

RESPONSE TO PUBLIC COMMENTS

From March 5, 2007 to April 3, 2007, the United States Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) solicited Public Comments on a draft NPDES permit, developed pursuant to an application from Gould Farm Associates, Inc. of Monterey, Massachusetts, to discharge treated secondary wastewater from their wastewater treatment facility to Rawson Brook via outfall 001. After a review of the comments received, EPA has made the final decision to issue the permit authorizing this discharge. The following response to comments describes and responds to the comments received on the draft permit and describes any changes that have been made to the permit from the draft. A copy of the final permit may be obtained by writing or calling Meridith Decelle, United States Environmental Protection Agency, One Congress St., Suite 1100 (CMP), Boston, Massachusetts 02114-2023; Telephone: (617) 918-1533.

A. Comments received from Cory Loder, Acting Executive Director, William J. Gould Associates, Inc., dated March 12, 2007.

Comment A.1.

We are excited to help protect our local watershed by working with EPA and MassDEP to maintain this permit for years to come. We are satisfied with the permit, and at this time have no need to appeal any of the limits contained within it. However, we would like to state now that we hope to be able to apply for reductions in the frequencies of some monitoring requirements after new equipment has been installed, or when test results demonstrate an ability to consistently control our process in the following areas:

Chlorine Residual-our hope is to control our process enough to apply for a reduction from twice per day to once per day.

Fecal Coliform-we currently test for coliform once per month and the new permit requires eight times per month. We hope to eventually apply to have this reduced to once per week or maybe even twice per month.

Response A.1.

The presence of chlorine compounds in surface waters resulting from the disinfection of sanitary wastewater can be highly toxic to the aquatic life inhabiting such environments. At the same time, it is imperative that the effluent be properly disinfected so that the receiving water achieves bacteria criteria and thus remains safe from a human health perspective. Achieving a balance between adding a sufficient quantity of chlorine to properly disinfect the discharge while minimizing the discharge of chlorine to the receiving water requires tight control of the chlorination process and close monitoring of the treated effluent.

When determining total residual chlorine and fecal coliform monitoring frequency requirements for the draft permit, EPA considered the following: the limitations and monitoring frequencies in the existing permit, past monitoring data, compliance history and inspection reports, type of control facilities, size of the discharge, available dilution of the receiving water at the point of discharge, quality of the receiving water, and the permit requirements for other wastewater treatment facilities similar in nature and size.

The current permit contains monitoring requirements for total coliform bacteria which were not included in the draft permit since they are no longer required for state certification under Section 401 of the Clean Water Act. The fecal coliform limitations and monitoring requirements are new to this permit and therefore no data exists for the concentrations of fecal coliform bacteria discharged from this facility. The monitoring frequency of twice-per-week was established in part to generate a record of the fecal coliform bacterial counts in the final effluent. The draft permit also includes a requirement for the concurrent collection of fecal coliform bacteria and total residual chlorine samples. Concurrent sampling of these two parameters provides a means of gaging the effectiveness of the disinfection process. Adequate assessment of this process requires sampling to be conducted more frequently than once or twice per month. Additionally, due to the low dilution at the point of discharge, minor variations in the amount of bacteria discharged may have a greater negative effect on the quality of the receiving water, thereby requiring closer monitoring. Further, the twice per week monitoring frequency is consistent with the monitoring requirements in permits for wastewater treatment facilities similar in size to the Gould Farm facility. For these reasons, the fecal coliform limitations in the draft permit shall remain as written in the final permit.

Based upon effluent data from January 2004 to August 2006, total residual chlorine concentrations in the final effluent ranged from 0.13 mg/l – 0.68 mg/l (130 µg/l – 680 µg/l) average monthly and 0.23 mg/l to 4.26 mg/l (230 µg/l – 4,260 µg/l) maximum daily (see **Attachment A –DMR Effluent Data**). These concentrations are concerning since they are much higher than the calculated average monthly limit of 0.179 mg/l (179 µg/l) and maximum daily limit of 0.309 mg/l (309 µg/l) in the draft permit. EPA anticipates that the permittee will have a difficult time meeting the total residual chlorine limitations in the permit using the current chlorination process. The permittee is encouraged to evaluate state-of-the-art chlorination systems that enable operators to have adequate control over the amount of chlorine added to the effluent. In addition, investigation into the use of chlorination alternatives, such as ultraviolet disinfection, is recommended since such systems eliminate the risk of toxicity from chlorine and chlorine by-products produced by the chlorination of wastewater.

