Response to Comments
October 2007

Idaho Aquaculture Draft General NPDES Permits
(IDG13-0000, IDG13-1000, IDG13-2000)
and
Epicenter Aquaculture Draft NPDES Permit
(ID002826-6)

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Introduction

A period for public comment on the draft permits was provided from June 19 through September 29, 2006. EPA conducted an informational meeting on June 29, 2006, and a public hearing on September 26, 2006, both in Twin Falls, Idaho.

Twenty one individuals, most representing industry, governmental agencies, or public interest groups, submitted written comments; four of those also submitted oral comments at the September 26 hearing.

A second period for public comment on specific issues addressed in the Supplemental Fact Sheet was provided from June 7 through July 23, 2007. Nine commenters submitted a total of eleven comment letters. The list of those commenters and response to those comments begin on page 72 of this document.

2006 Written Commenters

1 B. Sachau
2 Mark Lupher, Epicenter Aquaculture
3 B. Sachau
4 Thomas S. Frew, Idaho Department of Fish and Game
5 Miyoko Sakashita, Center for Food Safety
6 Barry N. Burnell, Idaho Department of Environmental Quality
7 Lew Pence, Middle Snake Regional Water Resource Commission
8 Tom Dupuis, Lower Boise Watershed Council
9 Doug Ramsey, Rangen Aquaculture
10 Wenonah Hauter, Food & Water Watch
11 Fritz X. Haemmerle, Pristine Springs
12 Preston A. Sleeger, US Dept. of the Interior
13 John Bechtel, U.S. Trout Farmers Association
14 Gary Fornshell, University of Idaho Extension
15 Ken Harward, Association of Idaho Cities
16 Harold L. Johnson, Idaho Trout Company
17 Mark Daily, Idaho Aquaculture Association
18 Gary E. Lemmon, Blind Canyon Aquaranch
19 John R. MacMillan, Ph.D., Clear Springs Foods (Fish Processor)
20 John R. MacMillan, Ph.D., Clear Springs Foods (Aquaculture)
21 Gary Marquardt, SeaPac of Idaho
22 Robert C. Williams, Ace Development (USA), Inc.
23 Leo E. Ray, Fish Breeders of Idaho, Inc., Fish Processors, Inc. Big Bend Trout, Inc.

Oral Commenters

Zach Corrigan, Food & Water Watch
John R. MacMillan, Clear Springs Foods, Inc.

Gary Fornshell, University of Idaho Extension
Leo E. Ray, Fish Breeders of Idaho & Big Bend Trout

This document addresses the concerns raised in those comments by grouping those on similar topics and answering them together.

At the outset, we need to clarify that a Fact Sheet (FS), including the 1999 one for the Idaho Aquaculture General Permit and the 2006 one for these draft permits, provides background information for the development of draft permits; they are actually final documents when they are made public during the public comment period. As such, they are not subject to correction or revision, which several commenters requested. One even requested corrections of the 1999 FS. Where appropriate, we will acknowledge in this Response to Comments any errors or corrections to the information in the Fact Sheet; however, the Fact Sheet will not be changed. This Response to Comments document serves as a supplement to and, in some cases, a correction to the Fact Sheet.

I. General Comments

A. About the Aquaculture Industry

1. Comments: Two comments were received at different times from one commenter asking that the permits not be issued because of the large amount of water pollution generated by the facilities, because wild fish are being used to feed farmed fish, depleting wild fish stocks, and because of the "endless chemicals" needed . . .that are extremely toxic for any water supply." The commenter also stated: "What a very very stupid idea. To put this extraordinarily polluting industry in Idaho, where maybe there is a chance of clean water." No specific requests or recommendations on changing the permits were offered.

2. Response: EPA is not considering whether to locate aquaculture facilities in Idaho, as the commenter suggests. Other agencies at local levels of government have addressed the issue of whether they should be placed where they are. EPA has issued previous permits to most of these facilities. What is at issue here are the conditions in the NPDES permits as they are reissued, not whether or not the facilities are located in Idaho.

The Clean Water Act gives EPA the responsibility and authority to impose requirements on discharges of wastewater to ensure that water quality standards are achieved in the receiving waters. Under the NPDES permit program, we are also required to impose technology-based limits that may be more stringent than what is required to protect water quality. In these permits, we have applied the more stringent of these two types of limits and have imposed additional requirements for monitoring and reporting to document the facilities' extent of compliance with the imposed requirements and to gather data for evaluating potential to adversely affect water quality when the permits are renewed in the future. We have evaluated the potential for toxic chemicals to impact receiving waters and have imposed limits for certain chemicals (for example, copper and chlorine) where appropriate. For many facilities, these permits impose more

stringent limits than in the past, and thus the environment will actually be expected to improve over the status quo.

3. Action: EPA will proceed with issuance of the permits; no change in the permits was made in response to this comment.

B. EPA Strategic Plan

1. Comment: At the public hearing on September 26, 2006, a commenter proffered a discussion of the 2006 – 2011 EPA Strategic Plan. He also referred to the strategic plan in his written comments; he did not make a specific comment about the permits or request a change in them. A second commenter referred to the strategic plan and asserted that "regulatory changes and new requirements should be based on sound science and accurate information".

2. Response: EPA Region 10 appreciates the commenter's interest in the agency's strategic plan and his engagement in the process of providing comments about the permits. The permit writers are charged with the ongoing responsibility of EPA to implement the Clean Water Act through the issuance of NPDES permits. While certain themes in the strategic plan can be integrated into our process, the overall permit issuance approach is set by established agency policy, which we will follow until that is changed.

We agree with the second commenter's emphasis on sound science and accurate information and will respond to specific instances where commenters point out problems with the approaches we have taken.

3. Action: No specific action is needed with regard to the permits.

C. EPA Engagement with the Public during the Permit Writing Process

1. Comments: Several commenters asserted that EPA Region 10 was not open and honest about changes in the "rules" and that "major surprises" should have been discussed with the industry before the public comment period. Several pointed out past examples of cooperation between EPA and the aquaculture community to provide input for national effluent guidelines, the Total Maximum Daily Load (TMDL) development process, and development of trading guidance. One commenter suggested that the permit writers should have taken one trip to the facilities to avoid the current frustration. Another commenter asked for EPA to sit down and talk with the parties if it perceives a problem and offered to help.

2. Response: EPA Region 10 regrets the frustration of the commenters with the process of revising the 1999 permit. The permit writing process is different from the regulation development process or the TMDL process which can involve more extensive collaboration with the regulated industry. For these permits, the public comment period, the June 29 public meeting, the September 26 public hearing, and two extensions of the public comment period, from 45 days to 60 days to 102

days, complied with regulatory requirements and gave the regulated industry and the public the substantial opportunity to provide input to the permitting process.

We assume that one of the "major surprises" referenced is that a few permittees are faced with technology-based limits that are lower than the WLAs that were negotiated with the State in the TMDL process. This is discussed below in the explanation of technology-based limitations.

Both the permit writers have been to a number of the facilities and have tried to base permit requirements on knowledge of actual situations at the facilities. However, a visit does not yield nearly as much information as the person working at a facility has. Therefore, we welcome the specific comments that help us make the permits more practical and workable.

3. Action: No specific action is needed with regard to the permits.

D. Scope of the Permits

1. Comment: One commenter asserted that the permits cannot address the needs of an industry with large and small, cold and warm water facilities unless it is more flexible; he said that it doesn't fit the outliers well enough. He said that innovation that improves environmental conditions is discouraged by the permit, especially the application of technology-based limits and restricting trading to upstream sellers and downstream buyers. Additional more specific comments are included below.

2. Response: EPA appreciates the feedback on the scope of the permits. We acknowledge that it is difficult to address such a wide variety of sizes of facilities and those of varied production conditions, such as the cold and warm water differences in species and operating conditions of the facilities.

EPA is striving to manage a large permit workload by issuing general permits to this industry. An underlying assumption of the decision to issue general permits is that the facilities are enough alike to warrant similar treatment If many different requirements for different facilities are included in the same permit, it becomes cumbersome and confusing for both the permittee and the permitting authority (EPA). However, in this case, we have tried to address the broad scope in two ways. One is that we divided one general permit into three—one for aquaculture facilities with wasteload allocations, one for cold-water facilities without wasteload allocations and one for fish processors. We issued an individual permit for the only warm water facility that didn't have a wasteload allocation. Furthermore, we addressed the variations among facilities' pollutant loads by including in the WLA permit a number of tables of the individual limits for these facilities. As a result of comments, we have added similar tables to the Fish Processor permit also.

3. Action: We are not making any changes to the permits based on these general comments; however, we will respond below to more specific comments and note changes there, where appropriate.

E. Water Quality in the Mid-Snake

1. Comment: The U.S. Fish and Wildlife Service (FWS) recommends that EPA, together with other agencies, aggressively pursue measures to improve water quality in the Mid-Snake to protect listed species. Also, it recommends gathering information about the effects of discharge pollutants on native species and then modifying standards and permits to ensure conservation of these species.

2. Response: EPA reviews and approves State water quality standards that protect human health and aquatic life, including endangered and threatened species. EPA also reviews and approves TMDLs for water quality limited streams in Idaho and has participated in TMDL development and implementation in the Upper Snake Rock watershed, which includes the Mid-Snake. EPA will continue its involvement to ensure that the TMDL goals are met, and if not, that the TMDL is modified to further reduce pollutants entering the river.

3. Action: No change in the permits is needed or requested in response to this comment.

F. Effect on Endangered and Threatened Species

1. Comment: In the Fact Sheet, EPA stated that the permits were not likely to adversely affect listed endangered or threatened species with the exception of three warm water facilities that were likely to adversely affect listed snails in the Upper Snake Rock Subbasin.

2. Response: During consultation with U.S. Fish and Wildlife Service, we were convinced that the discharges from the aquaculture facilities, though reduced in TSS and TP from that allowed in the 1999 permit, would continue to contribute with other sources in the watershed to a likely adverse effect on Utah valvata snail, Snake River physa snail, Idaho springsnail, and Bliss Rapids snail.

3. Action: We did not change the permits.

G. Economic Effect on Small Facilities

1. Comment: One commenter asserted a heavy economic burden on small facilities and that 60 small fish farms have gone out of business already “because of the expense of the permit and monitoring forced upon them.” He claimed that many of those used silt-laden irrigation water as their influent and actually cleaned up the water before its discharge to the receiving waters.

2. Response: EPA appreciates the specific input about the effect of permit requirements, past and proposed, on small farms. We take this into careful consideration as we consider the detailed comments and recommendations discussed below.

3. Action: We are not making any changes to the permits based on these general comments; however, we will respond below to more specific comments and note changes there, where appropriate.

II. Corrections

A. Changes in Facility Lists

1. Crystal Springs Trout Farm, American Falls Reservoir

a. Comments

(1) Idaho Department of Fish and Game (IDFG) clarified that the Crystal Springs Trout Farm, referenced in a footnote of Table 12 in the WLA permit, is owned by Idaho Fish and Wildlife Foundation, Inc. and is not currently operating. When it starts up again, it will be managed by IDFG and will be renamed Springfield Hatchery.

(2) Clear Springs Foods commented about lack of clarity between two facilities named Crystal Springs Trout Farm, particularly in relation to additional monitoring required for the one in the American Falls Reservoir watershed.

b. Response: EPA appreciates receiving the updated information concerning this facility and believes the name change will resolve the confusion pointed out in the comment from Clear Springs Foods.

c. Action: Corrections to the name of this hatchery are made in the referenced footnotes and in Table 9 of the WLA permit. Based on the information provided in this comment, this facility is also added to the third table in Appendix B of the WLA permit: "Dischargers believed to be eligible for coverage under the WLA Permit but who are not expected to be containing, growing, or holding fish at the facility on the effective date of the WLA permit."

2. Deadman Hatchery (IDG130091)

a. Comment: Idaho Department of Environmental Quality (IDEQ) commented that it had received a Notice of Intent (NOI) from Deadman Hatchery on July 30, 2004, and had forwarded it to EPA on July 10, 2006. It suggested adding this facility to the list of those who submitted NOIs between January 1 and September 27, 2004.

b. Response: EPA appreciates the update and the NOI forwarded from IDEQ in July 2006.

c. Action: Deadman Hatchery is added to the first list in Appendix B of the WLA permit: "Authorized Dischargers with Wasteload Allocations who submitted Notices of Intent between January 1 and September 27, 2004." The second table is deleted, since Deadman Hatchery was the only facility listed in it: "Discharger believed to be eligible for coverage under the WLA Permit but who did not submit a Notice of Intent between 1/1 and 9/27/04."

3. Snyder Blue Rock Farms (IDG130102)

a. Comment: IDEQ commented that this facility has been operating for the past year and should be moved from the last table to the first table in Appendix B of the WLA Permit.

b. Response: EPA appreciates the update on the operating status of this facility. The operator of Snyder Blue Rock Farms submitted an NOI to EPA on August 17, 2004.

c. Action: Snyder Blue Rock Farms is moved from the list of those not operating to that of those operating who submitted NOIs between January 1 and September 27, 2004.

B. Batise Springs Trout Farm Total Suspended Solids (TSS) Limit

1. Comment: IDEQ commented that the average monthly TSS limit (AML) for Batise Springs Trout Farm appeared to be incorrect:

a. EPA was not consistent with the approved TMDLs by converting the Batise Springs Trout Farm concentration limits specified in the TMDL to loads, while leaving the Big Lost River watershed facilities WLAs for TSS as concentration limits.

b. In converting to load, EPA should have used the average flow of 31.1 cubic feet per second (cfs) for the Batise Springs Trout Farm discharge rather than 30.8 cfs, as stated in the Fact Sheet.

2. Response

a. The Portneuf River TMDL specifies that, while this facility does not need a WLA since the concentration of TSS discharged is below the TMDL target concentration, "the current input should not be increased". EPA agrees that the TSS limits in the permit for Batise Springs should be maintained at the 1999 permit's technology-based level of 5 mg/l AML and 10 mg/l MDL to protect water quality. In doing this, EPA is consistent with its interpretation of approved TMDLs.

b. EPA agrees that an error was made in the Fact Sheet; the correct flow should have been 31.1 cfs. This is the actual flow level that was used by the IDEQ Pocatello office to calculate the wasteload allocation (WLA) of 838.0 lbs/day, which EPA applied as the average monthly limit. However, this error is moot in light of the consistency issue, mentioned above. The limit is now

applied as a concentration limit and the flow is not needed for a conversion to a mass limit.

3. Action: We changed the TSS limits for Batise Springs in Table 8 of the WLA permit to 5 mg/l AML and 10 mg/l MDL.

C. Epicenter Aquaculture Permit -- Hardness Method Detection Limit

1. Comment: IDEQ pointed out that hardness was missing from Table 3 of the Epicenter Aquaculture permit.

2. Response: EPA appreciates learning of this omission.

3. Action: We added the method detection limit for hardness to Table 3 in the Epicenter Aquaculture permit.

D. Wasteload Allocations

1. Batise Springs Trout Farm

a. Total Phosphorus

(1) Comment: IDEQ pointed out that, although the text of the FS on page 42 said that the total phosphorus limits for Batise Springs Trout Farm were derived from the 2001 Total Maximum Daily Load (TMDL) for the Portneuf River, the actual AML was not correct.

(2) Response: EPA appreciates this correction; in the draft permit, we had based the limits on revisions to the 2001 WLAs that we anticipated would be approved prior to finalizing the permits. IDEQ has decided not to revise the TMDL at this time; therefore, we are applying the 2001 WLAs as follows.

We calculated the TP AML at 13.0 lbs/day, based the WLA of 2.37 tons/year; the maximum daily limit (MDL) is 19.2 lbs/day, using the same MDL multiplier used for all other TP MDLs in these permits. (see page 24 of Appendix B of the Fact Sheet).

On page 29 of Appendix B of the FS, the discussion of the basis of the TP WLA is also incorrect in referencing 0.05 mg/l as the target level. According to the Portneuf TMDL Addendum, Feb. 2001, page 9, the target in-stream concentration should be 0.07 mg/l. However, the conclusion that the water quality based limit based on the WLA is lower than the technology based effluent limit (TBEL) of 0.1 mg/l is still correct.

(3) Action: We inserted the corrected limits into Table 8 of the WLA permit.

b. Total Inorganic Nitrogen

(1) Comment: IDEQ pointed out that the total inorganic nitrogen limits for Batise Springs Trout Farm were not based on the 2001 Total Maximum Daily Load (TMDL) for the Portneuf River, which assigned a WLA of 5.42 tons/year, based on a target concentration of 0.16 mg/l.

(2) Response: EPA appreciates this correction; in the draft permit, we had based the limits on revisions to the 2001 WLAs that we anticipated would be approved prior to finalizing the permits. IDEQ has decided to not revise the TMDL at this time; therefore, we will apply the 2001 WLAs as follows.

We calculated the TIN AML to be 29.7 lbs/day, based on the WLA of 5.42 tons/year; the maximum daily limit (MDL) is 62.7 lbs/day, using the MDL multiplier explained on page 24 of Appendix B of the Fact Sheet.

On page 29 of Appendix B of the FS, the discussion of the basis of the TIN WLA is also incorrect in referencing 0.211 mg/l as the target effluent level. According to the Portneuf TMDL Addendum, Feb. 2001, page 9, the target effluent concentration should be 0.16 mg/l. However, the conclusion that the water quality based limit based on the WLA is lower than the technology-based effluent limit (TBEL) of 0.41 mg/l is still correct.

On page 42 of the FS, the statement that the TIN limits are technology-based is incorrect; they are water quality based.

(3) Action: We inserted the corrected limits into Table 8 in the WLA permit.

2. Papoose Springs Trout Ranch, Portneuf River

a. Comment: IDEQ has informed EPA that Papoose Springs will not have WLAs in the revised Portneuf River TMDL.

b. Response: Since we can only cover facilities with WLAs in approved TMDLs under the WLA permit, we cannot cover Papoose Springs Trout Farm under the WLA permit, as was anticipated when we published the draft permit. Because this facility would discharge to a water quality limited stream with a TMDL that does not provide it with a WLA, this facility also cannot be covered under the Cold Water Permit.

c. Action: We have removed Papoose Springs Trout Farm from Table 8 in the WLA permit and made other minor adjustments consistent with this removal.

3. Springfield Hatchery (Crystal Springs Trout Farm), American Falls Reservoir

a. Comment: IDEQ pointed out an error in the calculated AML for Net TP for this facility; the corrected AML should be 6.7 lbs/day.

b. Response: EPA acknowledges an error in this calculation due to using an imprecise version of the WLA.

c. Action: In Table 9 of the WLA permit, the AML for TP is changed to 6.7 lbs/day; the corresponding MDL is changed to 9.9 lbs/day. These same corrections would also apply to Table 16 on page 43 of the Fact Sheet; see statement in the introduction about modifications to the Fact Sheet.

4. Pristine Springs, Inc.

a. Comment: A commenter asserted that the limitations stated for Pristine Springs, Inc. (PSI) in the WLA permit are not correct and that PSI is appealing the issues relating to the TMDL and WLA set by IDEQ

b. Response: EPA is aware of PSI's appeal of the State's WLA decision. EPA implements WLAs in approved TMDLs by setting limits based on the WLAs. Until a revised TMDL is submitted to and approved by EPA with different WLAs for any facility, EPA must use the WLA in the current, approved TMDL.

c. Action: The WLA permit remains the same.

5. Smith Farm Ponds

a. Comment: In Table 3 of the draft WLA permit, we included two sets of limits for Smith Farm Ponds; the one in parentheses was intended to indicate limits that would be applied if proposed changes in the applicable TMDL were in effect when the permit became effective. The change would have modified the seasons when the limits applied without overall changes in loads allowed.

b. Response: Since the Upper Snake Rock TMDL has not been modified, we have determined that the alternative limits are not appropriate at this time.

c. Action: We modified Table 3 of the WLA permit to drop the proposed limits in favor of those in the approved TMDL.

6. Fall Creek and Rueger Springs Creek Facilities, Lake Walcott TMDL

a. Comment: On March 23, 2007, EPA approved the Fall Creek TMDL Addendum and the Rueger Springs TMDL Addendum, both of the Lake Walcott TMDL, which were submitted to EPA on January 30, 2007. They included the following allocations aquaculture facilities.

Table RTC-1 Wasteload Allocations for Lake Walcott Facilities		
Facility	**Total Suspended Solids (lbs/day)**	**Total Phosphorus (lbs/day)**
Upper Falls Creek Facility	577.8	6.73
Lower Falls Creek Facility	672.3	4.03
American Falls Fish Hatchery	534.6	8.55

b. Response: Using the method detailed in Appendix B of the Fact Sheet on pages 20 – 22, we developed the following limits for these facilities. The MDL multiplier for TSS is 1.90; the MDL multiplier for TP is 1.48.

Table RTC-2 Effluent Limitations for Lake Walcott Facilities				
Facility Name	**Permit Number**	**Parameter**	**Average Monthly (lbs/day)**	**Maximum Daily (lbs/day)**
Fall Creek Hatchery—Upper	IDG130078	Net TP	6.7	9.9
		Net TSS	577.8	1097.8
Fall Creek Hatchery—Lower	IDG130085	Net TP	4.0	5.9
		Net TSS	672.3	1277.4
American Falls Fish Hatchery	IDG130031	Net TP	8.6	12.7
		Net TSS	534.6	1015.7

c. Action: We inserted the new limits in Table 10 of the WLA permit.

E. Big Lost River Facilities

1. Compliance Schedule

a. Comment: One commenter wants clarification in the text of the Fact Sheet (p. 40) that the schedule only applies to total suspended solids, settleable solids, and temperature. He asserts that the permit (sic) reads as though final compliance for all the limits is required by August 3, 2007.

b. Response: EPA respectfully disagrees that the fact sheet implies that the schedule applies to all limits; it says that it applies to the final limits, which are clearly designated in the following table as TSS, settleable solids, and temperature. We do not believe that the statement in the Fact Sheet is in error. We also checked the text on Table 7 and Appendix D of the WLA permit for any confusing language with respect to the limits to which the schedule applies. We believe that they are clear in applying the schedule to only the three parameters mentioned. However, we did discover an error in the reference in Appendix D to Table 6, instead of Table 7, in the WLA permit.

c. Action: The reference in Appendix D of the WLA permit is changed to Table 7.

F. Footnotes

1. Comment: IDEQ commented that footnote "7" on Table 10 in the Fact Sheet was not found at the bottom of the table and recommended checking all tables to correct such errors.

2. Response: Footnote "7" below Table 10 in the Fact Sheet should have been a "6"; we missed changing it when an earlier footnote was deleted.

3. Action: The footnote was not changed in the Fact Sheet, since it is a final document. We checked the footnotes in all the tables in the permits and found no similar errors. No further action is needed.

G. TSS Target Loads in Water Quality limited Streams

1. Comment: Idaho Department of Environmental Quality (IDEQ) commented that the following statement which appeared in the Fact Sheet Appendix B (page 15) was taken out of context. "IDEQ has determined for purposes of setting target loads for ambient water-quality-limited streams that 52 mg/L TSS or less would not impair designated uses." IDEQ further explains that it does not have a numeric criterion for TSS and that the 52 mg/l TSS target load was likely developed for a particular watershed.

2. Response: EPA agrees that the statement in the Fact Sheet was made in error. IDEQ states in its June 2003 document "Guide to Selection of Sediment Targets for Use in Idaho TMDLs": "We propose no specific targets for total

suspended solids. The effects of sediment are dependent on concentration and duration of exposure. We recognize that there can be effects on biota at concentrations of total suspended solids above 25 mg/l, and many papers recommend a long-term exposure of not greater than 80 mg/l to maintain a good fish community."

3. Action: No changes were made to the permits. Acknowledging the error in the Fact Sheet by referencing the IDEQ June 2003 document in this Response to Comments does not change the conclusion stated in the Fact Sheet regarding EPA's expectation that the TSS limits in the Cold Water Permit and the Epicenter Permit will not cause nor contribute to exceedances of the State water quality standards for turbidity or sediment.

