

BEFORE THE BOARD OF ENVIRONMENTAL QUALITY

STATE OF IDAHO

IN RE: IDEQ REPORT – THE UPPER
SNAKE ROCK TMDL MODIFICATION,
DATED JULY 22, 2005:

PRISTINE SPRINGS, INC.,

Petitioner,

vs.

TONI HARDESTY, Director, IDAHO
DEPARTMENT OF ENVIRONMENTAL
QUALITY, an executive agency of the
State of Idaho,

Respondent,

and

BLUE LAKES TROUT FARM, INC.,
CLEAR LAKES TROUT COMPANY,
INC., ESTATE OF EARL M. HARDY,
FISHERIES DEVELOPMENT CO.,
IDAHO TROUT COMPANY INC., RIM
VIEW TROUT CO., RAINBOW TROUT
FARMS, INC.,

Intervenors.

Docket No. 0102-05-02

AMENDED FINAL ORDER ON
PETITION FOR REVIEW OF AND
EXCEPTIONS TO PRELIMINARY
ORDER

I. INTRODUCTION

This contested case was initiated by a *Petition for Contested Case and Declaratory Relief* filed by Pristine Springs, Inc. (PSI), challenging *The Upper Snake Rock TMDL Modification*¹ (TMDL Modification) issued by the Department of Environmental Quality (DEQ) on July 22, 2005. Blue Lakes Trout Farm, Inc., Clear Lakes Trout Company, Inc., Estate of Earl M Hardy, Fisheries Development Co., Idaho Trout Company Inc., Rim View Trout Co., and Rainbow Trout Farms, Inc., (Intervenors) filed a *Petition to Intervene* which was granted by the Hearing Officer. At the completion of the contested case proceedings before the Hearing Officer, a *Preliminary Order on Motions for Summary Judgment* (Preliminary Order) was entered. The October 30, 2006, Preliminary Order ruled against PSI on all counts.

The matter now comes before the Board of Environmental Quality (Board) on PSI's *Petition for Review of and Exceptions to Preliminary Order*, filed on November 13, 2006 (Petition). PSI asks the Board to find that:

1. Warm Creek should not be assigned a TMDL;
2. PSI should be assigned a waste load allocation (WLA) of 96.7 lbs/day [of total phosphorus], instead of the 55.46 lbs/day WLA that DEQ assigned to PSI;
3. In determining PSI's allocation, a finding should be made that the wrong flow rate was assigned to PSI, and PSI's flow rate should be no less than 216.1 c.f.s.;
4. The 970.2 lb/day [total phosphorus] limit for the Mid-Snake was determined in an arbitrary, capricious manner [sic] and unlawful manner, and therefore, each individual allocation is likewise arbitrary, capricious and unlawful;
5. Assuming *arguendo* that a limit may be set for Warm Creek, PSI may receive an allocation of 96.7 lbs/day [total phosphorus], without the limit of Warm Creek being exceeded; and

¹ The full title of the document reads *The Upper Snake Rock TMDL Modification [-] Upper Snake Rock Watershed Management Plan – Modification- A Modification of Mid-Snake TMDL and Upper Snake Rock TMDL To Account for the Aquaculture Wasteload Allocation Of Part 1 (Fish Production Facilities & Conservation Hatcheries), Part 2 (Fish Processors), and Part 3 (Billingsly Creek Facilities)*.

6. A finding should be made that DEQ's treatment of PSI was so arbitrary and capricious, as compared to other similarly situated facilities, that the treatment denied PSI equal protection and results in an unconstitutional taking without compensation in violation of the Constitutions of the United States [sic] and State of Idaho.

Intervenors concur with PSI's position that DEQ's allocation of 970.2 lbs/day total phosphorus to the aquaculture industry, and therefore the allocation to Warm Creek, was arbitrary and capricious.

II. STANDARD OF REVIEW

When reviewing a Preliminary Order, the Board has the authority to "exercise all of the decision-making power that he [the Board] would have had if the agency head [the Board] had presided over the hearing." Idaho Code § 67-5245(7). This means that, in reviewing the Preliminary Order, the Board may review all of the evidence *de novo* and does so here. Pursuant to IDAPA 58.01.23.102, PSI has the burden of proving the allegations in its Petition by a preponderance of the evidence.

