

RESPONSE TO COMMENTS

City of Fruitland, Idaho
Snake River Facility
NPDES Permit No.: ID-002033-8
Public Comment Period: July 18 - September 4, 2001

During the public comment period specified above, only the City submitted comments. This document summarizes the comments and the EPA responses to the comments.

1. BOD₅ and TSS.

a. Comment. The BOD₅ and TSS limitations need to be revised because the Coca Cola Bottling Plant provides more than 10 percent of the load into the facility.

Response. EPA agrees. The updated contract, submitted during the comment period, shows that the City has agreed to accept up to 0.3 mgd from the Coca Cola Bottling Plant. The permit has been revised pursuant to 40 CFR § 133.103(b)¹ to include the larger of limits under 40 CFR § 133.103(b) or limits based on design flow of the Snake River Facility.

The current permit, issued in 1993, mistakenly gave the Snake River Facility the same BOD₅ and TSS limits as the Payette River Facility. Since the time the 1993 permit was issued, the Snake River Facility has been complying with the BOD₅ and TSS for the Payette river Facility.

If EPA based the TSS limits as they should have been when the 1993 permit was issued, those limits would be more stringent than the limits proposed in the 2001 draft permit, which were based on design flow of the facility. As a result, the TSS limitations have not been changed from the draft permit. The BOD₅ limitations have been revised to the limits that should have applied to the Snake River Facility. In this case, the BOD₅ limits are more stringent than the 1993 permit, but less stringent than the BOD₅ limitations in the 2001 draft permit.

¹ See Appendix 1 for an explanation of how those limits were determined.

The table below compares the limits in the 1993 permit and what those limits should have been to the draft permit and the final 2001 permit.

| Parameter | 1993 permit ¹ | | 1993 permit corr ² | | draft 2001 permit ³ | | final 2001 permit | |
|----------------------------|---|-----|-------------------------------|-----|--------------------------------|-----|-------------------|------------------|
| | AML | AWL | AML | AWL | AML | AWL | AML | AWL |
| BOD ₅ , lbs/day | 230 | 370 | 200 | 430 | 188 | 270 | 200 ⁴ | 430 ⁴ |
| TSS, lbs/day | 440 | 640 | 180 | 350 | 290 | 440 | 290 ³ | 440 ³ |
| 1 | Based on industrial loadings contributions for Fruitland Payette River Facility. These limits were mistakenly put in the Fruitland Snake River Facility permit. | | | | | | | |
| 2 | Based on industrial loadings contributions for Fruitland Snake River Facility as developed in the fact sheet. Never put into the permit. | | | | | | | |
| 3 | Loadings based on design flow of the facility. | | | | | | | |
| 4 | Loadings account for industrial contributions. | | | | | | | |

b. Comment: The 65% removal requirement for TSS for lagoon systems is unreasonable. IDAPA [58].01.02.420.1 [exempts] lagoons from any type of percentage removal for TSS. The permit should conform to the State exceptions. The natural biological process produces algae and duckweed along with associated organisms that prevent 65% removal condition from being met.

Response: EPA disagrees. IDAPA 58.01.02.420.02, Idaho's alternative state requirements, only address BOD₅ and TSS concentrations. The state is not authorized to allow for deletion of the TSS removal rate requirement. There are only two situations where the removal rate for TSS for lagoons may be less than 65 percent. The first situation is where there is less concentrated influent for separate sewer systems and the second applies to less concentrated effluent for combined sewer systems. Neither situation applies to the Fruitland, Snake River Facility.

2. Comment: The chlorine residual shown in Table 1 is incorrect, based on our interpretation of the data from the Water Pollution Control Federation (WPCF) 1976 document quoted in the fact sheet. The discussion there is not 0.5 mg/L total residual chlorine, but 0.5 mg/L free available chlorine. Based on the WPCF

manual, we request that the chlorine residual and dosage be revised and corrected.

Response: EPA disagrees with the City's interpretation of the WPCF 1976 value. The recommendation of 0.5 mg/L is for total residual, not free chlorine residual. The paragraph on page 40 of the document goes on to say that for virus control, the World Health Organization recommended a free chlorine residual of 0.5 mg/L after 1 hour contact, while that of Montgomery County, Maryland is 3.0 mg/L free residual. EPA believes that requiring a total residual chlorine limit of 0.5 mg/L is an appropriate technology-based requirement.

3. Comment: The once per week monitoring requirement for fecal coliform only allows for a geometric mean for a monthly average; not for a weekly average. Because once per week monitoring frequency yields 25-30 data points for a year, and 4-6 monthly averages, this should provide adequate information for the facility. Comment applies to both May-Sept limits as well as Oct-April limits.