III. Prohibited Discharges

A. Definition of "Hazardous Materials"

1. Comment: Epicenter Aquaculture asked which government definition we are using for "hazardous materials" and asked for a list.

2. Response: Because the discharge prohibition on hazardous materials stems from the Idaho surface water criteria at IDAPA 58.01.02.200.01, we consulted IDEQ for more specificity on this definition. Johnna Sandow of IDEQ provided this response from IDEQ's website at http://www.deq.idaho.gov/water/data_reports/surface_water/monitoring/general_narrative_criteria.cfm

> "A hazardous material is one that is harmful to humans and animals from exposure, but not necessarily ingestion. Hazardous materials include substances that are flammable or corrosive or are strong oxidizing agents. Familiar examples are solvents such as paint thinners, gasoline, and waste oil, and certain household chemicals such as drain cleaners and pool chemicals."

There is also a definition of "hazardous material" at IDAPA §58.01.02.010.43:

> "A material or combination of materials which, when discharged in any quantity into State waters, presents a substantial present or potential hazard to human health, the public health, or the environment. Unless otherwise specified, published guides such as Quality Criteria for Water (1976) by EPA, Water quality Criteria (Second Edition, 1963) by the State of California Water Quality Control Board, their subsequent revisions, and more recent research papers, regulations and guidelines will be used in identifying individual and specific materials and in evaluating the tolerances of the identified materials for the beneficial uses indicated."

3. Action: The definition for "hazardous material" is already included in all the permits, but the reference was corrected to be consistent with IDAPA 58.01.02.010.43.

B. Prohibition on Fish in Full-Flow Settling Basins

1. Comment: Epicenter Aquaculture (Mark Lupher) commented on its individual permit that the prohibition in §I.D.3 against holding fish in a full-flow settling basin did not make sense for this facility. "As a matter of policy, the [large bio-remediation] pond contains a complement of organisms that improve the water quality so that a portion of it can be reused through the raceways." He further asserts that fry of the guppies and tilapia are so small that any screen that admits the passage of water allows them to pass into the quiescent zones, where they are safe from predation of larger fish. He asserts that pollutant levels in Epicenter Aquaculture's effluent have not approached the proposed permit limits. He requests deletion of the prohibition.

2. Response: EPA agrees that a well-managed bio-remediation pond should be allowed to continue to treat the effluent where a treatment pond is intended to contain fish or other animals as part of the treatment system. The prohibition against fish in the quiescent zones and settling ponds is intended to apply to escaped fish that are not supposed to be there.

3. Action: The prohibition is modified in the Epicenter Aquaculture permit and in the WLA permit to not apply to ponds where fish are used to treat wastes and reduce pollutant discharges.

C. Addition of Prohibitions

1. Comment: IDEQ requested the addition of prohibitions on "deleterious materials in concentrations that impair designated beneficial uses" and "oxygen-demanding materials in concentration that would result in an anaerobic water condition. It also requested that the prohibition on discharge of hazardous materials be expanded with the phrase: "in concentrations found to be of public health significance or to impair designated beneficial uses". In a follow-up discussion with IDEQ, it explained that these prohibitions are standard language the agency wants to see in discharge permits issued in Idaho to ensure that the state's water quality standards are met. Also, IDEQ stated that it will likely ask for these additions in its 401 certification of the permits.

2. Response: EPA agrees with these additions to the discharge prohibitions; they are supported by the State water quality criteria at IDAPA 58.01.02.200.01, --.03, and --.07.

3. Action: The prohibitions are expanded and added as requested on page 29 of the WLA permit, on page 12 of the Cold Water permit, on page 9 of the Fish Processor permit, and on page 6 of the Epicenter Aquaculture permit.

D. Controlling the Discharge of Non-native and Genetically Modified Fish

1. Comment: One commenter asked EPA to prohibit discharge of non-native fish, including genetically engineered fish, and advocated consideration of transgenic fish as a pollutant; she also recommended prohibition of their use or discharge. She expressed concern for transmission of diseases and pathogens to wild fish populations, as well as competition and displacement of wild fish, and suggested that EPA require BMPs to prevent fish escape as well as require monitoring and reporting of quantity of escaped fish within 24 hours. The commenter cited the court decision in *United States Public Interest Research Group v. Atlantic Salmon of Maine* that stated: "[f]ish that do not naturally occur in the water, such as non-North American Salmon, fall within the term 'biological material' and are therefore pollutants under the [Clean Water] Act." And she mentioned an EPA Region 1 NPDES permit for the net pen facility, Acadia Aquaculture, LLC, that included language prohibiting use of genetically engineered fish and non-native North American Atlantic Salmon at the facility.

2. Response: EPA appreciates the concern for the discharge of non-native and genetically engineered fish, and regardless of whether fish are considered a pollutant, the agency included in its ELG BMP requirements to prevent the release of reared fish to the receiving waters: structural maintenance and inspections, as well as training of staff to inspect and maintain the facility. Region 10 included these requirements in the BMP section of these permits. We also require that the BMP plan include procedures to prevent fish from entering quiescent zones and full-flow or offline settling basins and to remove any fish from these areas as soon as practicable. The permits prohibit the practice of containing, growing or holding fish within an offline or full-flow settling basin. We believe that these requirements should reduce the unintentional release of fish, either native or non-native, to Idaho waters, reducing the transmission of diseases and parasites to wild populations and competition with wild fish. Permit requirements should encourage operators to continue to seek innovative ways to control escapes and eliminate fish from these areas of their facilities as soon as practicable.

Through a separate permit process, Idaho Department of Fish and Game (IDFG) regulates which fish species, including eggs, may be imported or transported to rear at Idaho facilities or to release in Idaho waters. The Idaho regulations state that "no permit shall be issued by the Director for such importation, transportation or release or sale if the wildlife or eggs thereof would pose a threat to wildlife in the State of Idaho either through threat of disease, genetic contamination or displacement of, or competition with existing species…" (IDAPA §13.01.10). EPA believes that this State requirement further addresses the commenter's concern for unintentional introduction of non-native or transgenic fish and associated diseases to Idaho. The importation several years ago of Tilapia has resulted in the release of the species to State waters with limited consequence.

The species cannot survive in Idaho waters, except in or around hot springs or hot discharges (i.e. from warm-water facilities). While there appears to be minimal current effect of the presence of Tilapia in State waters, the long-term consequences to the hot springs' native biota are unknown. The more rigorous current review of fish species importation requests by the IDFG should prevent similar situations with other species.

3. Action: We modified the permits to include a prohibition on "containing, growing or holding transgenic or non-native fish or eggs without a current permit issued by the Idaho Department of Fish and Game for importation, transportation or release or sale or export for such species, unless a permit is not required under IDAPA §13.01.10.100." We added to the Operational Requirements of the BMP Plan section of the permits: "Implement procedures to control the release of transgenic or non-native fish or their diseases, as specified in any permit(s) issued by the Idaho Department of Fish and Game for the importation, transportation, release or sale of such species, in accordance with IDAPA §13.01.10.100." Finally, EPA added to the Annual Report a request for information about whether importation permits were received during the year from IDFG.

IV. Data, Monitoring, and Reporting Issues

A. Discharge Monitoring Reports (DMRs)

1. Due Date

a. Comments: A number of commenters requested moving the due date for monthly DMR submittals back to the 20th of the month as it was in the previous permit. They cited more time needed for receiving lab results and preparing the reports.

b. Response: EPA agrees to make the change.

c. Action: The due date is changed to the 20th of the month in all the permits; the due date for trading DMRs is retained at the 10th of the 2nd following month.

2. Due Date for First Report

a. Comment: The effective date of a general permit is set by the publication date of the permit in the Federal Register, a date which EPA cannot accurately predict in advance. Consequently, we expect that there will be a partial calendar month of permit coverage at the beginning of the permit term. In the past permit cycle, EPA noted some confusion about whether monitoring was required in the first partial month of permit coverage.

b. Response: We are clarifying in the permits that effluent monitoring is not required in the first partial month but must begin in the first full month if it is required monthly. If it is required quarterly, it must be completed in the calendar quarter that includes the first full month of coverage.

c. Action: We added a footnote to each monitoring table to clarify the requirement.

3. Electronic reporting

a. Comment: One commenter recommended that EPA make provision for the optional submission of DMRs via electronic submission.

b. Response: EPA recognizes the opportunity for efficiency that may be gained by allowing the electronic submittal of reports and applications of various kinds, including DMRs. An agency workgroup is currently working on making this option available. As soon as possible, we will let all of our permittees know when and how they may submit DMRs electronically.

c. Action: No change in the permits is needed to accommodate this request since the option is provided in the existing language. EPA will notify all permittees when the electronic submission option is available.

B. Method Detection Limits (MDLs)

1. Hardness

a. Comment: Several commenters pointed out that the hardness method detection limit (at 10 µg/l) is extremely low; one also pointed out that Table 12 in the WLA permit requires hardness to be reported in µg/l. Others recommended that the hardness method detection limit be listed as a range of 10--400 mg/l.

b. Response: We note that µg/l was used for hardness throughout the permits and appreciates having this error pointed out; units for hardness should be mg/l. We have checked the method detection limit for hardness and confirm that it is 10 mg/l using EPA Method 130.1.

c. Action: Hardness units for all effluent and receiving water monitoring and method detection limits are changed to mg/l: Tables 12, 14, and 15 in the WLA permit; Tables 1 and 3 in the Cold Water permit; and Tables 2, 3, and 4 in the Epicenter Aquaculture permit. No change is needed in the numeric value of the hardness method detection limit.

2. Copper

a. Comment: Several commenters noted that the units for the copper method detection limit (µg/l) in Table 15 of the WLA permit are very low and might be incorrect. One commenter requested a "[correction of] the method detection limit for copper for EPA Method 220.1 to 0.02 mg/l.

b. Response: EPA checked the method detection limit for copper and confirmed that it is 0.02 µg/l using EPA Method 200.8. Although this method has not been officially approved and published in 40 CFR §136.3, it is readily approvable on a case-by-case basis upon application to EPA from the permittee or the lab. See 40 CFR §136.4 for the application procedure. EPA

agrees that the method detection limit for copper for Method 220.1 is 0.02 mg/l; however, it required the lower method detection limit of Method 200.8 to gather more hard data (not non-detects) for reasonable potential analysis in the next permit cycle.

However, in view of the fact that the water quality standard for copper is expected to range from about 0.01 – 0.03 mg/l (at least in the mid-Snake), depending on hardness, we have elected to raise the method detection limit required for copper to 3 µg/l, which corresponds to the method detection limit for EPA Method 200.7, an approved method. All the permits allow a permittee to request a higher method detection limit requirement if its data is consistently significantly above the method detection limit of one of the other approved methods.

c. Action: We changed the method detection limit for copper to 3 µg/l in the three permits that have copper monitoring: Table 15 in the WLA permit; Table 3 in the Epicenter permit; and Table 4 in the Cold Water permit.

3. Requirement for permittee to use methods that reach certain method detection limits

a. Comment: A commenter asserted that it is the laboratory's responsibility to use appropriate analytical methods and that "it is up to permittee to report the results correctly on the DMRs." He further requested a deletion of the requirement to use methods that achieve method detection limits listed in Table 15 of the WLA permit; he also requested modification of the reporting requirement to refer to Table 15 in that section instead. He asked for specified requirements about sampling handling to be included in the permit if EPA believed there is a real opportunity for mishandling.

b. Response: Under the Clean Water Act and the implementing regulations, the responsibility to sample, analyze, and report sample results rests with the permittee. If the permittee chooses not to do some of the necessary tasks itself, but contracts out part of them (e.g. sending samples to an outside laboratory for analysis), then it is the permittee's responsibility to choose and instruct an appropriate lab that can and will comply with the requirements the permittee gives it, including relevant permit requirements. EPA does not directly regulate the laboratory; if the permittee wants or needs to use outside laboratory service, it must make sure that the lab performs the service correctly. EPA cannot change the permit requirement based on this recommendation.

In response to the commenter's additional request for requirements about sampling handling, EPA does not include specifics of sample handling in the permits. Each permittee must develop a quality assurance plan which addresses sample collection and analysis. See §II.G of the WLA permit for specific requirements and for a reference to EPA guidance that gives details on sampling and analytical procedures.

c. Action: No change in the permits is warranted.

4. Reporting when both influent and effluent pollutant levels are “non-detect”

a. Comments: Several commenters wanted to report net effluent values as “less than the <MDL>” if both influent and effluent levels were measured at “non-detect”. They believed they would be legally vulnerable in claiming zero discharge of pollutants when the level was merely below detection level. They are also concerned that EPA might, in the future, require a zero discharge level, based on this indefensible data. Furthermore, they pointed out that EPA used data in its analysis for technology-based limits that was less than the method detection limit and did not call it zero. One commenter also pointed out that EPA Region 10’s *Guidelines for WQBELs below analytical detection/quantification level* directed permit writers to require the permittee to report “less than <MDL number>” on the DMR.

b. Response: EPA agrees that it is more accurate and defensible to report calculated net effluent results as “less than <MDL number>” if both influent and effluent values were measured at less than the method detection limit. To be consistent, we also need to modify the default value for averaging such net values to one half the method detection limit, since that is the default value already specified in the permits when averaging single data points with a value of less than the method detection limit.

c. Action: The WLA permit, the Cold Water Permit, and the Epicenter permit are changed to specify reporting net results in terms of “less than <MDL number>” rather than zero; we are also changing the default value for averaging such net values to one half the method detection limit.

5. Listing EPA Methods

a. Comment: One commenter requested a listing of the EPA methods for each parameter.

b. Response: EPA does not list required methods in NPDES permits because a permittee is allowed to use any EPA-approved method that can achieve a required method detection limit, of which there may be several for a parameter. Furthermore, methods may be improved over time, and new methods may be approved. EPA wants to avoid being more prescriptive than necessary and therefore does not list specific methods that must be used.

c. Action: No changes are made in the permits.

C. Reporting Drug and other Chemical Use

1. Comment: One commenter questioned the appropriateness of the reporting requirements for each use of INADs and extralabel drugs, given the exception language provided in the national effluent guidelines (ELG) for the aquatic animal production facilities (40 CFR §451). He recommended that the reporting be reduced to reflect the requirements in the ELG.

2. Response: EPA agrees that the reporting requirements in the proposed permits were more rigorous than those in the ELG. We are correcting this oversight in the final permit. The intent of the ELG is to require reporting of INADs and extralabel drugs, preferably prior to their use, "to ensure that permit writers are aware of the potential for discharge of the INAD or extralabel drug and can take action as necessary in authorized circumstances". EPA provided an exception to the requirement to report INAD use each time:

> *"When an INAD has already been approved for use in another species or to treat another disease and is applied at a dosage that does not exceed the approved dosage, reporting is not required if it will be used under similar conditions. The requirement that the use be under similar conditions is intended to limit the exception to cases where the INAD use would not be expected to produce significantly different environmental impacts from the previously approved use. [For example], the use of a drug approved to treat terrestrial animals as an INAD to treat aquatic animals would not be considered a similar condition of use. In contrast, the use of a drug to treat fish in a freshwater system that was previously approved for a different freshwater species would be considered use under similar conditions. EPA has concluded that when a drug is used under similar conditions it is unlikely that the environmental impacts would be different than those that were already considered in the prior approval of the drug. CAAP [Concentrated Aquatic Animals Production] facilities must also report the use of extralabel drugs. However, as with INADs, reporting is not required if the extralabel use does not exceed the approved dosage and is used under similar conditions. EPA anticipates that most extralabel drug use will not require reporting but wants to ensure that permitting authorities are aware of situations in which a higher dose of a drug is used or the drug is used under significantly different conditions from the approved use. It is also possible that drugs approved for terrestrial animals could be used to treat aquatic animals as extralabel use drugs.*

3. Action: We have changed the permit language in paragraph 2 of the Drug and Other Chemical Use and Reporting Requirements section of each permit to read: "The following written and oral reports must be provided to EPA and IDEQ when an INAD or extralabel drug is used for the first time at a facility and when an INAD or extralabel drug is used at a higher dosage than previously approved by FDA for a different aquatic animal species or disease."

D. Annual Report Contents

1. Amount of feed fed in the maximum month

a. Comment: One commenter asserted that the amount of feed fed in the month of maximum feeding does not help with any water quality calculation;

he further suggested that, if this information is needed, it should be on the NOI.

b. Response: EPA is not requiring information on the amount of feed fed in the maximum month in order to conduct a water quality calculation nor a feed conversion ratio. Permittees must submit information regarding the maximum feeding rate so that EPA can determine if they are eligible for coverage under the permit or if coverage needs to continue; one of the factors in determining coverage is the maximum rate of feeding. The information is required in the NOI and in the annual report. Note that some operators request coverage under the NPDES permit program even when they feed less food than the amount for which the regulations require a permit. EPA will continue to cover such facilities under the applicable general permit when they request coverage.

c. Action: No change is made in the permits.

2. Chemical usage reporting

a. Comment: One commenter suggested improvements for Part VII of the annual report form (Chemical Usage)

b. Response: We agree that the suggested changes improve the form.

c. Action: Changes are made in the organization, though not the content, of Part VII (Chemical Usage) of the Annual Report Contents, an appendix to each of the permits.

3. Units for Reporting Solids from Off-line Settling Basins (OLSBs)

a. Comment: One commenter requested that solids removed from OLSBs be reported in cubic yards rather than in pounds to avoid the added step of weighing the solids, which can require the added cost of a trip off-site to weigh the solids. He also asserted that volumetric reporting is more consistent because of the variable moisture content of the solids.

b. Response: EPA agrees that volumetric reporting of the OLSB solids will provide adequate information about the amount of solids being removed and will be less burdensome to some permittees. But, we recognize other permittees may prefer to report solids removed in pounds.

c. Action: The Annual Report appendices of all the permits have been changed to provide the option of reporting solids removed from OSLBs in pounds or cubic yards.

E. Receiving Water Monitoring Issues

1. EPA Authority to Require Receiving Water Monitoring

a. Comment: Several commenters asserted that EPA does not have the authority to require permittees to sample the receiving water. One asserted

that we could not require receiving water monitoring because the discharge monitoring reports (DMRs) have no provision for reporting this data.

b. Response: EPA requires receiving water monitoring in many permits, including many in Idaho, under the authority of Section 308 of the Clean Water Act, which grants EPA the authority to require gathering and submittal of information that is required to develop effluent limits. See the response to the next comment for more discussion of the purpose of receiving water monitoring.

Regarding the DMRs, the permit writer determines what data will be reported on the DMRs after the permit is finalized; in other words, all monitoring and other required reports will be indicated as such on the new pre-printed DMRs.

c. Action: No change was made in the permits.

2. Purpose of Receiving Water Monitoring

a. Comment: Several commenters questioned the purpose of receiving water monitoring; with respect to monitoring for TP, they pointed out that IDEQ is monitoring for it at specified points in the receiving water. Several commenters asserted that it would not show compliance with the permit. Another opposed receiving water monitoring to monitor the effects of trades since dilution in the Snake River would be so great as to not be able to detect an impact. Another requested deletion of the requirement to monitor for the pollutants addressed in TMDLs.

b. Response: The purpose of the receiving water monitoring is threefold:

(1) to provide enough data about the characteristics of the background receiving water to enable us to conduct a reasonable potential analysis for pollutants of concern (POCs) in the facility's discharge in the subsequent permit cycle. The POCs for which we require more data before we can determine their reasonable potential to violate water quality standards are copper and ammonia. Because the Idaho water quality standard for ammonia is dependent on temperature and pH, we are requiring that the facilities that are expected to discharge ammonia in toxic concentrations (fish processors and off-line settling basins) conduct quarterly monitoring for pH, temperature, and ammonia in the receiving water upstream of the outfall. EPA expects IDEQ to certify under CWA § 401 that requiring fish processors to sample upstream is necessary. The water quality standard for copper is dependent on hardness; therefore, we are requiring sampling in the receiving water, upstream of the outfall, for both copper and hardness, quarterly at the time that copper may be in the effluent, if copper compounds are used at any time during the quarter. It is the upstream monitoring that provides this background data needed for the reasonable potential analysis. Therefore, we must retain that monitoring, though we have decided to drop the downstream monitoring for reasons detailed in §2, below.

(2) To provide confirmation that the discharge is not causing a violation of the water quality standards or the stated target for the receiving stream in the applicable TMDL. After further discussion with IDEQ, we have decided to drop the requirement to monitor for this purpose for two reasons. The effectiveness of the TMDLs is measured by IDEQ at certain points in the watershed, and data collected by facilities downstream of their discharges would not aid that evaluation as much as we originally thought. Secondly, EPA decided that since upstream data is sufficient for performing a reasonable potential analysis (described in § 1 above), it would forego requiring the downstream monitoring, which would show whether State water quality standards actually are being exceeded. This will reduce the monitoring burden on facilities.

(3) To document whether adverse effects are occurring in the receiving water downstream of buyers of pollutant credits (those who are increasing their allowable average monthly discharge above their WLA). We agree with several commenters who pointed out that the amount of excess pollutant discharged because of buying pollution credits will be small relative to the amount allowed by the discharge limit for the facility. This would make it difficult, if not impossible, to observe an effect of the added pollutant to the receiving water. Furthermore, the amount that a facility can increase its discharge by purchasing credits is limited by its technology-based limit. IDEQ is focusing its evaluation of the effectiveness of the TMDL on specific sampling points in the watershed and does not require these data to complete that evaluation. EPA expects IDEQ to certify under CWA § 401 that requiring buyers of pollutant credits to sample downstream is not necessary for meeting State water quality standards.

c. Action: EPA retains the requirement to monitor for ammonia, temperature, and pH upstream of the outfalls from fish processors and from OLSBs with direct discharges and for copper and hardness upstream from outfalls in quarters when copper is used, but drops the requirement for downstream monitoring for the same parameters and for TP, TN, and TIN.

3. Value of Monitoring Data

a. Comment: A number of commenters believed that the data gathered would not be repeatable, valid, or accurate. Several asserted that IDEQ's periodic monitoring at set locations was sufficient. Several also requested that the receiving water monitoring requirement be dropped from the permits.

b. Response: EPA has the authority to impose monitoring requirements to gather data needed to develop permit limits or to monitor compliance (see above). It is the responsibility of the discharger under its NPDES permit to properly sample and analyze effluent, receiving water, and sometimes other parameters. If a permittee does not have the expertise within its staff to conduct the required monitoring, it may hire a contractor to do so. It is the permittee's responsibility to see that monitoring is conducted in accordance

with EPA regulations and guidance. Regarding the overlap with IDEQ monitoring at established sites in the receiving water, EPA disagrees that IDEQ's monitoring provides relevant data for the purpose of conducting a reasonable potential analysis on various chemicals. Some pollutants are not even monitored by IDEQ and in most cases IDEQ monitoring is too far away to be relevant for this purpose. However, after we have discussed this issue further with IDEQ, we have decided to drop the downstream monitoring for TMDL pollutants and water quality standards violations, as we noted above. We have retained the upstream monitoring for selected pollutants to support the need to analyze reasonable potential in the next permit cycle.

c. Action: No change was made in the permits based on this comment.

4. Cost of Sampling Receiving Water

a. Comment: Several commenters claimed the needless added expense of the receiving water monitoring, implying as previously mentioned that the data would not be usable or that it duplicates IDEQ monitoring. One asserted that it is EPA's job to monitor the receiving water, not the facilities' job. One commenter requested that we consider the size of a facility in determining the frequency of receiving water monitoring that we required in the permits. Another requested flexibility to conduct joint monitoring with nearby facilities.

b. Response: EPA has the authority to impose monitoring requirements to gather data needed to develop permit limits (see above). It is the responsibility of the discharger under its NPDES permit to properly sample and analyze effluent, receiving water, or sometimes other parameters to provide data to assess compliance with the permit and to develop effluent limitations, if appropriate. The cost of monitoring is borne by permittees across the country; the cost of these quarterly samples, especially as reduced in response to the comments, is not expected to be onerous. In response to other comments, we have decreased the amount of monitoring required and have clarified that the monitoring for ammonia parameters is only required for facilities with direct discharges from offline settling basins and for fish processors. Generally these are the largest facilities.

