U.S. Environmental Protection Agency
Region 10

Response to Comments
City of Winchester
Permit No. ID-002018-4

Background

On September 18, 2003, EPA proposed to reissue the National Pollutant Discharge Elimination System (NPDES) Permit for the City of Winchester wastewater treatment facility. The Public Notice of the draft permit initiated a public comment period which expired on October 27, 2003. The EPA received comments on the draft permit from the City of Winchester. No other comments were received.

This document summarizes the comments received on the draft permit, and EPA's response to the comments. The document provides a record of the basis for changes made from the draft permit to the final permit. The Fact Sheet that accompanied the draft permit was not revised because it is already a final document that provides a basis for the draft permit.

Comment 1

The City uses UV disinfection 99% of the time, however, chlorine is used during peak inflow and infiltration (I/I) periods when the plant flow can reach 0.15 mgd. Since peak I/I corresponds to peak flows in the receiving water, basing the chlorine limits on low receiving water flow conditions (i.e., 1Q10 or 7Q10) is overly restrictive. Instead, the City proposes that the maximum chlorine limits be revised to 1.0 mg/L during the months of December through June. The City believes this will still be protective of the receiving water without risking human health.

Response 1

The permit has been revised to give two sets of limits (tiered limits) for chlorine because the City only chlorinates its effluent during high creek flows. The limits are based on available dilution in Lapwai Creek upstream of the treatment plant outfall. The facility is required to meet water quality based effluent limits when the upstream flow in the creek is low. When the upstream flow in the creek is higher, the technology-based effluent limits apply. Limits are not based on the season, due to insufficient flow data for the receiving water.

As discussed in the Fact Sheet, the Clean Water Act requires that the permit limits for a particular pollutant be the more stringent of either technology-based effluent limits or water quality-based effluent limits. Technology-based limits are set according to the level of treatment that is achievable using available technology. Water quality-based effluent limits are designed to ensure that the water quality standards of a waterbody are being met.

The technology-based chlorine effluent limits for a Publically Owned Treatment Works (POTW) are 0.5 mg/L (average monthly) and 0.75 mg/L (average weekly). The basis for these

technology-based limits is presented in the Fact Sheet.

A reasonable potential evaluation was conducted to determine if the technology-based chlorine limit of 0.5 mg/L would be protective of the water quality standards. The results of the evaluation indicated that the creek to effluent dilution ratio must be 178:1 in order to ensure that water quality standards are met at the edge of the mixing zone. Based on this evaluation, the final permit has been revised to include effluent limits based on the creek to effluent dilution ratio. If the creek to effluent dilution ratio is greater than or equal to 178:1, the technology based chlorine limits of 0.5 mg/L (average monthly limit) and 0.75 mg/L (average weekly limit) apply. If the creek to effluent dilution ratio is less than 178:1, the water quality based chlorine limits of 0.06 mg/L (average monthly limit) and 0.2 mg/L (maximum daily limit) apply.

Because of the lack of creek flow data, it is recommended that the permittee monitor the flow in the creek once per month during the permit cycle. This data would be used to develop water quality based permit limits for the next permit, such as ammonia if necessary. It would beneficial to the permittee to have representative flow data of the receiving water when evaluating the need for and developing water quality based effluent limits to prevent having overly restrictive limits because of lack of flow data.

Final Permit Revisions: The chlorine effluent limits have been moved from Table 1 (Effluent Limitations and Monitoring Requirements) of the permit to a new section I.A.5 (Total Residual Chlorine Effluent Limits and Monitoring Requirements). The permit gives two sets of limits (tiered limits) for chlorine depending on the available dilution in the receiving water. Flow monitoring of Lapwai Creek during discharge of chlorinated effluent has been added to Table 3 (Surface Water Monitoring).

