

RESPONSE TO PUBLIC COMMENT

From May 27, 2004 to June 28, 2004, the United States Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MA DEP) solicited Public Comments on a draft NPDES permit, developed pursuant to a reapplication from Greater Lawrence Sanitary District for reissuance of the District's NPDES permit to discharge wastewater to the Merrimack River. After a review of the comments received, EPA has made a final decision to issue the permit authorizing the discharge. The following response to comment describes the changes and briefly describes and responds to the comments on the draft permit.

A copy of the final permit may be obtained by writing or calling Betsy Davis, United States Environmental Protection Agency, 1 Congress Street, Suite 1100 (CMA), Boston, Massachusetts 02114-2023; Telephone (617) 918-1576.

A) Comment submitted by the Greater Lawrence Sanitary District on June 24, 2004.

Comment #1: GLSD's street address is 240 (not 24) Charles Street.

Response: The change is reflected in the final permit.

Comment #2: Page 2: Addition of monthly and weekly mass effluent limitations:

The GLSD'S draft Long-Term CSO Control Plan (draft LTCP) dated November 2002 contains a Phase 1 recommended plan for CSO control. One component of the Phase 1 recommended plan is "Design and construct Riverside Pump Station and WWTP (wastewater treatment plant) improvements that increase wet weather capacity from 110 million gallons per day to 135 million gallons per day." (Attachment A) As part of the wet weather upgrade, the GLSD will be installing a secondary bypass to provide primary treatment and disinfection of a portion of the peak flow. The draft LTCP also envisions a subsequent increase in the wet weather capacity of the pump station and treatment plant to 165 million gallons per day. The GLSD has received a USEPA Administrative Order directing the GLSD as follows: "By October 15, 2004, the Permittee shall submit completed plans and specifications for the Phase 1 plan. The completed design should provide for the possibility of future expansion of wet weather capacity to 165 MGD," (Attachment B)

The addition of monthly and weekly mass effluent limitations will eliminate any benefit of the planned increase in wet weather capacity to 135 MGD and possibly to 165 MGD. Specifically, the GLSD will be unable to meet the weekly mass loading limitation and may be unable to meet the monthly mass loading limitation at these higher wet weather flows.

Attached (Attachment C) find summaries of combined sewer overflow occurrences reported to USEPA and MADEP during the period, January 1, 1996 to June 15, 2004. Please note that there are several rainstorms that resulted in extended wet weather flows of up to four and one quarter days in duration (October 20-24, 1996). Under the GLSD's draft LTCP, the GLSD's WWTP would be operated at a flow rate of 135 MGD (Phase 1) and up to 165 MGD (future expansion) during these periods. Even after the CSO discharge abates, the

WWTP would continue to be operated at higher flow rates for the period of time necessary for all wet weather runoff to pass through the combined sewer system. Monthly and weekly mass loading limitations calculated using a 52-MGD WWTP flow rate would prevent compliance during periods when the WWTP is experiencing flows of up to 135/165 MGD.

The GLSD requests that USEPA not add monthly and weekly mass effluent limitations to the GLSD's NPDES permit at this time. Rather, the addition of monthly and weekly mass effluent limitations should be delayed until mass effluent limitations can be developed which take into account the actual operational experience and capabilities of the upgrade WWTP during wet weather.

Response: As part of a policy change requested by MADEP, flow limits in MA NPDES permits are now expressed as an annual average, rather than a monthly average. The purpose of the change is to allow some variation in POTW flows in response to wet weather, and in recognition that the flow rate used as a monthly average is in most cases presented in the treatment plant planning documents as an annual monthly average.

Agreeing to relax the flow limit from a monthly average to an annual average caused concern that there would be a significant increase of pollutants discharged to the receiving water during months when the monthly average discharge flow exceeds the limit in the current permit. To prevent degradation of the receiving water, the Agencies agreed to add mass limits based on the current design flow of the facility for both BOD₅ and TSS as a permit condition to ensure that existing controls on mass discharges are maintained.