Response. EPA believes that the City is requesting that the average weekly limit be removed. EPA cannot remove the average weekly limit since it is required under IDAPA 58.01.02.420.05.a. That regulation also specifies that the minimum monitoring frequency is 5 samples per week. EPA, based on comments from IDEQ on permits in other watersheds, had reduced the frequency to 1 sample per week. However, EPA has revised the permit to allow for the deletion of the fecal coliform average weekly limit once the State has revised their water quality standards and EPA has approved the revisions. This is expected to occur in early 2002. This would mean that once the water quality standards revisions are adopted and approved, the permittee would no longer need to monitor for fecal coliform October 1 through April 30. In addition, monitoring frequency for fecal coliform would then revert to once per month during May 1 through September 30.

4. Comment: *E. coli* monitoring should be set at once per week, which will provide a monthly average.

Response. EPA agrees and has revised the permit to require weekly monitoring for *E. coli*.

5. Comment: Surface water monitoring required by the permit is an unfunded mandate that should not be imposed on the City. It does not seem right for the City to pay for data collection simply to facilitate the TMDL process.

Response: The surface water monitoring requirement is not an unfunded mandate. The Unfunded Mandate Reform Act of 1995 is inapplicable to NPDES permit decisions. Facility-specific NPDES permits such as the one held by the City are not regulations, but instead are licenses. The Unfunded Mandate Reform Act applies only to regulations. (Order Denying Petition for Review, In re: City of Blackfoot WWTF, NPDES Appeal No. 00-32)

The information is being required in support of TMDL development. In order to make reasonable potential evaluations based on actual data, rather than statistical calculations accounting for limited data, EPA believes that at least ten data points need to be collected. For surface water monitoring, a sufficient database is needed to establish background concentrations. This information is used in developing TMDLs and establishing wasteload allocations for point and nonpoint sources. It is to the City's benefit to be able to provide the most representative background data in order for them to receive appropriate wasteload allocations.

In response to budgetary concerns, the requirement for surface water monitoring has been changed to require only upstream monitoring and to delete downstream monitoring.

6. Comment: If EPA is going to force this unfunded mandate on the City, then we ask that the sampling months be changed to February through November. The amount of ice on the river in December can be a major obstacle to providing an adequate sampling event.

Response: EPA believes that collecting surface water samples February through November is adequate. The permit has been revised to require surface water monitoring February through November.

7. Comment: How will we develop a QA/QC manual for procedures on river sampling? The document that is addressed within the document, EPA QA/G-5 does not appear to have any application to river sampling.

Response: EPA disagrees. The document referenced describes the general format for setting up any QA program. The principles described can be applied to river monitoring as well as effluent monitoring. However, another helpful reference are the following documents.

U.S. Environmental Protection Agency, Method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels, 1995 (EPA-821-R-95-034), and U.S. Environmental Protection Agency, Sampling Ambient and Effluent Waters for Trace Metals (EPA-821-V-97-001).

8. Comment: Why are the samples for mercury required monthly and not on the same basis as the rest of the parameters?

Response: EPA assumes that monitoring for mercury quarterly instead of monthly is better accommodated in the City's budget. The permit has been revised to require quarterly monitoring of mercury until a total of ten samples have been collected and analyzed.

9. Comment: Who will set up the QA/QC for the river flow measurement? We ask that we be allowed to use the nearest USGS gauging station to supply the flow measurements that are required.

Response: EPA did not intend for the City to establish a new gauging station. The permit has been revised to clarify that river flow is to be determined from the current gauging station.

10. Comment: What method detection levels (MDL) values should be used for the parameters other than mercury, since Table 2 is blank except for mercury? The mercury MDL should be 0.1 ug/L, since any lower MDLs are not cost-effective or reasonable.

Response: EPA did not specify MDLs for the other parameters because no special methods are needed to analyze those parameters other than methods the City currently uses or are contained in Standard Methods. The permit specifies the MDL for mercury because the criterion is so low that an appropriate method needs to be used.

The mercury monitoring will not be deleted. This information will be needed to help determine whether or not the receiving water should be listed for mercury and whether or not the discharge from the City is contributing to any exceedance of the criteria for mercury. The most stringent criterion is the aquatic life chronic criterion of 0.012 ug/L. Because this criterion is so low, if methods are used which indicate “not detected,” it will not be clear whether or not there may be an impact on the environment. In addition, if the method detection limit used is too high, then the receiving water could be listed as impaired, since the detection limit used greatly exceeds the criterion. It is to the City’s benefit to use as low a method detection limit as possible when analyzing effluent as well. If too high a method detection limit is used for analysis, the reasonable potential evaluation may indicate that an effluent limit is needed, when it might not be needed if a lower method detection limit (i.e., closer to the criterion) had been used.