Our purpose in requiring receiving water monitoring is to gather enough data to conduct a reasonable potential analysis in the next permit cycle for ammonia and copper, where applicable. We need at least 10 data points for such analysis. In order to gather at least that many, we must require monitoring in the receiving water at least that many times in the first 4½ years of the permit. Quarterly monitoring will provide 18 data points in that time frame, a somewhat preferable situation to only having the bare minimum of 10 data points. We considered requiring only one year of monthly receiving water monitoring, but we believe that the financial burden, especially on small facilities, would be even more difficult than the proposed quarterly monitoring for the duration of the permit.

Regarding the suggestion of joint monitoring, we are open to joint monitoring by the facilities since it may allow them to share a contractor, reducing the cost to everyone. Joint monitoring is acceptable also where outfalls are close enough together that a single sample can produce valid background data for each of the facilities. Any joint plan should be documented in each facility's QA plan and reviewed and approved by IDEQ.

c. Action: We have not changed the permits based on these comments.

5. Timing of Receiving Water Monitoring

a. Comment: One commenter asked for clarification of what EPA requires when it says that grab receiving water samples must be taken concurrently with composite effluent samples.

b. Response: The requirement is to take the grab sample from the receiving water at some point during the time period in which the grab samples are taken for composite sampling of the effluent. It is a requirement for only one grab sample at some time during the time of the composite sampling; it does not require multiple grab samples.

c. Action: We have clarified the sampling requirement in §II.E of the WLA permit and the cold water permit and §II.F of the processor permit.

6. Monitoring Plan

a. Comment: One commenter suggested that EPA require submittal of a monitoring plan within one year that would be approved by EPA.

b. Response: Because of workload issues, EPA cannot commit to review of individual monitoring plans. Permittees are required to develop quality assurance plans in accordance with EPA guidance, which should address monitoring issues. These plans will be reviewed by EPA or IDEQ inspectors when they inspect facilities. In addition, IDEQ advised that permittees could seek technical assistance on monitoring plans from IDEQ staff.

c. Action: We did not change the permits based on this comment.

7. Training in Methodology and Safety of Obtaining Samples

a. Comment: Several commenters asserted that the facility operators were not trained and do not have the proper safety equipment to take samples in the receiving water. One requested further guidance on proper sample collection and analysis.

b. Response: EPA recognizes that under some conditions sampling in the receiving stream may be somewhat hazardous, e.g. during spring runoff. However, the permit requires only that the samples be collected once a quarter in those situations where they are required at all. We believe that facilities will be able to schedule their sampling around whatever hazardous conditions may exist. We would further point out that facilities are responsible to carry out, whether by staff or contractor, the requirements of the permit. If staff are

not currently trained or equipped to safely and properly conduct required sampling, it is the responsibility of the operator to provide training, equipment, and direction to accomplish the requirements of the permit or to contract out such tasks. Guidance is offered in documents cited in the Quality Assurance Plan section of each permit.

c. Action: We made no change in the permits based on this comment.

8. Sampling Location

a. Comments:

(1) Several commenters wanted clarification on the meaning of "zone of partial mixing", which is the area outside of which EPA is requiring downstream receiving water monitoring of several pollutants.

(2) Another asserted that the dilution of the effluent in the large flow of the Snake River makes the pollutant level likely to be undetectable. He also said that EPA didn't say exactly where to sample.

(3) One commenter is confused about where the sampling should take place when there are multiple discharge points from one facility.

(4) Another described a situation where there is no upstream flow and the downstream flow consisted only of the effluent from the facility.

(5) One commenter suggested allowing facilities that discharge close to each other be allowed to collect samples collectively for the group.

(6) Several commenters requested that dischargers to canals be exempt from receiving water monitoring.

(7) One commenter suggested that it makes more sense to sample above and below the industry as a whole, not around each permittee.

b. Response:

(1) We have deleted the requirements for downstream monitoring in all cases. Therefore, "zone of partial mixing" issue is a moot point, as is the dilution issue, as is the issue of difficulty detecting the effect of pollutants from the effluent in a large receiving stream.

(2) Since there are many dischargers covered under these permits, EPA cannot tell each discharger where to sample. Following the requirements in the permit and the guidance in the EPA documents referenced in the permit, each permittee must determine the proper location for sampling at its facility. The permittee will include this in the quality assurance plan. The location will be reviewed by State and EPA inspectors when they inspect the facility. IDEQ is available to assist permittees in determine the proper location for sampling.

(3) When discharging to a lake or pond, the "upstream" monitoring should be in an area where the water is representative of the quality of that in the whole water body. For example, a representative sample of Clear

Lake could be drawn from the boat dock area. If the discharge is at the head of a stream or canal, the sampling should be downstream where the stream becomes mixed with other inflows. If there are no other inflows nearby, the permittee may submit a justification for omitting this surface water monitoring with the DMR for the month when the monitoring was to be conducted.

(4) In response to the commenter with multiple discharges, we would advise that the upstream sample be above the highest discharge, in order to get the background data. Since we have dropped the requirement to sample downstream, that part of the question is moot.

(5) In the case of the facility with no upstream flow, the receiving water monitoring would not be possible; in such a case, the facility would need to note its situation on the DMR. Receiving water monitoring would still be required in months when there is an upstream flow.

(6) EPA is amenable to nearby facilities taking one sample upstream of all the outfalls; this should be included in the quality assurance plans for the cooperating facilities.

(7) Canals and irrigation ditches can be considered Waters of the U.S., and when they are EPA needs the background data from upstream in the canals in order to assess reasonable potential to exceed water quality standards downstream of the discharge.

(8) Implicit in the suggestion to sample above and below the industry as a whole is the assumption that EPA is trying to determine the impact of the industry as a whole on the receiving stream. Since the intent of the upstream monitoring for ammonia, copper and related parameters is to calculate reasonable potential to exceed water quality standards at the point of each permittee's discharge, we need accurate background data near the outfall in question; samples gathered miles away would not be useful.

c. Action: We did not change the permits based on these comments.

9. Sampling even when not discharging

a. Comment: Several commenters requested that EPA drop the requirement to sample the receiving water even when the facility is not discharging.

b. Response: The requirement to sample receiving water is to provide enough background data to evaluate reasonable potential to exceed water quality targets or standards when the next permit is developed. As mentioned above, this is not related to discerning compliance of the effluent at the time of the sampling; it is gathering the background data. Therefore, we need to require that data be gathered quarterly, so that we have enough data points to evaluate, in the next permit cycle, the reasonable potential of the effluent to cause a violation of the water quality standards.

c. Action: We did not change the permits based on this comment.

10. Evaluation of sampling results

a. Comment: One commenter asked why permittees must evaluate the monitoring results for EPA.

b. Response: By evaluation, we mean that the permittee should include a short discussion of the accuracy and precision of the data, which should include any problems with sample collection or analysis that may have affected the results or what conditions existed at the time of the sample collection that may be relevant to how representative the data may be of the normal conditions at that site. We do not mean that the permittee's evaluation would replace agency review and evaluation, only that enough information be included with the report that EPA and IDEQ can use the data properly.

c. Action: We did not change the permits based on this comment.

11. Ammonia monitoring

a. Comment: One commenter asserted that there are no data justifying the need for ammonia monitoring. He claimed that the OLSB flows are small relative to the total facility flows and the receiving water volume (in his case a lake). He also requested only one year of ammonia monitoring at monthly intervals to determine if there is a likely exceedance of State ammonia water quality criteria. Another commenter requested that we drop the receiving water monitoring for ammonia, temperature and pH. Another requested an exemption from the monitoring since it had been conducting the effluent monitoring since 1998 with no exceedances of the criteria.

b. Response: In EPA discussions with the State, IDEQ has commented that ammonia effluent data collected during inspections from some facilities were high enough that if the samples had been taken in the receiving water, the water quality standard may have been exceeded. However, the water quality standard varies with temperature and pH, decreasing as each of these parameters increases. Since we do not have receiving water data for ammonia, temperature or pH, we cannot know for certain if the standard was exceeded in the receiving water. Also, because we do not have that data, we cannot conduct the reasonable potential analysis at this time. Therefore, we need to require the collection of the data so that we can conduct the analysis in the next permit cycle.

Regarding the small relative flow of the OLSBs, this comparison will be different for different facilities and different sized receiving waters. It does not change the fact that we need the data to conduct a reasonable potential analysis. We have clarified that this monitoring is only required for those facilities whose OLSB discharges directly to waters of the U.S.

The request for monthly monitoring for one year instead of quarterly monitoring for the length of the permit did not include sufficient justification to make a change. EPA does not currently have the resources to evaluate data

and make a permit change in mid-cycle because of the backlog of permits that we are working on. Requiring monitoring for the whole span of the permit cycle will provide a more current picture of receiving water conditions, when the subsequent reasonable potential analysis is made, than conducting all of the monitoring in the first year.

The request to drop the monitoring or provide an exemption for a particular facility which has effluent data would defeat the purpose of collecting receiving water data to evaluate reasonable potential to exceed water quality standards. We must have the receiving stream's background data to conduct this analysis.

c. Action: We did not change the permits based on these comments.

12. Temperature monitoring by warm water facilities

a. Comment: One commenter asserted that the minor temperature effect of the warm water discharges could not even be measured by instruments that the industry can afford. Therefore, he requested eliminating the temperature monitoring in the receiving water.

b. Response: In developing a TMDL for temperature for the Upper Snake Rock watershed, IDEQ is conducting temperature monitoring in the stream to develop WLAs, as necessary for the warm water aquaculture facilities. Therefore, we are dropping the temperature monitoring requirement in keeping with our modification of the permits to drop downstream monitoring for other parameters. When the TMDL for temperature is finalized and approved by EPA, any WLAs and monitoring requirements imposed on these facilities will be incorporated through a modification of the permit at that time or when the permit is renewed

c. Action: We changed the WLA permit in §II.E to eliminate the temperature monitoring in the receiving water by warm water facilities.

13. Copper and hardness monitoring

a. Comment: One commenter recommended deleting the requirement to monitor copper and hardness in the receiving water and substituting a requirement as part of the BMPs that permittees "ensure discharges do not exceed State copper criteria (as CMC, the chronic maximum concentration)". He additionally recommended requiring annual testing for dissolved copper from the effluent during a treatment phase to document compliance with State water quality criteria.

b. Response: Ensuring that discharges do not exceed some level, such as a water quality criterion, essentially is setting a limit on the discharge, which would be added to the limits section; we cannot put it in the Best Management Practices plan, since it is not a management practice. However, EPA did not have enough data to calculate a copper limit for these discharges and therefore is requiring both effluent and receiving water monitoring to provide data to assess reasonable potential to exceed the water quality standards in the

receiving water when it drafts the subsequent permit in five years. If the data show that there is reasonable potential to exceed the standards, limits will be applied then. We do not have sufficient data to apply them now. See the discussion in the effluent monitoring section about the required frequency for effluent monitoring.

c. Action: No change is made in the permits. However, in response to a comment on an inconsistency in the permits and Fact Sheet in the frequency of effluent monitoring, we also noted an inconsistency between the effluent and the receiving water monitoring for these parameters. As noted below, we have changed all the effluent and receiving water monitoring for copper and hardness to quarterly if copper is used within the quarter.

F. Effluent Monitoring

1. Frequency of Monitoring Effluent Quality

a. Comment: Almost all commenters suggested that EPA return to the frequency of monitoring required in the 1999 permit. They pointed out that:

(1) increasing frequency to monthly increases cost, possibly driving small facilities out of business (one commenter cited up to 1200% from annual monitoring; another commented that 60 facilities had already gone out of business),

(2) the twenty smallest facilities only contribute 36 lbs of TP/day, which they assert is minimal environmental impact; and

(3) a tiered monitoring program recognizes the economies of scale within the industry while still providing sufficient monitoring frequency to track compliance.

b. Response: The 1999 permit required annual monitoring for TP of facilities growing 20,000 to 100,000 lbs/year of fish, quarterly monitoring of facilities growing 100,000 to 500,000 lbs/year, and monthly for facilities growing 500,000 lbs/year or more. It is nearly impossible to determine consistent compliance with a limit with infrequent sampling. This is of concern particularly when implementing a new TMDL with the important goal of improving water quality by limiting TP load from each discharge for the first time. Also, most of the small facilities in the Upper Snake Rock watershed discharge to small receiving streams which can be affected by pollutant discharges considered small compared to large facilities in the watershed. EPA understands the need to establish frequency of monitoring based on the nature and effect of the discharge (40 CFR §122.44(i)(2)). We recognize that, overall, the facilities that produce under 100,000 lbs/year add a small fraction of phosphorus to the watershed.

c. Action: EPA changed the permit to require at least one sampling event in each six month period if the facilities grow less than 100,000 lbs/year of fish,

and quarterly monitoring of facilities producing between 100,000 and 500,000 lbs/year of fish. All other facilities are required to monitor effluent monthly.

2. Small (*de minimis)* Flows

a. Comment: One commenter pointed out that some facilities have small discharges that originate from leaks, for example, in rarely used emergency discharge points. Monitoring these discharges for pollutant concentration and flow to determine load for the entire facility is burdensome on permittees and meaningless to regulatory agencies. The flows are often variable and externally influenced, but only comprise up to 1% of total raceway flows. The commenter recommended allowing operators to petition for monitoring exemption of *de minimis* flows of less than 1% of total raceway flow and to manage these flows with best management practices (BMPs) to minimize leaks and to repair those that are greater than 1%, where technically and physically possible.

b. Response: The permits require the operators to inspect and repair damage and leaks at facilities through BMPs, which address the commenter's suggestion to manage leaks with BMPs. We recognize the concern that facilities have expressed about the difficulty of eliminating all such flows. The permittee should take action to eliminate any small discharges that are not included in the facility effluent monitoring using BMPs.

EPA has determined it is appropriate to allow reduced monitoring of the small discharges that cannot be eliminated through repairs. We provide permittees the opportunity to explain in their QA plans why their small discharges do not need to be sampled. EPA retains the right to determine that the small discharges are not similar enough that they can be represented by the effluent monitoring of the main outfall and to require sampling of all such discharges. This will be a case by case determination by EPA (for example when QA plans are reviewed or upon request by the permittee).

When calculating pollutant loads from the facility, the permittee must add the flow measurements from these small discharges to the other regularly-measured flows to obtain the total flow from the facility. Flows from the small discharges must be measured at a minimum of once per year, so that loads are calculated as accurately as possible, given this exception to pollutant monitoring.

c. Action: EPA has changed the permits such that monitoring pollutants from small discharges that total less than 1% of the total raceway flows is not required as long as the effluent quality of these discharges is substantially identical to monitored discharges from the facility (see §II.D.3.c of the WLA and Cold Water permits). The NOI, Appendix A, was changed in the section: *Description of Discharges* to require showing such small discharges on the drawing of the operation. The QA plan must explain in detail the reason that the permittee believes that the effluent quality from these discharges is identical to the monitored outfall; it also must show that the sum of such flows

is less than one percent of the monitored outfall's flow. The rationale must include a comparison of sampling results from both these small discharges and main discharge point(s). Permittees do not need EPA approval to claim that discharges are represented by the monitored effluent, provided they have documented their rationale within the QA plan.

3. Copper monitoring

a. Frequency

(1) Comment: Several commenters recommended that discharges be monitored annually for compliance with State toxics criteria for copper. One recommended that this be part of the BMP requirements. Another questioned the need for monitoring over the duration of the permit though he did not suggest a shorter time frame or justify changing it.

(2) Response: The effluent monitoring for copper in these permits is not used to assess compliance with the "criteria" or the state's water quality standards as the commenter assumes; those standards do not apply to effluents unless they are specifically applied in the permit as effluent limits. The purpose of the copper effluent and upstream monitoring is to gather enough data for EPA to be able to assess in the next permit cycle the potential of the facility's discharge to cause violations of the State water quality standard for copper. We need at least 10 data points on which to base this evaluation, which will inform our decision on whether a copper limit needs to be applied. Annual monitoring does not provide enough data points in the 4½ years before the next permit is developed. Therefore, we have required monitoring in calendar quarters when copper is used. Potentially, this frequency would produce 18 data points in 4 ½ years, but likely fewer, if copper is not used every quarter. It is not appropriate to include monitoring requirements in the BMP section of the permits, since monitoring is included elsewhere in the permit.

(3) Action: No change is made in the permits.

b. Inconsistency of frequency of copper and hardness monitoring

(1) Comment: One commenter noticed that copper and hardness monitoring are required quarterly, when using copper, in the WLA permit, Table 12, while Table 21 of the Fact Sheet (p. 48) describes monthly monitoring when copper is used.

(2) Response: EPA appreciates the commenter pointing out this inconsistency; we have also noted that the receiving water monitoring for copper and hardness in both the WLA and Cold Water draft permits is required monthly. It was our intent to require the effluent and receiving water monitoring for copper and hardness on the same schedule and believe that quarterly monitoring provides enough data to conduct the reasonable potential analysis in the next permit cycle. We acknowledge

that the effluent and receiving water monitoring for these parameters in the Fact Sheet should have been quarterly.

(3) Action: We have corrected the frequency for receiving water monitoring of copper and hardness to quarterly in §II.E.2 in the WLA permit and in the Cold Water permit.

c. Form of copper being monitored

(1) Comment: One commenter requested that copper effluent monitoring for dissolved copper be required "to document compliance with State water quality criteria".

(2) Response: Since all limitations that we may eventually need to develop must be in terms of total recoverable copper (see 40 CFR §125.45(c)), this is the form of copper that we need to specify for monitoring purposes. We note that we neglected to specify the form correctly in the permits and fact sheet. Copper monitoring is not being required to document compliance with State water quality criteria; refer to the discussion just above for the purpose of the monitoring. The State copper standard will be used to derive any necessary total recoverable copper limits, if needed. Any site-specific translator for relating total recoverable copper and dissolved copper must be developed by the permittee. If a permittee is interested in doing this, it should contact the EPA Region 10 Water Quality Unit for guidance.

(3) Action: We have changed "total copper" to "total recoverable copper" in Tables 1 and 3 in the Cold Water permit and Tables 12 and 14 in the WLA permit.

4. Grab vs. Composite Samples on Influent

a. Comment: Several commenters requested that permittees with facility influent from consistent spring sources be allowed to take a grab sample to represent the influent water quality rather than a composite sample. One recommended that the consistency could be demonstrated in the NOI.

b. Response: In the 1999 permit, EPA allowed grab sampling of the influent instead of composite when influent water quality did not vary during the day. In practice, EPA found this condition to be unclear and difficult to enforce. We have determined that, in cases where invariability of the influent can be demonstrated and permittees can meet their requirement to take representative samples (Standard Monitoring, Recording and Reporting Requirements; Representative Sampling) with a grab sample instead of a composite, we can allow for grab sampling of the influent.

c. Action: EPA has modified the QA plan requirements in the permits in paragraph 3.b) to read: "A permittee using water from multiple springs as its influent must provide evidence of insignificant variability among its influent sources over the course of a day, if it elects to take grab samples instead of composites from each source when conducting influent sampling." We added

a sentence to one of the footnotes in Table 12 in the WLA Permit and Table 2 of the Cold Water Permit: "Facilities using spring water as influent sources may elect to take grab samples instead of composite, when influent water quality is shown to not vary during the course of the day."

G. OLSB Monitoring

1. Drop Monitoring of Insignificant Flow

a. Comment: One commenter said that OLSB monitoring is unnecessary because the flow is so small compared to the total facility discharge; he seems to advocate dropping these limits and monitoring.

b. Response: EPA agrees that the flow from OLSBs is small compared to the total facility discharge; however, 40 CFR §122.44(i) specifies requirements for monitoring compliance with effluent limits: the mass for each pollutant limited in the permit and the volume of effluent discharged from each outfall. Unlike small discharges resulting from leaks from raceways with outfalls being monitored for compliance, the OLSB discharges must be monitored for compliance with both the limits applicable to the OLSB and the limits applicable to the total facility flow.

c. Action: Effluent limits and monitoring requirements for OLSBs are retained in the permits with modifications made in response to related comments below.

2. EPA Authority to Require OLSB Monitoring

a. Comment: Several commented that monitoring requirements go beyond the jurisdiction of EPA, especially when a waste stream is internal and does not return to waters of the U.S.; that it was unclear if monitoring requirements apply to OLSBs which do not have discharges to surface water, but instead flow into full-flow settling basins; and that monitoring requirements stifle innovation to create better waste handling methods.

b. Response: EPA regrets the confusion over whether or not monitoring is required of OLSB effluent streams which do not discharge to waters of the U.S. or which blend with other facility waters prior to discharge. We do not intend to require monitoring of OLSB waste streams which undergo further treatment at a facility, for example, in full flow settling basins. Effluent limits imposed on OLSBs apply at the point of discharge to waters of the U.S. (receiving waters); therefore, the permittees must monitor at this point. Facilities with OLSBs that do not discharge directly to waters of the U.S. are not required to monitor the OLSB discharge for compliance with OLSB limits. EPA considers many irrigation ditches and canals to be waters of the U.S. and not part of the facility treatment system, so that permittees discharging to such waters are required to monitor OLSB effluent streams prior to their mixing with such other water flows, even if such waters are on the facility property. EPA hopes that requiring monitoring of discharges from

OLSBs does not stifle innovation in treating waste streams; however, EPA's responsibility is to require appropriate monitoring to determine compliance and provide data for future permit development. Permittees should be aware that other requirements may apply to them if they land apply wastewaters, for example, IDEQ's State Water Quality Standards and Wastewater Treatment Requirements (IDAPA 58, Title 01, Chapter 02).

c. Action: The permits have been changed: the OLSB monitoring section introductory paragraph in the WLA and Cold Water permits now states: "Monitoring requirements for off-line settling basins discharging directly to waters of the U.S. The permittee must collect effluent samples from the effluent stream just prior to discharge into the receiving waters." To further clarify where monitoring is required, permit language in the Facility Monitoring Requirements section of the permits was rearranged. Paragraph 4 now reads: Monitoring requirements for discharges from raceways and full-flow settling basins; see Table *. The permittee must collect effluent samples from the effluent stream just prior to discharge into the receiving waters or subsequent mixing with other flows. For facilities with raceway(s) discharging to a full-flow settling basin(s), the permittee must collect effluent samples from the full-flow settling basin(s) just prior to discharge into the receiving waters."

3. Measuring Intermittent Discharge Flows

a. Comment: In response to EPA's request for comment on measuring discharge flows from OLSBs, commenters explained the use of pump volume and time spent cleaning quiescent zones rather than measuring flow at the discharge point. While this estimates influent to the OLSBs, they recommend that all facilities with OLSBs use this method to more accurately measure discharge volume. IDEQ explained in its comment that facilities using this method report their results differently, perhaps because the number of hours or days spent cleaning varies: some report the measurements as a five day average, a true monthly average, or a seven day average, or they pick one day's flow to report as the monthly average. IDEQ emphasizes the importance of accuracy and encourages consistency in the industry when measuring and reporting flows. One commenter recommends changes to the footnotes for Table 13 in the WLA permit and Table 22 in the FS: "Flow measurements may be taken on the influent if the measurement at that location accurately reflects the discharge flow to waters of the U.S. and must be taken concurrently with non-toxic, non-conventional pollutant sampling as required by this permit."

b. Response: EPA appreciates the input on this issue of measuring discharge from OLSBs. There is considerable diversity of methods used, many of which are acceptable to EPA, IDEQ, and IDWR. Also there is a need for more consistency across the industry, particularly now that loading is limited to meet TMDL requirements in various watersheds. The permits require monitoring flow and pollutant loads only once per month or quarter.

And, in the Appendix "Effluent Calculations" of each permit, EPA requires load to be calculated using the concentration and flow measurements for the day of pollutant sampling. This requirement to calculate loads using contemporaneous flows should ensure consistent reporting of pollutant load across the industry.