Should the permittee continue using chlorine for disinfection and upon completion of upgrading the existing chlorination system, EPA may consider a reduction in the frequency of total residual chlorine monitoring if they demonstrate that they have adequate control over the residual chlorine concentrations in their effluent over the course of one year. However, if the permittee decides to install an ultraviolet disinfection unit,

the total residual chlorine limitations and monitoring requirements in the permit would no longer apply, and the permit would be modified appropriately.

Comment A.2.

We are looking at our operations closely and instituting plans to upgrade our system to ensure quality test results and monitoring procedures. We would like to formally ask EPA and MassDEP to draft a compliance schedule as upgrades may take some time to install, calibrate, and for us to learn how to use them properly. Some of the possible upgrade options we are researching and considering are listed below.

Upgrade Possibility #1

- *Install a flow metering or chlorine analyzing system that is directly linked with a chlorine pump. We hope this will help us continually monitor effluent flow fluctuations and change the chlorine flow accordingly.*

Upgrade Possibility #2

- *Install a de-chlorination system to keep our chlorine residual under permit limits.*

Upgrade Possibility #3

- *Install a large holding tank containing a pump on a float switch. This would allow us to periodically pump a set amount of effluent into the chlorine contact chamber. Our chlorine pump would be triggered to dispense a corresponding amount of chlorine each time the effluent pump is activated.*

Response A.2.

EPA recognizes that the permittee is in the process of evaluating facility upgrade options. A compliance schedule for the installation of specific equipment has not been included in the permit because a decision has not been made by the permittee as to what type of equipment will be needed to support the upgrades, so a reasonable schedule of compliance cannot be determined. EPA anticipates that upon issuance of the final permit, an administrative compliance order will be issued by EPA or MassDEP which contains a reasonable schedule of compliance for the planning, design, and construction of facilities necessary to achieve compliance with the permit conditions.

Comment A.3.

Naturally, in considering these options a number of questions have arisen:

- a. Our largest concern is that we are uncertain of the hierarchy between EPA and MassDEP in regards to ground water discharge. If we spend money to improve our lagoon system today, can MassDEP require us to do away with it and install a ground water discharge system tomorrow, or at the end of our 5-year permit? Should we contact MassDEP about this matter?*

Response A.3.a.

Because Massachusetts has not been delegated NPDES permitting authority, EPA administers the NPDES permitting program in Massachusetts regulating the discharge of pollutants from point source discharges into waters of the United States. A point source is defined at 40 CFR § 122.2 as: any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged.

EPA does not regulate the discharge of pollutants to groundwater. MassDEP does regulate such discharges pursuant to the Massachusetts Clean Waters Act. Any facility discharging 10,000 or more gallons per day (gpd) of sanitary wastewater to the ground is subject to the regulations contained in 314 Code of Massachusetts Regulations (CMR) 5.00.

It is clear that upgrades to the existing treatment facility are necessary in order for Gould Farm to meet the effluent limitations in the draft permit, which will be issued regardless of whether or not there is continued investigation into groundwater discharge options. Neither EPA nor MassDEP can “force” Gould Farm to eliminate their surface water discharge in favor of a groundwater discharge. However, in light of the anticipated development and acceptance of future water quality criteria, EPA cannot guarantee that upgrades made to the facility today will be sufficient for meeting effluent limitations in future NPDES permits, particularly with regards to future limits on the discharge of nutrients. Due to the small size of the discharge and the type of treatment system currently employed (lagoon system), a groundwater discharge may prove to be a more viable option over upgrading the existing lagoon system. For these reasons, EPA is recommending that Gould Farm have discussions of groundwater discharge options with their consultant and the MassDEP Western Regional Office in Springfield, MA.

b. If system upgrades do occur, will our new permit still be valid?

Response A.3.b.