EPA believes that laboratories should be capable of producing blank levels 10 times less than the regulatory compliance level. EPA recognizes that trying to achieve a method detection limit of 0.001 ug/L may cost more than achieving a 0.01 ug/L method detection limit. In the interest of easing the financial burden of mercury monitoring, EPA has revised the permit in several ways regarding mercury monitoring.

The permit has been revised to require a range of 0.01 to 0.005 µg/L for the method detection limit. The permittee now has a year in which to find a suitable laboratory before beginning the mercury monitoring. The number of samples required have been reduced to 10 effluent (from 12 in the draft permit) as well as 10 upstream samples. The permit has also been revised to allow reduction or deletion of the mercury monitoring upon approval from EPA. Before EPA could consider the request, the permittee must show that the first five samples taken from the monitoring location resulted in non-detects in the range of 0.01 to 0.005 µg/L. Finally, the permit has been revised to allow quarterly monitoring for the mercury monitoring.

11. Comment: The concept of taking downstream samples is unreasonable, since under low flow conditions, the dilution factor exceeds 8000:1. Please remove the downstream monitoring requirement.

- Response: As stated earlier in these Response to Comments, the permit has been revised to remove downstream monitoring requirements.
12. Comment: We will provide the data as collected on the DMR for the month it was collected in, rather than holding it for four years as shown in the permit.
- Response: Comment is noted. The permit will not be revised.
13. Comment: We request a minimum of 180 days for minor improvements resulting from the issuance of the new permit to allow the City of Fruitland to plan, budget, and perform the required work. We request a minimum of 24 months for major improvements, such as chlorination equipment, resulting from the issuance of the new permit to allow the City of Fruitland to plan, budget, and perform the required work.
- Response: Based on the information provided by the City, EPA believes that the request is reasonable. As a result, the permit has been revised to allow 180 days for development of the surface water monitoring program and the quality assurance plan.
14. Comment: We ask that all plans and changes to the wastewater treatment facility be cleared and approved by IDEQ as required by IDAPA. Submittal to EPA should not be required.
- Response. The regulations at 40 CFR § 122.41(l) require the permittee to notify EPA of any planned changes when the addition or alteration could significantly change the nature of or increase the amount of pollutants discharged. While EPA would not approve the plans, we would still need to be notified of any significant changes. Because EPA issues the NPDES permits and not IDEQ, EPA needs the information to determine whether or not a modification to the permit may be necessary. The permittee should supply EPA with a copy of any cover letter transmitting the plans to IDEQ.
15. Comment: Right of entry should be changed to read that “at a reasonable time” as is noted in 4-G-2,-3, and -4.

- Response. This condition is a regulation found at 40 CFR § 122.41(i) that must be included in all NPDES permits. Because it is a regulation, it cannot be challenged in the context of an NPDES permit action.
16. Comment: The reopening clause discussed in K needs to be addressed in conjunction with the TMDL process discussed in the fact sheet. If EPA plans to reopen permits to address TMDL issues, it should be stated up front in the permit. The reopening clause presented in the draft does not involve TMDL issues.
- Response. The reopener clause in K is required by 40 CFR § 122.44(c) and specifically addresses sludge. The general reopener provision is found at Part IV.A., “Permit Actions.” EPA has not made any decisions at the present time regarding the reopening of the permit to incorporate any wasteload allocations established under the TMDL. The general reopener give EPA the authority to do so.
17. Comment: Item C of the definitions should be changed to read, “average monthly discharge means the highest allowable average of discharge values.” The word “limitations” there is a misnomer and should not be included.
- Response. EPA disagrees. The definition for average weekly discharge limitation is taken from the regulatory definition at 40 CFR § 122.2.
18. Comment: Under definition J, the 15-minute time frame regarding a grab sample is an unusual definition for grab sample. In all the literature we have ever seen, there is no time limit on a grab sample. Grab sample is normally defined as an incident in time when a sample is removed from the stream to be sampled.
- Response. EPA agrees and has revised the definition to conform to the definition included in the USEPA NPDES Permit Writers’ Manual, EPA-833-B-96-003, December 1996, page G-6: “Grab” sample is a sample taken from a wastestream or receiving water on a one-time basis without consideration of the flow rate of the wastestream or receiving water and without consideration of time.
19. Comment: In the fact sheet, the discussion on fecal coliform bacteria notes that a dilution factor is not used. We feel that the 8000:1 dilution factor should be used. The use of fecal coliform as a permit parameter is questionable. The State of Idaho

has established the *E. coli* bacteria limits for use and therefore the fecal coliform requirement should be removed from the permit.