In recognition of the benefits associated with maximizing combined flow to the treatment facility, the weekly mass loading limits have been changed to report only. The monthly average mass loading limits have been retained. Violations of the monthly average mass loading limits that are related to maximizing combined flows to the treatment facility will be addressed through the CSO enforcement process and may include the imposition of interim limits, if appropriate.

Comment #3: Page 2, Table 1.A.1, "pH RANGE" – Paragraph I.A.1.b. is actually on Page 6 and not Page 5.

Response: This change has been made in the final permit.

Comment #4: Page 2, Total chlorine residual continuous monitoring and Page 4, Chlorine dosing system alarm:

The GLSD is currently procuring the equipment and constructing the facilities needed to meet these requirements. The GLSD believes that it will have completed the installation of these facilities prior to issuance of the final NPDES permit. However, the GLSD cannot be certain that start-up of these new facilities will be problem-free. Consequently, the GLSD requests that the it be given a short period of time (i.e. – 90 days) after issuance of the final permit to complete

the start-up of the new facilities.

Response: The permit becomes effective sixty days from the date of signature as stated on page 1 of the final permit. Language has been added to footnotes 6 and 7 of the final permit to have all new equipment needed to meet the TRC requirements fully operational thirty days from the effective date of the permit.

Comment #5: Page 2, Dissolved Oxygen Monitoring - Approved methodology: Current approved methods per 40 CFR part 136 for dissolved oxygen are limited to the Winkler or Electrode methods. The electrode methods specified utilize galvanic or polarographic sensors to measure dissolved oxygen. The Hach Company has developed a new more reliable luminescent dissolved oxygen (LDO) sensor. (Attachment D) This sensor eliminates problems associated with the other electrode methods such as anode replacement and cost, consumption of electrolyte solutions and possible contamination, and sensor membranes that become coated with debris requiring cleaning, replacement and more frequent calibration. The Hach Company is in the process of seeking EPA approval for the new LDO sensor. The GLSD uses this new LDO technology in its aeration system and has found it to be very accurate and reliable. The District requests permission to use the LDO technology to measure dissolved oxygen in the final effluent.

Response: The luminescent dissolved oxygen (LDO) sensor has not yet been approved. The Hach company has submitted an application to EPA's Office of Water in Washington DC and we believe this is the proper venue for seeking approval. It is EPA's Region 1 understanding that EPA Headquarter's has begun the review process.

The Hach company also submitted a copy of their application to our Regional office for a technical review to determine if the GLSD can use this method to report

The current Agency protocol for approving a new test method only grants EPA's Regional Office authority for approval of methods used by a single laboratory. The request we received from the Hach Company did not identify the laboratory involved. It appears that the request is for a single region-wide approval.

An individual laboratory requesting a limited use method approval for NPDES compliance samples would be expected to generate its own method validation data and documentation for each matrix type involved.

Until the product is approved for use in an individual laboratory or, it is approved by EPA Headquarter's for nation-wide use, the permittee is required to use analytical methods listed in 40 Code of Federal Regulation 136 for compliance purposes.

Comment #6: Page 3, Footnote below Table:

The requirement for same time and day subjects the GLSD to a high risk of permit violations. The GLSD currently has a routine sampling program in which it

endeavors to take samples at the same location and at the same time and day of every month. However, there are many reasons why the GLSD is often unable to adhere to its sampling program. Exceptions to the same time and same day portion of the program include the following:

Effluent composite sampler problems such as not obtaining a sample due to power outages or power "bumps" that disable the sampler, problems with the composite sampling flow signal, split pump tubing, debris around suction intake, sample accidentally spilled, etc. Partial or non-representative sample can also be obtained for these above reasons. Currently, when any of these events occur, the GLSD resets the sampler and samples an additional day in order to comply with the 5 day per week monitoring requirement for BOD and TSS. The days of sampling have varied for this reason.