III. STANDARDS FOR SUMMARY JUDGMENT

Motions for summary judgment before the Board are allowed by IDAPA 58.01.23.213, and are governed by the Idaho Rules of Civil Procedure. Summary judgment is proper if "there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law." I.R.C.P. 56(c). When considering a motion for summary judgment, the Board must liberally construe the facts in favor of the party opposing the motion, who is also to be given the benefit of all favorable inferences which might be reasonably drawn from the evidence.

IV. THE CLEAN WATER ACT

The Federal Water Pollution Control Act, commonly known as the Clean Water Act, 33 U.S.C. § 1251 *et seq.*, is a comprehensive water quality statute designed to "restore and maintain

the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). In order to meet this objective, the Clean Water Act imposes obligations on the United States Environmental Protection Agency (EPA) and state environmental protection agencies.

EPA's water quality regulatory program focuses, in part, on two potential sources of pollution: point source pollution and nonpoint source pollution. Point sources of pollution are defined as discrete conveyances (pipes, ditches, etc.) that discharge pollutants directly into streams, such as discharges associated with wastewater treatment plants. 33 U.S.C. § 1362(14). Nonpoint sources, such as pastures, lawns, or construction sites contribute pollutants diffusely through run-off. 33 U.S.C. § 1314(f).

A. National Pollution Discharge Elimination System (NPDES) Permits

EPA must establish technology-based standards for discharges from point sources to waters of the United States to protect water quality and health. These technology-based limits are imposed through National Pollution Discharge Elimination System (NPDES) permits and generally require implementation of the best practicable or best available technologies for treating waste water. 33 U.S.C. §§ 1311, 1314, 1342. Technology-based standards, referred to as effluent limitation guidelines, set minimum levels of waste treatment and are applied to dischargers, regardless of water quality in the receiving waters. EPA issues NPDES permits for Idaho. Discharges of pollutants from aquaculture facilities are point source discharges that require an NPDES permit.

NPDES permits may be individual or general. An individual permit is a permit specifically tailored to an individual facility. A general permit covers multiple facilities within a specific category. General permits may be written to cover categories of point sources having common elements, involving similar types of operations, discharging the same types of wastes,

or requiring the same or similar monitoring. *See* 40 C.F.R. § 122. After a general permit is issued, facilities wishing to be covered under the permit submit a Notice of Intent (NOI) to the permitting authority. *See* 40 C.F.R. § 122.

NPDES permits must also contain limits to ensure the discharge meets the water quality standards established by the states and approved by EPA. 33 U.S.C. § 1313(c); 40 C.F.R. § 131.6. Section 401(d) of the Clean Water Act requires the state to list in the certification the conditions that must be included in the permit to implement the certification. 33 U.S.C. § 1341(d).

B. Clean Water Act Section 303(d) Listed Water Bodies and Total Maximum Daily Loads

When NPDES effluent limitation guidelines are not adequate to protect or restore certain rivers, streams, or smaller water segments, the Clean Water Act requires use of a water-quality based approach. Pursuant to section 303 of the Clean Water Act, states must adopt water quality standards, which consist of designated uses of state waters, water quality criteria to protect those uses, and an antidegradation statement. 33 U.S.C. §§ 1313(c); 40 C.F.R. § 131.6. States are also obligated to identify and prioritize waters that fail to meet water quality standards. This list of waters is referred to as the 303(d) or water quality-limited segments list. 33 U.S.C. § 1313(d).

For the waters on the 303(d) list, states are required to establish total maximum daily loads (TMDLs). 33 U.S.C. § 1313(d). The Clean Water Act regulations define TMDLs as follows:

The sum of the individual WLAs for point sources and LAs for nonpoint sources and natural background. If a receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. If best management practices (BMPs) or other nonpoint source pollution controls make more stringent load allocations

practicable, then waste load allocations can be made less stringent. Thus, the TMDL process provides for nonpoint source control tradeoffs.

40 C.F.R. § 130.2(i).

A TMDL is a pollutant budget that describes the maximum amount of pollutants (or loading capacity) from point and nonpoint sources a water body can receive without exceeding the water quality standards that are set to protect designated uses. 33 U.S.C. § 1313(d)(1)(C).

The loading capacity of a water body is defined as:

The greatest amount of loading [of a pollutant] that a water can receive without violating water quality standards.

40 C.F.R. § 130.2(f).

The Clean Water Act requires a TMDL to meet the following test:

Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.

33 U.S.C. § 1313(d)(1)(C).

Once the loading capacity of a water body is determined, the pollutants are budgeted among the sources in the watershed so that water quality standards will not be exceeded. For point sources of pollution regulated by NPDES permits, the limits in the permit are called waste load allocations (WLA).