As described in the fact sheet, the effluent limitations in the draft permit consist of both technology and water quality-based effluent limitations which are based on the secondary treatment regulations set forth at 40 CFR § 133, the available dilution of the effluent, the water quality of the receiving water, and water quality criteria and/or guidance. As such, the terms and conditions in the draft permit shall remain in effect for a period of five years, regardless of any facility upgrades. If EPA agrees to grant a reduction in the frequency of total residual chlorine monitoring, this would be done through a minor permit modification which would only effect the requirements for the specific parameter in question.

- c. *We are also researching ultraviolet and Zenon technologies. Are these EPA and MassDEP approved?*

The use of ultraviolet (UV) light to kill pathogenic organisms in wastewater is an accepted disinfection method that has been selected by many facilities that treat sanitary wastewater to address safety risks and toxicity associated with the use of chlorine. Should a UV system be installed, and the use of chlorine discontinued, the total residual chlorine effluent limitations and monitoring requirements would be eliminated from the permit.

If the reference to Zenon technologies is referring to ZENON™ membrane bioreactor (MBR) systems, these systems have been successfully used in treatment of domestic wastewater in Region I.

Also, please note that modifications to the wastewater treatment plant must be reviewed and approved by the MassDEP Western Regional Office.

- d. *Would continued chlorination, with the addition of a de-chlorination system to control chlorine residual, be an acceptable solution?*

Implementation of a dechlorination system would be one way to ensure compliance with both the TRC and fecal coliform limits. Ideally, such a system should also be coupled with an improved chlorination process to minimize the amounts of chlorine and dechlorination chemicals added to the effluent.

Comment A.4.

Section E of the permit concerns a chlorination system report. Is this a report that can be done “in house” or should it be submitted by an engineering firm? Is it possible to see an example of such a report?

Response A.4.

In order to avoid redundancy, EPA has made a decision to remove the chlorination system reporting requirement from the final permit since it is anticipated that an administrative compliance order will be issued upon issuance of the final permit.

Comment A.5.

Section C, sub-section 1 of the permit states that “the permittee shall provide an adequate staff to carry out the operation...”. Currently, we have one primary licensed operator and once secondary licensed operator (whom we pay but seldom have a need to use). Are we required to have two operators or can a trained but unlicensed individual be our secondary when our primary is out of town?

Response A.5.

EPA does not mandate specific license requirements for wastewater treatment plant operators. However, the Commonwealth of Massachusetts does have regulations regarding license requirements which can be found at 257 Code of Massachusetts Regulations (CMR) 2.00. The regulations state that “no person shall manage, operate or maintain a wastewater treatment facility unless the individual in charge of the facility is in possession of a currently valid certificate issued pursuant to 257 CMR 2.07”. Being a Class I Wastewater Treatment Facility, the Gould Farm Wastewater Treatment Facility may only be operated by an individual in possession of at least a Grade I Wastewater Treatment Facility Operator’s license. 257 CMR 2.00 describes an Assistant Chief operator for a Grade I facility as being “the person in direct responsible charge during the absence of the Chief Operator. Certification for this position may be one grade below the grade of the plant”. Therefore, the secondary operator (Assistant Chief Operator) responsible for maintaining operations of the Gould Farm facility in the absence of the primary operator (Chief Operator) must, at a minimum, be a licensed Grade I Wastewater Treatment Facility Operator.

The permittee is reminded that upgrades made to the facility may result in a classification/grade change.

Comment A.6.

Section C, sub-section 3 of the permit states that “the permittee shall provide an alternative power source...”. Would a portable generator satisfy this condition of the permit or does it need to be an automated, permanent system?

Response A.6.

A portable generator would be acceptable provided that it could be activated in time to prevent permit violations should the facility experience a loss of power. If a generator that is not automatic is used, any portion of the wastewater treatment process that relies on electricity would need to be equipped with an alarm system to notify treatment plant personnel of a power failure so they have sufficient time to respond and activate the portable unit to avoid violating any of the terms and conditions of the permit.

The type of upgrades made to the facility will also dictate whether or not a portable generator will be acceptable. For example, if an ultraviolet disinfection unit is installed, an automatic power source would be necessary since any interruption in power would result in a loss of disinfection of the effluent and a violation of the bacteria limitation in permit.

Comment A.7.