Grab sample times and days have varied for reasons such as emergencies requiring staff's immediate attention, reduced staffing levels (e.g. due to sick leave and vacations), inclement weather such as severe lightning, hail or driving rains. Also, lab staff covers the weekend lab duties on a three-hour per weekend day basis. The staff collects grab samples earlier in the day on weekends than they do during the week.

Problems with lab equipment or materials such as incubators, bacti plates, QA/QC data out of acceptable ranges etc. have occasionally required a resample to take place on a different date or time.

Problems experienced with sample location happen infrequently and have generally been related to grab sampling at the outfall structure. This structure can sometimes be inaccessible due to snow/ice accumulation during or immediately after a storm or due to an abundance of bees (one of GLSD's lab technicians is allergic to bee stings). On these occasions, the sample is obtained as close to the planned location as possible while ensuring the safety of the sample collector.

Also the GLSD requests additional guidance regarding what is meant by same time. (E.g. Is a minor deviation such as 15 minutes early or late a deviation that needs to be reported? 30 minutes? 2 hours?)

All NPDES compliance sampling information including location, days and times is maintained in the laboratory log book. This book is available for inspection by state and federal inspectors. Documenting the various deviations, major and minor, through correspondence appended to the monthly DMR's will be burdensome. The GLSD requests that EPA reconsider if such precision in sampling time is necessary. If deemed necessary, the GLSD requests that the permit language be modified to explicitly allow flexibility to modify date and time of sampling due to circumstances such as those described above.

Response: This is standard language that the Agencies are including in all reissued permits. This requirement will help ensure that compliance sampling is representative of the discharge.

We expect, on occasion, situations will arise at the facility that will cause delays or a departure from the standard sampling procedures as you have described. We do not believe noting this information on the DMR's, to be overly burdensome, since it is tracked at GLSD and recorded in the laboratory book. Deviation considered as significant deviations are changes in the sampling day or sampling location. Minor changes in the sampling time are not significant.

Comment #7: Page 4, Footnote 3:

Currently, the GLSD performs its composite sampling at the exit of one of its chlorine contact tanks. The draft permit would require the GLSD to move its sampling point to the outfall structure after the chlorine contact tanks. The reason that the GLSD does not currently take its composite sample at the outfall structure is that there is an elevation difference of up to fifteen feet (depending on flow rate) between the top of the channel wall and the water surface elevation in the channel itself. Under low flow conditions, the sampler must draw a sample under a fairly high negative suction head. The GLSD has found that typical commercial composite samplers do not provide reliable sample collection under this condition. In addition, the long sample line is susceptible to freezing during cold weather conditions. The GLSD requests that the permit be changed to allow GLSD to keep the sampler in its current location for at least one year after effective date of the new permit. This will allow GLSD time to explore modifications to arrangements at the outfall structure that would address the existing concerns.

Response: Language has been added to footnote 3 of the final permit. It allows GLSD to keep the composite sampler in its current location for up to one year after the effective date of the reissued permit. During this time, we expect the permittee to implement an appropriate alternative for collecting composite samples at the outfall structure.

Comment #8: Page 5: Footnote 8, Test Dates:

The draft permit would require that toxicity test sampling be performed on samples taken in the second week of the month. The GLSD has found that toxicity tests often are not successful and a retest is required. Past reasons for this have included: 1) the GLSD's effluent sampler malfunctions or collects insufficient sample during any of the day 1, day 3 or day 5 sampling periods or (2) any portion of the toxicity test fails to meet test method criteria for a valid test. Under the old permit language, the GLSD had the ability to retest within the same month and not violate any requirement of its permit. The proposed language would eliminate this option. The GLSD requests that language be added to Footnote 8 that would allow the GLSD to resample and retest in the event that a valid test is not obtained for the samples taken in the second week of the month.

