

Response to Comments
Draft NPDES Permit No. ID-002150-4
City of Caldwell, Idaho

Background: On June 17, 1998, EPA issued a notice of proposed reissuance of a National Pollutant Discharge Elimination System (NPDES) permit for the City of Caldwell, Idaho. The facility is an activated sludge wastewater treatment plant. The water is discharged to the Boise River at approximate river mile 20. The public review and comment period expired on August 3, 1998.

The June 17, 1998 notice also announced the reissuance of four other NPDES permits which are located in the same Lower-Boise River Watershed as the Caldwell facility. The four other permits are: City of Nampa, City of Boise - Lander Street facility, City of Boise - West Boise facility, and ConAgra (Armour Fresh Meats).

Comments regarding the proposed permit for the Caldwell facility were received from the permittee, through a letter from Gordon N. Law, City Engineer, dated July 16, 1998, and from the city of Boise, through a letter from Robbin Finch, Water Quality Manager, dated August 3, 1998. The following summarizes and responds to each comment raised by the cities.

CALDWELL COMMENTS

I. EFFLUENT LIMITS

Comment 1: The city commented that the Boise River has the capacity to buffer even if the effluent pH is between 6.0 and 6.5 standard units and suggested leaving the pH between 6.0 and 9.0.

Response: In order to determine the buffering capacity of the river, we would need upstream and effluent flow, temperature, pH and alkalinity data. Without this information, it is not possible to determine the buffering capacity of the river. EPA doesn't have this information and the city didn't provide it; therefore, to ensure that water quality standards are protected, the pH limits in the draft permit are retained in the final permit. However, in the future, the pH limits may be modified provided sufficient data are available to determine the buffering capacity of the river.

Comment 2: The city stated that they cannot meet a residual chlorine limit of 0.5 mg/l without installation of dechlorination facilities. This would be a waste of resources since the city plans to go to UV disinfection by June 30, 2001. The city suggested an interim residual chlorine limit of 1.5 mg/l until UV is on line. At that time, they will still retain the chlorination system as a back-up for disinfection and to control filamentous bacteria on an intermittent basis. The water quality based chlorine limits would apply after June 30, 2001, whenever the chlorine system is in use.

Response: EPA and DEQ concur with the city's recommendations. The final permit includes a

maximum chlorine limit of 1.5 mg/l. It also includes a schedule for completion of the UV disinfection system with a final completion date of June 30, 2001. The permit also includes the water quality based residual chlorine limits which will become effective on July 1, 2001.

Comment 3: The city suggested a compliance schedule be included in the permit which will allow them to complete their construction project before the ammonia limits are effective.

Response: A compliance schedule is included in the final permit.

Comment 4: The draft permit has a daily maximum for D.O. concentration of 6.0 mg/l; the concentration should be expressed as a minimum limit.

Response: The final permit has been corrected.

II. MONITORING REQUIREMENTS

Comment 1: The draft permit proposes monitoring for silver and cyanide in the effluent and the Boise River, but the Fact Sheet does not include them in the list of metals of concern. The city questions the need for sampling in the effluent and the river for unlisted substances. The city does not question the need for pretreatment sampling for these substances.

Response: Pretreatment data from the city shows cyanide is not detectable in the city's effluent. Since, according to pretreatment data, cyanide is not detectable in the city's discharge, the requirement to monitor cyanide has been deleted from the final permit. However, pretreatment monitoring requirements for cyanide have been retained in the final permit.

Silver is present in the city's effluent, but not at levels that require limits at this time. The reasonable potential calculations assumed ambient river concentrations of zero for metals; however, this may not be the case. This is significant because if ambient levels are high, a permit limit may be needed. Therefore, we believe it is necessary to monitor for silver in the effluent and the river. These requirements are in the final permit.

Comment 2. The draft permit proposes an extensive monitoring program for both plant effluent and the Boise River. The Fact Sheet states that "Monitoring frequencies are based on the nature and effect of the pollutant..." but never justifies or supports a monthly collection of data. The city requests that Region 10 examine the need for monthly sampling and, if not necessary, reduce the frequency. The city also recommends that after one year's sampling, a reasonable potential analysis be performed and any substances not demonstrating the potential to exceed water quality standards be withdrawn from the list requiring monitoring during the second year of the monitoring program.