There is a possible discrepancy in Section V.A. of the fact sheet. The fact sheet states that flow is currently monitored using a V-notch weir. A more accurate description of our current method would be that we time how long it takes to fill an Imhoff cone as the effluent freefalls from a 6" pipe exiting the chlorine contact chamber. These seconds are converted to gallons per day using a flow chart. Is this an acceptable method for small flow systems such as ours? As stated earlier in this letter, we are also considering installing a flume with a flow meter.

Response A.7.

This response to the above comment serves to correct the method of flow measurement currently employed by the permittee as stated in the fact sheet from monitoring via a V-notch weir to filling an Imhoff cone and converting the seconds taken to fill the cone to gallons per day. While this is an acceptable method for measuring flow for this facility, installation of an automatic flow meter would provide the permittee, EPA, and MassDEP with the data needed more accurately assess operations at the facility and effluent characteristics

Fact sheets are not modified once permits go to public notice. Any corrections to fact sheets are noted in the Response to Comments document, which becomes part of the administrative record.

Comment A.8.

Regarding BOD and TSS sampling, footnote #4 on the permit (sampling required for influent and effluent) is applied to TSS but not BOD₅. Later, page 7 of the fact sheet states, "...the 30-day average percent removal for BOD₅ and TSS be no less than 85%".

a. *Could you please clarify this?*

Response A.8.a.

In Part I.A.1., page 2, of the draft permit, under the column heading "Parameter", next to both BOD₅ and TSS, a "*4" is written in superscript in reference to Footnote #4, requiring that BOD₅ and TSS samples be collected for both the influent and effluent.

b. *If we are able to stay under the effluent limitations, why do we need to test for percent removal?*

Response A.8.b.

As described in the fact sheet, EPA made a Best Professional Judgment (BPJ) determination to establish effluent limitations for the Gould Farm Wastewater Treatment Facility based on the secondary treatment standards set forth at 40 CFR § 133.102. Secondary treatment standards describe the minimum level of effluent quality, in terms of pH, TSS, and BOD₅, that can be achieved through proper operation of the wastewater treatment facility. 40 CFR §133.102(3) specifically requires that the 30-day average percent removal of BOD₅ and TSS be no less than 85%. Therefore, the 85% BOD₅ and TSS removal requirement in the draft permit shall remain as written in the final version.

- c. *Would the influent and effluent samples need to be taken at the same time (requiring two automatic samplers) or can they be spaced out by 1 day so the same sampler could be used?*

Response A.8.c.

While the twice-per-month BOD₅ and TSS influent and effluent samples need not be collected at the same time, they shall be collected on the same day. A statement clarifying that the 8-hour composite influent and effluent samples shall be collected on the same day has been added to Footnote #4 of the final permit.

Because the Gould Farm discharge is not a continuous one, and following a telephone conversation with Gould Farm representatives concerning the logistics involved in collecting an eight hour composite sample from the influent, EPA has decided to change the compositing method for the influent sampling from flow-proportioned to time-proportioned. The following statement has been added to Footnote #5 of the final permit: “An 8-hour composite sample of the influent shall be a time-composited sample and shall consist of at least eight (8) grab samples of equal volume collected at specific time intervals and then combined”.

Comment A.9.

Our chlorine residual monitoring requirement has been stated on the permit as 2x per day/5 days a week. If, due to scheduling on a particular day, we are only able to sample 1x, would another sample taken on the 6th or 7th day be an acceptable way to meet the total of 10 samples per week?

Response A9.

The determination to require twice per day, five days per week, monitoring for the concentration of total residual chlorine in the effluent was made for the following reasons:

- The degree of variability of chlorine concentration in the effluent (data from discharge monitoring reports submitted from January 2004 – August 2006 (**Attachment A**)). The results of many analyses revealed residual chlorine concentrations much higher than the proposed limitations in the draft permit.
- The use of a manual drip disinfection system, such as the one currently employed, does not allow for sufficient control over the amount of chlorine added to the effluent. This lack of control greatly increases the likelihood that the effluent will be “overdosed” with chlorine and may create a toxicity problem upon discharge to the receiving water.