Response: Samples collected for toxicity tests in all permits issued to facilities discharging to the Merrimack River are limited to the second week in January, April, July and, October. The Agencies developed toxicity test sampling schedules for each watershed in Massachusetts to get a better understanding of overall toxicity

impacts to a receiving water when several point sources discharge to the same water body.

We understand there are various reasons that a permittee may have to repeat a toxicity test. This issue is addressed in Attachment G, The NPDES Whole Effluent Toxicity Testing Monitoring and Reporting Tips, Common Pitfalls and Guidance, in the "NPDES Permit Program Instructions for Discharge Monitoring Reports", that is sent out each year with the discharge monitoring reports.

Comment #9: Page 6, Part 1.A.1.f:

The GLSD notes that average population growth in the District service area has averaged 0.8% per year during the period 1980 to 2000. Consequently, the proposed 80% criterion appears to require planning to begin approximately 25 years before the plant's design flow would most likely be exceeded.

Response: This language has been deleted from the final permit.

Comment #10: Page 6, Part 1.A.1.g:

The draft permit proposes to add a requirement to minimize use of chlorine while maintaining adequate bacterial control. As a matter of good operation and good policy, the GLSD routinely seeks to maintain an adequate level of chlorination while avoiding unnecessary over chlorination. In addition, the GLSD operates a dechlorination system to remove chlorine added prior to discharge of its effluent water.

The proposed requirement could be open to differing opinions regarding what is "minimal" use of chlorine. The GLSD believes that the assurance of adequate disinfection should not be jeopardized by an unqualified requirement for minimization of chlorine use. The GLSD requests that this provision be changed. For example, the provision could read as follows: "The permittee shall minimize the use of chlorine while maintaining adequate bacterial control including providing a reasonable margin of safety in chlorine use to ensure continuous effective disinfection."

Response: We agree with GLSD's proposed language and have included the language in Part 1.A.1.g. the final permit.

Comment #11: Page 9, Part 1.D:

The GLSD understands that, although the reference to Part II.B.4. has been removed from this section, the provisions of Part II.B.4. are still applicable to this NPDES permit.

Response: All of the General Requirements in Part II of the permit apply to the final permit.

Comment #12: Page 16, Part 1.I.2

CSO notification is already addressed in Section 1.G.3.vi. (page 14). Recitation of additional requirements for CSO notification in a separate location in the permit has the potential for establishing two alternative reporting requirements for the same event. The GLSD requests that the proposed Section 1.1.2 be deleted. If the USEPA declines to delete Section 1.1.2, the GLSD requests that all CSO

notification requirements be consolidated and appear in one location in the permit.

Response: This section has been deleted from the final permit. This language was added to notify water supply communities downstream of GLSD's discharge if and when an emergency at the plant occurred that could potentially impact public drinking water supply. There are no drinking water intakes downstream of the treatment plant therefore, it does not pertain to GLSD.

Comment #13: The first sentence in this section includes the language, "...potential to violate...". This wording is open to differing opinion as to what conditions have a potential to violate and when this potential may exist. The GLSD requests that this language be deleted. If the USEPA declines to delete this language, the GLSD requests that the language be changed so that GLSD's requirement is only for situations in which a violation of permit effluent limits appears likely or reasonably imminent.

Response: See response to the previous comment.

Comment #14: Clarify wording of the first sentence in this section to refer to "...permit effluent limits..."

Response: See response to comment #12.

Comment #15: The permit does not list any downstream drinking water suppliers. We assume that this is because there aren't any at the present time. Is this correct?

Response: See Response to Comment #12.

B) Comment submitted by Massachusetts Riverways Program on June 25, 2004.

Comment #16: We support increasing sampling frequency for fecal coliform and would even encourage a daily sample during warm weather months or a stipulation for two of the five required samples be taken during the weekend since the river is used extensively for recreation for boating and fishing as stated in the 305b assessment for this watershed. A five day a week sampling schedule may result in no or infrequent sampling of bacteria on weekends as it seems likely sampling would occur during the work week since this is a 'laboratory dependent' parameter. Understanding weekend effluent conditions, when recreational use might be at its peak, would be protective of public health.