Response: The more limited the amount of test data available, the larger the uncertainty and the

lower the precision of the methodology for characterizing the maximum effluent concentration. EPA has reviewed the sampling requirements for metals and believes that 18 monthly sampling events is adequate to characterize metals in the effluent and the receiving stream with a sufficient degree of certainty. The final permit reflects this revision.

Comment 3: The city commented that the reporting of sample analysis results is not consistent. The draft permit requests that effluent monitoring be reported as total recoverable and ambient monitoring as dissolved (for metals). The city requests that Region 10 and the State of Idaho resolve this inconsistency.

Response: The state's aquatic life criteria are expressed as the dissolved fraction of the metal because, instream, that is the portion that is bioavailable to aquatic life. EPA requires the effluent to be monitored as total recoverable because the chemical conditions in ambient water frequently differ substantially from those in the effluent. There is no assurance that the effluent particulate metal would not dissolve after discharge. For example, the dissolved fraction may be low in the effluent, but once it mixes with the receiving water it could be higher. During the next round of permitting, when we do the reasonable potential calculation, we will use a chemical-specific translator, if one is provided by the city, to convert the effluent total recoverable metal to dissolved metal. If a chemical-specific translator is not provided, then a translator of one divided by the conversion factor (1/conversion factor) will be used.

Comment 4: The city notes that a typo occurs on page 6, Part I.A.1.2.

Response: This error has been corrected.

Comment 5: Because the confluence of Indian Creek with the Boise River and the Treatment Plant's outfall are in close proximity (400 - 600 feet), a point of complete mixing, as required in the draft permit, does not exist. The results of any monitoring downstream would be tainted either by the mixing zone for the treatment plant or by the influence of Indian Creek. The city requests that all downstream monitoring be eliminated from the permit. The city suggests that downstream concentrations be projected from upstream ambient and effluent monitoring results.

Response: EPA consulted with the state, and we agree that monitoring downstream, in this case, will not provide data that is representative of the city's impact on the water quality in Boise River; therefore, downstream monitoring has been deleted in the final permit. Downstream values will be calculated and reported based on upstream and effluent values.

Comment 6: The permit requests that effluent and ambient monitoring be done concurrently. The city notes also that effluent sampling is 24-hour composite and ambient monitoring is by grab samples. The city suggests that this statement be reworded to read "sample collection shall occur the same day as effluent sample collection."

Response: This suggestion has been incorporated in the final permit.

Comment 7: The draft permit requests that the city provide “instantaneous” flow rate monitoring of the Boise River. The permit does not indicate the timing of the flow reading except to require that it be “instantaneous”.

The city recommends that the requirement for “instantaneous” sampling frequency be dropped and be replaced with a requirement that flow rate be measured as near as practical to the time that ambient metals are sampled. The city also proposes measuring flow from the Chicago Street Bridge, which is approximately 1300 feet upstream from the plant outfall.

Response: The final permit has been revised to reflect this comment.

Comment 8: The method detection limits (MDLs) for cyanide and silver were not included in the draft permit. If Region 10 determines that silver and cyanide need to be monitored then MDLs should be included in the permit.

Response: The final permit includes monthly effluent and ambient monitoring for silver but not for cyanide (see comment Monitoring #1), therefore, the final permit includes an MDL for silver.

Comment 9: : The draft permit requires whole effluent toxicity (WET) testing be performed twice per year. The city suggests that until the nitrification and UV disinfection facilities are in service, WET testing would only reveal that ammonia and chlorine are toxic. The city suggests that WET testing begin after July 1, 2001 when the nitrification and UV disinfection facilities are in place.

Response: EPA agrees with the city’s assessment. The final permit includes a compliance schedule for construction of their new wastewater treatment facilities. WET testing will be required after July 1, 2001. The permit will require WET testing twice per year for the duration of the permit. The permittee should be aware that the data generated will be used in subsequent permit preparation. If there are fewer than 10 data points, default assumptions will be used when evaluating the data. It may be in the city’s best interest to provide data from at least 10 WET tests prior to permit reissuance.