WLAs are defined as:

The portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation.

40 C.F.R. § 130.2(h).

Nonpoint sources of pollution receive what is called a load allocation (LA).

LAs are defined as:

The portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources. Load allocations are best estimates of the loading, which may range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading. Whenever possible, natural and nonpoint source loads should be distinguished.

40 C.F.R. § 130.2(g).

When determining the effluent limits for an NPDES permit, EPA compares technology-based effluent limitations and water quality-based effluent limits (developed in the TMDL to meet state water quality standards) and chooses the more stringent of the two as the limits for the permit. After TMDLS are developed by the states, they must be submitted to and approved by EPA. 33 U.S.C. § 1313(d)(2). Once approved by EPA, the TMDLs become part of the state's water quality management plan. 33 U.S.C. §§ 1313(d)(2) and 1313(e)(3); 40 C.F.R. § 130.7(d)(2).

Based upon these statutory and regulatory definitions a TMDL can be described by the following equation: $TMDL = WLAs + LAs + \text{margin of safety}$. The individual allocations to point and nonpoint sources are each a portion of the TMDL and cannot be increased without a corresponding decrease in another.

C. Methods of Allocation

The Clean Water Act and its implementing regulations contain no formula for allocating WLAs and LAs of a TMDL among persons wishing to use the assimilative capacity of the nation's waters. Federal law requires that the allocations provided must meet state water quality standards with "a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality." 33 U.S.C. § 303(d)(1)(C). Federal law leaves the allocation of a TMDL within the discretion of the state and EPA.

EPA guidance and technical documents issued in 1991 advise that individual states may use any reasonable allocation scheme that meets the antidegradation provisions and other requirements of state water quality standards. EPA advises the most common allocation methods used by the states have been equal percent removal, equal effluent concentrations, and a hybrid method. *See Guidance for Water Quality-Based Decisions: The TMDL Process, EPA 1991; Technical Support Document For Water Quality-Based Toxics Control, EPA 1991.*

The most recent guidance document issued by EPA describes more fully the allocation of pollutant loads that is part of the TMDL process. “During the allocation process, EPA encourages authorities to consider a range of allocation options that are technically feasible and demonstrate programmatic consistency. Allocations for a particular watershed or TMDL are likely to be based on competing measures of desirability such as cost effectiveness, and equity. Final allocation determinations are policy decisions and should reflect public perceptions about acceptable tradeoffs between these measures.” *Water Quality Models and Tools, Allocating Loads and Wasteloads*, Dec. 29, 2006, <<http://www.epa.gov/waterscience/models/allocation/>>, last accessed May 30, 2007.

V. THE IDAHO WATER QUALITY ACT

Like the Clean Water Act, the Idaho Water Quality Act, Idaho Code §§ 39-3601 *et seq.*, sets out the process for developing and establishes the requirements for TMDLs. The Idaho Water Quality Act directs DEQ to develop TMDLs for water bodies on the State’s 303(d) list and defines TMDLs as follows:

A plan for a water body not fully supporting designated uses and includes the sum of individual waste load allocations for point sources, load allocations for nonpoint sources, and natural background levels of the pollutant impacting the water body. Pollutant allocations established through TMDLs shall be at a level necessary to implement the applicable water quality standards for the identified pollutants with seasonal variations and a margin of safety to account for

uncertainty concerning the relationship between the pollutant loading and water quality standards.

Idaho Code § 39-3602(30). Thus, TMDLs are plans for bringing impaired water bodies into compliance with water quality standards that identify and allocate pollutant loads to point and nonpoint sources for implementation over a specified period of time. Although there is no fixed calculus for making allocations to point and non-point sources, the Legislature directs that the allocations established in a TMDL must be adequate to meet state water quality standards.

The Legislature requires DEQ to undertake a subbasin assessment to inform the development of a TMDL. Subbasin assessment is defined as follows:

A document that describes a watershed or watersheds for which a [TMDL] is proposed, the water quality concerns, the status and attainability of designated uses and water quality criteria for individual water bodies, the nature and location of pollutant sources, past and ongoing pollutant control activities, and such other information that the director with the advice of the local watershed advisory group determines is pertinent to the analysis of water quality and the development and implementation of a [TMDL].

Idaho Code § 39-3602(29).

Idaho Code § 39-3611 provides that subbasin assessments and TMDLs must include, among other things, identification of pollutants impacting the water body, an inventory of all point and nonpoint sources of identified pollutants, if practicable, or an analysis of the land types, land uses, and geographical features within the watershed that may be contributing identified pollutants to the water body, pollutant reduction strategies for both point sources and nonpoint sources, and an adequate margin of safety to account for uncertainty. Idaho Code § 39-3611(4).