Response: The increase in fecal coliform sampling in conjunction with the alarm requirement for the chlorination system is adequate to ensure compliance at all times.

Comment #17: The facility is required to meet 85% removal rates BOD and TSS during dry weather only. Understandably the facility will be receiving a large volume of

and influent–storm water mix resulting in a more dilute flow and more difficulty in achieving 85% efficiency. In this situation, the facility should be asked to increase its monitoring of BOD and TSS to make sure maximum daily loads of BOD and TSS and the concentrations of these two pollutants are not exceeded. Specifics about what constitutes wet weather versus dry weather operation should be added to the permit. Does wet weather start when a storm event begins or when runoff-diluted influent arrives at the facility or when CSO surcharges begin? At what point is a wet weather event over? It does not appear BOD and TSS loads and concentration limits are suspended during wet weather events. We support the permit maintaining these limits at all times. We are particularly supportive of the addition of BOD and TSS load limits.

Response: The secondary treatment regulations require a minimum of 85% removal efficiency for BOD₅ and TSS over a 30 day average unless special circumstances apply pursuant to 40 CFR 133.103 apply. The regulations at 40 CFR 133.103(a) allow a relaxation of the 85% removal requirement for facilities with combined sewer systems and it has been removed from the final permit.

Facilities with combined sewers usually can not meet the 85% removal requirement on a monthly average because the influent is too dilute during storm events as you have noted in your comment. Due to the difficulties in separating wet and dry weather data, EPA New England does not typically include the 85% removal requirement in permits for facilities with CSOs.

EPA's National CSO Control Policy defines wet weather flow in a combined sewer system as dry weather flow combined with storm water runoff and dry weather flow combined with inflow in a separate sewer. A wet weather event is over when the runoff that is conveyed through the POTW has stopped.

Comment #18: The Merrimack River in this section is impaired by several other pollutants in addition to pathogens: priority organics, and nutrients. The Spicket River has the additional impairments of: habitat alteration, unknown causes and objectionable deposits. The draft permit has no limits for nutrients but it does include a reporting requirement for phosphorus. The State will have to undertake and complete a TMDL for the Merrimack to set nutrient loads for all contributors. Without data about the contribution of nutrient loads from the many point source discharges, this task will be made difficult and result in potentially inaccurate load allocations because of a lack of definitive inputs into the model used to determine loads. The facility's requirement to monitor and report total phosphorus will help in TMDL preparation. Monitoring of ammonia, nitrate and TKN, given Merrimack River flows to an estuary, would also provide valuable data and should be considered as additional monitoring parameters.

Response: The segment of the Merrimack River that receives the effluent from the GLSD is on the Massachusetts - Year 2002 Integrated List of Waters requiring a TMDL for nutrients as well as other pollutants. Quarterly reporting requirements for total ammonia nitrogen, nitrite/nitrate, and TKN have been added to the final permit. Two of the four samples are required to be collected during high flow events. For this permit, a high flow event is defined as flow that exceeds 30 MGD. See Footnote 8 in the final permit.

Comment #19: Footnote #6. The facility is required to report inadequate chlorine concentrations and record information about such incidents. As noted above, this river is heavily used and this requirement is a protective of public health. Elevated levels of chlorine are also problematic and can be harmful to aquatic life in the receiving water. The facility should also be required to record the amount of time the facility released effluent with TRC concentrations above permits limits with a notation on the DMR and by highlighting the recording charts from the continuous analyzer submitted with the DMRs showing the number of hours of exceedances and maximum concentration recorded by the analyzer. Since only one grab sample a day is used for compliance purposes, not the continuous monitor, the facility could be above TRC concentration limits at some point or points during a day without the one grab sample capturing these periods of elevated TRC. Highlighting exceedances captured by the automatic recorder will help plant operators and regulators track patterns of TRC problems at the facility should there be any. The facility's present DMR data showed a daily max of 1.02 mg/l in April 2004. This is a significant exceedance given the toxicity of chlorine to aquatic organisms but the amount of time such heavily chlorinated effluent flowed into the river is also significant. Knowing the duration of these elevated concentrations should be highlighted and made accessible.