III. BIOSOLIDS

Comment 1. The permit should not limit, nor imply a limit to the city’s legal options in disposing of biosolids. The city requests that the second sentence of Part I.E.1 be rewritten to read: “The permittee shall ensure that the requirements of 40 CFR 503 are met.”

Response: EPA’s 503 Guidance requires the permittee to identify its chosen disposal practices and submit information to enable the permitting authority to determine compliance with the standards. The city’s application did not indicate that surface disposal or incineration were options the city was using or planned to use. Therefore, the draft permit did not include the use

of these disposal options. The city has since submitted an updated biosolids application which includes disposing of biosolids at landfill, transferring, and receiving biosolids. These options have been incorporated into the final permit.

Comment 2: The city stated that sections I.e.5, I.E.6, I.E.7, and I.E.9 of the draft permit are written with the presumption that present practices and disposal sites are permitted but implementing any other option allowed by 40 CFR 503 or adding disposal sites to the existing list ought to be difficult, cumbersome or time consuming.

The city requests that the requirement in I.E.5 for 90-day notification prior to implementation of any change in metals loading rates, pathogen reduction or vector control be deleted from the permit.

Response: EPA has reviewed the 90-day notification requirement in section I.E.5 and agrees that it is unduly time-consuming. The final permit includes a 30-day notification requirement.

Comment 3: The restrictions in I.E.7 against disposing of biosolids in a municipal solid waste landfill or receiving biosolids from other facilities are inappropriate. Federal and state regulations specifically allow these practices. It is unwarranted to impose these restrictions simply because the city does not presently exercise these options.

The wording of I.E.7 could also be construed to prohibit the Caldwell facility from accepting septage from residential septic tanks. The language would prevent the Caldwell facility from assisting a neighboring plant in an emergency and would limit the options for the contingency plan mandated in I.E.12. In the absence of compelling public or environmental need, the city recommends that I.E.7 be deleted.

Response: The application requirements (40 CFR 122.21) require the facility to submit information on their disposal practices. Caldwell's application did not indicate that they planned to use a municipal landfill or that they planned to transfer or receive sludge from another facility. Therefore, the proposed permit did not include these options. EPA requested additional information from the permittee on these options. The information was received on November 23, 1998, and the final permit has been revised to include these options.

Comment 4. The restricting of acceptable land application sites to those referred to in I.E.6 and I.E.9 runs counter to the intent of Part 503. The promulgation of Part 503 envisioned a regulation that was self-implementing, that spelled out the conditions under which certain activities could occur, gave a discharger options depending on the discharger's particular and changing circumstances, and eliminated the need to limit a discharger to a single set of disposal practices or disposal sites.

Part 503.14 defines conditions that would make a site unsuitable for biosolid disposal. The state of Idaho has promulgated additional regulations that further restrict the area in which

biosolids can be applied. Section I.E.2 and I.E.3 add further definition on acceptable practices in biosolids disposal.

All of the above are acceptable and consistent with the intent of Part 503. They incorporate specific practices and conditions within the language of the permit but do not restrict the application of those practices and conditions to a limited number of sites (those that the city presently uses). Specific disposal sites should not be an explicit part of the draft permit. It should not require a permit modification or 180 days notification to add land application sites to city operations.

The city recommends that I.E.6 and I.E.9 be deleted from the permit.

Response: In response to this comment, EPA requested additional information from the permittee. The permittee provided the information to EPA on November 23, 1998. The final permit has been revised to allow the application of biosolids to new land application sites during the term of this permit.

Comment 5. The definition of agronomic rate in Section I.I.1 of the permit does not conform to the definition in 40 CFR 503.11(a).

Response: EPA has amended the definition of agronomic rate in the permit to mirror the definition in Section 503.11(a).