EPA reminds permittees they must report on their monthly DMRs the flow used to calculate the pollutant load for the day of pollutant sampling. When a permittee elects to measure flow or sample more often than the required frequency, the flows used to calculate the pollutant loads for each day of sampling should be averaged and reported as the average flow for the month on the DMRs, just as the loads and concentrations are averaged for the month. In case the data are needed for the next revision of the WLAs or permits, all measurements taken of flow from OLSBs during raceway or quiescent zone cleaning must be recorded and retained, in compliance with the Retention of Records section in the permits. For example, if a facility cleans daily, it should record the minutes or hours of pump time and pump volume and retain these records. Because of the non-continuous nature of the OLSB discharges, these data will provide a more accurate accounting of facility OLSB flows over time than the required monthly flow data recorded on the DMRs.

The non-continuous nature of OLSB discharges requires additional reporting of not just flow and concentration at the time of sampling, but also frequency and duration of the batch discharges, under 40 CFR §122.44(i)(1)(iii). Such information is recorded in the quiescent zone cleaning records and would be most readily reported annually in the Annual Report of Operations.

The QA plan should include a description of flow measuring devices or methods. EPA and IDEQ inspectors will have the opportunity to review the QA plan and procedures used by the permittee during inspections, and if a facility is measuring flow inaccurately, EPA may require changes to ensure that sampling is representative, as required in the Representative Sampling section of each permit.

c. Action: To allow for the use of the pump time and volume method for measuring flow from OLSBs, footnotes to Table 13 (WLA permit) and Table 2 (Cold Water Permit) were changed by adding the following sentence: "Alternatively to an IDWR approved method, the total volume discharged can be calculated by multiplying the pump time and pump rate during cleaning." To ensure that flow measurements are taken at the same time as the samples, we added the following footnote: "Flow measurement must be taken concurrently with pollutant sampling; it may be taken on either the influent or effluent as long as the measurement at that location accurately reflects the discharge flow to the receiving water." The QA plan requirements have been changed to allow for a description of a flow measurement "method" rather than a device. The Annual Report of Operations has been changed: It now includes a section for reporting the frequency of OLSB batch discharges.

4. Timing of OLSB Monitoring with Relation to Cleaning Cycles

a. Comment: Two footnotes of Table 13 in the WLA Permit contradict each other; one says to do all sampling during a cleaning cycle; the other says 25% of the composite must be during a cleaning cycle.

b. Response: EPA appreciates the commenter pointing out the contradiction between statements in the WLA permit. The Fact Sheet was correct: we intended each discrete sample aliquot (grab sample) be collected during cleaning, which is what we had stated in the Fact Sheet (page 49, Table 22, Footnote 28).

c. Action: We corrected the footnotes for Table 13 in the WLA Permit and Table 2 in the Cold Water Permit to read: *"Offline settling basin influent and effluent samples must be collected during quiescent zone cleaning."*

5. Monitoring OLSBs concurrently with Whole Facility Effluent Monitoring

a. Comment: One commenter points out that some OLSBs do not operate on a daily basis; therefore it may be impossible to comply with the requirement in the Facility Monitoring Requirements section of the permits that all influent and effluent samples and flow measurements be taken on the same day. He asks for an additional footnote to the monitoring tables that allows individual effluent discharge points to be sampled on different days, if more than a single sample is taken during the month, then average to get monthly load.

b. Response: EPA agrees that this requirement may be confusing if facilities have multiple OLSBs discharging on different days of the week or month such that composite or same-day monitoring is impossible. A facility with non-continuous discharges must sample these discharge points when they are discharging to determine pollution concentration and loads for documenting compliance with applicable effluent limits. The OLSB MDL and AML concentration limits and removal rate condition apply to each discharge separately, however sampling results may be averaged for reporting the AML and removal rate. EPA will provide to the permittees discharge monitoring reports (DMRs) for each type of discharge for which the permit requires monitoring, e.g., one OLSB DMR and one raceway tailrace DMR, unless the facility requests additional DMRs to report discharges separately. The permittees are required to add the average of the calculated loads from multiple OLSB discharges to the calculated raceway discharge loads to document compliance with total facility mass limits.

c. Action: We changed the permits to clarify that the same-day monitoring requirement applies to the raceway influent and effluent sampling in §II.D.3.a of the WLA Permit and of the Cold Water Permit and §I.E.1.a in the Epicenter Aquaculture Permit.

6. Ammonia Monitoring Requirements

a. Comment: Several comments were made regarding the need for monitoring ammonia in OLSB discharges. Commenters pointed out that the volume of discharge from most OLSBs is small relative to facility raceway discharges and/or receiving water flows. One commenter recommended dropping the monitoring requirement, while others suggested requiring monthly monitoring of ammonia for only one year instead of the life of the permit to provide information about the rate of exceedances of State water quality standards. They also recommended re-opening the permit, if limits on ammonia were found warranted.

b. Response: EPA agrees that the discharges from OLSBs are small relative to facility raceway discharges; however, the OLSB discharges are more concentrated in pollutants. Unionized ammonia is highly toxic to receiving stream organisms. Because of existing data from OLSBs indicating ammonia may be high enough to exceed State standards, some level of monitoring is warranted. Ten data points are the minimum required to achieve a statistically sound reasonable potential analysis for exceeding water quality standards. Quarterly monitoring over the life of the permit will provide 18 data points in that time frame, a somewhat preferable situation to only having the bare minimum of 10 data points. We considered requiring only one year of monthly monitoring, but we believe that the financial burden, especially on small facilities, would be even more difficult than the proposed quarterly monitoring for the duration of the permit. Additionally, this sampling can be done at the same time as copper monitoring, if required, and receiving water monitoring for both parameters, as applicable.

c. Action: EPA has changed the permits to require quarterly monitoring of the OLSB discharges for ammonia, pH and temperature for the life of the permit.

7. Compliance Monitoring for Maximum Daily Limit for OLSBs

a. Comment: A few commented about the maximum daily limit (MDL) of 100 mg TSS/L for OLSBs, particularly in relation to EPA's characterization of the limit in the Fact Sheet that an MDL could be measured by either a grab sample or a composite sample. They recommended that composite sampling be required to determine compliance with the limit, since the effluent quality discharged is variable over the time period when OLSBs are discharging. Others pointed out that composite samples, not grabs, were used to derive the limits from the JRB study in 1984. They suggested that EPA conduct a study for development of a more appropriate instantaneous limit for OLSBs (for inspection purposes) that would replace the out-dated 1984 JRB study.

b. Response: The permits require composite sampling that includes at least four samples taken over a minimum of two hours to capture the variability in effluent quality discharged from OLSBs during quiescent zone cleaning. EPA reviewed the JRB study and agrees that the 1984 limits were based on

composite samples. We recognize that there is a greater likelihood that a single grab sample would exceed the limit; however, EPA does not have resources to conduct an effluent study to develop a comparable instantaneous limit. The final proposed permits only have limits for which compliance is determined from results of composite sampling.

c. Action: We made no changes to the permits as a result of this comment.

V. Aquaculture Facility Limit Issues

A. Technology-based limits

1. 1999 Total Phosphorus Limits—technology-based or water quality-based

a. Comment: Several commenters claimed that the FS states incorrectly that the 1999 limits for TP for the aquaculture facilities were technology-based limits. One quotes a 2/27/06 memo from Barry Burnell (IDEQ) to Mike Lidgard (EPA) that "limits for total phosphorus were strictly water-quality based".

b. Response: EPA acknowledges that the 1999 FS discussed the TP limits as water quality based limits (p31). However, after the public comment period, EPA evaluated additional effluent data and reviewed technical journals to determine that the level previously chosen to protect receiving water quality was technically achievable using the current treatment technology applied at the facilities. Thus, the TP limits were applied to all permittees across the state as technology-based limits, a decision that was documented in EPA's 1999 Response to Comments (p9).

c. Action: No change is requested or needed in the permits.

2. Use of Technical Support Document (TSD) for calculating TBELs

a. Comment: Several commenters questioned the use of EPA's Technical Support Document for calculating TBELs for non-toxic pollutants.

b. Response: Historically, EPA has used the equations in chapter 5 of the TSD for deriving permit limits from a long-term average, whether or not the pollutant discharged was toxic and whether or not the long-term average was developed by back-calculating from the water quality standards (for a water quality based limit) or by analyzing effluent data from facilities (for a performance-based technology-based limit). The mathematical equations and multipliers provided in the TSD are appropriate for use in calculating limits for any kind of pollutant. They set the limits at a level that predicts exceedance only 1% or 5% of the time, using established statistical methods. Furthermore, EPA has not created a separate document for guiding permit writers in setting limits for non-toxic pollutants. We believe that the use of the equations and tables in Chapter 5 of the TSD is appropriate for calculating a number based on the long-term average and coefficient of variance of a data set that represents the 95^{th} or 99^{th} percentile of that data set, the level at which

we set the AML and the MDL, respectively. Such a statistical analysis is not particular or limited to developing limits on toxic pollutants or WQBELs; it is also appropriate to the development of TBELs and for conventional and non-conventional pollutants, the title of the document in which the equations and tables are located notwithstanding.

c. Action: EPA continued to use the TSD in finalizing the limits for this permit.

3. Development of TP Technology-Based Limit using Best Professional Judgment (BPJ)

a. Comment: A number of commenters asserted that EPA did not provide adequate technical justification or economic evaluation as required in 40 CFR §125.3(d)(1). One said that we did not "follow due process. This means making public disclosure of its intent to establish a technology-based limit." One asserted that EPA is required to establish an economic basis for each hatchery.

b. Response: The technology-based limits were established in the 1999 permit based on earlier performance at the facilities. See the discussion above.

For these permits the technical evaluation involved an analysis of the discharge data submitted over the last permit cycle to determine if the facilities were able to comply with the 1999 limits on a regular basis. The cold water facilities showed a high compliance rate, which confirms that the 1999 technology-based limits are attainable. In other words, using the current - treatment technology in place at the facilities, they can comply with the limits. There is no need to evaluate any other treatment options since we are not proposing limits that would require the installation of new technology. This also makes the assertion of needing a technical analysis and economic basis for each hatchery a moot point, although we would further point out that under a general permit, we do not usually treat facilities individually. The point of a general permit is to treat the facilities as a class of similar dischargers.

Regarding financial evaluation of the limits imposed, we did not explicitly perform a financial evaluation since the facilities are not expected to make any changes to their facilities in order to meet the technology-based limits. The added economic cost of continuing limits with which facilities are currently complying using their current treatment technology is zero. We are continuing the technology-based limits at the same level with the result of no added cost to the facilities.

We disagree with the commenters' assertions and believe that we addressed the requirements of technical evaluation and economic analysis for the cold water aquaculture sector in Idaho.

Regarding the "due process" issue, we provided a public comment period of over 100 days in which the public was given the opportunity to become

familiar with and comment on these limits. Furthermore, it is not appropriate to anticipate a facility by facility analysis for the limits in a general permit that applies to multiple facilities.

c. Action: We made no change to the cold water TBELs in the permits based on this comment. However, see the following comment and response for other changes related to this topic.

4. Development of TP Technology-Based Limit for Warm Water Facilities

a. Comments: We received comments that the technology-based limits for warm water facilities, which had been carried over from the previous permit, were not achievable since they had been based (in the 1999 permit) on data from only one facility. One commenter asserted that "it is not clear how good solid science can be obtained by reviewing the discharge numbers of only one warm water facility to establish technology-based limits." Another commenter asked for the source of data used to calculate the limits, including the number of facilities, the long-term average (LTA), and coefficient of variation (CV) of the data. One commenter provided extensive discussion about how the warm water tilapia facilities on Jacks Creek differ substantially from the other warm water facilities. He requested a reevaluation of the TSS and TP limits taking into account the unique operating parameters of these systems.

b. Response: Phosphorus data from only one facility were available to EPA in 1999 for derivation of a warm water limit requested by the warm water facilities. As a result of the comments, we reconsidered our previous assumption regarding the ability of the warm water facilities to achieve compliance with the previously applied limit, even though the data seemed to show improvement in compliance more recently.

Using data submitted since 1999 from five warm water facilities (Fish Breeders of Idaho Catfish Farm (Catfish), Canyon Springs, First Ascent, Ace Development, and Arraina) and in response to comments that the facilities raising different species vary significantly in their effluent water quality, we have now calculated the long term averages and coefficients of variation for the Jacks Creek facilities (Tilapia), for First Ascent and Canyon Springs (Tilapia), and for Catfish (catfish and Tilapia). Epicenter Aquaculture did not submit effluent data but was deemed to be similar to Canyon Springs and First Ascent, because it raises Tilapia.

c. Action: Using these indicators of the long-term performance of the facilities, we calculated new performance-based (technology-based) limits that the facilities should be able to comply with at least 95% of the time for the AML and at least 99% of the time for the MDL. These limits are based on an assumption that the permittees can continue to operate the facilities as they have in the last permit cycle with no additional cost. As in the Fact Sheet, Appendix B, page 32, the following equations were used to derive the average monthly limit (AML) and the maximum daily limit (MDL).

$$MaximumDailyLimit(MDL) = Long - termAverage(LTA) \times e^{(z\sigma - 0.5\sigma^2)} \quad \text{(Equation 1)}$$

$$AverageMonthlyLimit(AML) = LTA \times e^{(z\sigma_n - 0.5\sigma_n^2)} \quad \text{(Equation 2)}$$

where:
e = base of natural logarithm (= 2.718281828. . .)
σ = standard deviation
σ_n^2 = ln ([CV^2/n] + 1)
σ^2 = ln ([CV^2] + 1)
CV = the coefficient of variation of the effluent (= σ/mean)
n = number of samples in monitoring period
z = z statistic
z_m = z for percentile exceedance probability for the MDL
z_a = z for percentile exceedance probability for the AML
$z_{95\%}$ = 1.645, for 95th percentile occurrence probability
$z_{99\%}$ = 2.326, for 99th percentile occurrence probability

Table RTC-3
LTAs, CVs and Concentration TBELs for Warm Water Facilities

Facility Name & Permit Number	Parameter	Coefficient of Variation (CV)	Long-term Average (LTA) (mg/l)	TBELs (mg/l)	
				AML	MDL
Ace Development. (IDG130123)	TSS	0.77	20.39	33.34	79.22
	TP	0.60	0.27	0.40	0.83
Arraina (IDG130122)	TSS	0.56	14.72	21.76	43.44
	TP	0.44	0.19	0.26	0.47
Canyon Springs (IDG130104)	TSS	0.60	4.64	6.99	14.46
	TP	0.62	0.08	0.12	0.24
Epicenter Aquaculture[1] (ID0028266)	TSS	0.83	7.58	12.7	31.5
	TP	0.53	0.13	0.2	0.4
First Ascent (IDG130116)	TSS	0.73	10.06	16.18	37.34
	TP	0.35	0.16	0.21	0.34
Fish Breeders of Idaho (Catfish Farm) (IDG130041)	TSS Mar—Aug	0.66	5.72	8.89	19.38
	TSS Sep—Feb	0.39	4.32	5.77	9.68

Table RTC-3
LTAs, CVs and Concentration TBELs for Warm Water Facilities

Facility Name & Permit Number	Parameter	Coefficient of Variation (CV)	Long-term Average (LTA) (mg/l)	TBELs (mg/l)	
				AML	MDL
Fish Breeders of Idaho (Catfish Farm) *(cont.)*	TP Mar—Aug	0.31	0.20	0.25	0.38
	TP Sept—Feb	0.29	0.23	0.29	0.43

[1] In the absence of Epicenter Aquaculture data, limits were derived from a compilation of data from Canyon Springs and First Ascent, which both raise only Tilapia, as does Epicenter.

These limits were converted to mass-based limits (pounds per day) using the average monthly flow and the maximum daily flows, respectively, in the following equation. The limits are included in Tables RTC-4 and 5, below.

$$\boldsymbol{X}\ \frac{\text{mg}}{l} \times 28.3\ \frac{\text{liters}}{\text{cu. ft.}} \times \boldsymbol{Y}\ \frac{\text{Cu. ft}}{\text{sec.}} \times 86{,}400\ \frac{\text{secs}}{\text{day}} \times 2.2046\ \frac{\text{lbs}}{10^6\ \text{mg}} = \text{lbs/day}$$

Table RTC-4
Conversion of Concentration TBELs to Mass-based TBELs for Warm Water Facilities

Facility Name & Permit Number	Parameter	Concentration TBELs (mg/l)		Average Flow (cfs)		Mass TBELs (lbs/day)	
		AML	MDL	Monthly Average	Daily Max.	AML	MDL
Ace Development. (IDG130123)	TSS	33.34	79.22	2.70	2.72	485.6	1162.7
	TP	0.40	0.83			5.9	12.2
Arraina (IDG130122)	TSS	21.76	43.44	4.44	4.49	520.7	1050.7
	TP	0.26	0.47			6.3	11.3
Canyon Springs (IDG130104)	TSS	6.99	14.46	11.83	11.83	446.1	922.3
	TP	0.12	0.24			7.3	15.4
First Ascent (IDG130116)	TSS	16.18	37.34	6.80	7.08	592.9	1425.0
	TP	0.21	0.34			7.8	13.0

Table RTC-4
Conversion of Concentration TBELs to Mass-based TBELs for Warm Water Facilities

Facility Name & Permit Number	Parameter	Concentration TBELs (mg/l)		Average Flow (cfs)		Mass TBELs (lbs/day)	
		AML	MDL	Monthly Average	Daily Max.	AML	MDL
Fish Breeders of Idaho (Catfish Farm) (IDG130041)	TSS Mar—Aug	8.89	19.38	11.42	11.44	547.3	1195.1
	TSS Sep—Feb	5.77	9.68	10.58	10.76	329.2	561.4
	TP Mar—Aug	0.25	0.38	11.42	11.44	15.4	23.5
	TP Sept—Feb	0.29	0.43	10.58	10.76	16.6	25.2

In the draft permit, the only warm water facility that had a TBEL lower than the WQBEL was FBI Catfish Farm. Because the WLAs for FBI Catfish Farm were assigned by seasons, we recalculated the TBELs from the data corresponding to the specific seasons by which the WLAs were set, i.e. March – August and September -- February. We also rechecked the WLAs against Appendix B-4 of the Upper Snake Rock TMDL and made some minor corrections to the TSS WLAs (the previous numbers are in parentheses).

This change allows FBI Catfish Farm to buy phosphorus credits to meet its AML of 13.0 lbs/day for the months between March and August, inclusive, up to the TBEL of 15.4 lbs/day. It will not be able to trade above its AML for TP be able to buy credits above its AML of 7.2 lbs/day up to its TBEL of 7.8 lbs/day.

Canyon Springs has a lower TBEL for total phosphorus than its WLA; therefore, its discharge is limited at the TBEL, and it will not be able to buy phosphorus credits.

IDEQ did not give a WLA for Epicenter Aquaculture, since it does not discharge to a water quality-limited stream with a TMDL. We did not convert its concentration based limits to mass based limits because we did not have any flow data with which to do so. We are requiring flow monitoring in this permit, so that mass based limits can be imposed in the next permit cycle.

The following table shows both the WQBELs and TBELs with the more stringent limits shown in bold. These more stringent limits are applied in the WLA permit. See §XIV.B.2 for discussion of the Bruneau River WQBELs.

Table RTC-5
Proposed Effluent Limitations for Warm Water Facilities

Facility Name & Permit Number	Parameter	Water Quality-based limits		Technology-based limits	
		AML	MDL	AML	MDL
Ace Development IDG130123	TSS	**218.7 lbs/day**	**614.5 lbs/day**	485.6 lbs/day	1162.7 lbs/day
	TP	**2.9 lbs/day**	**6.2 lbs/day**	5.9 lbs/day	12.2 lbs/day
Arraina IDG130122	TSS	**356.4 lbs/day**	**1001.5 lbs/day**	520.7 lbs/day	1050.7 lbs/day
	TP	**4.8 lbs/day**	**10.2 lbs/day**	6.3 lbs/day	11.3 lbs/day
Canyon Springs IDG130104	TSS	**317.8 lbs/day**	**893.0 lbs/day**	446.1 lbs/day	922.3 lbs/day
	TP	12.1 lbs/day	25.6 lbs/day	**7.3 lbs/day**	**15.4 lbs/day**
Epicenter Aquaculture ID0028266	TSS	--	--	**12.7 mg/l**	**31.5 mg/l**
	TP	--	--	**0.2 mg/l**	**0.4 mg/l**
First Ascent IDG130116	TSS	**180.8 lbs/day**	**508.1 lbs/day**	592.9 lbs/day	1425.0 lbs/day
	TP	**7.2 lbs/day**	15.3 lbs/day	7.8 lbs/day	**13.0 lbs/day**
Fish Breeders of Idaho (Catfish Farm) IDG130041	TSS Mar--Aug	**274.0 lbs/day**	**769.9 lbs/day**	547.3 lbs/day	1195.1 lbs/day
	TSS Sep--Feb	335.3 (334.8)[2] lbs/day	942.3 (940.8)[1] lbs/day	**329.2 lbs/day**	**561.4 lbs/day**
	TP Mar--Aug	**13.0 lbs/day**	27.6 lbs/day	15.4 lbs/day	**23.5 lbs/day**
	TP Sep--Feb	19.6 (12.2)[1] (lbs/day	41.6 (17.8)[1] lbs/day	**16.6 lbs/day**	**25.2 lbs/day**

[1] Numbers in parentheses were in the draft WLA permit and Fact Sheet; they have been corrected using Appendix B-4 of Upper Snake Rock TMDL.

5. Effect of decreasing influent flows on effluent TP concentrations

a. Comment: One commenter asserted that water inflow [volume] has been declining over the past 15 years; as a result, TP concentrations in the effluent might be expected to increase. He further asserted that EPA must take this factor into account in setting TBELs.

b. Response: EPA reviewed the TP effluent concentration data compiled by IDEQ and does not observe any tendency to exceed the 0.1 mg/l TP limit over time. In fact, the rate of compliance with the limit is high, so any factor of increasing TP concentration due to decreasing influent flows appears to be negligible, or, in any case, not leading to increased violations of the limit.

c. Action: No change in the permits is specifically requested nor warranted.

6. Applying TBELs instead of the WLAs in the TMDL

a. Comment: One commenter specifically asked that we drop the TBELs for TP and only apply the WLAs in the applicable TMDL. Another cited the Clean Water Act, 40 CFR §130, 50 FR 1774, and 40 CFR §122.44(d)(1)(vii) in asserting that the law and regulations require the application of WLAs in NPDES permit. The same commenter cited a 2/27/06 memo [*sic*] from Barry N. Burnell (IDEQ) to Michael Lidgard (EPA) that "the technology-based limits for total phosphorus provide no additional environmental benefit over the TMDL". Another commenter asserted that EPA TMDL staff and permit writers did not agree with the TMDL developed by IDEQ and the aquaculture dischargers. Another pointed out the efforts of the aquaculture industry to propose workable WLAs, which were subsequently approved by IDEQ and EPA, and that included a transfer of phosphorus from some facilities to others at the end of the allocation process. This allowed owners with several facilities to transfer WLAs to the facilities that needed the load the most and allowed innovation.

b. Response: After a careful review of the cited authorities, we disagree that they require the application of a WLA when a TBEL is lower. 40 CFR §125.3 specifically requires that the permitting agency impose technology-based treatment requirements as the minimum level of control. It does not allow us to relax that minimum to a higher level that corresponds with the WLA. In other words, they can only be supplanted if the WQBEL is lower than the TBEL. We do not have the option to drop the TBELs.

Furthermore, IDEQ's opinion that the TBELs provide no additional environmental benefit is not relevant to the requirement to apply the TBEL if it is more stringent. As mentioned above, the TMDL staff looked at the TMDL and approved it, considering the water quality impacts in the receiving streams. The permit writers have an additional focus and responsibility to consider both the WLA provided in the TMDL and the level of pollutant removal that can be/is achieved using widely available treatment technology. All dischargers must achieve at least those widely achievable levels of

treatment and cannot have limits that are less stringent. We did not change any rules; on the contrary, we have followed the rules for writing permits, using what flexibility we can to develop permit conditions that are fair and also protect the environment.