Response: The permittee is required to submit graphs showing results from the continuous recorder. While the duration of peak chlorine discharges will not be recorded on the monthly graphs submitted with the DMRs the data will be part of the official file and can be obtained from EPA or MA DEP.

Comment #20: The I/I remediation requirements in the draft permit are much needed to try to reduce flows to the facility there by benefitting daily operations and reducing CSO frequencies and volumes. The monthly average flow for April of this year was just under maximum capacity at 51.9 MGD. This would suggest many days during April 2004 when the facility was near and over capacity and there would have been significant CSO surcharge hours. Hopefully I/I elimination can be accomplished expediently and the District can work to maximize treatment at the plant at all times to reduce the frequency and volume of CSO discharges. In this light, the District should not allow any additional hook up to the Greater Lawrence system until significant progress has been made on I/I removal. Subsequent to I/I progress, any new tie ins remove at least one for one, and preferably more, of I/I above the level outlined in the annual I/I corrective actions planned. One possibility for encouraging work in priority areas to maximize the efficiency of the system to reduce CSO surcharges would be to allow a trading or banking program among the member communities so an additional hook up in one community could be offset in another community whose I/I corrective actions would benefit the overall system the most. The entire District should agree on how to prioritize I/I corrective actions and agree on criteria to use in the prioritization. Standard criteria would facilitate banking/trading endeavors and provide the general public with a defined ranking system should they be interested in better understanding this primarily rate-payer funded undertaking.

Response: The Agencies support your suggestion that the District work with the

Communities to develop and implement a prioritization plan that maximizes the reduction of I/I. A trading program is one approach for the District and the member communities to consider.

These are good suggestions and we encourage the Communities to incorporate them into their I/I plans.

Comment #21: The level of I/I in this system has an alternate side. There is probably exfiltration from the sewer infrastructure during periods of drought and low groundwater levels. Priority should be given to rectifying degraded infrastructure in areas near sensitive receptors, such as small streams or wetlands. This should issue be part of the prioritization criteria for deciding on I/I remediation projects.

Response: Maintaining the integrity of the infrastructure is an important component of the I/I program and, correcting structural problems will also address exfiltration in these areas. We recommend prioritizing any area exhibiting local water quality problems that may in part be due to exfiltration.

Comment #22: The permit requirements for CSO control, effluent limitations, and reporting are enthusiastically supported. We would like one augmentation considered relative to the nine minimum control technologies detailed in Attachment E. under control 7.e. Street cleaning is an important facet of pollution control. We would like to see this expanded to include sidewalks. In New England, with our snowy winters, a significant volume of sand and salt laden snow can be piled on the side of roads. During snow melt, this sediment and accumulated litter remains on the sidewalks beneath the snow piles and is not dealt with during street sweeping and is left to runoff into storm drains. Areas under bridges and sidewalks with pest waste pose and additional contribution of pollutants to storm water runoff that could also be at least partially ameliorated by regular sidewalk sweeping.

Response: This is a good suggestion. We recommend it be implemented under number seven of the Nine Minimum Controls, Pollution prevention program that focus on contaminant reduction activities., listed in Part G.1.a.of the final permit.

C) Comment submitted by the Merrimack River Watershed Council on June 25, 2004.

Comment #23: A reasonable monitoring plan needs to be implemented for systems of the Massachusetts Municipal Co-Permittees in order to detect:

Unauthorized discharges of either water quantity or water quality prior to entry to the Lowell Regional Wastewater Utility treatment works.