The objective of the monitoring requirement is not to collect a certain number of samples each week. Rather, the goal of generating total residual chlorine data from samples collected twice per day, five days per week, is to provide a more accurate representation of the effluent in terms of variations in chlorine concentrations with respect to flow and chlorine demand. This information is less likely to be captured if sampling is conducted intermittently or once per day. Therefore, the twice per day total residual chlorine monitoring requirements in the draft permit shall remain as written in the final permit.

Comment A. 10.

The original draft permit stated that flow should be monitored once per day without any note of how many days per week. We discussed this with you and it was determined that 5 days a week would be sufficient. However, we have not seen any revisions that clearly indicate this change. Could you please clarify this?

Response A. 10

Both the draft permit and fact sheet that went out for public comment state that flow shall be measured once per day, five days per week.

B. Comments received from Cindy Delpapa, Stream Ecologist, Commonwealth of Massachusetts Riverways Program, dated April 3, 2007.

Comment B.1.

This facility has been operating under a permit that was issued in the 1970's and we are pleased to see a review of this permittee and facility and a new permit crafted for this facility. The draft permit has several additions that will provide enhanced protection to the receiving water of Rawson Brook.

Response B.1.

EPA acknowledges the comment.

Comment B.2.

The draft permit has slightly changed the pH range to reflect the Class B water quality standards. This is a logical modification given the low dilution and the history of acidity issues in many of the State's western waterways.

Response B.2.

EPA acknowledges the comment.

Comment B.3.

The addition of Whole Effluent Toxicity testing is also a very welcome addition to this permit given the nature of this facility. Since this is a residential medical facility it is highly possible micro contaminants, such as medications, are present in the waste stream. The WET testing will be a valuable tool to assess whether the discharge might pose a threat to the aquatic ecosystem in the receiving waters as conventional single parameter testing would be unlikely to detect the presence of micro contaminants.

Response B.3.

EPA acknowledges the comment.

Comment B.4.

The addition of total and ortho-phosphorus monitoring to the permit is an important advancement as phosphorus has the potential to degrade water quality. As the Fact Sheet notes, the dilution available in Rawson Brook is modest so an effluent discharge with elevated phosphorus levels could impact water quality. The monitoring and reporting required in the draft permit will provide valuable data concerning the concentration and loads of phosphorus entering the system which will allow regulators and managers the opportunity to assess the potential for eutrophication or other impacts associated with elevated nutrient levels.

Response B.4.

EPA acknowledges the comment.

Additional Changes Made to the Final Permit

- Since the permit includes an average monthly flow limitation, the requirement in Part I.A.1. of the draft permit to also report the average monthly flow is unnecessary and has been removed from the final permit.
- The following statement has been removed from Footnote #2: *The average monthly and maximum daily flow shall be reported.*

**Attachment A: Outfall 001 Effluent Monitoring Data
(January 2004-August 2006)
NPDES Permit No. MA 0022705
Gould Farm, Monterey, MA**

