

**SUEZ**

**Gardner Water & Sewer Departments**  
99 Heywood Street, Gardner, MA 01440  
Tel: 978.630.8791 • Fax: 978.630.8792  
[www.suez-na.com](http://www.suez-na.com)



June 5, 2017

NPDES Permit MAG640041

US EPA, Region 1  
Office of Ecosystem Protection  
PWTF Coordinator (OEP06-1)  
5 Post Office Square, Suite 100  
Boston, MA 2109-3912

Re: NOI - Request for General Permit Authorization to Discharge Wastewater  
Crystal Lake Water Treatment Facility – MAG640041  
City of Gardner Massachusetts

Dear USEPA Region 1,

As required and enclosed for submission, please find the Notice of Intent (NOI) to be covered by the General Permit for Potable Water Treatment Facility Discharges, along with all required supporting documentation. The Crystal Lake Water Treatment Facility is currently discharging under Permit No. MAG640041. These requirements were completed and submitted by SUEZ for the City of Gardner.

If you have any questions or require more information, please contact me at (978) 630-8791.

Sincerely,  
SUEZ

A handwritten signature in black ink, appearing to read "Matthew LaPointe", with a long horizontal flourish extending to the right.

Matthew LaPointe  
Project Manager  
Gardner Water Department

Enclosures: NOI Application and Supporting Documentation

cc: MA DEP, Division of Watershed Management  
Dane Arnold, Gardner, DPW Director  
File, Gardner Water Department

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND - REGION I  
5 POST OFFICE SQUARE, SUITE 100  
BOSTON, MASSACHUSETTS 02109-3912

Request for General Permit Authorization to Discharge Wastewater  
Notice of Intent (NOI) to be covered by the General Permit

Potable Water Treatment Facility (PWTF)  
NPDES General Permit No. MAG640000 and NHG640000

**A. Facility Information**

1. *Indicate applicable General Permit for discharge* MAG640000  
NHG640000
  
2. *Facility Data*  
Facility Name Crystal Lake Water Treatment Facility  
Street/PO Box 99 Heywood Street City Gardner  
State MA Zip Code 01440  
Latitude 42.34.57 Longitude -71.59.23  
SIC Code(s) 4941  
Type of Business Water Supply Facility
  
3. *Facility Mailing Address (if different from Location Address, above)*  
Facility Name \_\_\_\_\_  
Street/PO Box \_\_\_\_\_ City \_\_\_\_\_  
State \_\_\_\_\_ Zip Code \_\_\_\_\_

NPDES Potable Water Treatment Facility General Permit  
MAG640000 and NH640000

4. Facility Owner:

Legal Name City of Gardner

Email darnold@gardner-ma.gov

Street/PO Box City Hall, 95 Pleasant Street City Gardner

State MA Zip Code 01440

Contact Person Dane Arnold Tel # 978-632-7661

Owner is (check one): Federal  State  Tribal  Private

Other (describe)  
City (Municipal)

5. Facility Operator (if different from above):

Legal Name SUEZ

Email Matthew.Lapointe@suez-na.com

Street/PO Box 99 Heywood Street City Gardner

State MA Zip Code 01440

Contact Person Matthew LaPointe Tel # 978-630-8791

6. Currently (Administratively) Covered Under the Expired PWTF General Permit? (Please check yes or no):

Yes No

a) Has a prior NPDES permit (either individual or general permit coverage) been granted for the discharge that is listed on the NOI? Yes  No  If Yes, Permit Number MAG640041

b) Is the discharge a "new discharger" as defined by 40 CFR Section 122.22? Yes  No

c) Is the facility covered by an individual NPDES permit for other discharges? Yes  No

If yes, Permit Number: \_\_\_\_\_

d) Is there a pending NPDES application (either individual or general permit) on file with EPA for this discharge? Yes  No

If yes, date of submittal: 09/12/2008 and Permit Number, if available \_\_\_\_\_

7. Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. **Map attached? Yes**



NPDES Potable Water Treatment Facility General Permit  
MAG640000 and NH640000

Outfall # Latitude 42.34.59 Longitude -71.59.21  
Outfall # Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Outfall # Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

7. For each outfall, indicate the proposed sampling location(s) for both effluent and ambient water (when applicable) and proposed consistent times of the month for collecting samples:

Outfall #

SAMPLES TAKEN AT TREATMENT PLANT OUTFALL, AFTER FLOW MEASUREMENT, PRIOR TO ENTERING THE SOURCE. MONITORING

OCCURS MONDAYS DURING THE HOURS OF 7:00-3:00, SAMPLES ARE TAKEN DURING PLANT OPERATION AT 7:00am, 9:00am, 11:00am & 1:00pm

Outfall #

Outfall #

**C. Effluent Characteristics**

1. List here and attach additional information (on separate sheet) on any water additives used at the facility. This includes chemicals (including aluminum, iron, or phosphorus-containing chemicals) for pH adjustment, dechlorination, control of biological growth, and control of corrosion and scale in water pipes.