Idaho Code § 39-3611 mandates that DEQ develop subbasin assessments and TMDLs in consultation with watershed advisory groups. Idaho Code § 39-3611(6) provides the following:

No instream target for a pollutant shall be set as part of a TMDL process unless the data and analysis in the subbasin assessment demonstrate that the pollutant is causing or contributing to a violation of a water quality standard in the stream for which the TMDL is being developed. If a pollutant load is allocated to a tributary inflow as part of a downstream TMDL, the Director shall develop a plan to meet such allocation in consultation with the tributary watershed advisory group as provided in subsection (8) of this section.

Watershed advisory groups are responsible for recommending specific actions needed to control point and nonpoint sources of pollution within the watershed so that, within reasonable periods of time, designated beneficial uses are fully supported. Idaho Code § 39-3616.

In summary, a TMDL must be (1) based on a subbasin assessment of the relevant watershed; (2) developed in consultation with local advisory groups; (3) provide allocations of pollutant loads to point and nonpoint sources with a schedule for implementation; and (4) include follow up monitoring to document progress made in achieving water quality standards for the targeted water body. Idaho Code §§ 39-3611, -3612.

VI. FINDINGS OF FACT

A. Phosphorus Discharge on Warm Creek

PSI owns commercial aquaculture facilities used for raising fish that are located on Warm Creek, a tributary that discharges directly to the Snake River. During the raising of fish, water flows through the facilities and various waste products, including total phosphorus (TP), enter the water. PSI's aquaculture facilities discharge the water they use into Warm Creek. PSI also owns a cattle operation near Warm Creek that is a nonpoint source of TP to Warm Creek. Only one other entity, Blue Lakes Trout Farm, Inc., (BLT) owns facilities discharging TP that ultimately enters Warm Creek.

B. The 1997 Mid-Snake TMDL

1. The Snake River, from Milner Dam to King Hill, referred to as the Mid-Snake River, does not meet state water quality standards for certain pollutants, including excess nutrients, such as phosphorus, and sediment. The State of Idaho is required, pursuant to Section 303(d) of the Clean Water Act, to develop a TMDL to address the pollutants causing the water quality standards violations in this reach of the Snake River.

2. On March 20, 1997, DEQ issued *The Middle Snake River Watershed Management Plan, Phase 1 TMDL, Total Phosphorus* (Mid-Snake TMDL). The Mid-Snake TMDL was developed using a watershed approach to address pollutant sources from throughout the Mid-Snake River. The TMDL was prepared by DEQ, in consultation with a watershed advisory group, a technical advisory committee, and stakeholders, including major water user industries: aquaculture, food processors, municipalities, irrigated agriculture, confined animal feeding operations, and hydroelectric power. Mr. Mark Harrison, PSI, is listed as a member of the writing committee, formed on April 10, 1996, that worked with technical committees, advisory groups, and DEQ to prepare the TMDL. In April of 1997, the Mid-Snake TMDL was approved by EPA.

3. The Mid-Snake TMDL focused primarily on reducing the amount of phosphorus in the Mid-Snake River. This is because total phosphorus loading from throughout the watershed was identified as one of the principle excess nutrients causing impairment to designated beneficial uses, including aquatic life, fishing, swimming, and boating. Excess nutrients such as phosphorous can cause nuisance aquatic growths that degrade water quality for certain beneficial uses in the river reach of concern, and in downstream and lateral waters. The Mid-Snake TMDL was the first to be issued for the Snake River in a phased approach to

achieving water quality standards for all pollutants in the river. The Mid-Snake TMDL identified interim pollutant allocations for TP and monitoring requirements to further define allocations and to gauge the success of management actions in achieving load reduction goals.

4. The Mid-Snake TMDL establishes a water quality target of .075 mg/L total phosphorus, in order to meet the narrative standard for nutrients in the state water quality standards.² The water quality target was established from two separate analyses. Using EPA's recommended standards for various types of waterbodies and information developed by the technical advisory committee, it was concluded that the best reasonable, preliminary target value for TP in the water column would be .075 mg/L. The second analysis was derived from model simulations estimating that within ten years of final plan implementation, proposed nutrient reductions should attain the instream TP target goal.