IV. MISCELLANEOUS COMMENTS

Comment 1. The draft permit requires the preparation of a Quality Assurance Plan for monitoring and mandates that it be reviewed and approved by EPA. Under these conditions it would not make sense to start fulfilling the monitoring requirements of the permit until the Quality Assurance Plan is approved. The city recommends that the commencement of the 2-year-effluent and ambient monitoring program be timed to start 90 days after EPA approval of the Quality Assurance Plan.

Response: The EPA approval of the quality assurance plan has been deleted from the final permit. It is the facility's responsibility to ensure that the data they collect and submit to the agencies are valid and representative as required by the regulations. The permitting authority will use the data submitted to evaluate the need for water quality-based permit limits during the next permit cycle. It is in the permittee's best interest to submit valid data for this evaluation. One way to ensure the data are valid is to develop a quality assurance plan. The plan must be implemented within 60 days of submittal whether or not you have received comments from us.

Comment 2. The city cited several areas in the draft permit where references were incorrectly identified.

Response: EPA has revised the permit accordingly.

Comment 3. Reference is made to a pretreatment program approved in March 1983. The city submitted a Sewer Use and Management Ordinance to Region 10 that encompassed the city's pretreatment program. This was approved by Region 10 in 1994. Please correct the reference in the above section.

Response: EPA has revised the permit accordingly.

Comment 4. Retention of Records: The last sentence of the referenced Part seems to imply that records must be retained for as long as the treatment plant exists. The city suggests there be an upper limit to the time records must be retained, such as, "5 years or the life of the permit, whichever is longer."

Response: The final permit has been revised to read "five years or until a new NPDES permit is issued, whichever is longer."

BOISE COMMENTS

Comment 1. The city believes the approach EPA uses to determine if an effluent has the reasonable potential to exceed a water quality standard is overly conservative and results in a very large safety factor. The city believes it is widely recognized that regulatory decisions concerning metals should not be made on the basis of questionable data because errors of one to two orders of magnitude are common, and errors of three and four orders of magnitude have been demonstrated. The data used in the Caldwell reasonable potential determinations for metals do not appear to comply with clean metals sampling (e.g., 24 hour sampling required for the effluent).

The City recommends that the City of Caldwell develop a reliable clean metals database prior to EPA doing a reasonable potential determination.

Response: While Boise has expressed concerns about the quality of data from the Caldwell facility, they did not provide any technical information to support their assumption; therefore, the comment cannot be evaluated. EPA will continue to consider the data provided by Caldwell as accurate.

Since no information was presented to establish that the data submitted by Caldwell was contaminated, EPA will not make clean sampling a permit requirement. However, the permittee is responsible for collecting and reporting quality data on their discharge monitoring reports. The key to producing accurate quality data is to develop a good quality assurance plan (QAP); to that end, the final permit requires the permittee to develop a QAP. EPA has developed protocols for sampling metals at trace levels, and these protocols will be referenced in the final permit under the

QAP requirements. Additionally, recommended procedures for collecting trace metal data using composite samplers have been developed by EPA and will be referenced in the QAP requirements in the final permit. Since procedures do exist for the collection of trace metals samples with a composite sampler, the final permit will require the permittee to collect 24-hour composite samples for metals.

Comment 2. The City also recommends that the permit be revised to include monitoring conditions that provide for the appropriate form of metal.

Response: The draft permit required ambient and effluent metals monitoring to determine if, in the future, metals concentrations in the effluent would need to be regulated in order to protect aquatic life. The state's aquatic life criteria is expressed as the dissolved fraction of the metal because, instream, that is the portion that is bioavailable to aquatic life. EPA requires that effluent be monitored as total recoverable because the chemical conditions in ambient water frequently differ substantially from those in the effluent. There is no assurance that the effluent particulate metal would not dissolve after discharge. For example, the dissolved fraction may be low in the effluent, but once it mixes with the receiving water it could be higher. During the next round of permitting, when we do the reasonable potential calculation, we will use a chemical-specific translator if one is provided by the city to convert the total recoverable metal to dissolved metal. If a chemical-specific translator is not provided, then a translator of one divided by the conversion factor (1/conversion factor) will be used.