Regarding the one time transfer of phosphorus between facilities, we do not object to such an adjustment, but it must occur prior to TMDL approval or through pollutant trading as long as facilities maintain the minimal level of pollution control by complying with the TBEL. Where such transfers resulted in WLAs that exceed the TBEL, we applied the TBEL, in accordance with the requirements of 40 CFR §125.3.

c. Action: We made no change in the permits.

7. TBELs applied in Idaho

a. Comment: One commenter asserted that EPA has not imposed TBELs "on any other water body in Idaho" and claimed that EPA stated as much at the public meeting in Twin Falls.

b. Response: We would like to clarify that TBELs are applied to discharges from "point sources", not to water bodies. That said, TBELs are applied to many dischargers across the country, including in Idaho. Nearly every sewage treatment plant, large and small, has TBELs, as do many industrial dischargers. The basic limit developed for any facility is a TBEL; only in cases where the receiving water is impaired for a pollutant of concern in the effluent are WQBELs developed. These are often calculated by the permit writer using established methods of reasonable potential analysis. In relatively few cases, TMDLs have been developed with WLAs for individual point sources. These are then used to develop WQBELs to compare with the applicable TBELs to choose the most stringent to apply in the permit.

c. Action: We made no change in the permits.

8. Applying Effluent Limitation Guidelines (ELG) Apply Where No WLA Is Provided

a. Comment: A commenter stated that the permit effluent limitations for aquaculture facilities that are not subject to water quality-based WLAs should be revised to be consistent with the ELG. He explains that EPA evaluated the need for a technology-based total phosphorus limit for aquaculture facilities while developing the aquaculture ELG for warm and cold water aquaculture facilities and found that adequate control of total phosphorus is achieved through the control of Total Suspended Solids.

b. Response: EPA regulations 40 CFR §122.44(l) and the CWA §402(o), commonly referred to as anti-backsliding provisions, specifically state that "a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit." This

regulation binds EPA to apply the 1999 TBEL to most of the facilities in Idaho which are not limited by more stringent WLA limits. There are exceptions provided in the regulations; however, they only apply to the warm water facilities, where 40 CFR §122.44(l)(2)(i)(B)(1) allows less stringent limits if new information justifies them (other than ELGs). See also §V.A.4, above, for the discussion of revising the TP limits.

c. Action: No changes were made to the permit.

9. Off-Line Settling Basins (OLSBs)

a. OLSB Limits: Net or Gross

(1) Comment**:** A few commenters asked that the OLSB discharge limits be for net rather than gross, as in the 1999 permit.

(2) Response: EPA agrees that since the 1999 permit limits were net limits for the OLSBs, these limits should be retained in the new permits as net limits. The 1999 permit had an option to allow the permittee to elect not to monitor influent pollutant levels, using zero as the default influent concentration when calculating net discharge concentration. This option remains relevant for the OLSB discharges covered under these new permits.

(3) Action: We changed the permits so that the OLSB limits are net rather than gross. The option of collecting influent samples was added to a footnote in the OLSB monitoring table.

B. Water Quality-based Limits

1. Changing the TMDL

a. Low allocation for the whole aquaculture industry

(1) Comment: One commenter asserted that EPA and IDEQ did not use any logic or sound science in setting the 970.2 pounds of Total Phosphorus for the production side of the aquaculture industry

(2) Response: At this juncture, we are not able to reconsider or change the allocation of total phosphorus to this industry. We are in the process of developing NPDES permits using many of the established WLAs in the Upper Snake Rock TMDL, but the TMDL itself is not subject to modification or public comment in connection with this effort.

(3) Action: No changes were made in the permits.

b. Changing the TMDL early

(1) Comment: Several commenters believe that EPA is trying to change the TMDL only five years into the ten year TMDL cycle and that EPA is questioning its approval of the TMDL. One asserts that we are trying to apply the TBELs within the TMDL.

(2) Response: EPA is not changing the TMDL; a few facilities (less than 10%) have limits that are technology-based because those limits are more stringent than the WLAs that were developed for those facilities within the TMDL.

(3) Action: No change was made in the permits.

c. Avoiding public process

(1) Comment: One commenter asserted that EPA is trying to circumvent the public review process of an EPA-approved TMDL. Another commenter asserts that EPA needs to include the public in the process when changing a TMDL.

(2) Response: EPA is not changing the TMDL. In making the draft permits available for public comment period of more than 100 days, it provided a substantial opportunity for public input on the terms in the permits.

(3) Action: No change was made in the permits.

2. Applying WLAs and averaging periods

a. Comment: One commenter asserted that EPA must include WQBELs based on the WLAs and the averaging periods developed in the TMDL when they are more stringent than the TBELs for a pollutant. Other commenters asserted that EPA and the states have found it impracticable to express nutrient effluent limits as monthly and/or daily limits. One cited an annual target for the Rock Creek TMDL and seasonal targets for Succor Creek because biological impacts may occur due to long-term nutrient loads. No specific changes were recommended. They were also concerned that the averaging period for the average monthly limit for phosphorus is inconsistent with the target in-stream concentrations for the downstream Mid-Snake/Succor Creek TMDL, which was approved by EPA in 2004. And they recommended that the AML be revised to reflect the seasonal loading targets and averaging period required to attain the more stringent downstream target of 0.070 mg/l TP, seasonal average.

b. Response: For facilities listed in the WLA permit, EPA used the WLAs provided in the approved TMDLs to develop the WQBELs, and these WQBELs were applied if they were lower than the TBELs. An averaging period for conversion of the WLA to a WQBEL was not specified in any of the TMDLs, so EPA used the methods in the *TSD,* which recommends that a WLA for nutrients be used directly as the AML. Inconsistency of the WQBEL with a downstream TMDL target is not something that can be addressed in this permit action. This issue should be brought to the attention of IDEQ, so that the TMDLs that IDEQ develops for adjacent or connecting watersheds are consistent with or complementary of each other.

c. Action: We did not make any change in the permits based on these comments. EPA agrees that the WQBELs based on the WLAs must be applied

if they are lower than the TBELs. In the majority of instances covered by the WLA permit, EPA applied the WQBELs based on the WLAs.

3. TSS and TP Limits for Ace Development and Arraina

a. Comment: One commenter provided extensive discussion about the two warm water tilapia facilities on Jacks Creek and requested a reevaluation of the TSS and TP limits taking into account that for part of the year the discharged water is mostly used for irrigation and Jacks Creek is dry.

b. Response: The WLAs applied to these facilities were assigned by IDEQ in its TMDL process. The WLAs were changed and the modified TMDL was approved by EPA prior to finalizing this permit action. Any future changes in the WLAs will need to be addressed by the state.

c. Action: The WLA permit was modified to include the WQBELs derived from the WLAs in the recently approved TMDL.

4. Temperature Limits on Warm Water Facilities

a. Jacks Creek Facilities

(1) Comment: In response to EPA's request in the Fact Sheet, IDEQ agreed with EPA's conclusion in the Fact Sheet that temperature limits are not needed for facilities on Jacks Creek in the Bruneau Subbasin.

(2) Response: Since we did not receive any further information in response to our request in the Fact Sheet and did not receive any objection to the lack of temperature limits on these facilities, we do not have enough information to justify applying limits.

(3) Action: No change is needed in the WLA permit.

b. Upper Snake Rock Facilities

(1) Comments: Several commenters responded to EPA's request for opinions on whether or not temperature limits should be developed for the warm water facilities discharging to the Snake River, making these points:

(a) Total flow of the four warm water facilities is not significant enough to impact or raise the temperature of the Middle Snake River;

(b) The facilities are already mitigating temperature to some extent;

(c) Temperature limits are inappropriate (though reasons for inappropriateness were not given);

(d) EPA should wait for the state's temperature TMDL expected to be completed by 2008.

(2) Response: EPA appreciates the comments received and agrees with the commenters that it is appropriate to wait until WLAs for temperature have been established for the four facilities through the state's TMDL

process. The State will consider flows, impacts, and mitigation attributable to the four warm water facilities on the Snake River during its TMDL development. EPA had considered the temperature limits in part out of concern for the effect of the discharges on endangered and threatened snails in the Snake River. After further discussions with US FWS, we are convinced that the elevated temperatures of these discharges do not present a significant threat to these protected species.

(3) Action: The applicable WLA permit was not changed.

c. Using Reopener Clause of Permits for Incorporating New and Revised WLAs

(1) Comment: To ensure that water quality is protected or not overly-protected, IDEQ urges EPA to incorporate new WLAs when they are approved in TMDLs rather than waiting until the next permit cycle.

(2) Response: If new WLAs are developed during the permit cycle and in response to requests to reopen the WLA permit, EPA will take into consideration the urgency to improve water quality in watersheds with new TMDLs.

(3) Action: We made no change to the permits to address this comment.

5. Hagerman National Fish Hatchery Average Monthly Limits

a. Comment: Hagerman National Fish Hatchery commented that when the seasonal limits were approved by IDEQ for its TMDL revision, the staff was led to believe that compliance with the limit would be based on a trimester average TP rather than a monthly average. For example, for the January-April trimester, they expect to meet the WLA as an average for the four months but not for each month since their fish inventory increases to its yearly maximum in early April. They recommend requiring average trimester discharges be reported for the seasonal limits for TSS and TP.

b. Response: The federal regulations require that EPA apply average monthly limits and maximum daily limits (40 CFR §122.45(d)). EPA changed the monitoring frequency requirement from that in the draft WLA Permit and since Hagerman National Fish Hatchery rears less than 500,000 fish per year, it will only need to sample once each quarter, the results of which will be reported as an average monthly load (or concentration). It will be up to each facility to choose the time to monitor, so that it gathers a sample that is representative of the volume and nature of the facility's discharge.

c. Action: The WLA permit was not changed in response to this comment.

6. Corrections to TSS Average Monthly Limits derived from WLAs

a. Comment: In IDEQ's review of the WLA permit, it discovered discrepancies in the conversion of TSS WLAs (in tons/year) in the Upper Snake Rock TMDL to AML (in lbs/day) for ten facilities.

b. Response: We agree with the corrections to the TSS AMLs noted by IDEQ and found one other with the same calculation error. The change in AML led to changes in the MDLs also.

c. Action: The limits were changed in the WLA permit as shown in Table RTC-6, below.

Table RTC-6
Corrected TSS WQBELs for Ten Facilities In the Upper Snack Rock TMDL

Facility Name	Permit Number	Average Monthly limits (lbs/day)		Maximum Daily Limits (lbs/day)	
		Previous	Final	Previous	Final
Blind Canyon Aqua Ranch	IDG130061	842.0	841.1	1599.8	1598.1
Blue Lakes Trout Farm	IDG130008	4222.0	4223.0	8021.8	8023.7
Box Canyon Trout Farm	IDG130014	8059.0	8060.8	15,312.1	15,315.6
Briggs Creek Fish Hatchery (East)	IDG130088	615.0	614.2	1168.5	1167.1
Briggs Creek West	IDG130054	1892.0	1892.1	3594.8	3594.9
Clear Lakes Trout Co. (Middle Hatchery & Processing)	IDG130011	4323.0	4322.7	8213.7	8213.2
Crystal Springs Trout Farm	IDG130006	5537.0	5538.1	10,520.3	10,522.4
Pristine Springs	IDG130018	3207.0	3207.1	6093.3	6093.5
Snake River Farm (Clear Springs)	IDG130002	2582.0	2581.9	4905.8	4905.6
White Springs Trout Farm	IDG130020	823.0	821.9	1563.7	1561.6

C. Off-line Settling Basin Limit (OLSB) for Total Phosphorus

1. Comment: One commenter noted that there is no TP limit for OLSBs in Table 11 of the WLA permit (page 29). It recommended that outfall concentration discharge limits for phosphorus be clarified in the permit. The commenter did not provide justification to support the development of a TP limit for this wastestream.

2. Response: EPA is not applying phosphorus concentration limits to OLSB discharges. The whole facility TP load limit applies to the total of all the discharges, including any OLSB discharge in accordance with the WLAs set forth in the TMDLs. We believe that this load limit supplies sufficient control for meeting water quality standards for this pollutant.

3. Action: We did not make any change to the permits.

VI. Fish Processor Limits

A. Technology-based limits

1. Developing TBELs for TP for Fish Processors

a. Overriding the TMDLs

(1) Comment: Some commenters criticized EPA for "overriding" the state's WLAs with its more stringent TBELs, citing the Clean Water Act requirements and case law related to WLAs and TMDLs. One specifically requested that EPA disregard any other requirements and apply the WLAs from the TMDLs.

(2) Response: In writing a permit, EPA is required, under 40 CFR §125.3, to impose on dischargers the more stringent of the two limits: WQBEL or TBELs. The CWA and case law references to TMDL requirements do not override this requirement of our regulations. After consideration of public comments received, EPA revised the TBELs for TP for the fish processors (see below for the detailed description). Since the TBEL was derived differently than the WQBEL from the WLA, and they are not comparable, we are applying both limits.

(3) Action: EPA did not change the permit based on this comment, but see below for discussion of how the limits for all four processors were changed in response to other comments.

b. Use of Technical Support Document (TSD) for calculating TBELs

(1) Comment: Several commenters questioned the use of EPA's Technical Support Document for calculating TBELs for non-toxic pollutants.

(2) Response: Historically, EPA has used the equations in chapter 5 of the TSD for deriving permit limits from a long-term average, whether or not the pollutant discharged was toxic and whether or not the long-term average was developed by calculation from the water quality standards (for a water quality based limit) or by analyzing effluent data from facilities (for a performance-based technology-based limit). The mathematical equations and multipliers provided in the TSD are appropriate for use in calculating limits for any kind of pollutant. They set the limits at a level that predicts exceedance only 1% or 5% of the time, using established statistical methods. Furthermore, EPA has not created a separate document for guiding permit writers in setting limits for non-toxic pollutants.

(3) Action: EPA continued to use the TSD in finalizing the limits for this permit.

c. Aggregating fish processor effluent data for developing TBELs

(1) Comment: Several commenters questioned the appropriateness of developing limits for the fish processors based on averages across all four facilities, since they use different technologies to treat their effluent. Clear Springs Foods (CSF) provided a statistical analysis and discussion of the processor data suggesting that the data from disparate facilities should not be combined to develop one TBEL for the Idaho fish processors industry. Also, CSF provided an engineer's analysis of the effluent data from the four facilities which suggested that the imputed variations in their treatment systems advised against treating them similarly and developing a single limit that applied to all four. They also questioned EPA's use of data collected only quarterly for calculating an AML and MDL.

(2) Response: After analysis of the material provided in the comments, EPA re-evaluated the fish processor TP data, summarizing the data from each processor separately. Based on historical TP effluent data, EPA calculated a long-term average for each plant, as well as a coefficient of variation. Also, EPA considered information collected during a tour of the facilities, noting that each facility discharges in a non-continuous manner. 40 CFR §122.45(e) requires that EPA limit non-continuous discharges differently than continuous ones. The discharge data collected by each facility quarterly in the last permit cycle shows a high degree of variability in the flow and volume of discharge and in the number of fish processed each day or each week. This results in a variable time period of discharge and thus a variable load of pollutants. Therefore, we are establishing a concentration-based TBEL for TP for each facility rather than a mass limit

in pounds of pollutant per unit of flow (40 CFR §122.45(e)(4)), which would have to be based on an average flow for each facility. This concentration limitation is expressed as a Maximum Daily Limit for each facility and applies whenever the facility is discharging. In applying each MDL based on the performance at each facility, we are taking into account the differences in treatment systems among the facilities. See RTC Table 7, below for the factors and limits for each facility.

Because the TBELs are concentration limits in mg/l, they are not directly comparable to the WQBELs in lbs/day without further conversion, using the highly variable processor flow data. Therefore, EPA is applying both limits to the facilities, protecting the State water quality standards with the WLA AML and associated MDL and at the same time ensuring that facilities continue using existing treatment technology at the historical levels of treatment to meet the MDL TBEL. A commonly stated concern with concentration limits is that permittees may substitute dilution for treatment. EPA believes this will not be possible with this industry since TBELs for other pollutants must be met, as well as the mass-based WQBEL for TP.

(3) Action: We changed the FP permit based on this and other comments below. See Fact Sheet Table B-13 (corrected) below in §VI.C.1. We revised the FP permit to reflect this change (p.8, Table 1).

Table RTC-7
Derivations of Individual TP TBELs for Fish Processors

Facility	Long-term Average (mg/l)	Coefficient of Variation	MDL Multiplier	Maximum Daily Limit (mg/l)
Clear Lakes Trout Co.	3.9	0.33	2.0	7.8
Clear Springs Foods	8.8	0.32	1.97	17.4
Rainbow Filer	4.9	0.38	2.2	10.8
SeaPac	3.8	0.75	3.78	14.4

d. Process in developing TBELs

(1) Comment: Several commenters asserted that EPA did not follow its own regulations at 40 CFR §125.3 in establishing the TBELs for fish processors since it did not evaluate the following factors: i) the age of the equipment and facilities involved, ii) the process employed, iii) the engineering aspects of the application of various types of control techniques, iv) process changes, v) the cost of achieving such effluent reduction, and vi) non-water quality and environmental impacts, including energy requirements.

(2) Response: Since EPA used actual effluent data from the facilities in calculating the draft TBELs, we determined that these factors were either reflected in the data (i, ii, iii, v, and vi), or unnecessary (iv, since process changes would not be necessary for the industry at large to achieve the limits). Now that each processor has its own TBEL, none of the facilities should require process changes or experience impediments to meeting its TBEL.

The purpose in considering the age of equipment, the processes, the engineering aspects of control techniques, process changes, cost of achieving such effluent reduction, and other environmental impacts is to determine the added cost to the facility or the environment of required changes in response to the application of limits or requirements under consideration. In this case, we are proposing to apply limits that are based on a continuation of the operation of these facilities as they have been operated for the past permit cycle. Using the historical effluent data produced during that time to develop limits includes the underlying assumption of continued "business as usual". Thus, there is no change or associated cost anticipated from application of limits that are "performance-based", or derived from the historical effluent data from each facility, especially since we have now calculated individual limits for each facility. Therefore, there is nothing to analyze with relation to the factors listed above.

Action: We did not change the permit based on this comment.

e. Demonstration that WLA would exceed State standards

(1) Comment: In establishing more stringent TBELs for fish processors, CSF contends that EPA has not demonstrated the WLAs would exceed or have a reasonable potential to cause an excursion above any State standards or narrative criteria. Therefore, the TBELs for CSF processing plant appear to be arbitrary and capricious.

(2) Response: EPA permit writers do not have any reason to determine if a proposed WLA would cause an excursion above State standards (EPA TMDL staff are responsible for this). But, permit writers are required by 40 CFR §125.3 to impose the more stringent of the two limits calculated

for a discharger: the TBEL or WQBEL. Since IDEQ provided the basis for a WQBEL with its WLA, and fish processors have never had a TP limit before, we had to calculate a TBEL with which to compare the WQBEL. Using BPJ, EPA derived a limit using existing effluent data from each of the facilities to calculate a LTA and CV. The TSD recommends using the 99th percentile level multiplier for determining the MDL from the LTA, which means the limit is set so that there is only a 1 percent chance that the limit will be exceeded. Historical data show the facilities should be able to easily meet the re-calculated limits, which are discussed below

(3) Action: We have not changed the permits based on this comment.

f. Effect of Technology-based limit on ability to trade pollution credits

(1) Comment: One commenter asserted that "disallowing fish processing facilities to buy credits to increase monthly discharge is a very onerous requirement." He points out that fish processing loads may need to be moved from one processor to another, particularly if one discontinues operation. The restriction on trading restricts the opportunities to cooperate between facilities.

(2) Response: EPA does not disallow trading by the fish processors, but we do acknowledge that there is an upper limit to the amount of phosphorus credits that a facility can purchase. Because 40 CFR §125.3 requires EPA to apply technology-based limits as "the minimum level of control that must be imposed in a permit", the TBEL for TP for each fish processor provides the upper limit to trading, just as it does for the rearing facilities. Permittees may purchase credits to allow a facility to meet its AML, as long as its concentration TBEL is not exceeded. For further discussion of trading issues, refer to the Pollutant Trading section of this document.

(3) Action: We added to the fish processor permit Table 1 to show these TBELs as the upper limit to purchasing TP credits in a trading situation.

B. Water-Quality Based Limits

1. Application of TP WLAs instead of lower TBELs

a. Comment: One commenter recommended that EPA apply the TP WLAs for each fish processing plant as proposed by the State in the TMDL. In a lengthy discussion, it asserted that EPA has not made the case that the WLAs would exceed the water quality standards. He further asserted that EPA is "arbitrary and capricious" in applying the TBELs and that it has not met the provisions of 40 CFR §122.44.

b. Response: EPA did not try and has no reason to try to show that approved WLAs would exceed the water quality standards (WQS). WLAs are set by the State to attempt to meet WQS; the task of the permit writer is to

apply the more stringent of the applicable TBEL or the WQBEL; there is no need to determine if an established WLA will meet WQS; the TMDL process is supposed to ensure that it will. However, the permit writing process must also consider achievable pollution control using widely available pollutant removal measures (or technology). In this case, we have recognized the current pollutant control practices in place at the facilities as the widely accepted technology and have developed TBELs based on the historic data from each facility. See the discussions above in §VI.A.

c. Action: We did not change the permit based on this comment.

2. Different Coefficients of Variation for TP from Fish Processors

a. Comment: One commenter noticed that on page 32 of the Fact Sheet, Appendix B, we stated that the coefficient of variation (CV) for the total phosphorus effluent data from the fish processors was 0.561 mg/l; on page 39 of the same appendix, we cited the CV as 1.194 mg/l.

b. Response: We have checked our calculations and have determined that the first number was the correct one. When this CV (0.561) is used, we derive a multiplier of 1.94 for calculating maximum daily limits from the average monthly limit for the water quality based limits. This multiplier was used instead of the 2.70 that was used in the FS Appx. B.

A further change was made in the MDL multipliers and consequently in the final MDLs for these facilities in response to comments received in the second public comment period. See § X.B, below.

A corrected Table B-12 of the 2006 Fact Sheet, including the further changes to the MDLs, is included here; the modified limits are in **bold**.

This change in the MDLs for the fish processors is carried forward into corrected Fact Sheet Table B-13, below.

c. Action: Because we have decided to apply both the mass-based WLAs and the concentration-based TBEL for total phosphorus, we have made the changes in the FP permit (Table 2).

Fact Sheet Table B-12 (corrected)
Water Quality-based Effluent Limitations for Fish Processors

Facility Name & Permit Number	Parameter	Water Quality-based limits *(lbs/day)*	
		AML	MDL
Clear Lakes Trout Co. IDG130011	TSS	43.0	96.3
	TP	3.3	6.6

Fact Sheet Table B-12 (corrected) **Water Quality-based Effluent Limitations for Fish Processors**			
Facility Name & Permit Number	**Parameter**	**Water Quality-based limits *(lbs/day)***	
		AML	**MDL**
Clear Springs Foods, IDG130125	TSS	150.0	301.5
	TP	20.2	39.8
Rainbow Trout Farms IDG130028	TSS	32.0	65.3
	TP	2.5	5.5
Seapac of Idaho IDG130046	TSS	52.0	131.0
	TP	4.7	17.8

3. Clear Springs Foods (CSF) Fish Processor

   a. Total Phosphorus (TP) Limits for the holding pond

      (1) Comment: IDEQ asked if the CSF holding pond TP limits were net or gross.

      (2) Response: According to information received from CSF on which we based the calculation of these limits, the TP limits for the holding ponds are net.

      (3) Action: No change is requested or needed in the WLA permit.

   b. Flows used to calculate limits for the holding pond

      (1) Comment: IDEQ asked why we use different flows when calculating the MDL and the AML TP limits for the holding pond.

      (2) Response: As stated on page 33 of the Fact Sheet Appendix B, we used the average monthly flow to convert the concentration based average monthly limit to a mass-based AML; since the maximum daily limit (MDL) is to reflect the more extreme discharges, we used the maximum monthly flow to convert concentration to load. The State did not suggest any alternative to our approach.