POLY ALUMINUM CHLORIDE SODIUM HYPOCHLORITE, SODA ASH, AMMONIUM SULFATE,  
SODIUM FLUORIDE, CITRIC ACID, SODIUM HYDROXIDE, SODIUM BISULFITE

2. Report any known remediation activities or water quality issues in the vicinity of the discharge

3. Are aluminum compounds or polymers used as coagulants at this facility?\*

Yes X No

\*If answer is "Yes" and the facility was *not* covered under the PWTF GP that expired on

NPDES Potable Water Treatment Facility General Permit  
MAG640000 and NH640000

10/2/14, additional monitoring data and information is required. **Please complete Item III.C.12.**

4. Does the facility use any alum-based products for algae control?\*
- Yes\_                      No X

\*If answer is "Yes" and the facility was *not* covered under the PWTF GP that expired on 10/2/14, additional monitoring data and information is required. **Please complete Item III.C.12.**

5. Are iron-containing coagulants used at this facility?                      Yes\_                      No X
6. Does the facility's discharge contain residual chlorine?                      Yes                      No X

**[If Yes, EPA will calculate a Total Residual Chlorine effluent limit for your facility]**

7. Does the facility provide treatment to remove arsenic from the raw water source?    Yes                      No X
8. a. Are phosphorus-containing chemicals added to the treated water at this facility?    Yes                      No X
- b. If answer to 8.a. is Yes, does the facility discharge to Phosphorus-Impaired waters?    Yes                      No
- c. If answer to 8.b. is Yes, provide name of P-Impaired waterbody: \_\_\_\_\_
9. Does the facility remove radium or other radioactive substances from raw water sources to comply with drinking water standards?                      Yes                      No X
10. Provide the reported or calculated seven day- ten year low flow (7Q10) of the receiving water  
7Q10: \_\_\_\_\_ cfs

\*\*\*NOTE: For facilities that discharge in New Hampshire, the state permitting authority **must** be contacted at the address listed in Appendix VI of the PWTF GP to determine and/or confirm the 7Q10 and/or dilution factor. For facilities that discharge in Massachusetts, it is highly recommended to contact the relevant state authority (MassDEP) to determine and/or confirm the 7Q10 and/or dilution factor.\*\*\* Attach any calculation sheets used to support the stream flow and dilution factors. See Appendix VII for equations and additional information.

11. For *each* outfall, provide the following discharge information:

Outfall #   001  

- a) *Design Flow of Facility (in million gallons per day, MGD):*      3.0

**This value will determine the facility's daily maximum flow limit, up to a maximum of 1.0 MGD.**

- b) *Discharge Flow (in gallons per day, GPD):*

Maximum Daily Flow   585,024   GPD                      Average Monthly Flow   248,550   GPD

- c) *TSS (mg/l):* Number of samples:   21   (Minimum of 10 samples)

NPDES Potable Water Treatment Facility General Permit  
MAG640000 and NH640000

Maximum Daily 23.00 mg/l                      Average Monthly 12.948 mg/l

d) pH (s.u.) : Number of samples: 23 (Minimum of 10 samples)  
Minimum 6.92 s.u.                                      Maximum 7.42 s.u.

e) Total Residual Chlorine (ug/l): Number of samples: 23 (Minimum of 10 samples)  
Maximum Daily 40 ug/l

**NOTE: TRC is only required for discharges which have been previously chlorinated or contain residual chlorine**

12. The following section must be completed for any facility that answered "Yes" to Question III.C.3 or III.C.4 (e.g. adds an aluminum-containing chemical to the water being treated and/or discharged) AND was not covered under the previous P WTF GP (which expired on 10/2/14).

