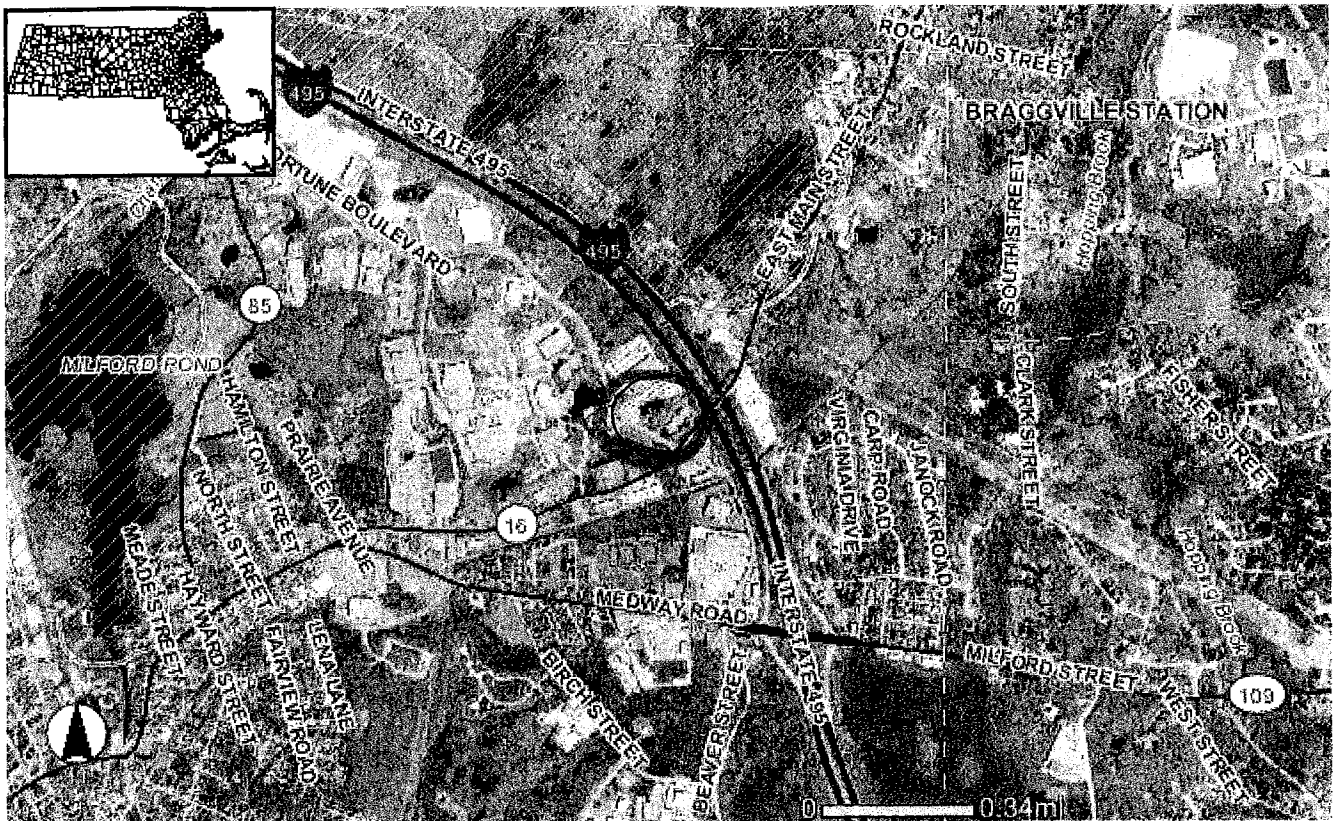


Go

© 2008 Axiom  
Image MassGIS, Commonwealth of Massachusetts EOE  
© 2008 Tele Atlas  
© USFWS  
Streaming 100%

660 ft  
42°N 71°29'22.90"W Elev 267 ft





## Mike Mastrullo

---

**From:** Holt, Emily (FWE) [Emily.Holt@state.ma.us]  
**Sent:** Friday, September 05, 2008 3:14 PM  
**To:** Mike Mastrullo  
**Cc:** Lucy Servidio  
**Subject:** RE: Endangered Species Certification

Mike,

That site is not mapped as Priority Habitat or Estimated Habitat for rare species and we have no records of state-listed (or federally-listed) species in the immediate vicinity of the site. For future reference, you can view the Natural Heritage Priority and Estimated Habitat maps online at [www.nhesp.org](http://www.nhesp.org) or at MassGIS to determine if the site is mapped.

Thank you,

Emily

---

Emily Holt  
Endangered Species Review Assistant  
Natural Heritage & Endangered Species Program  
MA Division of Fisheries & Wildlife  
One Rabbit Hill Road  
Westborough, MA 01581  
PH. (508) 389-6361  
FAX. (508) 389-7891  
[www.nhesp.org](http://www.nhesp.org)

-----Original Message-----

**From:** Mike Mastrullo [mailto:mmastrullo@photofabrication.com]  
**Sent:** Friday, September 05, 2008 3:02 PM  
**To:** 'Holt, Emily (FWE)'  
**Subject:** RE: Endangered Species Certification

Emily

Thank you for your help.

---

**From:** Holt, Emily (FWE) [mailto:Emily.Holt@state.ma.us]  
**Sent:** Friday, September 05, 2008 2:38 PM  
**To:** Mike Mastrullo  
**Subject:** RE: Endangered Species Certification

Could you please submit a locus map for your site? I can verify for you whether or not the site is mapped as Priority or Estimated Habitat for state-listed species.

Thank you,

---

Emily Holt  
Endangered Species Review Assistant  
Natural Heritage & Endangered Species Program  
MA Division of Fisheries & Wildlife  
One Rabbit Hill Road  
Westborough, MA 01581  
PH. (508) 389-6361  
FAX. (508) 389-7891  
[www.nhesp.org](http://www.nhesp.org)

-----Original Message-----

**From:** Mike Mastrullo [mailto:[mmastrullo@photofabrication.com](mailto:mmastrullo@photofabrication.com)]

**Sent:** Friday, September 05, 2008 8:34 AM

**To:** Holt, Emily (FWE)

**Subject:** RE: Endangered Species Certification

Dear Emily

Our consultant, Lucy Servidio from Capaccio Engineering suggested I contact you for help.

Photofabrication Engineering, Inc is located at 500 Fortune Blvd, Milford, MA. We are renewing our NPDES Non-Contacting Cooling Water General Permit. The permit requires that we verify that there are no endangered species that will be impacted by the discharge of our non-contact cooling water into the quarry located adjacent to our facility. MA DEP has verified that there are no dwarfed wedgemussels, short nosed sturgeons, bog turtles or northern redbellied cooter in Worcester County. But, we are still required to verify there are no bald eagles and small whorled pogonia that will be impacted by or discharge.

Thank you in advance for your help,

Mike

Michael Mastrullo

EHS Manager

Quality Engineering

Photofabrication Engineering, Inc. (PEI)

(508) 478-2025 x59

[mmastrullo@photofabrication.com](mailto:mmastrullo@photofabrication.com)