Response: The Payette river is limited for fecal coliform bacteria which means that fecal coliform concentrations in the river exceed the criterion. In effect, there is no allowable dilution. As a result, a TMDL was established and wasteload allocations were developed. The permit has not been revised to remove fecal coliform requirements.

20. Comment: Why are both fecal coliform and *E. coli* limits included since the water quality standard is for *E. coli*?

Response. The monthly limits for fecal coliform are the wasteload allocations established by the total maximum daily loading (TMDL) for the Lower Payette that was developed by IDEQ and approved by EPA. As such, EPA is required to include those limits in the permit for the summer months. Fecal coliform limits are applicable for the rest of the year under State regulations at IDAPA 58.01.02.420.05.a.

21. Comment: The Gray Wolf does not exist to anyone's knowledge in Payette County, nor does it have any likely habitat. The Gray Wolf discussion should be deleted from the Endangered Species Act discussion.

Response. The Gray Wolf discussion in the fact sheet was included because the US Fish and Wildlife Services list Payette County where the Gray Wolf exists. Regardless, EPA concluded that the discharge from the City of Fruitland, Snake River Facility, would not affect any endangered species in the area.

22. Comment: The City requests a compliance schedule of 24 months in order to achieve compliance with the new technology-based total residual chlorine limitations.

Response: The permit has been revised to include a 2-year compliance schedule in order to come into compliance with the effluent limitations for total residual chlorine. The current average monthly limitation of 1.00 mg/L will be retained as an interim limit.

Additional revisions to the draft permit.

In addition to the changes noted above, the draft permit has been revised to correct typographical errors. Also, upon review of the permits in the Lower Payette watershed, EPA has revised the effluent and receiving water monitoring for nutrients and mercury to quarterly.

In a letter dated November 16, 2001, the State of Idaho certified under section 401 of the Clean Water Act that the activities allowed under this permit that there is a reasonable assurance that this permit will comply with the *Idaho Water Quality Standards and Wastewater Requirements*.

APPENDIX 1
Accounting for industrial loadings under 40 CFR § 133.103(b)

from the 1993 fact sheet:

Effluent Loadings

Domestic/Minor Industrial Portion

Effluent loads were calculated from the allowable effluent concentrations and the portion of the total design flow (0.5 mgd) domestic allocation of 0.18 mgd, according to the following equation:

$$\text{Load, lb/d} = \text{QC} * 8.34$$

Where: Q = design domestic flow portion (0.18 mgd) in mgd
 C = effluent concentration in mg/L
 8.34 = conversion factor to lb/day

BOD₅

$$\begin{aligned} \text{Monthly Average Load, lb/d} &= 0.18 \text{ mgd} * 45 \text{ mg/L} * 8.34 \\ &= \mathbf{67.5 \text{ lb/d}} \end{aligned}$$

$$\begin{aligned} \text{Weekly Average Load, lb/d} &= 0.18 \text{ mgd} * 65 \text{ mg/L} * 8.34 \\ &= \mathbf{97.6 \text{ lb/d}} \end{aligned}$$

TSS

$$\begin{aligned} \text{Monthly Average Load, lb/d} &= 0.18 \text{ mgd} * 70 \text{ mg/L} * 8.34 \\ &= \mathbf{105.1 \text{ lb/d}} \end{aligned}$$

$$\begin{aligned} \text{Weekly Average Load, lb/d} &= 0.18 \text{ mgd} * 105 \text{ mg/L} * 8.34 \\ &= \mathbf{157.6 \text{ lb/d}} \end{aligned}$$

Industrial Portion

Although the City has allocated 64 percent of the design flow to three industrial users, only one, the Swire Pacific Holding Company Coca-Cola bottling plant, currently discharges a significant amount of process water to the Fruitland system. Inland Pacific Fisheries (IPF) is able to contain all wastes in a settling pond on their property and are not discharging to the city system. Fruit Land West (FLW) is a cherry fresh-pack operation that discharges wash water at the rate of 0.10 mgd for approximately three weeks of the year (mid-June to mid-July).² While the wastewater from IPF and FLW has not been adequately characterized, it is expected to contain a minimal amount of BOD₅ and TSS. Since this short-term, seasonal discharge occurs during the summer when evaporation rates are high, it was assumed that the treatment plant could easily assimilate the additional flow, and no allowance was given for this minimal component. If, in the future, these industries begin contributing significant amounts of waste, effluent limits may need to be adjusted to include these contributions.³