Comment 3. The national metals criteria developed by EPA were developed to be protective of all waters. Water Effects Ratios (WERs) are one of three methods available to modify a national criterion to reflect site-specific conditions and the method has been modified in response to the January 1993 Annapolis meeting concerning metals. Preliminary WERs for Lead and Copper have been conducted in the Lower Boise Watershed and suggest the national criterion include significant safety factors if applied directly to the Lower Boise River watershed.

Response: WERs compare the bioavailability and toxicity of a specific pollutant in receiving waters and in laboratory test waters. A WER is a site specific criterion which reflects local environmental conditions. When developing a site specific criterion the boundaries of the site, where the WER will apply, must be established. Since the rationales for developing site specific criteria are usually based on potential differences in species sensitivity, physical and chemical characteristics of the water, or a combination of the two, the concept of site must be consistent with this rationale. It is highly unlikely that a WER could be applied to an entire watershed, as suggested by the city of Boise.

As with all site specific criteria, adopting a WER is optional on the part of the State. When determining if effluent limitations for metals are necessary for a discharge, EPA can use a WER provided the state has approved it. However, in the absence of a State approved WER, EPA will apply a WER of one (1).

Comment 4. The city recommends that Region 10 apply a flexible, tiered method of using both chemical and biological tests of sufficient quality to decide whether to regulate an effluent for metals.

Response: To protect aquatic habitats EPA recommends that water quality based toxics control programs integrate chemical specific, whole effluent toxicity, and bioassessment approaches. Since each approach has unique as well as overlapping attributes, sensitivities, and program applications, no single approach for detecting impacts should be considered uniformly superior to any other approach. For example, the inability to detect receiving water impacts using a biosurvey alone is insufficient evidence to waive or relax a permit limit established using either of the other approaches. The most protective results from each assessment conducted should be used in the effluent characterization process. It is EPA's position that the results of one assessment technique should not be used to contradict or overrule the results of the other(s).

Comment 5. The Coefficient of Variations (CV) used in the "reasonable potential to exceed" (RPTE) calculations are default values (0.6) based on the limited size of the effluent samples corresponding to the three river flow regimes identified in the permit. Metals concentrations of the effluent are not necessarily influenced by variation in river flows, particularly in separate sewer systems.

Boise City clean and near clean effluent data appear to show little if any variation with river flows (effluent data appear to be from the same statistical population) and substantially lower CVs than the default value of 0.6.

The city recommends that to determine the CV, clean effluent data sets should be evaluated to determine if the effluent concentration varies with river flow or if they are from the same population. Monitoring should be designed to provide clean data sets of sufficient size to determine actual CVs. Where appropriate data do not exist, they should be collected and reviewed to determine if any additional actions are necessary.

Response: The Caldwell permit does not include metals limits, even using the default CV of 0.6. However, EPA agrees that all effluent data should be used to determine the CV. In future reasonable potential calculations, this approach will be used.

As stated previously, no information has been submitted to EPA which would suggest the data were contaminated. Additionally, it is the permittee's responsibility to provide accurate, quality data.

Comment 6. The process of calculating a 95th percentile value to which the multiplying factor is applied appears to be more stringent than the approach adopted by the EPA in the Final Great Lakes Initiative to estimate reasonable potential.

Even though no limits are called for with regard to metals, the use of Table 3-1 multipliers

(set at the 99% confidence level and 99% probability basis) results in significantly overstating the maximum projected effluent concentrations. EPA guidance is ambiguous concerning the use of Table 3-1 or 3-2. Since EPA published the Technical Support Document (TSD), the agency has had significant public considerations of the issue of which table is appropriate and in 1995 published detailed reasonable potential methods in the final Great Lakes Rule. Those methods only use one table which is the equivalent of Table 3-2 from the TSD. EPA's decision to go with one table is documented in EPA's Supplementary Information Document to the rulemaking. EPA allows that the states may decide if the more stringent Table 3-1 should be used. Specifically, page 320 of the document notes that:

“EPA also recognizes, as described in chapter 3 of the TSD, that the 95th percentile upper bound estimate of effluent data is an acceptable upper bound for purposes of making reasonable worst case estimates of effluent quality. The 99th percentile would, for practical purposes, be the highest one could specify the worst case estimate. Instead of requiring this estimate to be specified as the 99th percentile, the final Guidance establishes a “floor” at the 95th percentile. States of course have the flexibility to set PEQ at higher levels (e.g. 99th percentile). Requiring the PEQ to be specified as no less than the 95th percentile is also consistent with EPA's longstanding guidance in the TSD.”