| Date | Flow (MGD) | | BOD ₅ (mg/l) | | TSS (mg/l) | | Total Coliform Bacteria (cfu/100ml) | | Settleable Solids (ml/l) | | pH (S.U.) | | Total Residual Chlorine (mg/l) | |
|-----------------|--------------|--------------|-------------------------|--------------|--------------|--------------|-------------------------------------|--------------|--------------------------|--------------|-----------|---------|--------------------------------|--------------|
| | Avg. Monthly | MaximumDaily | Avg. Monthly | MaximumDaily | Avg. Monthly | MaximumDaily | Avg. Monthly | MaximumDaily | Avg. Monthly | MaximumDaily | Minimum | Maximum | Avg. Monthly | MaximumDaily |
| Existing Limits | 0.012 | **** | 30 | 50 | 30 | 50 | 1000/100 | 2000/100 | 0.1 | 0.3 | 6.00 | 9.00 | **** | **** |
| Aug. 2006 | 0.006 | 0.0113 | 7 | NR | 1 | NR | 175 | NR | 0 | 0 | 6.47 | 6.83 | 0.28 | 0.59 |
| Jul. 2006 | 0.004 | 0.0076 | 9 | NR | 4 | NR | 150 | NR | 0 | 0 | 6.60 | 7.35 | 0.41 | 1.03 |
| Jun. 2006 | 0.008 | 0.0113 | 11 | NR | <1 | NR | 40 | NR | 0 | 0 | 6.57 | 8.62 | 0.37 | 0.70 |
| May. 2006 | 0.005 | 0.0113 | 5 | NR | 5 | NR | 30 | NR | 0 | 0 | 6.72 | 8.92 | 0.30 | 0.87 |
| April. 2006 | 0.0050 | 0.0113 | <1 | NR | 15 | NR | 200 | NR | 0 | 0 | 6.93 | 8.98 | 0.55 | 0.98 |
| March. 2006 | 0.002 | 0.0045 | 16 | NR | 20 | NR | <10 | NR | 0 | 0 | 6.68 | 7.40 | 0.13 | 1.81 |
| Feb. 2006 | 0.007 | 0.0236 | 23 | NR | 7 | NR | 150 | NR | 0 | 0 | 6.50 | 6.74 | 0.64 | 1.20 |
| Jan. 2006 | 0.0090 | 0.0236 | 12 | NR | 18 | NR | 50 | NR | 0 | 0 | 6.59 | 8.07 | 0.58 | 4.26 |
| Dec. 2005 | 0.0070 | 0.0113 | 9 | NR | 16 | NR | 70 | NR | 0 | 0 | 7.40 | 9.62 | 0.54 | 0.92 |
| Nov. 2005 | 0.007 | 0.0236 | 11 | NR | 14 | NR | 10 | NR | 0 | 0 | 6.97 | 9.51 | 0.61 | 1.28 |
| Oct. 2005 | 0.0112 | 0.0236 | 6 | NR | 8 | NR | 50 | NR | 0 | 0 | 6.65 | 7.20 | 0.36 | 1.06 |
| Aug. 2005 | 0.003 | 0.0029 | 18 | NR | 25 | NR | 60 | NR | 0 | 0 | 6.87 | 7.29 | 0.38 | 0.52 |
| Jul. 2005 | 0.002 | 0.0023 | 9 | NR | 12 | NR | 7 | NR | 0 | 0 | 7.05 | 7.52 | 0.18 | 0.99 |
| Jun. 2005 | 0.004 | 0.0058 | 19 | NR | 12 | NR | 3 | NR | 0 | 0 | 7.79 | 10.20 | 0.41 | 0.50 |

Attachment A
Outfall 001 Effluent Monitoring Data (January 2004-August 2006)