5. At the time DEQ was finalizing the Mid-Snake TMDL, the Snake River aquaculture industry prepared and submitted a management plan for reducing nutrients discharged to the Mid-Snake River. The industry plan proposed a goal of 40% reduction in total phosphorus discharged to the river from aquaculture facilities within five years of the plan's implementation.

6. The Mid-Snake TMDL set an allocation of total phosphorus in pounds per day (lbs/day) for each of the industries contributing TP to the Mid-Snake River. The allocation for the aquaculture industry is 970.2 lbs/day. This is based on a 40% reduction in TP, consistent with the goal outlined in the aquaculture industry plan, from a baseline load attributed to the industry of 1,617 lbs/day. The document also describes the modeling and other analyses used to

² Narrative water quality standards or criteria are statements that describe the water quality goal. The narrative standard for phosphorus states: Surface waters of the state shall be free from excess nutrients that can cause visible slime growths or other nuisance aquatic growths impairing designated beneficial uses. IDAPA 58.01.02.200.

confirm that the reductions from aquaculture and other industries should, over a certain period of time, achieve the .075 mg/L TP target and compliance with water quality standards.

7. The TMDL established that the Billingsley Creek facilities were not included in the 970.2 lbs/day allocation because they are covered by a separate TMDL. Billingsley Creek is a tributary to the Snake River.

8. The TMDL set preliminary TP waste load allocations for the thirteen largest aquaculture facilities based upon the mean annual production flows used by facilities during a previous time period. These flows were then multiplied by a concentration of TP of .087 mg/L. The concentration rate was derived from discharge monitoring data for Clear Springs Foods, one of the larger aquaculture facilities, which was believed to be the best quality data available at the time. The facility WLAs were based on the 970.2 lbs/day allocation.

9. The Mid-Snake TMDL addresses the expansion of existing facilities in the following manner: “New facilities and the expansion of existing facilities will be allowed provided they can acquire phosphorus [increased allocations] through pollution trading; or, through facility plans and monitoring, they can demonstrate compliance with this TMDL.” Mid-Snake TMDL, at 58.

C. The 1999 General NPDES Permit for Aquaculture Facilities

10. EPA issued a general NPDES permit for the aquaculture facilities in 1999. The general aquaculture permit sets effluent limitations for the largest facilities based upon the assigned WLAs in the Mid-Snake TMDL. These limitations are based upon the industry allocation of 970.2 lbs/day and flow and concentration information previously submitted by the facilities. At the request of DEQ, the permit included a compliance schedule allowing facilities to comply with the limits outlined in the WLAs during the term of the permit. The permit

required the facilities to collect and report additional data on phosphorus concentration and flow in discharge monitoring reports (DMRs) submitted to EPA. This data would be used to assess compliance and to set WLAs in the subsequent permits.

11. The Fact Sheet for the 1999 NPDES permit explains the basis for the effluent limitations as follows: "Effluent limitations are based on the Total Maximum Daily Load (TMDL) for the Middle Snake River (IDHW-DEQ 1997) and the TMDL for Billingsley Creek (IDHW-DEQ 1992). DEQ committed to modifying the TMDL for the Middle Snake River by developing final phosphorus waste load allocations and effluent limits, in consultation with EPA, for all discharging facilities listed in the Middle Snake River Watershed Management Plan (KDHW-DEQ 1997). It is EPA's intent to modify the Permit when those allocations are made available, adding and modifying phosphorus limits. Consistent with the TMDL, all the listed facilities will be given the balance of the life of this general permit to meet the limits based on the allocations." NPDES Permit No. ID-G13-0000, Fact Sheet at 16.

12. The 1999 NPDES permit set an effluent limitation, in the amount of 26.79 lbs/day total phosphorus, for the PSI facility.

D. The Upper Snake Rock Subbasin TMDL

13. In December of 1999, DEQ produced the *Upper Snake Rock Watershed Management Plan, Upper Snake Rock Subbasin Assessment & Upper Snake Rock Total Maximum Daily Load* (Upper Snake Rock TMDL) which was supplemented by a July 2000 Executive Summary. The TMDL was approved by EPA in August 2000. The Upper Snake Rock TMDL was prepared in consultation with technical committees, basin and watershed advisory groups, representatives from affected industries, and other agencies and stakeholders. Numerous drafts of the TMDL were circulated for public comment and review.