The fact sheet does not include any indication that Idaho has requested the more stringent approach, therefore no technical or state policy basis appears to exist for EPA Region 10 permit writers to default to Table 3-1. The City recommends that Table 3-2 be used in the reasonable potential calculations for Idaho.

Response. When evaluating the effluent to determine if water quality based effluent limits are needed based on chemical specific numeric criteria, a projection of the receiving water concentration (downstream of where the effluent enters the receiving water) for each pollutant of concern is made. The chemical specific concentration of the ambient water, the maximum projected chemical specific concentration of the effluent and, if appropriate, the dilution available from the ambient water are used to project the receiving water concentration.

In the draft permit the maximum projected effluent concentration was calculated using the 95th percentile observed effluent value multiplied by the reasonable potential multiplier. The reasonable potential multiplier is a statistical approach EPA has developed which combines knowledge of effluent variability as estimated by a coefficient of variation with the uncertainty due to a limited number of data points to project an estimated maximum effluent concentration. Region 10 typically uses a 99% probability basis to determine the reasonable potential multiplier.

Boise states that using the 99% probability basis significantly overstates the maximum projected effluent concentration and that the 95th probability basis should be used as recommended in the Great Lakes Initiative (GLI). The following table compares the maximum projected effluent concentration using EPA Region 10 method and the maximum projected effluent concentration using the GLI method.

Parameter	Maximum Projected Effluent Concentration using GLI Method	Maximum Project Effluent Concentration using Region 10 Method
Arsenic	27 µg/L	23.5 µg/L
Cadmium	15 µg/L	3.6 µg/L
Chromium	107.9 µg/L	40.3 µg/L
Copper	121.4 µg/L	58.0 µg/L
Lead	86.4 µg/L	30.6 µg/L
Mercury	1.26 µg/L	1.14 µg/L
Nickel	22.3 µg/L	15.4 µg/L
Silver	15.82 µg/L	5.9 µg/L
Zinc	290 µg/L	165.3 µg/L

As shown in the table above, the method Region 10 used did not, in fact, significantly overstate the maximum projected effluent concentration. In most cases, the method used by Region 10 resulted in a slightly lower projected effluent concentration.

Boise also indicated that the GLI states that the 95th % probability basis should be used unless the state indicates a more restrictive method should be used. EPA agrees that the GLI does use the 95th % as the floor when projecting the effluent concentrations; however, the GLI also states that it applies only to the Great Lakes States. Since there is no part of Region 10 tributary to the Great Lakes, there is no requirement that Region 10 states follow the Great Lakes Initiative rules. Additionally, the method used by Region 10 is not more restrictive.

Comment 7. The reasonable potential analysis should incorporate effluent hardness in the analysis to more accurately determine reasonable potential.

Response: The city assumes that using ambient hardness rather than effluent hardness is over conservative. The city's assumption is not true in all cases, and for the city of Caldwell, there are no effluent hardness data available to support this assumption. The final permit includes effluent hardness monitoring, and the results will be taken into account in the development of future permit limits.

Comment 8. The proposed pH limit applies the water quality standard at the end of pipe. The pH limit appears to be a water quality based effluent limit and therefore should be calculated with consideration of the allowable mixing zone and background river pH.

Response: In order to determine the buffering capacity of the river, we would need upstream and effluent flow, temperature, pH and alkalinity data. Without this information, it is not possible to determine the buffering capacity of the river. EPA doesn't have this information and the city didn't provide it; therefore, to ensure that water quality standards are protected, the pH limits in the draft permit are retained in the final permit.