- a) Collect, analyze and submit **12 effluent samples and 10 ambient surface water samples** from a location upstream of and not affected by the discharge. For facilities in New Hampshire and Massachusetts, each sample should be analyzed for total recoverable Al in micrograms per liter. All laboratory results shall be submitted on a separate sheet.
  - a. The samples shall be composite samples consisting of four grab samples taken at approximately equal intervals on a flow weighted basis during the time at which the discharge is entering the receiving water after the start of the backwash cycle.
  - b. For each sampling event, the effluent and surface water samples shall be collected on the same day and during a representative discharge event. The samples shall be no more frequent than weekly and, if time allows in completing the NOI, at monthly intervals and at different flow conditions. If taking the ambient water quality sample from lakes/reservoirs, the 10 samples should be composited vertically.
  - c. Discharge flow at the time of effluent sampling should be recorded. Flow conditions at the time of ambient water sampling should be recorded (or estimated from nearest gaging station).
  - d. Do not include dilution when recording the results.
  - e. See Section 2.1.2.3 and Footnote 12 of Section 2.1.1 for MA facilities (or Section 3.1.2.3 and Footnote 10 of 3.1.1 for NH facilities) for key information on minimum level for analysis and sufficiently sensitive test procedures.
  - f. Sampling data that was collected within one year of the effective date of this general permit AND that adheres to all of the requirements above may be submitted in lieu of new samples. This must be denoted with the submitted data.
  
- b) Provide a description of control measures, chemical substitutions, waste handling methods, and operational changes evaluated and/or used by the facility to minimize the discharge of aluminum to surface waters. (Include additional sheet(s), if necessary)

---

---

---

---

---

---

**D. Endangered Species Act Eligibility Information**

Using the instructions in Appendix III of the PWTF GP, which of the following criteria apply to your facility?

U.S. Fish and Wildlife Service (USFWS) Criteria: A  B  C

1. If you selected USFWS criteria B, has consultation with the U.S. Fish and Wildlife Service been completed?

Yes  No

2. If consultation with US Fish & Wildlife Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received?

Yes  No

3. Attach documentation of ESA eligibility for USFWS as required at Part 1.4 and Appendix III of the General Permit. **Documentation attached?** \_\_\_\_\_

4. For facilities seeking coverage under the Potable Water Treatment Facility General Permit for the *first* time, respond to the following questions to assist in ESA eligibility for NMFS:

a) Indicate if the facility discharges into any of the stretches of the following rivers which can support or provide habitat to either Shortnose or Atlantic Sturgeon:

*Merrimack River* (from Essex Dam in Lawrence, Downstream (including Haverhill) to mouth of River) Yes  No

*Connecticut River* (from Turner's Falls, downstream through Holyoke (including Holyoke Dam region) Yes  No

*Taunton River* Yes  No

*Piscataqua River (in NH)* Yes  No

b) Has the facility had any previous formal or informal consultation with NMFS?

Yes  No

If yes, attach the results of the consultation(s). **Documentation attached?** \_\_\_\_\_

**E. National Historic Properties Act Eligibility**

1. 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  X

2. Have any State or Tribal Historic Preservation Officers been consulted in this determination?  
Yes No  X

If yes, attach the results of the consultation(s). Documentation attached? \_\_\_\_\_

3. Which of the three National Historic Preservation Act scenarios listed in Appendix II, Section III have you met?

1  X 2 3

**F. Supplemental Information**

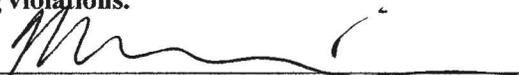
Please provide any supplemental information, including antidegradation review information applicable to new or increased discharges. Attach any analytical data used to support the application. Attach any certification(s) required by the General Permit.

**G. Signature Requirements**

The NOI must be signed by the operator in accordance with the signatory requirements of 40 CFR § 122.22 (see below) including the following certification:

**I certify under penalty of law that (1) the discharge for which I am seeking coverage under the general permit consists solely of a surface water discharge from a potable water treatment facility; (2) any chemicals used to treat the discharge have been identified in this NOI; and (3) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act.**

**I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.**

Signature  Date 6/5/17

Printed Name and Title Matthew LaPointe - Project Manager - SUEZ

NPDES Potable Water Treatment Facility General Permit  
MAG640000 and NH640000

Federal regulations require this application to be signed as follows:

1. For a corporation, by a responsible corporate party;
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.

Note: Permits No. MAG640000 and NHG640000 may be found at <http://www3.epa.gov/region1/npdes/pwtfgp.html>

**H. “Opt-Out Request” from NetDMR Requirement**

1. Check the box if you **are** applying for an “opt-out request.”
2. Provide a detailed explanation of the technical or administrative factors that support your request to “opt-out” from the requirement to submit DMRs and reports electronically. (Add additional lines, if necessary.)