Wet weather illegal sump pumps inflow activity.

Failures of the performance capacity of Pre-Treatment Processes of Industrial Users.

Uncontrolled microbiological growth during infrastructure low flow conditions resulting in odorific and potentially unhealthy aerosol components being released into the natural and residential ambient atmospheres.

Response: Part I.C. Unauthorized Discharges and Part I.D. Operation and Maintenance of

the Sewer System of the final permit addresses unauthorized discharges and increased inflow activity. This permit only authorizes discharges from outfalls identified in the final permit to the Merrimack and Spicket Rivers and, any other discharges are unauthorized in accordance with Part II. General Requirements, Section D. 1.e.

Part I. Section D. Operation and Maintenance of the Sewer System requires each Co-permittee implement a plan to control infiltration/inflow from their separate collection system. Eliminating illegal sump pumps hooked up to the collection system is part of an I/I plan.

The permit requires proper operation and maintenance of the facility, which should minimize odor problems. MA DEP has authority under the State's air pollution laws to address nuisance odor issues.

Comment #24: Numerous microbiological discharge exceedances which have continued to occur at Greater Lawrence Sanitary District call for a review of the operational protocols and procedures as well as a review of the capacity, training and scheduling of staff and supervisory management.

Response: We are supportive of any effort the GLSD devotes to staff training and updating operational procedures at the facility. We also believe that recent and future upgrades to the facility and the sewer system will contribute to reducing effluent exceedances. Continued non-compliance may be addressed through an enforcement action.

Comment #25: Subsequent to any exceedance in discharge limits by Industrial Users, an unannounced on-site inspection should be performed by Lowell Regional Wastewater Utility staff or subcontract personnel to insure actual operation of the pre-treatment system. Continuous and chronic exceedances should result in an over-all evaluation of the appropriate design and operational capacity of the pre-treatment system. Necessary maintenance, repair and re-design of pre-treatment systems should be attentively enforced.

Response: The pretreatment program for GLSD was approved by EPA on September 24, 1984. Scheduled and unscheduled inspections at industrial facilities that discharge to the POTW are part of any approved Pretreatment Program. As part of their NPDES permit, the District has the responsibility to enforce the requirements of the Pre-Treatment Program such as an exceedance of capacity that could potentially impact the process at the treatment facility.

Comment #26: Chronic and unattenuated wet weather CSO discharge remains problematic. Monitoring programs and sampling protocols should be adjusted to include single sample (non-composite) wet weather CSO discharge measurements for the following parameters:

BOD mg/l
TSS mg/l

Fecal coliform cfu's
Toxicity.

Risk assessment and management based on *average monthly values* does not address possible and probable exposures of humans during primary and secondary contact recreation, and of fish, other aquatic life, and wildlife in their natural habitat to *maximum and peak levels* of pollutants and pathogens.

Response: The District has developed a CSO Long Term Control Plan to address discharges from combined sewers and, the permittee is implementing Phase I of the Plan now. One of the primary objectives of the plan is to bring all wet weather combined sewer discharges into compliance with the Clean Water Act (CWA) and minimize impacts of CSOs on water quality, aquatic biota and human health. The poor quality of the CSO discharge is well documented. The focus needs to be on reducing the frequency and volume of CSO discharges and not further monitoring.

Part I.F. the Nine Minimum Controls listed in the final permit requires public notification. The objective is to ensure the public receives adequate notification of CSO impacts on water use areas. In areas used for recreation, the permittee must inform the public of potential health risks associated with the use of the river.

Comment #27: Public notification of CSO outfalls and potential health risks should include elements suitable for local cable television, radio and newspapers in appropriate local languages.
Anyone in a CSO wet weather discharge area will already be exposed to potentially harmful water through direct contact or aerosol before they ever see a sign or even if they do not ever see or read a sign.