Comment 9. The fact sheet describes numerous upgrades that the facility is undertaking and the permit includes schedules of compliance for some of those activities. The proposed permit limits and testing schedules however do not recognize or anticipate the associated improvements in effluent quality.

The permit process should allow for changes in effluent quality associated with the Schedule of Compliance by allowing a characterization of the improved effluent to more accurately characterize RPTE or compliance with Whole Effluent Toxicity (WET) monitoring thresholds. This approach will prevent imposing a limit, monitoring, or other activities that may not be needed within the term of the permit due to the work in progress.

The city recommends new ammonia and WET limits and monitoring requirements be deferred until after the nitrification and disinfection projects are completed.

Response: EPA agrees with the city's assessment. The final permit includes a compliance schedule for construction of their new wastewater treatment facilities. WET testing will be required after July 1, 2001.

Comment 10. A two-year ambient monitoring program is proposed in the draft. A one-year study may be sufficient to characterize the annual variability in the ambient waters due to the highly regulated flow conditions. Clean metals data from the river obtained by the city of Boise upstream of Caldwell's discharge indicate that the river is consistently well below the metals criteria. These facts suggest sufficient quality ambient monitoring data may be obtained during one year presuming characteristic operation of the system. Boise recommended that flexibility be provided to shorten the study based on a review of the data, flow, and operational information at the end of the first year. They also recommended the receiving stream monitoring be coordinated on a watershed basis to maximize the efficiency of multiple data collection efforts.

Response: The more limited the amount of test data available, the larger the uncertainty and the lower the precision of the methodology for characterizing the maximum effluent concentration. EPA has reviewed the sampling requirements for metals and believes that 18 monthly sampling events is adequate to characterize metals in the effluent and the receiving stream with a sufficient degree of certainty. The final permit reflects this revision.

EPA agrees that it would be helpful to have monitoring coordinated on a watershed basis and strongly encourages this approach. However, it is beyond our regulatory authority to require the permittees to coordinate their monitoring programs.

Comment 11. EPA has approved a proposed final settlement agreement in the WESTCAS WET litigation. The settlement agreement includes numerous EPA actions on test method revision, guidance development and rulemaking to establish a more defensible WET program. Consequently, the presently imposed conditions may not be appropriate and should be reviewed in light of the recent settlement agreement. The City recommends that EPA revisit and revise the proposed WET requirements based on WESTCAS litigation and schedule of compliance issues.

Response: The final settlement agreement stays any litigation until the completion of proposed studies. As such, the promulgated methods remain in place and EPA must use them in permits. The conditions proposed in the draft permits (i.e., WET monitoring) are not affected by the WESTCAS settlement.

Comment 12. The draft permit proposes effluent samples for metals should be collected as 24-hour composite samples. Composite sampling for metals is inconsistent with EPA guidance for the collection of metals at concentrations below 1 part per million. The City recommends that effluent monitoring be grab samples until EPA approved 24 hour composite techniques are developed and the technology is available.

Response: EPA has been unable to find statements in the EPA guidance documents cited by the commenter that state composite sampling should not be used for metals below 1 part per million. Additionally, recommended protocols for collecting trace metal samples using composite samplers have been developed by EPA and are documented in a video entitled *U.S. Environmental Protection Agency, Sampling Ambient and Effluent Waters for Trace Metals* EPA-821-V-97-001. Therefore, the final permit requires 24-hour composite samples to be collected for metals.

Comment 13. The City is concerned that specific requirements (e.g. selection of a single pathogen reduction mechanism with burdensome and lengthy process to change to the other 503 approved method) appear in the draft permit that unnecessarily remove operational flexibility and impose constraints beyond those necessary to fully comply with 40 CFR 503. The City recommends that the permit language be consistent with 40 CFR 503 and not go beyond 503 unless site specific or other special conditions warrant.

Response: EPA has considered the comments received on biosolids from the municipalities whose permits have recently been public noticed. The final permits include a revision to allow the use of any of the pathogen and/or vector reduction options. The 90-day notification period has also been reduced to 30 days in accordance with our 503 Implementation Guidance.