---

---

---

---

---

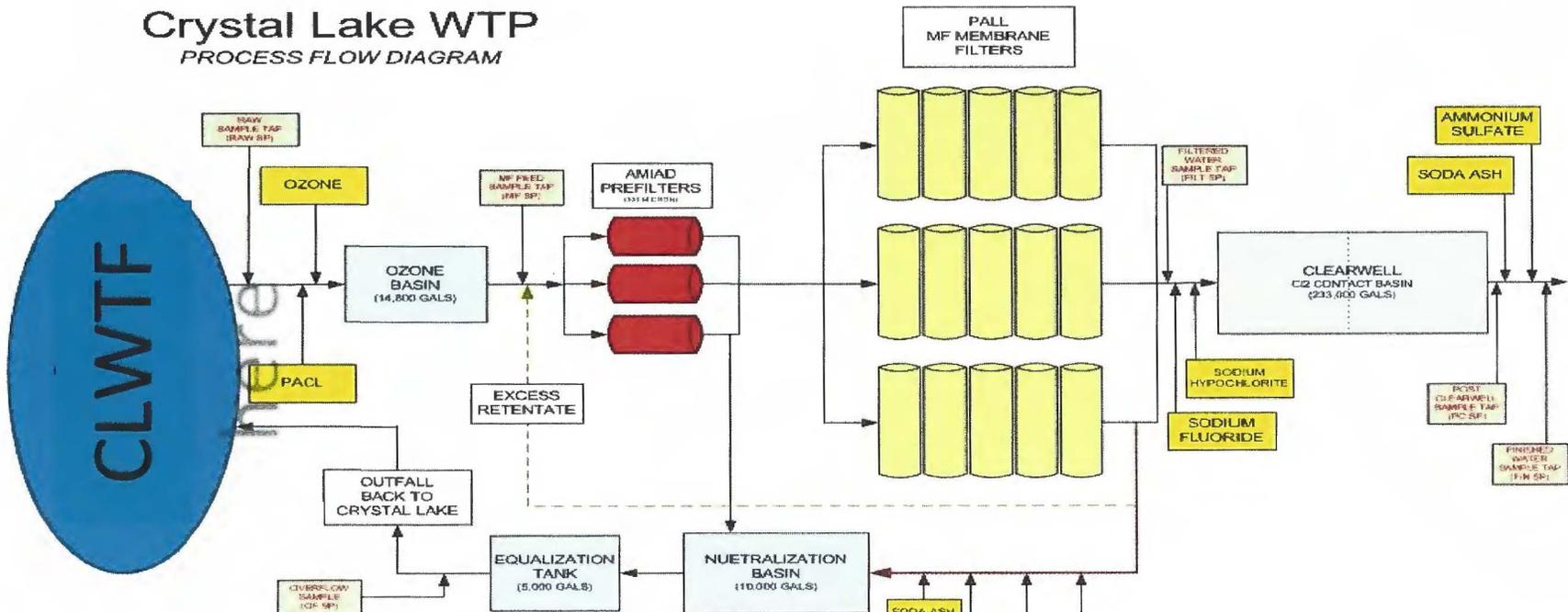
# Crystal Lake WTF

## Topo Map



# Crystal Lake WTP

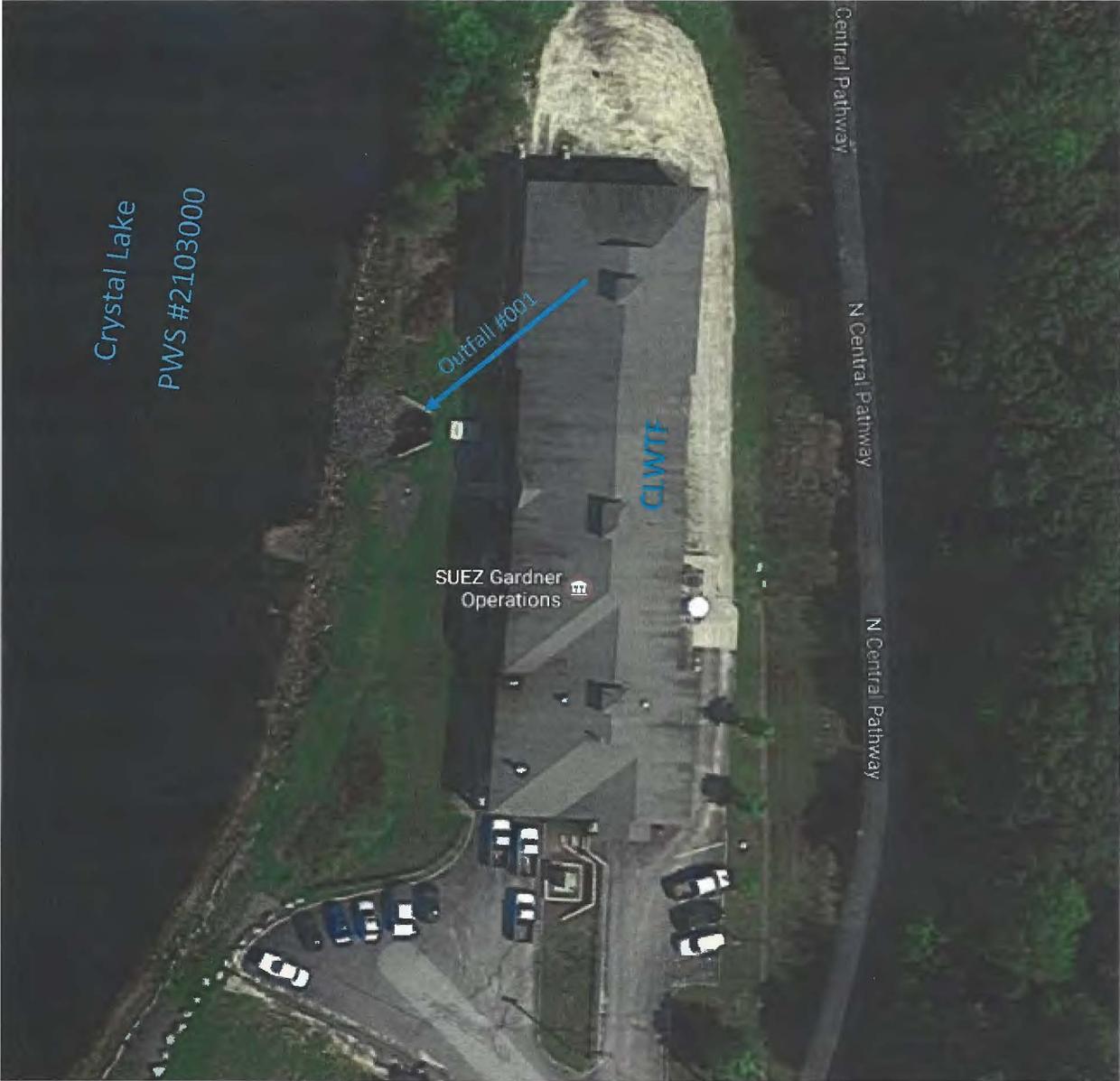
## PROCESS FLOW DIAGRAM



SAMPLE POINT	PARAMETERS	FREQUENCY	TYPE
RAW SP- Compliance	Bromide, Cryptosporidium, E-Coli, TOC	1 X Month	Grab
RAW SP- Process	pH, Temp, Turbidity, Color	1 X Daily	Grab
MF SP- Process	pH, Temp, Aluminum	1 X Day 1 X Month	Grab Grab
PFLT SP- Process	pH, Temp, Turbidity, Color, Iron, Manganese, Aluminum	1 X Day 1 X Week	Grab Grab
FIN SP- Compliance	Bromate (µg/L), ROCl <sub>2</sub> (mg/L), Nitrate (mg/L), Turbidity, Perchlorate (µg/L), SOCs (µg/L), VOCs (µg/L)	1 X Quarter 1 every 4 Hrs	Grab Continuous
FIN SP- Process	Chlorine, Fluoride, pH, Chlorine (Total), Turbidity, Chlorine, Fluoride, Color, Alkalinity, Aluminum	1 X Day 1 X Week	Grab Grab
OF SP- Compliance	pH, Chlorine (Total), TSS, Aluminum	4 X Week 1 X Week 1 X Month	Grab Grab Grab

Operated By:





Crystal Lake

PWS #2103000

Outfall #001

SUEZ Gardner Operations

CLWTF

Central Pathway

N Central Pathway

N Central Pathway