Response: The permit requires notification signs for all CSO outfalls be located at areas where recreational activities take place. The signs must be visible from both land and water and readable by the public.

Language has been added to the final permit that requires public notification signs in the vicinity of a given outfall structure be in English. In areas where the primary language of a substantial percentage of the residents in the vicinity of an outfall structure is not English, the permittee shall place additional signs in languages that appropriately notify the community of the location of CSO outfalls. See Section G.2.f.of the final permit.

D) Comment submitted by the Frank McCann, Director of Public Works, City of Lawrence, Lawrence, MA on June 28, 2004.

Comment #28: Part I.D. of the permit includes development and implementation of an I/I control plan for separate sewer systems. We note that the Lawrence collection system is primarily a combined system and, therefore, I/I monitoring and reduction requirements do not apply. Furthermore, we note that the Lawrence system has adequate capacity to convey all dry weather flow to the GLSD for treatment, as evidenced by the fact that the City has not experienced any

sanitary sewer overflow (SSO) events.

Given the combined nature of the Lawrence system, we request confirmation from EPA that the requirements of Part I.D will not be applied to Lawrence or, if they are applied, that:

This application be limited to the relatively small portions of the Lawrence system that are separate in nature

The study and resolution of I/I issues will only be required in the cases where (1) violations of permit regulations occur due to excessive I/I, as is stated in the permit under I-D.3, and that excessive I/I is understood to be the 4,000 gpd/im guideline used by MADEP; and (2) I/I removal is cost effective

I/I removal to offset the effect of new sewer connections and extensions will not be

required given the combined nature of the system, such a requirement would entail significant monitoring but provide little benefit in terms of reduced volume and frequency of CSO discharges

Response: Part I.E. Operation and Maintenance of the Sewer System in the draft and final permit applies only to the City's separate sewers. Development and implementation of an I/I plan for the separate sewer system is required. The plan must ensure that there are no sanitary sewer overflows (SSO's) and that the I/I does not result in violations of the permit discharge conditions.

I/I removal that may be necessary to offset the effect of all new sewer connections and extensions can be accomplished in either the separate or combined system. The goal of this requirement is to prevent increases in the frequency, duration and volume of CSO discharges due to new sewer connections and extensions.

The CSO and I/I control programs in the City must keep pace with new sewer connections such that the work accomplished by the CSO program will not be diminished.

Comment #29: Combined Sewer Overflows

As a member of the GLSD, the City's CSO issues are being addressed as part of the Phase I Long Term Control Plan that has been reviewed and approved by EPA and DEP. Therefore, the requirements of Part I.E of the permit should apply to the District rather than the City of Lawrence.

Response: Part 1.E. of the both the draft and final permit pertain to the City's separate collection system rather than CSO's. While GLSD may be addressing CSO issues as far as a long term control plan, the City is responsible for CSOs in the City sewer system and for implementing some of the nine minimum controls.

Specifically, the City of Lawrence is responsible for implementing six of the Nine

Minimum Controls (#1,2,3,4,6 and, 7) in Part 1.G. of the final permit for the City's combined collection system as stipulated on page 1 of the final permit.

E) Comment submitted by the Division of Marine Fisheries on June 29, 2004.

Comment #30: Recently, *Marine Fisheries* re-classified the Merrimack River from prohibited to conditional status for the purpose of harvesting shellfish. This re-classification is the result of reductions in fecal coliform levels in the receiving waters. In order to remain aware of potential sources of fecal coliform bacteria that may effect this new classification, *Marine Fisheries* request to be notified under "Section I. Reporting and Monitoring" within twenty-four hours when a permit excursion for fecal coliform or plant failure occurs. A twenty four hour notification of a permit excursion or plant failure should be sent to the following address and telephone number:

Division of Marine Fisheries
Shellfish Management Program
30 Emerson Avenue
Gloucester, MA 01930
(978)282-0308

Response: This address has been added in the final permit.

8/17/05 updated