STATE ISSUES:

The following comments address issues incorporated into the draft permit at the request of the state. The following is a summary of the comments and the state's response (see 401 certification).

Comment 1. Boise stated that a two year monitoring program is proposed in the draft permit. However, a one year study may be sufficient to characterize the annual variability in the ambient waters due to the highly regulated flow conditions within the watershed.

The City recommends the permit provide flexibility to shorten the study based on review of the data, flow, and operational information at the end of the first year. Additionally, receiving stream monitoring should be coordinated on a watershed basis to maximize the efficiency of multiple data collection efforts. All monitoring activities within the watershed need to be identified to effectively coordinate monitoring activities and identify overlaps or gaps.

Response: The state believes that a 2-year nutrient monitoring program will provide more information on which to model loads as the Brownlee TMDL is prepared. Therefore, we have retained the 2-year ambient monitoring program for nutrients in the final permit.

EPA agrees that it would be helpful to have monitoring coordinated on a watershed basis and strongly encourages this approach. However it is beyond our regulatory authority to require the permittees to coordinate their monitoring programs.

Comment 2. Both the City of Caldwell and the City of Boise questioned the need for a nutrient management plan. The city of Boise stated that there is already nutrient assessment monitoring being conducted within the watershed by the Lower Boise Watershed group which includes all municipal permittees and nonpoint sources. This requirement would be a duplication of effort. The City recommends the nutrient monitoring requirements be removed from the permit with the understanding that watershed based monitoring for nutrients will be accomplished through the ongoing Lower Boise Watershed group monitoring activities or through development and modifications of Memorandum of Understanding between appropriate parties. The city of Caldwell believes this requirement is misdirected because the proximity of the outfall to the confluence of Indian Creek with the Boise River makes it impossible to differentiate the effects of nutrients from the outfall and the effects of nutrients from Indian Creek. Additionally, the attempt to identify and quantify one user's effect on aquatic growth contradicts the concept inherent in the watershed approach to water quality management. The City recommends the requirement be deleted from the final permit.

Response: The nutrient monitoring plan was incorporated into the draft permit at the request of IDEQ. Upon further review, IDEQ has decided to drop this requirement from the permit. Nutrient effluent and ambient monitoring will be retained.

Comment 3: The city of Caldwell stated that total suspended solids (TSS) concentrations and mass limits in the proposed permit are retained from the previous permit. The Fact Sheet contends that Idaho's "no net increase" rule requires that mass limits be frozen from the previous limit. The city contends the mass limits are imposed without considering all relevant issues. The city suggests that the no net increase loading be based on 1996 flows; the resulting permit

loadings would be 1223 pounds per day average monthly limit (AML) and 1837 pounds per day for average weekly limit (AWL).

Response: DEQ has arrived at an average monthly loading limitation of 2125 lbs/day and a weekly average loading limitation of 3183 lbs/day which are based on the design flow of the upgraded plant. These loadings have been included in the final permit.

The 401 certification letter received from DEQ on December 2, 1998, indicates that the TSS load for Caldwell could be increased to a maximum of 2831 pounds per day without violating water quality standards. Further discussions with the DEQ clarified that the 2831 number is the 20-year build-out loading for Caldwell. The DEQ did not intend for this number to be included in the current permit. The numbers that were public noticed are the same numbers the DEQ included in the TMDL and should be retained in the final permit.

Comment 4. The city of Caldwell questions the value of 24-hour temperature monitoring every month for a two year period. The city recommends that 24-hour temperature monitoring be conducted only during the critical months of July, August, and October.

Response: DEQ indicated that since this segment of the river is protected for salmonid spawning, at a minimum, data are needed to cover the spawning period and the summer.

MISCELLANEOUS

Chlorine ML Change: In the draft permit, EPA proposed using an ML of 20 $\mu\text{g/L}$. However, in a 1997 federal register notice (*Guidelines Establishing Test procedures for Analysis and Pollutants and National Primary Drinking Water Regulations*, March 28, 1997) EPA published an ML of 100 $\mu\text{g/L}$ for chlorine. This ML value will be used to determine compliance with the chlorine effluent limitation.