The Swire Pacific Holding Company facility is a Coca-Cola Bottling Company plant.⁴ An industrial allocation for the bottling plant was developed from a best professional judgement (BPJ) evaluation of production-based allowances and the bottling plant's projected production rate. However, a draft Development Document for Effluent Limitations Guidelines and New Source Performance Standards for Miscellaneous Foods and Beverages Point Source Category (March 1975) did address the Soft Drink Bottling or Combined Bottling/Canning Subcategory (A27). The Development Document contains an industry categorization, wastewater characteristics, selection of pollutant parameters, evaluation of control and treatment technology, cost evaluation, and recommendations for effluent guidelines. This information was used to derive a BPJ of Best Conventional Pollutant Control Technology (BCT) for this industrial subcategory.⁵

The Development Document recommended secondary biological treatment for Best Practicable Technology currently available (BPT) and tertiary physical/chemical treatment for Best Available Technology economically achievable (BAT). However, in determining appropriate limits for Fruitland and the bottling plant, EPA considered that BCT is equivalent to secondary

² The situation in 2001 is essentially the same as in 1993.

³ These contributions are not accounted for in the 2001 final permit.

⁴ Formerly known as "BPC."

⁵ These effluent guidelines have never been finalized, so the BPJ analysis is still appropriate.

biological treatment for the control of conventional pollutants.⁶ Tertiary treatment for the control of conventional pollutants was not determined to be effective.

EPA’s evaluation of biological treatment systems included activated sludge, with and without dual media filtration, and aerated lagoons followed by settling ponds, with and without dual media filtration. Although BPT recommendations were made based on activated sludge with dual media filtration, EPA has determined that for the Fruitland Snake River Facility, lagoon treatment represents the appropriate technology. Lower land costs in this area allow aerated lagoons to be more cost-effective than activated sludge units, and expected effluent quality is equivalent. Furthermore, water quality in the Snake River will be well protected even without the addition of dual media filtration.

Based on these considerations, the 30-day average and maximum day production-based limits for BOD₅ and TSS were selected to be those from Alternative A27, VI, aerated lagoons followed by settling ponds, which are described in the following table.

| Parameter | 30-day average | maximum day |
|------------------|-----------------------------------|-----------------------------------|
| BOD ₅ | 0.24 kg/m ³ of product | 0.60 kg/m ³ of product |
| TSS | 0.14 kg/m ³ of product | 0.35 kg/m ³ of product |

The bottling plant’s average production is approximately 29,300 cases per day or 249.5 m³/day (1990-1991 production data). Average wastewater effluent discharge from this facility is 66,000 gal/day, while the maximum is 190,000 gal/day. Based on this production rate, the industrial contributions are as follow.

| Parameter | 30-day average | maximum day |
|------------------|-----------------------|--------------------|
| BOD ₅ | 132.1 lb/day | 330.1 lb/day |
| TSS | 77.1 lb/day | 192.6 lb/day |

Load limits for the total discharge, including both domestic and industrial components, are listed below. The monthly average limit is a summation of of the monthly average from the domestic

⁶ Conventional pollutants are pollutants typical of municipal sewage, and are defined by Federal Regulation [40 CFR § 401.16] as BOD₅, TSS, fecal coliform bacteria, oil and grease, and pH.

component and the 30-day average from the industrial component. Since BOD₅ and TSS sampling is required once per week, the maximum daily limit for the industrial component has been used as the weekly average. The total effluent loadings calculations follow.

Total Effluent Load

Monthly Average Limits

$$\text{BOD}_5: 67.5 \text{ lb/d (domestic)} + 132.1 \text{ lb/d (industrial)} = \mathbf{199.7 \text{ lb/d BOD}_5}$$

(i.e., 200 lb/d)

$$\text{TSS: } 105.1 \text{ lb/d (domestic)} + 77.1 \text{ lb/d (industrial)} = \mathbf{182.2 \text{ lb/d TSS}}$$

(i.e., 180 lb/d)

Weekly Average Limits

$$\text{BOD}_5: 97.6 \text{ lb/d (domestic)} + 330.1 \text{ lb/d (industrial)} = \mathbf{428.1 \text{ lb/d BOD}_5}$$

(i.e., 430 lb/d)

$$\text{TSS: } 157.6 \text{ lb/d (domestic)} + 192.8 \text{ lb/d (industrial)} = \mathbf{350.4 \text{ lb/d TSS}}$$

(i.e., 350 lb/d)

For the 2001 final permit, the effluent loading values have been rounded to whole numbers.