Comment 2

The City currently monitors for fecal coliform once per month but the draft permit requires E. coli monitoring five times per month which will be a financial burden on the City without providing any benefit to the public or the receiving water. The City is requesting that the monitoring frequency be reduced to once per month since the City's ultraviolet disinfection system is well maintained, has had no violations to date, and has a back-up chlorination system during peak periods of plant upset. At a minimum, the permit should provide a re-opener clause to address this issue once the city has shown that it has no history of violations or the IDEQ requirements change.

Response 2

An NPDES permit must ensure that the discharge from the facility complies with the State/Tribe's water quality standards. The Winchester wastewater treatment facility discharges to waters on the Nez Perce Indian Reservation. The Nez Perce Tribe has not yet adopted water quality standards. In such cases, EPA's practice is to apply adjacent or downstream standards to the water body for the purpose of developing permit limitations and conditions. Therefore, the State of Idaho water quality standards were directly applied.

The requirement that the permittee sample 5 times per month is a stipulation of the Idaho Water Quality Standards (IDAPA 58.01.02.251). The Water Quality Standards require that waters designated for primary contact recreation not contain E. coli bacteria in concentrations exceeding "a geometric mean of 126/100 ml based on a minimum of five samples taken every 3-5 days over a 30 day period." The monitoring frequency of 5 samples per month was incorporated directly into the permit. The final permit retains this monitoring frequency.

The permit contains a provision which states that the permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR 122.62, 122.64, or 124.5 (See Part IV.A. of the permit). If the Idaho Department of Environmental Quality revises its water quality standard for E. coli, and EPA approves the water quality standard revision, then the permittee may submit a request for permit modification.

Final Permit Revision: None

Comment 3

The City believes that four years of surface water monitoring is excessive and an economic burden on the city. As an alternative, the City proposes to do one year of sampling either in 2005 or 2006.

Response 3

The surface water sampling results will be used to evaluate the need for effluent limits during development of the next permit. In response to the permittee's request, the number of surface water samples required is reduced from 16 samples to 12 samples. The EPA believes that a minimum of 12 samples is necessary to characterize the surface water. The sampling frequency (i.e., quarterly) in the final permit is unchanged from the draft permit. Quarterly sampling will allow seasonal characterization of the receiving water, but also provides some sampling flexibility. In order to collect 12 samples, three years of sampling is required. Additionally, the initiation of surface water sampling has been delayed for one year. This will allow the permittee additional time to prepare for monitoring.

Final Permit Revision: Section I.B.4 of the final permit has been revised to reduce the duration of the quarterly surface water monitoring from four years to three years. Surface water monitoring must start one year from the effective date of the permit.

Comment 4

The City's budget has already been established for Fiscal Year 2004. Expenses like new sampling requirements and the Quality Assurance Plans have not been funded. The City does not have adequate reserves to fund these requirements without a budget revision, and requests that the compliance period for sampling and development of the Quality Assurance Plan be extended to January 2006.

Response 4

To allow the City additional time to fund and develop the QAP, the final permit has been revised to require the QAP to be developed within 18 months of the effective date of the permit. Note that the QAP may not be as onerous of a task as the permittee perceives it to be. Existing QAPs may be modified accordingly for the requirements of the QAP. The degree to which each of the QAP elements must be addressed will differ depending on whether the City is directly responsible for performing the task. QAP elements for which the City is directly responsible (such as sample handling and custody requirements) may have extensive detail. Whereas, tasks conducted exclusively by the laboratory, may be sufficiently addressed by stating in the QAP that the laboratory is responsible for that task. The QAP should include information on what the City is requesting of the laboratory (such as specifics on parameters to be tested, testing methods, detection limits, etc.).

The initiation of surface water sampling has been delayed for one year. This will allow the permittee additional time to prepare for monitoring.

Final Permit Revision: Section I.D. of the permit (Quality Assurance Requirements) is modified to require that the QAP be developed within 18 months of the effective date of the permit. Surface water monitoring must start one year from the effective date of the permit. Section I.B.4 of the final permit has been revised to delay surface water monitoring to begin one year from the effective date of the permit.