      (3) Action: No change is requested or warranted in the permit.

   c. Rationale for holding pond limits

      (1) Comment: IDEQ provided additional information about background TP concentration in the aquifer and some calculations showing the

background loading using the flows that we had used to calculate the mass limits. It asked for the rationale for the limits being less than the background loadings. The State did not suggest any specific change in the permit.

(2) Response: We did not have information about background loadings when developing the limits; however, we developed the limits based on the net effluent data provided by Clear Springs Foods. Since the holding pond limits developed using these data are net limits, the background loading is factored out of the effluent loading and does not affect whether the limit is higher or lower.

(3) Action: No change is needed in the permit.

d. Load Allocation for TSS for the CSF processing plant holding ponds.

(1) Comment: IDEQ asked why we omitted a load allocation for TSS for the holding ponds. It did not request any change in the permit.

(2) Response: The TP load for the holding ponds was calculated at IDEQ's request after it pointed out in an earlier conversation that the load from the ponds was not included in the effluent data from the fish processor. The State did not mention TSS as a pollutant of concern for the holding pond nor did it provide TSS data when it provided the TP data on which we based the TP load calculation. Therefore, we assumed that TSS was not an issue. The current comment does not provide a recommendation to add a load for TSS nor does it provide additional data to support such a limit. We believe that TSS will not be a pollutant of concern for this discharge since the fish held in this pond have not been fed for a few days before arrival and are not fed during the brief period they are held in the pond before processing.

(3) Action: No change is made in the permit.

C. Proposed Effluent Limitations for Fish Processors

Fact Sheet Table B-13 (corrected), below, provides the WQBELs and TBELs for each of the pollutants of concern discharged by fish processors. The limitations in **bold** are the final proposed limits for each facility that were inserted into the FP permit.

Fact Sheet Table B-13 (corrected)
Proposed Effluent Limitations for Fish Processors

Facility Name & Permit Number	Parameter	Water Quality-based limits *(lbs/day)*[3]		Technology-based limits *(lbs/day)*[3]	
		AML	MDL	AML	MDL
Clear Lakes Trout Co. IDG130011	BOD_5	--	--	**27.2**	**54.4**
	TSS	43.0	96.3	**27.2**	**54.4**
	TP	**3.3**	**6.6**	**--**	**7.8 mg/l**
	TRC	**0.011 mg/l**	**0.019 mg/l**	0.29 mg/l	0.60 mg/l
	Oil & Grease	--	--	**14.5**	**29.0**
	pH (*s.u)*	--	6.5-9.5	--	**6.5 – 9.0**
Clear Springs Foods, IDG130125	BOD_5	--	--	**180.5**	**361.0**
	TSS	**150.0**	**301.5**	180.5	361.0
	TP	**20.2**[4]	**39.8**[4]	**--**	**17.4 mg/l**
	TRC	**0.011 mg/l**	**0.019 mg/l**	0.29 mg/l	0.60 mg/l
	Oil & Grease	--	--	**96.0**	**192.0**
	pH (*s.u)*	--	6.5-9.5	--	**6.5 – 9.0**
Rainbow Trout Farms IDG130028	BOD_5	--	--	**20.3**	**40.6**
	TSS	32.0	65.3	**20.3**	**40.6**
	TP	**2.5**	**5.5**	**--**	**10.8 mg/l**
	TRC	**0.011 mg/l**	**0.019 mg/l**	0.29 mg/l	0.60 mg/l
	Oil & Grease	--	--	**10.8**	**21.6**
	pH (*s.u)*	--	6.5-9.5	--	**6.5 – 9.0**
SeaPac of Idaho IDG130046	BOD_5	--	--	**44.0**	**88.0**
	TSS	52.0	131.0	**44**	**88**

Fact Sheet Table B-13 (corrected) **Proposed Effluent Limitations for Fish Processors**					
Facility Name & Permit Number	**Parameter**	**Water Quality-based limits *(lbs/day)*[3]**		**Technology-based limits *(lbs/day)*[3]**	
		AML	**MDL**	**AML**	**MDL**
SeaPac of Idaho IDG130046 *(cont.)*	TP	**4.7**	**17.8**	**--**	**14.4 mg/l**
	TRC	**0.011 mg/l**	**0.019 mg/l**	0.29 mg/l	0.60 mg/l
	Oil & Grease	--	--	**23.4**	**46.8**
	pH (*s.u)*	**--**	6.5-9.5	--	**6.5 – 9.0**

[3] Except where units of mg/l are noted
[4] This WQBEL includes an allocation for the holding pond discharges.

D. Land applied wastewater

1. Comment: Two commenters asserted that the TP load in wastewater that is land-applied should not be included in the permittee's allocation or in the 970 pounds allocated to the aquaculture industry. They did not make specific recommendations for changing the permits.

2. Response: EPA agrees that the limits in the permits do not apply to wastewater that is applied to land rather than discharged to waters of the U.S. The stated limits and monitoring apply to "discharges". Any concerns regarding how a facility's allocation was determined should be directed to IDEQ.

3. Action: To clarify this matter, we have added the definition of "discharge" (discharge of a pollutant to waters of the U.S.) to all the permits: on page 30 in the Cold Water permit, page 51 in the WLA permit, page 24 in the Epicenter permit, and page 27 in the Fish Processor permit.

VII. Pollutant Trading

A. Restrictions on Trading

1. Allowing Fish Processors to Participate in Trading

a. Comment: Several commenters were concerned that the restrictions on trading imposed on the fish processors would cause economic problems or inability to process crops of fish. They provided several reasons that the number of pounds processed at each facility may change during the life of the permit, including if a processor closes or processors chose to co-process or co-

pack the fish. Being able to trade TP credits between the processors would help with this issue.

b. Response: Because the TBELs have been modified as described above, the fish processors are no longer constrained to trade by a TBEL that is more stringent than their WLA. The newly recalculated TBELs are an upper bound for trading, however; credits may be purchased to help them meet their water-quality based AML, as long as their actual discharge does not exceed their technology-based MDL. The technology based MDL is used as the upper bound for this industry segment because the data we have for this industry is based on one sample per quarter, not multiple samples per month, which would lend itself to an AML.

c. Action: We changed the FP permit as described above under the TBELs for Fish Processors by adding a table of the upper trading limits that apply for each facility.

2. Buying Restricted to Downstream Buyers

a. Comment: Several commenters expressed concern about the restriction to limit a buyer to purchasing credits only from sellers upstream of its outfall; they asserted that such a restriction is inconsistent with federal and State trading guidance, is arbitrary and capricious, and is unfair to the uppermost aquaculture facility discharging to the river. They referred to an IDEQ study, the Localized Impact Analysis, that indicated that buying from a downstream seller would not cause water quality problems. Finally, several commenters, including IDEQ, recommended that trading be allowed both upstream and downstream between all eligible facilities as long as there are no detrimental water quality impacts and as long as beneficial uses and water quality standards are protected.

b. Response: The pollutant trading language in the draft permit was written in consultation with IDEQ to ensure consistency with IDEQ's Pollutant Trading Guidance ("Guidance"), including its Appendix C -- Middle Snake River. In its comments on the draft permits, IDEQ encouraged EPA to provide for trades between upstream buyers and downstream sellers as long as the ambient water quality between the parties is not adversely impacted. It has requested that we omit the requirement that a purchasing facility must be downstream of a selling facility. IDEQ's Localized Impact Analysis (for the Middle Snake River) did not evaluate the effects of trading on local impacts to water quality; however, in recent discussions between the agencies, IDEQ said that its annual monitoring of the Snake River should reveal any ambient water quality problems resulting from future trading between facilities (see page 9 of the Guidance: "Monitoring will be conducted to verify that the limits on trading are supporting the maintenance of desired water quality"). Any ambient problems found in a segment of stream would be used by the State to modify its Guidance to disallow trading in the affected segment, since trading would not comply with the Guidance (see page 4 of the Guidance: "Trades must be implemented so that the overall water quality of the watershed is

protected. …localized adverse impacts to water quality are not allowed."). IDEQ's CWA Section 401 certification is expected to specify that the permit will protect water quality standards even if buyers are upstream of sellers, because of the agency's monitoring efforts and Guidance requirements.

c. Action: EPA has modified the WLA and Fish Processors permits to allow for trading to occur between any eligible permittees pursuant to the requirements in IDEQ's Pollutant Trading Guidance and has eliminated the language that restricted buyers to those downstream of sellers.

3. Trading below River Mile 586 on the Snake River

a. Comment: Several commenters asked that trading be allowed between facilities discharging to the Middle Snake or its tributaries below RM 586. They questioned where EPA had come up with that restriction.

b. Response: According to Appendix C: Middle Snake River, of IDEQ's Pollutant Trading Guidance, "pollutant trading is only provided for on the first three (3) segments [of the Middle Snake River] at this time." Therefore, the furthest downstream site [for trading] is below Box Canyon (River Mile 587.0)" (see page 33). When the permit was public noticed as draft, equivalency ratios had not been developed for the river below RM 586 or for its tributaries, and according to the Guidance, trading cannot occur until equivalency ratios are established for a waterbody. Recently, IDEQ staff stated they are willing to develop ratios where there is interest in trading between otherwise eligible facilities. They anticipate modifying the Guidance to reflect the new ratios so that trading can occur between facilities below river mile 586 and between facilities discharging to tributaries of the Snake River. Permittees should be aware that trading can only occur in those areas specified in the IDEQ's Guidance. A change to the Guidance may not occur to provide for trading in other areas within the Upper Snake Rock watershed or in other watersheds until some time after the permits become final, at which point a modification of the permit would be necessary to allow for the trading. See also §XII.D, below, for more discussion of this topic.

c. Action: No change was made to the permit language.

4. Trading with Non-Point Sources

a. Comment: IDEQ and others commented that trading should be allowed between nonpoint sources and point sources.

b. Response: The draft permits only allowed point source to point source trading because Appendix C of the Guidance does not provide a list of approved BMPs for generating marketable credits to sell in the Middle Snake River watershed (see page 12: "Nonpoint sources generate transferable water quality credits by implementing approved best management practices (BMPs). A list of approved BMPs, by watershed, can be found in the Appendices [except Appendix C]. This list sets out which BMPs can be used for trading, as well as each BMP's procedures for determining the amount of credits and

its monitoring and maintenance requirements.") In recent conversations between the agencies, IDEQ staff has indicated that it is feasible for them to assist nonpoint sources in the Middle Snake River watershed with developing a list of approved BMPs. Once that is accomplished, IDEQ would modify its Guidance with the list, so that trades between nonpoint sources and point sources could then occur. IDEQ is expected to certify under CWA Section 401 that the permit will protect water quality standards even if trades are allowed between nonpoint sources and point sources discharging under these permits.

c. Action: EPA has modified the WLA and Fish Processors permits in Appendix C to reflect that eligible facilities include nonpoint sources. Permittees should be aware that trading can only occur pursuant to IDEQ's Guidance. Change to the Guidance to include the list of approved BMPs within the Upper Snake Rock or other watersheds may not occur until some time after the permits become final.

d. Additional Action: As of the issuance date of the final permit, trading is only expected to occur between facilities and nonpoint sources in the Upper Snake Rock watershed, since it is the only watershed with aquaculture facilities included in the Guidance. EPA has modified the WLA permit to provide for trading in other watersheds, pursuant to the Guidance, in case IDEQ changes its Guidance to allow trading elsewhere. If trading does become an option in other watersheds during the life of these general permits, the alternate technology-based limit applicable as the upper limit of trading to the facilities in the other watersheds can be found in the Fact Sheet (except for TP; see Table 1 of the WLA Permit).

5. Trading to Meet Maximum Daily Limits

a. Comment: A few comments were received regarding the fact that the permits allow trading to occur to meet average monthly limits but not maximum daily limits. Commenters assert that this is contrary to State and federal trading guidance.

b. Response: IDEQ's Guidance refers to using trading to adjust a point source's effluent limit but is silent on which limit to use (average monthly limit or maximum daily limit). EPA's trading policy implies that trading is for complying with AML rather than MDLs. An EPA guidance document for permit writers refers to the AML being affected by trades, but not the MDL. Therefore, we are allowing trading for AMLs only. It is important to realize that the WLAs established by the state's TMDL were used as the AML, so that, on average over a month's time, effluent quality from facilities would be at the level specified in the WLA, presumably enabling the attainment of in-stream standards in the long term. We expect that a permittee will (and can) exceed this effluent quality over the course of the month frequently, as long as when the discharge is monitored (or the average of the monitored days), the AML is met. The MDL is derived from the AML using the effluent variability (coefficient of variance) and number of samples collected. The

MDL functions to ensure that the effluent quality does not exceed the WLA by so much that the TMDL goals are not met. In addition, trading is intended to allow the permittee to purchase credits to comply with a quantitative limit over a time period that is set in the permit to achieve the environmental goal established by the TMDL. Allowing trading to apply to a MDL would pose more environmental risk by allowing spikes in pollutant loads above the MDL and farther above the AML. Therefore, we have decided that a permittee cannot buy credits and apply those to meeting an MDL.

c. Action: The trading language in the permits remains the same.

6. Allowing Trades up to the WQBEL

a. Comment: One commenter recommends trading for all facilities up to the WQBEL in accordance with State trading guidance. Another commenter asserted that EPA is not allowing trades to offset permit limits and that this is inconsistent with federal and State trading guidance.

b. Response: EPA allows buyers to buy credits to offset their exceedance of their AML, as long as that limit is a WQBEL. There are only three rearing facilities in the Upper Snake watershed that will not be able to trade because their AML is a TBEL that is lower than the WQBEL: College of Southern Idaho (IDG130123), Gary Wright Ponds (IDG130100), and Rainbow Trout Famrs (IDG130029). EPA's *2003 Water Quality Trading Policy* explicitly prohibits trading to meet TBELs because such limits are required by 40 CFR §125.1 as the minimum level of control that must be imposed on permittees to reduce pollutants discharged to waters of the U.S. As discussed above, the permit requirements are consistent with both the federal and state trading guidance.

c. Action: The trading language in the permits remains the same.

7. Scientific Basis for Limiting Total Phosphorus

a. Comment: One commenter asserted that there is no scientific basis for limiting TP trading as long as the 970.2 lbs/day is met.

b. Response: In discussions about trading in the Lower Boise Watershed working group, EPA learned that no permittees desired to be linked with other permittees in a watershed-wide group permit that provided for trading up to the group limit. These discussions were the basis for IDEQ's Guidance, so EPA is being consistent with the Guidance by not providing a group permit option for this industry for meeting its collective allocation of 970.2 lbs/day. Also, as explained above, EPA's *2003 Water Quality Trading Policy* explicitly prohibits trading to allow exceedances of the TBELs; so even if the industry as a whole meets its load of 970.2 lbs/day, no facility would be allowed to exceed its TBEL.

c. Action: The trading language in the permits remains the same.

8. Inconsistent Trading Policy

a. Comment: EPA's proposed trading policy is not consistent with other regions of the country.

b. Response: EPA has a national trading policy issued in January 2003 with which these permits are consistent. This policy provides EPA permit writers with a fair degree of discretion regarding the specific requirements for and restrictions to trading for point sources.

c. Action: No changes were made to the permits.

B. Objections to Pollutant Trading

1. Comment: One commenter objected to trading for several reasons: 1) it is unacceptable in the Upper Snake Rock watershed because the Snake River is highly eutrophic with the greatest amount of phosphorus coming from aquaculture; 2) it does not sufficiently protect against local water quality impacts; 3) it is unnecessary for TP load reductions since the facilities have a high compliance rate with their 1999 permit limits; 4) trading does not comply with the CWA because it does not ensure compliance with stated AML required by regulation (40 CFR §122.4(a) and (d)).

2. Response: The goal of the TMDL is to reduce the eutrophication of the river. The state's TMDL process established wasteload allocations for each point source and load allocations for nonpoint sources that contribute to degradation of the Upper Snake Rock river system. The aquaculture industry committed to an overall 40% reduction in pollutant levels from the estimated load in 1991. Other industries agreed to reduce discharge of pollutants, but not by as much as did the aquaculture industry. The WLAs for the aquaculture industry reflect these commitments and are implemented in the permits. Trading occurs within the framework of the TMDL, allowing one facility to exceed its WLA but only when another facility reduces its discharge below its WLA, or average monthly limit, by an equivalent amount. The goal of the TMDL should still be attainable. EPA's 2003 Water Quality Trading Policy states:

> *"EPA does not believe that trades and trading programs will result in "lower water quality" . . . or that antidegradation review would be required under EPA's regulations when the trades or trading programs achieve a <u>no net increase</u> of the pollutant traded and do not result in any impairment of designated uses."*

In fact, permittees may decide to reduce their discharges to below their AML to create a commodity to sell to an eager buyer. Because of the good compliance history of the industry, however, buying credits may not be necessary that often. This could result in a net overall reduction in pollutant discharges each month by the industry, leading to a cleaner river. The only way that facilities can increase production, now that they have WLA limits, is to find and implement a treatment technology more effective than what is used now or to buy credits from a facility or other point source committed to discharging below its assigned WLA. Treatment technologies available to

this industry are limited, and many of the facilities in Idaho have been modified or built to include these technologies.

Localized impacts from buying pollution credits are not expected because the amount of pollutant that will be purchased will be small relative to the discharge limit for a facility. The amount that a facility can purchase is limited by its technology-based limit as well as by the amount by which it exceeds its WLA, which drives the desire to purchase pollution credits. In addition, a watershed analysis was performed by IDEQ for the Snake River in the Upper Snake Rock, which resulted in the conservative 1:1 ratio for trades between point sources on the river. This ratio was not designed only to address the net impact of a trade in relation to one defined location, such as the mouth of a water body, as is generally the case. Rather, the ratio reflects the goal of the TMDL to achieve a concentration of 0.075 mg/L at seven compliance points along the Snake River; not just at the lower end of the basin. Therefore, this ratio does address a trade's potential net impact at any point along the river. As discussed above, IDEQ intends to perform a watershed analysis and develop appropriate ratios for other areas in the Upper Snake Rock watershed (e.g., below river mile 586 and on some tributaries) and to modify its Guidance accordingly. The permits do not allow trades to occur in areas or watersheds that do not have trading ratios specified in appendices to the Guidance.

EPA does not agree with the commenter that trading does not comply with CWA because it does not ensure compliance with stated AML required by 40 CFR §122.4(a) and (d). EPA's *2003 Water Quality Trading Policy* states:

> *"EPA believes that the antibacksliding provisions of Section 303(d)(4) of the CWA will generally be satisfied where a point source increases its discharge through the use of credits in accordance with alternate or variable water quality based effluent limitations contained in an NPDES permit, in a manner consistent with provisions for trading under a TMDL, or consistent with the provisions for pre-TMDL trading included in a watershed plan*."

To comply with the EPA guidance, the fact sheet of the permit must include an explanation of how the limitations in the permit, after accounting for any trading provisions, are at least as stringent as the limits in the previous permit or, alternatively, how antibacksliding provisions of the CWA are satisfied. To augment the explanations in the Fact Sheet (see pages 18 and 52), we would add that facilities cannot exceed their TBELs when they buy credits. Since the total phosphorus TBEL for cold water facilities in the WLA permit remains at the 1999 permit limit of 0.10 mg/L TP, trading between cold water facilities will not result in backsliding from previously applied limits. In the new WLA permit, warm water facilities have higher TBELs than the 1999 limits because of new information (performance data from the facilities) that was available for this permit revision. An exception in the antibacksliding regulation pertaining to new information allowed EPA to issue less stringent limits to these facilities (see §V.a.4. Development of TP Technology-Based

Limit for Warm Water Facilities above). Fish processors have never before had a limitation on the discharge of phosphorus, so trading will not result in backsliding by the fish processor facilities.

3. Action: No changes were made to the permits in response to this commenter's concerns about trading.

VIII. Best Management Practices

A. Copper Treatment of Raceways

1. Comment: One commenter asserted that the restriction of copper treatment to one raceway at a time seems arbitrary. He pointed out that a single raceway facility would not have the same dilution as a facility with multiple series.

2. Response: EPA recognizes that this practice would not provide the same safety margin in a single raceway facility that it would in a multiple raceway facility; in fact, if there is only a single raceway or series, the BMP would not apply. We continue to believe that the measure of restricting the application to one raceway at a time where multiple ones are operating is a reasonable measure, given the possible toxicity of copper to organisms in the receiving stream. As stated in the fact sheet on page 64:

> *". . . the expected levels of copper in the effluent were in the range of the LC_{50} values for rainbow trout. Because this information is limited and estimated, it was determined that we do not have sufficient information to assess the effect of copper discharges on salmonids in the receiving streams. Therefore, we are requiring effluent and ambient sampling for total copper and hardness in the effluent and receiving stream and have added a BMP for limiting the use of copper."*

3. Action: We have not changed the permits based on this comment.

Response to Comments on Supplemental Fact Sheet

EPA provided a Supplemental Fact Sheet and invited public comment from June 7 through July 23, 2007, on specific changes to the permits made in response to public comments and a new determination about the effect of the discharges from the permittees on listed species. Comments were received from the following individuals representing these organizations:

Table RTC-8
Public Comments Received on the Supplemental Fact Sheet for Idaho Aquaculture and Fish Processing Facilities
July 2007

No.	Received by E-mail	Received by US Mail or fax	Commenter
1	7/6/07	7/9/07 (mail)	Clear Springs Foods (Randy MacMillan)
2	7/9/07		Dept. of Interior (Preston Seeger)
3		7/11/07 (mail)	First Ascent Fish Farm (Don Campbell)
4	7/10/07		B. Sachau
5	7/20/07		Food & Water Watch (Wenonah Hauter)
6		7/23/07 (fax) 7/25/07 (mail)	Fish Breeders of Idaho/Fish Processors (Leo Ray)
7	7/23/07		U of I Extension (Gary Fornshell)
8	7/23/07	7/26/07 (mail)	Clear Springs Foods (Randy MacMillan)
9	7/23/07	7/23/07 (fax) 7/26/07 (mail)	Idaho Department of Environmental Quality (Barry Burnell)
10	7/23/07		Idaho Trout –Processing (Harold Johnson)
11	7/23/07		Idaho Trout –Farms (Harold Johnson)

IX. General Comments during Second Public Notice

A. Issuance of the Permits for Aquaculture Facilities

1. Comment: One commenter believes that the NPDES permits for aquaculture facilities and fish processors should not be issued at all, since "aquacultured fish are inferior to wild fish. Aquacultured fish require far too much water polluting toxic chemicals to be used and the fish are full of those toxic chemicals."

2. Response: The comment pertains to the quality of the fish as food, which is within the authority of the U.S. Food and Drug Administration, not within that of EPA. The comment does not explain how those concerns relate to the NPDES permitting action that is before EPA. See the detailed response to the 2006 comments from the same commenter in §I.A, above.

3. Action: The permits were not changed.

B. Permittee Involvement in Permit Development

1. Comment: Two commenters asserted that EPA Region 10 violated EPA national policy by not involving user groups in the permit process.

2. Response: EPA Region 10 has followed the NPDES permit process in providing extensive public comment periods twice, holding a public meeting to provide information to the regulated community early in the first public comment period, and holding a public hearing near the end of that period. This is sufficient opportunity for involvement under the applicable regulations.

3. Action: No change was made in the permits.

C. National Policy Framework

1. Comment: One commenter referred to another commenter who cited national policies that he claims Region 10 is not following.

2. Response: This topic is addressed above in § I.B.

3. Action: No change was made in the permits.

D. Definitions of Acronyms and Symbols in Supplementary Fact Sheet

1. Comment: One commenter asserted that the 2007 Supplementary Fact Sheet introduced new symbols or acronyms that are not clearly defined or explained and that they should be explained and defined.

2. Response: The commenter did not point out what symbols or acronyms he meant, so we do not have enough information to respond substantively.