| Date | Flow (MGD) | | BOD ₅ (mg/l) | | TSS (mg/l) | | Total Coliform Bacteria (cfu/100ml) | | Settleable Solids (ml/l) | | pH (S.U.) | | Total Residual Chlorine (mg/l) | |
|-----------------|--------------|---------------|-------------------------|---------------|--------------|---------------|-------------------------------------|---------------|--------------------------|---------------|-----------|---------|--------------------------------|---------------|
| | Avg. Monthly | Maximum Daily | Avg. Monthly | Maximum Daily | Avg. Monthly | Maximum Daily | Avg. Monthly | Maximum Daily | Avg. Monthly | Maximum Daily | Minimum | Maximum | Avg. Monthly | Maximum Daily |
| Existing Limits | 0.012 | **** | 30 | 50 | 30 | 50 | 1000/100 | 2000/100 | 0.1 | 0.3 | 6.00 | 9.00 | **** | **** |
| May. 2005 | 0.003 | 0.0045 | 24 | NR | 67 | NR | 10 | NR | 0 | 0 | 7.31 | 10.98 | 0.68 | 1.43 |
| April. 2005 | 0.006 | 0.0076 | 11 | NR | 11 | NR | 110 | NR | 0 | 0 | 6.70 | 9.54 | 0.54 | 1.31 |
| March. 2005 | 0.007 | 0.0058 | 70 | NR | 15 | NR | <10 | NR | 0 | 0 | 6.72 | 6.96 | 0.37 | 1.50 |
| Feb. 2005 | 0.0051 | 0.0076 | 10 | NR | 5 | NR | 10 | NR | 0 | 0 | 6.85 | 7.00 | 0.46 | 1.30 |
| Jan. 2005 | 0.0065 | 0.0076 | 11 | NR | 14 | NR | 80 | NR | 0 | 0 | 6.85 | 7.38 | 0.14 | 0.47 |
| Dec. 2004 | 0.0063 | 0.0113 | 4 | NR | 2 | NR | 30 | NR | 0 | 0 | 7.01 | 7.41 | 0.45 | 1.83 |
| Nov. 2004 | 0.0037 | 0.0113 | 6 | NR | 22 | NR | <10 | NR | 0 | 0 | 6.95 | 7.26 | 0.42 | 1.04 |
| Oct. 2004 | 0.0031 | 0.0113 | 10 | NR | 9 | NR | 10 | NR | 0 | 0 | 7.06 | 7.35 | 0.68 | 1.55 |
| Sept. 2004 | 0.0069 | 0.0113 | 7 | NR | 6 | NR | <10 | NR | 0 | 0 | 7.00 | 7.99 | 0.69 | 1.16 |
| Aug. 2004 | 0.0088 | 0.0236 | 8 | NR | 7 | NR | <10 | NR | 0 | 0 | 7.06 | 7.68 | 0.48 | 1.63 |
| June. 2004 | 0.0064 | 0.0018 | 20 | NR | 8 | NR | 760 | NR | 0 | 0 | 7.76 | 8.39 | 0.67 | 0.80 |
| May. 2004 | 0.0082 | 0.0113 | 15 | NR | 17 | NR | 180 | NR | 0 | 0 | 7.75 | 8.35 | 0.75 | 0.91 |
| April. 2004 | 0.0074 | 0.0113 | 20 | NR | 14 | NR | <1000 | NR | 0 | 0 | 7.81 | 8.91 | 0.43 | 0.85 |
| March. 2004 | 0.0040 | 0.0113 | 10 | NR | 16 | NR | <10 | NR | 0 | 0 | 7.70 | 8.02 | 0.16 | 0.23 |
| Feb. 2004 | 0.0033 | 0.0045 | 15 | NR | 23 | NR | <10 | NR | 0 | 0 | 7.73 | 7.87 | 0.15 | 0.23 |
| Jan. 2004 | 0.0038 | 0.0236 | 22 | NR | 22 | NR | <10 | NR | 0 | 0 | 8.38 | 9.08 | 0.16 | 0.29 |

Attachment A
Outfall 001 Effluent Monitoring Data (January 2004-August 2006)

| Date | Flow (MGD) | | BOD ₅ (mg/l) | | TSS (mg/l) | | Total Coliform Bacteria (cfu/100ml) | | Settleable Solids (ml/l) | | pH (S.U.) | | Total Residual Chlorine (mg/l) | |
|-----------------|--------------|--------------|-------------------------|--------------|--------------|--------------|-------------------------------------|--------------|--------------------------|--------------|-----------|---------|--------------------------------|--------------|
| | Avg. Monthly | MaximumDaily | Avg. Monthly | MaximumDaily | Avg. Monthly | MaximumDaily | Avg. Monthly | MaximumDaily | Avg. Monthly | MaximumDaily | Minimum | Maximum | Avg. Monthly | MaximumDaily |
| Existing Limits | 0.012 | **** | 30 | 50 | 30 | 50 | 1000/100 | 2000/100 | 0.1 | 0.3 | 6.00 | 9.00 | **** | **** |
| Minimum | 0.002 | 0.0018 | 4 | NR | 1 | NR | 3 | NR | 0 | 0 | 6.47 | 6.74 | 0.13 | 0.23 |
| Maximum | 0.011 | 0.0236 | 70 | NR | 67 | NR | 760 | NR | 0 | 0 | 8.38 | 10.98 | 0.68 | 4.26 |
| Median | 0.0058 | 0.0113 | 11 | NR | 14 | NR | 50 | NR | 0 | 0 | 6.96 | 7.93 | 0.43 | 1.01 |
| Average | 0.0056 | 0.0113 | 14 | NR | 14 | NR | 104 | NR | 0 | 0 | 7.08 | 8.15 | 0.43 | 1.11 |

Note: The data listed above is from discharge monitoring reports which the facility submits monthly. The frequency of monitoring varies, as some parameters are measured continuously, while others are measured once per day, once per week, or once per month.

NR = Not reported.