3. Action: No change was made in the permits.

E. Corrections to Fact Sheets

1. Comment: One commenter requested several changes to the 1999 and 2006 Fact Sheets.

2. Response: See the paragraph above §I.A, above, concerning corrections to Fact Sheets.

3. Action: No changes were made to the permits or the Fact Sheets.

F. Upper Snake Rock TMDL

1. Comment: One commenter did "not feel EPA or IDEQ used any reasonable logic let alone sound science when setting the 970.2 pounds of Total Phosphorus for the production side of the aquaculture industry."

2. Response: See V.B.1., above.

3. Action: No change was made in the permits.

G. Monitoring Issues

1. Clarifying Monitoring Locations

a. Comment: One commenter asked for a definition to indicate that limits only apply to discharges to waters of the U.S. He reiterated a comment made in the previous comment period about EPA's lack of authority to regulate internal wastestreams.

b. Response: This comment is out of scope for this comment period. See § IV.G.2, above, which addressed this comment.

c. Action: No further change was made in the permits.

2. Flow-proportioned Sampling

a. Comment: A commenter pointed out that some facilities have multiple discharge points, which may discharge discontinuously and not on the same day. He requested a change in the permits to allow sampling on different days at different discharge points, the results of which would be averaged together to report the average monthly load, as long as more than one sample is taken per month.

b. Response: This comment is out of scope for this public comment period. See §IV.G.5, above, for a discussion that addresses this comment.

c. Action: No change was made in the permit.

3. Cost of monthly monitoring

a. Comment: One commenter discussed the cost of increased monitoring in the proposed 2006 permits on small aquaculture facilities and recommended that monitoring for the small facilities be left at those in the 1999 permit.

b. Response: This comment is out of scope for this public comment period; see §IV.F.1, above that addresses this comment.

c. Action: No changes were made to the permits.

4. Reporting Results below Detection Levels

a. Comment: One commenter proposed "that the net discharge load reported on the DMR for measurements where both the influent and effluent concentration values are less than the MDL be reported as less than the number values determined by taking the mean monthly flow (cfs) times the MDL concentration (mg/l) times the correction factor (5.39)."

b. Response: The comment is out of scope for this public comment period; see §IV.B.4, above that addresses this comment.

c. Action: No change was made in the permits.

5. Change in Ambient Monitoring Regime

a. Comment: One commenter proposed that we change the requirement for quarterly receiving water monitoring to monthly monitoring for one year to gather information to determine risk to ESA listed aquatic species, as expressed by US Fish and Wildlife Service.

b. Response: See §IV.E.2, above, for a discussion of the purpose of this monitoring and of the changes to the permits based on comments received in 2006.

c. Action: No changes were made to the permits.

X. Limits for Fish Processors

A. Technology-based Limits

1. Clear Springs Foods (CSF) Fish Processor Holding Pond Allocation

a. Comment: The commenter supported the newly proposed TP AML for the sequencing batch reactor part of the CSF fish processing facility, but asserted that the WLA on which the AML is based does not include the loading from the holding pond discharges. He requests that EPA add an additional allocation to the AML and MDL for this facility.

b. Response: When EPA calculated additional loading attributable to the holding ponds (see the 2006 Fact Sheet, Appx. B, p.35), it was developing performance-based (technology-based) limits for the facility. It had been brought to our attention that we had only used historical effluent data from part of the facility in developing these limits. With the addition of the loading from the holding ponds, we developed a TBEL (in lbs/day) that applied to the whole facility.

The technology-based mass limits were dropped after we considered comments from the 2006 public comment period and were replaced with a facility-specific, technology-based concentration limit, based on the historical data from the facilities' fish processing treatment works.

The mass-based limit that is now applied to the facility is water-quality based and is derived from the WLA assigned to the facility in the approved TMDL. EPA understands the WLAs to be total facility allocations and is applying them as such in the permits. Therefore, it is inappropriate to consider adding performance-based data from the holding pond that was related to a technology-based limit to a WQBEL based on a WLA.

c. Action: No change is needed in the permit.

2. Concentration-based limits encourage excess water use

a. Comment: Several comments addressed the impact of applying a concentration-based limit on the volume of water a facility might use. One asserted that the Idaho Department of Water Resources has issued a ground water pumping curtailment order (6/7/07). Several claimed that applying a concentration based limit promotes more water consumption, and they recommended deleting the limitation, since the mass-based WQBEL does not encourage additional water use and is protective of the environment. Another discussed the recent history of drought, reduced streamflows, and lower ground water tables. He asserted that a concentration-based limit prevents permittees from seeking to conserve water and recommended eliminating that limit. He also claimed that such a limit would reduce the flexibility of a permittee to alter current waste management practices in an effort to improve compliance with WQBEL.

b. Response: We appreciate the need to conserve water, especially under the extended drought conditions and lower water availability in this part of Idaho. The facilities are limited by both mass-based limits and concentration limits. The mass-based limits support the water conservation goals expressed by the commenters. As stated in the Supplemental Fact Sheet, the concentration-based limit reflects current operations of these variable batch-discharges, calculated from a long-term average flow. EPA believes increasing flow to meet the concentration based limit will not be possible, since TBELs for other pollutants must be met, as well as the mass-based WQBEL for TP.

c. Action: We made no change in the permit.

3. No added environmental value from imposing the concentration-based technology-based MDLs

a. Comment: One commenter asserted that the TBEL is environmentally redundant and may be an impediment to operations attempting to improve compliance with the WQBEL by altering their waste management practices. He asserted that there is no environmental gain from imposing the TBEL and that it could be “counter productive of environmental gain.”

b. Response: The TBEL is the minimum control required by the CWA; it does not purport to meet the specific water quality needs of the receiving water; it aims to require that widely available control technology be applied to

a wastestream. It may be more stringent than WQBELs. In this case, the intent of applying the concentration-based limit is to discourage facilities from operating production and treatment processes less rigorously than they have in the past.

c. Action: We made no change in the permit.

4. Technical analysis in developing technology-based limits.

a. Comment: The commenter asserted that Section 402 of the Clean Water Act requires a detailed analysis on a case-by-case basis of several factors: technical, environmental, and economic in developing TBELs and stated that EPA Region 10 has not done this.

b. Response: It is EPA Region 10's position that, if the facilities continue to discharge as the facilities have in the past, this is technically achievable at no additional cost. Therefore, using the process described in the EPA NPDES Permit Writers' Manual, we have evaluated past performance and set technology-based limits based on the long term averages and coefficients of variation of the historical discharges for each of the four fish processing facilities. We evaluated each facility individually at the request of the industry in the 2006 public comment period; this approach is unusual in the context of a general permit. We decided to do it, since there were only four facilities affected. Further individual analysis is not warranted in the general permit context.

According to the Permit Writers' Manual, the limits based on this analysis are technically sound, in that they are "achievable with existing technology." They are also reasonable in that the limits are "achievable at a cost that the facility can afford. Historically, some of the other factors, such as age, process employed and non-water quality impacts have assumed lesser importance than the technical and economic feasibility evaluations." We believe that no further economic analysis or technical analysis is needed since we are not requiring the facilities to spend additional resources to meet the proposed limits.

c. Action: We made no change in the permit.

5. Application of Flow-proportioned TBELs at Fish Processing Facilities

a. Comment: A commenter pointed out that the CSF processing plant has multiple discharge points, which discharge discontinuously. He asserted that a flow-proportioned TBEL is meaningless.

b. Response: EPA has not applied a "flow-proportioned TBEL". Flow proportioning applies to the collection of samples, not to a limit. If more than one discharge from the fish processing treatment works is occurring at the same time, their samples should be combined proportionally to their respective flows. If a facility has multiple discharge points that discharge on different days or weeks, the MDL concentration limits and the AML apply to each discharge separately. But, after sampling the discharges at the frequency

required in the FP permit, the results may be averaged to determine compliance with AML.

c. Action: To clarify this point, we have added the phrase, "which discharge simultaneously", to §II.E.1 of the Fish Processor permit.

6. Impact of setting TBELs in Idaho

a. Comment: The commenter asserted that setting TBELs in Idaho may have broader national impact on fish processing facilities elsewhere. He stated that this is not fair, nor is it compliant with CWA requirements for establishing technology-based limits. He recommended deleting the TBELs because they are counter-productive, meaningless, non-compliant with regulation, and contrary to the need to conserve water resources in Idaho.

b. Response: The TBELs developed for the Idaho fish processors were based on the historical discharges from each processor. As such, they are not directly transferable to other facilities and therefore should not set a precedent for other facilities.

We do not have the option to forego TBELs; we are not allowed to drop them unless the WQBELs are more protective. In this case, because of the highly variable flows from the processors, we determined that it would be unfair to convert the concentration based limits to mass based limits, because they would be based on average flows, which would make it hard for the facilities to comply about half the time. Since these TBELs are concentration-based and the WQBELs are mass-based, they cannot be directly compared, and so both are retained.

c. Action: We made no changes in the permit.

7. Application of concentration-based TBELs for Fish Processors

a. Comment: IDEQ expressed support for applying the concentration-based technology-based MDLs along with the mass-based WQBELs based on the WLA. The State also supported the rationale we used for assigning concentration-based effluent limits as well as for treating each facility individually in developing its TBEL.

b. Response: None required.

c. Action: None required.

B. Water quality-based Limits in the Fish Processor Permit

1. Derivation of WQBELs

a. Comment: One commenter asserted that EPA does not identify how it determined the WQBEL AML. He says that "it does not appear that EPA has applied the same formula or standards to all four processors listed in Table 6 of page 14 or 22 of the {Supplemental} Fact Sheet."

b. Response: The derivation of the WQBELs was explained in detail in the 2006 Fact Sheet, Appendix B, §III.B and C. Since they were not changed for this public notice period, there was no need to repeat the explanation; The commenter does not specify what he thinks is wrong with the processors' limits in Table 6.

See the response to a related comment, §3, below, (Calculation of MDLs from AML) for how we have now modified the water quality-based MDLs for TSS and TP for the fish processors.

c. Action: No change was made in the permits.

2. Effect of assigning loads on operational flexibility

a. Comment: One commenter discussed the variability in fish processing from year to year. Processors shut down, shifting more load to the remaining processors. Idle hatcheries start up again, producing added fish to be processed. Hatcheries change ownership and consequently may change processors. He believed that we provided the "lion's share" of the phosphorus to one of the processors. He wanted the phosphorus limit to be flexible to accommodate the movement of trout between processors. He advocated setting a limit of pounds of phosphorus per 1000 pounds of fish processed.

b. Response: Loads are relevant to the WQBELs rather than the TBELs, so we are assuming that this comment is focused on those. The WQBELs are based on the WLAs provided by IDEQ and are not subject to comment in the context of these permits and particularly not during this public comment period. EPA did not "allocate the lion's share of 20.9 pounds [TP] allocated to all processors to one processor" as the commenter claims. EPA applied WQBELs and also a technology-based concentration limit for total phosphorus. We applied the concentration limits to allow fish processors more flexibility to vary their discharges if their flows increased as production increased. This flexibility is somewhat diminished by the simultaneous application of the WQBELs based on the WLAs. The division of the loads among processors occurred in the TMDL process, not in the permit writing process. The commenter is reminded about the pollutant trading options that may be helpful to accommodate changing production patterns.

c. Action: No change was made in the permit.

3. Calculation of MDLs from AML

a. Comment: IDEQ recommended using the MDL multipliers based on the individual LTAs and CVs (as we did for the new TBELs) in calculating the water quality based MDLs from the AMLs.

b. Response: EPA agrees with this change and for consistency applied the same logic to the TSS multipliers for these discharges. Using the process detailed in §II.B.2.b of Appendix B of the 2006 Fact Sheet (p. 23), we developed the individual MDL multipliers for the TSS limits.

c. Action: The limits were changed in the permits and in corrected Table B-13, above. See Table RTC-9, below, for the MDL multipliers and the new limits.

Table RTC-9
Derivation of Individual Water Quality-based MDLs for Fish Processors

Facility	Pollutant	Average Monthly Limit (lbs/day)	MDL Multiplier	Maximum Daily Limit (lbs/day)
Clear Lakes Trout Co.	TSS	43.0	2.24	96.3
	TP	3.3	2.0	6.6
Clear Springs Foods	TSS	150.0	2.01	301.5
	TP	20.2	1.97	39.8
Rainbow Filer	TSS	32.0	2.04	65.3
	TP	2.5	2.2	5.5
SeaPac	TSS	52.0	2.52	131.0
	TP	4.7	3.78	17.8

XI. Limits in the WLA Permit

A. Technology-based Limits (TBELs) for Warm Water Facilities

1. Development of Technology-Based Limits based on Best Professional Judgment (BPJ)

a. Comment: One commenter asked for extensive information about analyses related to cost-benefit analyses. He asked how technology-based limits can be proposed if these analyses and reviews have not been completed. Another commenter asserted that the TBELs "do not seem to be based in accurate calculations or sound science". Several others asserted that EPA did not consider economic studies, effect on individual facilities, age of facilities or type of facilities in its BPJ analysis.

b. Response: EPA referred the first requester to the Freedom of Information Act process for his extensive request of information. Much of the supposed information does not exist.

EPA has explained its BPJ process in developing the technology-based limits in the fact sheet and the supplemental fact sheet. The limits are based on the long-term average performance of each facility. It is EPA Region 10's position that, if the facilities continue to discharge as the facilities have in the past, operating in this way is technically achievable at no additional cost. Therefore, using the process described in the EPA NPDES Permit Writers' Manual, we have evaluated past performance and set technology-based limits based on the long term averages and coefficients of variation of the historical discharges for each of the warm water aquaculture facilities for which we had data. We evaluated each facility individually at the request of the industry in the 2006 public comment period; evaluating each facility individually is unusual in the context of a general permit. We decided to do it, since there were only a small number of facilities affected. Further individual analysis is not warranted in the general permit context. The underlying assumptions for a general permit are that the facilities involve the same types of operations, discharge the same types of wastes, require the same effluent limitations, and require the same or similar monitoring.

According to the Permit Writers' Manual, the limits based on this analysis are technically sound, in that they are "achievable with existing technology." They are also reasonable in that the limits are "achievable at a cost that the facility can afford. Historically, some of the other factors, such as age, process employed and non-water quality impacts have assumed lesser importance than the technical and economical feasibility evaluations." We believe that no further economic analysis or technical analysis is needed since we are not requiring the facilities to spend additional resources to meet the proposed limits. The economic cost of treatment remains the same for the facilities since the treatment processes are expected to be operated at least as

well as they have been in the past. It is reasonable to assume that the limits are "achievable with existing technology" because the current treatment processes have achieved these pollutant concentration levels over the past several years.

c. Action: We made no change in the permit.

2. Application of Effluent Guidelines

a. Comment: One commenter asked EPA to recognize "effluent limitation guidelines for aquaculture facilities not subject to water quality-based WLAs."

b. Response: See §V.A.8, above, for a discussion of this topic.

c. Action: No change is made in the permits.

3. Statistical Method in Calculation of Limits

a. Comment: One commenter questioned details of the EPA method of calculating limits from a LTA and CV of a data set, particularly the practice of establishing the AML at the 95th percentile of the observed data set and the MDL at the 99th percentile of the observed data set. He asserted that the limit is set to force him to be "in violation 2.5 days out of every 100 before a single measurement is taken."

b. Response: The process of calculating a limit from a long term average and a variability factor has been established for technology-based limits in the development of federal effluent guidelines, e.g. see *Technical Document for the Final Effluent Limitations Guidelines and New Source Performance Standards for the Concentration Aquatic Animal Production Point Source Category*, Section 8.5. Actually, with a 95th percentile AML, we expect to see an exceedance of the AML one month in every twenty months (5% of the monthly averages). We would expect to see an exceedance of the 99% MDL only once in 100 samples. Since the requirement is for monthly sampling, this would likely be exceeded once every 8.33 years. Priority enforcement in EPA Region 10 is on chronic or egregious violations. Isolated, infrequent violations are a lower priority and less likely to be subject to enforcement actions, including fines.

The method of developing limits from the LTA and CV at the 95th and 99th percentiles is established EPA policy, following EPA guidance set forth in the TSD. As such, it was not a new method for which this public notice provided the opportunity for comment. It was used, though not explained in detail, in the 2006 Fact Sheet and is detailed in the TSD and in other fact sheets for Region 10 permits.

c. Action: We made no change in the permit.

4. Use of methods in the Technical Support Document (TSD) for calculating phosphorus limits

a. Comment: A commenter asserted that using the methods in the TSD are not appropriate for a non-toxic pollutant. He also contrasted this with the water quality based averaging period the IDEQ used in the 2001 Middle Snake TMDL

b. Response: We do not understand the connection of a water quality based averaging period (not specified by the commenter) and methods in the TSD used for developing the TBELs for TP and TSS. Since these are totally different approaches to developing limits, we do not see the connection here. See § V.A.2, above, for a response on the issue of using the TSD for developing non-toxic TBELs.

c. Action: No change is needed in the permits.

5. Validity of Data Submitted by the Permittees

a. Comment: One person asserted that the data collected by the aquaculture facilities is inappropriate to use to characterize the discharges and use as a basis to develop limits. He points out the "less than ideal" conditions under which it is gathered and the variety of laboratories that conducted the analyses.

b. Response: Self-monitoring and subsequent reporting of monitoring results on Discharge Monitoring Reports (DMRs) are the cornerstone of EPA's NPDES compliance program. As a condition of the permission to discharge pollutants to waters of the U.S., a permittee is required to properly monitor and report data about the quality and quantity of its discharge. Each DMR includes a certification statement that must be signed by a responsible official, attesting to the accuracy of the data and the competence of the individuals collecting and analyzing the data. Permittees are liable for civil and criminal penalties for failing to submit accurate information. If the commenter is aware of "less than ideal" data gathering, whose integrity is suspect, we welcome specific information on which we can follow up. EPA and IDEQ also verify information submitted through inspections.

c. Action: No change is made to the permits.

6. Requirement to Apply the Most Stringent Limit

a. Comment: One commenter asserted that there has been no discussion of the need to apply the most stringent limit and implies that the most stringent limit may not be necessary to achieve the goals of the "Mid-Snake TMDL", the Clean Water Act, and the aquaculture industry. He also says, "I understand EPA and IDEQ cannot be 'less stringent' but there is not a requirement to be 'more stringent'"

b. Response: As stated in the 2006 Fact Sheet, Appendix B on page 4, all NPDES permitting authorities are required under 40 CFR §125.3 to apply technology-based treatment requirements as the minimum level of control that must be imposed in an NPDES permit. Therefore, a water quality based limit can only be applied if it requires more control, i.e. applies a more stringent (lower) limit, than a technology based requirement. In other words, the TBEL and WQBEL are compared, and the most stringent of the two must be applied in the permit.

The comment that EPA and IDEQ cannot be less stringent but don't have to be more stringent is a confused rendition of the general requirement that the states, tribes, and local authorities may be more stringent than federal requirements under the CWA but cannot be less stringent. By definition, this requirement about not being less stringent than the federal requirements does not apply to EPA, since EPA is a federal agency applying federal requirements. Since these are federal permits, this requirement about relative stringency has no bearing here. It applies only to state, tribal or local requirements.

c. Action: No change was made in the permits.

7. Support for Calculating TBELs individually

a. Comment: IDEQ expressed support for the rationale we used for developing performance-based TBELs for each warm water facility based on its own historical performance (effluent data).

b. Response: We appreciate the State's support for this revised approach in calculating appropriate TBELs.

c. Action: None required.

8. Effect of TBELs on Water Usage

a. Comment: One commenter asserted that the TBEL encourages using dilution and wasting water which is illegal in Idaho, and that it is inconsistent with EPA policy

b. Response: EPA assumes the commenter is referring to the TBEL in mg/L shown in Tables 1, 2, and 3 of the Supplemental Fact Sheet. EPA provided the concentration-based limits in these tables to show the derivation of the final proposed mass limits for each warm water facility in the subsequent columns in Table 3 and 4. EPA is not applying concentration limits as the final limits; therefore, the agency is not being inconsistent with its regulation that requires a mass limit for pollutants of concern.

c. Action: No changes were made to the permits.

9. FBI Catfish Farm Limitations

a. Discrepancy in Upper Limit for Trading (TBEL)

(1) Comment: IDEQ pointed out that in EPA's Supplementary Fact Sheet, page 9, the total phosphorus technology-based average monthly limit is listed in Table 2 as 15.4 lbs/day and in the text in the second paragraph below Table 2 as 17.3 lbs/day.

(2) Response: We appreciate learning of this discrepancy. We have checked the calculation and have confirmed that the value of 15.4 lbs/day is the correct one, which will serve as a limit for buying of TP credits during the March—August season for FBI Catfish Farm.

(3) Action: We have added this limit to Table 1 in the WLA permit (along with the TBEL upper bound for First Ascent's trading).

b. Appropriateness of the Recent Discharge History for calculating TBELs

(1) Comment: FBI Catfish has had problems with deformed fish since the early 1990s, which coincides with the time period when the operator began to use lower phosphorus feed. Over the past year, his production has been much reduced because of these problems and he has just recently learned that the feed was deficient in phosphorus, which appeared to be causing the deformities. He asserts that the technology-based limit based on this time period (not sure which one he's referring to, but maybe since the early 1990s) is based on a phosphorus-deficient diet and therefore is invalid.

(2) Response: The commenter did not suggest or request a specific change for the basis of the technology-based limit. Since we have no data for future effluent quality representative of the discharge from the facility, we don't have another option than relying on past data quality. As a clarification, the data set of effluent values on which we based our calculations was from January 2001 --- December 2004. In re-evaluating the data for TP changes over time, there does not appear to be a difference in the mean TP discharge calculated for each of these four years.

(3) Action: No change was made in the permit.

c. Appropriate Flow Basis

(1) Comment: A commenter asserted that the water flow used by EPA in calculating TBELs for Catfish Farm was reduced from 11.3 to 11.0 cubic feet per second (cfs) without stating a reason. The commenter thought that the flow data used reflected the drought conditions of the past seven years. He wanted EPA to use the flow collected over the same time period as that used for the limits for the rest of the industry. That flow was 11.3 cfs, and was collected by Brockway.

(2) Response: According to the Upper Snake Rock TMDL, the flows used for the WLAs for each facility were based on data collected in first

30 months of the 2000-2002 time period and compiled in IDEQ's Version 13 of the database for the industry. The flows used to determine the proposed TBEL for Catfish Farm were data from this time period as well as additional DMR data compiled by IDEQ through December 2004. In determining seasonal wasteload allocations, IDEQ did not determine the flows for each season, but merely requested the owner or operator of the facility provide the desired pounds of pollutant per day for each season. We used best professional judgment to determine a TBEL that would apply to the seasons requested by the owner in the WLA process. The BPJ analysis included using the long-term average concentrations, CVs, and long-term average flows for each season (rather than the long-term annual flow used in the WLA process). These TBELs were then compared with the corresponding season's WQBELs established from the WLAs.

(3) Action: No changes were made to the permits.

10. Anti-backsliding provisions

(1) Comment: One commenter asserted that the water quality-based warm water limits in the 1999 permit can be relaxed under the provisions of CWA §303(d)(4), which allows relaxation in the context of a TMDL, the overall effect of which is to reduce the pollutant load in the stream segment. He further asserted that warm water facilities have never consistently met the "1999 interim water quality-based effluent limitations." He stated that WQBELs may be relaxed under either CWA §402(o)(2) or §303(d)(4) and asked for corrections of the Fact Sheets, including "adoption of anti-backsliding and anti-degradation data accommodate the inclusion of water quality-based allocations as proposed limits the IDEQ developed and EPA approved in the TMDL process."

(2) Response: As a clarification, the 1999 permit included technology-based limits for total phosphorus for the warm water facilities (see §V.A.1, above), which we believe is the subject of this comment. Since those limits were established under best professional judgment (BPJ), they may be relaxed under the anti-backsliding exceptions in CWA §402(o)(2). As discussed in the Supplemental Fact Sheet (pp. 6—12) for this public comment period, we recalculated the limits for these facilities based on new information (effluent data). See the discussion in §V.A.4, above.

Regarding his statement about anti-backsliding and anti-degradation data and using the WLAs instead of presumably TBELs developed under BPJ, see the discussion at §V.A.6, above.

(3) Action: No change is needed in the permit.

B. Application of TBELs rather than WQBELs based on WLAs

1. Preference for WQBELs

a. Comment: IDEQ and other commenters expressed their preference that EPA incorporate the federally-approved WLAs in the WLA permit. One asserted that EPA had an obligation to include the WLAs developed in the TMDL. He stated that TBELs provide no additional environmental benefit and urged dropping any provisions that weren't clearly beneficial to the environment. Furthermore, he opined that EPA has not imposed TBELs on any other water body in Idaho.

b. Response: We acknowledge IDEQ's and others' preference for the approved WLAs as AMLs in the WLA permit. We refer the commenters to §§V.A.6 and 7, above, for a general discussion responsive to these comments, which were also submitted in 2006.

c. Action: No change was made in the permits.

2. 1999 TP Limits—Technology-based or water quality-based?

a. Comment: One commenter alluded to a statement in the 2006 fact sheet about the previous limits being water quality-based.

b. Response: See the response at §V.A.1, above.

c. Action: No change is called for in the permits.

C. Limits on Off-line Settling Basin (OLSB) Discharges

1. Net or gross

a. Comment: One commenter alleged that EPA proposes to further limit the discharge of OLSBs by changing the TSS concentration limit from net value to gross value.

b. Response: See the discussion at §V.A.9, above.

c. Action: No change was made in the permits.

2. Lack of Instantaneous Maximum Limit

a. Comment: One commenter wrote at length about the issue of an instantaneous maximum that it says EPA has established for OLSBs.

b. Response: See §IV.G.7, above.

c. Action: No change was made in the permits.

D. Water Quality-based Limits (WQBELs) in the WLA Permit

1. Temperature Limits for Warm Water Facilities

a. Comment: One commenter discussed temperature limits for warm water facilities, claiming this to be "a meaningless endeavor."

b. Response: See §V.B.4, above.

c. Action: No change was made to the permits.

2. Incorporation of Revised WLAs

a. Comment: IDEQ expressed its support for including the revised WLAs into the permits. It pointed out that it is awaiting EPA's approval of the Bruneau River TMDL modification, submitted in March 2007. It also said that it may assign a WLA for Papoose Springs in the revised Portneuf River TMDL.

b. Response: EPA appreciates the State's expression of support for the revised limits based on the WLAs. We will incorporate the Bruneau River WLAs if they are approved before the permits are finalized. Likewise, we will include limits for Papoose Springs if WLAs are finalized and approved before the permit is finalized.

c. Action: No change was made in the permits.

XII. Pollutant Trading

A. Trading Language in the WLA and FP Permits Arbitrary and Capricious

1. Comment: One commenter stated that the trading language in the proposed permits is contrary to the CWA and arbitrary and capricious under the Administrative Procedures Act because the permits allow trading without a watershed analysis and without a mechanism to ensure that trades do not cause or contribute to local exceedances of water quality standards. The commenter quotes the DEQ's Pollutant Trading Guidance [the Guidance]: "Prior to allowing any trading within the context of a permit, an analysis of the watershed must be completed to ensure that specific trades do not degrade water quality within the area of the trade." The commenter requests that permits require a watershed analysis before trades can occur, especially if we are now allowing buyers to purchase from downstream sellers. The commenter adds that a mechanism to ensure that the state's water quality standards (WQS) are met is needed (not just monitoring to see if they are).

2. Response: EPA clarifies that a permittee covered by these permits will not be allowed to trade unless the stream to which its facility discharges was included in a watershed analysis, for example, TMDL development with additional

consideration given to trading between pollution sources. The IDEQ Guidance provides an appendix for each such watershed with restrictions to trades specific to that watershed. Trading occurs within the framework of the TMDL and the Guidance.

In the Upper Snake Rock sub-basin, the only watershed in the Guidance with aquaculture facility discharges, a facility is allowed to increase its AML, which, in most cases, is equivalent to its WLA, only when another facility reduces its discharge, lowering its AML by an equivalent amount. This 1:1 ratio for trades between point sources on the Snake River above River Mile 586 was derived from a watershed analysis performed by IDEQ for the Snake River in the Upper Snake Rock sub-basin. This ratio was designed to address not only the net impact of a trade in relation to one defined location, such as the mouth of a water body, as is generally the case, but also the goal of the TMDL to achieve a concentration of 0.075 mg /L of total phosphorus at seven compliance points along the Snake River. IDEQ determined that this target TP concentration would achieve the state's narrative standard for ensuring that the river is free from nuisance aquatic vegetation. IDEQ's watershed analysis concluded that allowing trading between point sources at this 1:1 ratio would not result in detectable exceedances of this phosphorus goal and would meet the narrative water quality standard. Furthermore, we point out that the upper limit to trading in the proposed WLA permit, the technology based limit of 0.10 mg/L total phosphorus for coldwater facilities, coincidentally, is equivalent to the recommended water quality criterion established in EPA's Quality Criteria for Water (the "Gold Book") for protecting streams from nutrient enrichment (EPA, 1986). While the coldwater facilities employ technology that generally achieves this limit, their discharges also are protective of the recommended standard for water quality in streams. The goal of the Upper Snake Rock TMDL should be attainable because of the conservative 1:1 ratio for trading and the upper limit to trades (which coincidentally serves as the mechanism to ensure water quality standards are met).

As a back-up, in the Supplemental FS, EPA had stated that if ambient problems were found from IDEQ's monitoring efforts, the State would modify its Guidance to disallow trading in the affected segment. In its comment letter to EPA dated July 20, 2007, DEQ clarifies that "if ambient problems were found in a segment or stream, DEQ would use this information to reevaluate the pollutant trading that is occurring in the segment. This reevaluation may not necessarily result in a modification to the Pollutant Trading Guidance. We would not necessarily disallow all trading in that segment; rather we may simply disapprove of those trades that result in localized impacts." IDEQ would notify the Idaho Clean Water Cooperative of the facilities that could not longer be involved in trading because of such impacts. IDEQ's monthly monitoring at the seven compliance points merely serves as a backup to the 1:1 ratio designed to ensure the 0.75 mg/L TP still is achievable between each segment.

3. Action: No changes were made to the permit language.

B. Allowing Trading between Watersheds

1. Comment: One commenter stated that EPA's sanctioning of trading between facilities inside and outside of the Upper Snake Rock Watershed is inconsistent with the CWA and otherwise arbitrary and capricious under the APA. EPA needs to clarify in the permits that trading can only occur within a watershed for which a TMDL has been approved, to assure that WQS are met.

2. Response: The commenter misunderstands the permit trading language and Supplemental Fact Sheet. EPA is not allowing trading between facilities inside and outside of the Upper Snake Rock Watershed. Rather EPA is allowing trading only between sources discharging into the same watershed, and only if a watershed analysis, such as a TMDL has been completed, and only if such trading is allowed under the Guidance (see response above also). These restrictions provide assurance that State water quality standards will be met. During the term of these permits, EPA will contemplate modifying the permits, at IDEQ's request, to accommodate trading within other watersheds only after a watershed analysis is completed to ensure that specific trades will not degrade water quality within the area of the trade and after the Guidance is modified to include the appendix for the specific watershed. Prior to modifying permits, EPA will review the modified Guidance and supporting documentation to ensure that modifying the permits to reflect the Guidance will not result in the permittees causing exceedances of water quality standards or corresponding TMDL goals. Any modification of the permits would require public notice and opportunity to comment.

3. Action: Clarifying language was added to Appendix C of the WLA permit and Appendix C of the Fish Processor permit to ensure that permittees understand that they can only trade with other point sources and non-point sources in the Upper Snake Rock sub-basin.

C. Non-Point Source Trades Only Allowed After Project Installed and Pollutants Reduced

1. Comment: One commenter pointed out that IDEQ's Pollutant Trading Guidance only allows trading of credits generated from non-point sources when such non-point sources demonstrate that they have actually reduced the pollution expected under Best Management Practices. The commenter interprets the proposed permits to allow trades prior to pollution reductions being met by nonpoint sources and believes that this renders the general permits contrary to the CWA and otherwise arbitrary and capricious under the APA.

2. Response: EPA clarifies that trades with non-point sources will only be allowed when they are consistent with IDEQ Guidance which states that nonpoint source credits are transferable only after the project is installed and the pollutant reductions have been verified through monitoring and recorded.

3. Action: No changes were made to the permit language.

D. Permit Revision Required When IDEQ Guidance Changes

1. Comment: One commenter asserted that incorporating future versions of IDEQ's Guidance is contrary to the CWA and implementing regulations: the modified Guidance would need EPA review and approval, since it now stands as part of the permit, and since a change in the Guidance is not a minor change, as defined in 40 CFR § 122.63, EPA would need to modify the permit each time the Guidance changed.

2. Response: EPA agrees with the comment: since EPA's review and approval of the IDEQ Guidance is not required by law or regulation, in order for additional permittees to trade under a modified version of the Guidance, EPA would need to modify the permits so that the new version of the guidance is incorporated by reference. As stated above, however, EPA will only consider reopening and modifying the permits if the modified Guidance will not result in the permittees causing exceedances of water quality standards or corresponding TMDL goals. EPA will provide a public comment period when modifying the permits.

3. Action: No changes were made to the permit language.

E. Allowing Exceeding AMLs

1. Comment: One commenter asserted that allowing an exceedance of AMLs is contrary to EPA's trading policy, the CWA, and implementing regulations and, that allowing an increased AML to be offset when another AML is reduced means 1) the public is not provided an opportunity "to participate, develop, and enforce any regulation, standard, effluent limitation, plan, or program established under the CWA, 2) the permit [limit] is not for a required set term, and 3) modification of a permit is occurring without following established procedures.

2. Response: EPA clarifies that it is not allowing an exceedance of the AML through trading, but rather the AML will increase temporarily in response to an equivalent reduction in another AML in the watershed. This is consistent with EPA's trading policy, with the CWA, and the implementing regulations at 40 CFR §122.4(a) and (d). EPA's *2003 Water Quality Trading Policy* states:

> *"EPA believes that the antibacksliding provisions of Section 303(d)(4) of the CWA will generally be satisfied where a point source increases its discharge through the use of credits in accordance with alternate or variable water quality based effluent limitations contained in an NPDES permit, in a manner consistent with provisions for trading under a TMDL, or consistent with the provisions for pre-TMDL trading included in a watershed plan*."

As stated in other sections of the Response to Comments, the trading language in these proposed permits is consistent with provisions in the TMDL (e.g., while the buyer's WLA and its AML increases temporarily, the seller reduces its WLA (and

AML) by an equivalent amount of pollutant load). Also, the limitations in the permit, after accounting for any trading provisions, are at least as stringent as the limits in the previous permit or, otherwise satisfy the antibacksliding provisions of the CWA under § 303 (D)(4)(A). In addition, facilities cannot exceed their TBELs when they buy credits. For cold water facilities in the WLA permit, there was no WQBEL in the last permit, and since the total phosphorus TBEL remains at the 1999 permit limit of 0.10 mg/L TP, trading between cold water facilities will not result in backsliding from previously applied limits. In the WLA permit, warm water facilities have higher TBELs than the 1999 limits because of new information (performance data from the facilities) that was available for this permit revision. An exception in the antibacksliding regulation pertaining to new information allowed EPA to apply less stringent limits to these facilities (see §V.a..4. Development of TP Technology-Based Limit for Warm Water Facilities above). Fish processors have never before had a limitation on the discharge of phosphorus, so trading will not result in backsliding by the fish processor facilities.

The public has been provided opportunity to participate in this permit action by reviewing and submitting comments on the permits and fact sheets. The public has the right to appeal the permits and enforce them under the citizen suit provision of the CWA (§ 505).

While the permits allow for the AML to increase or decrease with trading in accordance with EPA policy, State Guidance and TMDLs, the term of the permit is set at five years unless administratively extended.

With regard to whether or not EPA is required to modify the permits each time a trade occurs, the 2003 EPA Trading Guidance says that "EPA does not expect that an NPDES permit would need to be modified to incorporate an individual trade if that permit contains authorization and provisions for trading to occur and the public was given notice and an opportunity to comment and/or attend a public hearing at the time the permit was issued."

3. Action: No changes were made to the permits in response to this commenter's concerns about trading.

XIII. Endangered Species Act Consultation

A. Conclusion that Permits Likely to Adversely Affect Species

1. Comment: Several commenters opposed EPA's conclusion that the issuance of the permits are likely to adversely affect snail species listed under the Endangered Species Act (ESA). One commenter questioned the decision EPA made on effects of warm water facilities' discharges on the snails and wondered if EPA had performed an assessment.

2. Response: The discharge of phosphorus from aquaculture facilities and associated fish processors contribute to the cumulative effect that the nutrient has on the Snake River ecosystem, which is highly eutrophic. U.S. Fish and Wildlife Service determined that poor water quality conditions of the Snake River are one of the factors resulting in reduced viability of the listed snails in the river (Snake River Aquatic Species Recovery Plan, 1995). While EPA believes that the Upper Snake Rock sub-basin TMDL will improve the conditions for the snails by reducing the cumulative load of phosphorus, until conditions improve, the snail populations will continue to be adversely affected by any discharges of phosphorus.

The discharge of warm water to the Snake River or its tributaries may raise the temperature of the ambient water above the upper temperature limit for listed snail survival of 18°C. Preliminary modeling of the water temperature and flows of the warm water facilities relative to the Snake River temperature and flows at the discharge locations (or tributary confluence location) indicates that water temperatures could rise above 18°C at two of these locations (Cope, 2006). This conclusion resulted in a decision that the warm water facility discharges are likely to adversely affect listed snails.

Despite the conclusion that some listed species are likely to be adversely affected by issuance of these permits, EPA is electing to issue the permits under provisions of the ESA §7(d), since these permits are more stringent than the previous permit and, therefore, more protective of listed species. Should FWS or NOAA Fisheries later specify additional permit conditions that would reduce the effects on listed species, EPA can modify the permits, as necessary, providing opportunity for public comment prior to finalizing modifications.

3. Action: No changes were made to the permit language.

B. Proper Consultation Procedures

1. Comments: One commenter questioned whether EPA followed proper procedure when it did not include permittees in meetings with the Services (US Fish and Wildlife Service and NOAA National Marine Fisheries Service).

2. Response: The procedural regulations governing interagency cooperation under Section 7 of the Endangered Species Act, 50 CFR §402, assume that under certain circumstances applicants for federal permits will be involved in consultation of effects of permitted actions on listed species. But, the regulations do not require the federal permitting agency to include the applicants for permits in consultation. The regulations at 50 CFR §401.11 state: “Although early consultation is conducted between the Service[s] and the Federal agency, the prospective applicant should be involved throughout the consultation process.” Early consultation is only conducted between the agencies if an applicant has reason to believe that the prospective action [issuance of these discharge permits] may affect listed species or critical habitat and requests the federal agency to enter

into early consultation with the Services. No permittee submitted such a request to EPA; therefore, early consultation including a permittee was not conducted. Neither informal nor formal consultation requires involvement by the applicant.

In summary, the ESA regulations allow for involvement; for early consultation, applicants should be involved; otherwise, there is no requirement to be involved. Furthermore, no permittee requested early consultation.

3. Action: No changes were made to the permits.

XIV. IDEQ Final §401 Water Quality Certification

On October 5, 2007, EPA received IDEQ's Final § 401 Water Quality Certification, which included the following two conditions.

A. Certification Conditions

1. Pollutant Trading

a. Condition: Pollutant trading may occur provided it is conducted in accordance with DEQ's *Pollutant Trading Guidance.*

b. Response: The WLA permit and the Fish Processor permit allow pollutant trading only in compliance with the requirements of the Water Quality Pollutant Trading Guidance 2003.

c. Action: No change is needed in the permits.

2. Correction in Wasteload Allocations for Smith Farm Ponds (IDG-130090)

a. Condition: In order to comply with the Upper Snake Rock TMDL, the TSS average monthly limits and maximum daily limits (which are derived from the WLA) should be changed as stipulated in Table RTC-10.

Table RTC-10
Corrected TSS WQBELs for Smith Farm Ponds

Facility Name	Season	Average Monthly limits (lbs/day)		Maximum Daily Limits (lbs/day)	
		Previous	Final	Previous	Final
Smith Farm Ponds	Mar—May	454.2	274.0	863.1	520.5
	Sep—Nov	274.0	454.2	520.5	863.1

b. Response: We agree that these corrections are appropriate and will not result in a negative impact on the receiving water.

c. Action: We made these changes in Table 3 of the WLA permit.

B. IDEQ Comments accompanying final certification

1. Compliance Monitoring Frequency

   a. Comment: IDEQ supports the tiered (based upon facility production) approach to monitoring requirements.

   b. Response: No change is requested in the permits.

   c. Action: No change is needed.

2. Ace Development and Arraina Total Phosphorus Limitations

   a. Comment: IDEQ hasn't finished its revision to the modified Bruneau River TMDL. WLAs for TP are expected to change and WLAs for TSS are expected to be added. The State requests that the permit not be issued for the Bruneau River facilities. If EPA does issue the permit for these facilities, it implores EPA to consider revising the permit limitations for these two facilities once the modified TMDL has been approved by EPA.

   b. Response: EPA reviewed and approved the modified Bruneau River TMDL before the WLA permit was signed.

   c. Action: The limits proposed in the June 2007 public notice for the Bruneau River facilities are included in the permit and ACE Development and Arraina are automatically covered beginning on the effective date of the permit.

3. Ambient Water Quality Monitoring

   a. Comment: IDEQ supports the requirement to monitor for ammonia, pH, and temperature upstream of the discharges from fish processors and off-line settling basins.

   b. Response: We retain the ambient monitoring requirements as described.

   c. Action: No change is needed.

4. Sampling on IDEQ Inspections

   a. Comment: IDEQ reaffirmed its understanding from a 9/25/07 teleconference with EPA that IDEQ inspectors would take grab samples during routine inspections, even though information from grab samples would not provide adequate information to determine compliance with maximum daily limits. Rather, grab sample data would be used as an indicator to guide further investigations.

   b. Response: EPA agrees with IDEQ's recounting of our understanding from the 9/25/07 teleconference.

   c. Action: No change is needed.

5. Address corrections

   a. Comment: IDEQ corrected the addresses for several of its offices, to which reports would be submitted under the permits.

   b. Response: EPA agrees that the changes are appropriate.

   c. Action: We made the requested changes in all the permits.

6. Corrections in references

   a. Comment: IDEQ noted errors in references to appendices, tables, and in footnote numbering.

   b. Response: EPA appreciates finding these errors.

   c. Action: We corrected the noted errors and checked the permits for similar errors elsewhere.

7. Units for reporting Copper Monitoring

   a. Comment: IDEQ asked if the units for Total Recoverable Copper monitoring results in Table 12 of the WLA permit should be in µg/l rather than mg/l, since the method detection limit is in µg/l.

   b. Response: Because the results are expected to be higher in the effluent, we are requesting those results in mg/l; we are requesting results of monitoring of receiving water, which expected to have much lower levels, in µg/l.

   c. Action: We did not change the permits.

8. Footnote confusion

   a. Footnote #34 (now #33) for Table 13 in the WLA permit

      (1) Comment: IDEQ thought that a footnote did not make sense.

      (2) Response: EPA added a reference to guidance on effluent calculations in Appendix D. We believe that addresses the confusion.

      (3) Action: The addition was made in the footnote

   b. Footnote #32 (now #31) for Table 13 in the WLA permit

      (1) Comment: IDEQ requested clarification on whether the option to not sample facility influent is broader than in relation to the OLSB monitoring.

      (2) Response: We agree that there might be some confusion and so have added a phrase pointing out that this option refers only to the OLSB monitoring.

      (3) Action: We've made this change in both the WLA permit and the Cold Water permit.

9. Sediment sampling in the QA Plan

   a. Comment: IDEQ advised that we remove the reference to sediment sampling in the section on maps in the QA plan.

   b. Response: Since we have removed sediment sampling requirements from the final permits, we agree that this reference to sediment sampling sites is no longer appropriate.

   c. Action: We have removed references to sediment sampling sites in the WLA and Cold Water permits.

10. Facilities' List in Appendix B of the WLA Permit

   a. Comment: IDEQ asked that Deadman Hatchery (IDG130091) be added to the list of those who submitted NOIs between January 1 and September 17, 2004.

   b. Response: We agree with the request.

   c. Action: We added Deadman Hatchery to the list in Appendix B of authorized dischargers who submitted NOIs in the 2004 time frame.

11. Pollutant Trading Appendix

   a. Comment: IDEQ noted that we transposed the words "buyer" and "seller" in Part I.

   b. Response: We agree with the needed change.

   c. Action: We changed the language in the WLA and the Processor permits.

12. Use of Dash

   a. Comment: IDEQ recommended replacing the double hyphen in the equation in Appendix D Part I.a with a dash.

   b. Response: We agree that this is preferable and finally found the way to make Microsoft Word do what we wanted.

   c. Action: We made this change in all the permits.

13. TSS Maximum Daily Limit for Clear Springs Foods (CSF) Fish Processor

   a. Comment: IDEQ thought there was a typographical error in the CSF TSS MDL, since it was 361.5 lbs/day in the draft permit, but 301.5 lbs/day in the final permit.

   b. Response: The change was made in the MDL multiplier in response to earlier comments by IDEQ. See §X.B.3, above, for an explanation.

   c. Action: We made no change to the permit.

XV. References

Idaho Department of Environmental Quality. Pollutant Trading Guidance. November 2003 Draft. Available at http://www.deq.state.id.us/water/prog_issues/waste_water/pollutant_trading/pollutant_trading_guidance_entire.pdf

Rowe, Mike, Don Essig, and Ben Jessup. 2003. Guide to Selection of Sediment Targets for Use in Idaho TMDLs. (An IDEQ publication available at http://www.deq.state.id.us/water/data_reports/surface_water/monitoring/sediment_targets_guide.pdf) June 2003.

U.S.EPA. 1986. Office of Water. Quality Criteria for Water 1986. EPA-440/ 5-86-001

U.S.EPA. 1996. Office of Water. U.S. EPA NPDES Permit Writers' Manual. EPA-833-B-96-003

U.S.EPA. 2003. Office of Water. Water Quality Trading Policy. January 13, 2003. Available at http://www.epa.gov/owow/watershed/trading/tradingpolicy.html

U.S.EPA. 2004. Office of Science and Technology. Technical Development Document for the Final Effluent Limitations Guidelines and New Source Performance Standards for the Concentrated Aquatic Animal Production Point Source Category. EPA-821-R-04-012.

U.S. EPA. 2007. Water Quality Trading Toolkit for Permit Writers. EPA 833-R-07-004. Available at http://www.epa.gov/owow/watershed/trading/WQTToolkit.html

U.S.EPA. Region 10. 1999. Fact Sheet for Proposed Idaho Aquaculture General Permit, # IDG130000.

U.S.EPA. Region 10. 1999. Response to Comments on the Proposed Issuance of the General National Pollutant Discharge Elimination System (NPDES) Permit for Aquaculture Facilities in Idaho and associated on-site Fish Processors, #IDG130000.

U.S.EPA. Region 10. 2006. Fact Sheet for Proposed Idaho General NPDES Permits for Aquaculture Facilities -- #IDG130000 and IDG131000, for Fish Processors associated with Aquaculture Facilities – #IDG132000, and an Individual Permit for Epicenter Aquaculture – #ID0028266. June 2006.

U.S.EPA. Region 10. 2007. Letter from Mike Gearheard to Barry Burnell, IDEQ: Approval of Fall Creek Total Maximum Daily Load (TMDL) Addendum of the Lake Walcott TMDL. March 23, 2007.

U.S.EPA. Region 10. 2007. Letter from Mike Gearheard to Barry Burnell, IDEQ: Approval of Rueger Springs Total Maximum Daily Load (TMDL) Addendum of the Lake Walcott TMDL. March 23, 2007.

U.S. Fish and Wildlife Service, Snake River Basin Office. 1995. Snake River Aquatic Species Recovery Plan.