14. The Upper Snake Rock TMDL expands on the Mid-Snake TMDL. In addition to addressing general industry and other sources of pollutants, it also identifies the locations where those sources impact the Mid-Snake River, including its tributaries. The reason for adding this focus on location was explained by DEQ in the TMDL Modification:

What is demonstrated in the TP and TSS summary of the various TMDLs involved is that the Nutrient Management Plan (DEQ-TFRO1995) and the Mid-Snake TMDL (Buhidar 1997) only took into account Gridley Bridge as a single compliance point. During the process of working on the Upper Snake Rock TMDL (Buhidar 1999), it became obvious that not all inputs had been accounted for in the first TMDLs. Therefore, it became necessary to subdivide the Middle Snake River into decision units or segments and account for all nonpoint source inputs that included unnamed streams, all canal ways, plus the entrained pollutants already existing in the Middle Snake River corridor. In so doing, it was also necessary to make the entire stretch of the Middle Snake River meet the 0.075 mg/L TP standard and the 52.0 mg/L TSS standard at seven (7) compliance points or six (6) stream segments. This required more significant monitoring of various existing tributaries and streams

TMDL Modification, at 26.³

15. After further investigation and study, DEQ concluded that to meet water quality standards on the Mid-Snake River discharges of TP from the tributaries would have to be limited. To meet the load capacity established in the Mid-Snake TMDL, the Upper Snake Rock TMDL set a target for tributaries of 0.10 mg/L TP. Multiplying this number by the flow of each tributary (and using a conversion factor of 5.39) provides a pounds per day amount of TP that can be discharged from each tributary into the Snake River without exceeding water quality standards. This same formula was used for all tributaries.

16. The target is based upon EPA guidance published pursuant to the Clean Water Act that indicates .10 mg/L TP will control aquatic plant growth in free flowing water bodies.

17. The Upper Snake Rock TMDL resulted in limits on TP discharges being allocated to all tributaries, including a number of tributaries not placed on the 303(d) list: Warm Creek,

³ TSS is Total Suspended Solids.

Vineyard Creek, Devil's Corral Spring, Alpheus Creek, Ellison Creek, Banbury Springs, Box Canyon, and Blue Heart Springs.

18. The allocation to Warm Creek was determined by multiplying the target of 0.10 mg/L TP by Warm Creek flow of 233.8 which is then multiplied by 5.39 to equal 126.02 lbs/day of TP that can be discharged from Warm Creek into the Snake River.

19. The Upper Snake Rock TMDL does not modify the allocation of 970.2 lbs/day TP to the aquaculture industry as a whole. It makes clear, however, that the industry allocation does not include the Billingsley Creek facilities.

20. The Upper Snake Rock TMDL does not modify the waste load allocations for the individual aquaculture facilities set out in Mid-Snake TMDL, but determines that WLAs for the next permits would be developed based upon data collected over a three year period, 2000-2002.

21. The Upper Snake Rock TMDL states that no allowance would be made for growth; growth in the industry could be accommodated through pollutant trading, treatment or other measures; there would be no net increase over the instream targets; and no discharge would be allowed where land application of wastewater is the preferred option.

E. DEQ Worked with the Aquaculture Industry In 2000-2002 to Develop the Framework for Phosphorus Waste Load Allocations

22. From December 2000 through September of 2002, DEQ met with aquaculture industry representatives to reevaluate the WLAs established in the Mid-Snake TMDL and the Upper Snake Rock TMDL. The first meeting took place on December 15, 2000. On February 14, 2001, DEQ forwarded a letter to the aquaculture industry confirming that the Mid-Snake TMDL allocated 970.2 lbs/day TP to industry, and requesting industry's participation in allocating the 970.2 lbs/day to individual facilities. This precipitated a series of meetings that continued until individual WLAs were proposed by the industry in September 2002. During this

time period, DEQ generated notes, minutes of meetings, and memorandums that were distributed to the aquaculture facilities.

23. The notes, minutes, and memorandums were mailed by DEQ to Daryl "Butch" Tadlock, the operator and general manager of the PSI facility.

24. The aquaculture industry agreed to develop and submit recommended WLAs to DEQ. A waste load allocation subcommittee was formed to work on the WLAs.

25. DEQ, at the request of industry, agreed to compile a database, in the form of a spreadsheet, that included information reported by the facilities as required by the NPDES permits, on average and maximum flow, TP and TSS. As set forth in the Mid-Snake TMDL, this database would cover 36 months of monitoring in 2000-2002 and would then be used as the basis for new WLAs. This eventually took the form of the Version 13 database. As required by the NPDES permits, the facilities were responsible for the collection and reporting of information. The database was incomplete for some facilities. DEQ informed industry of this and solicited additional review to confirm the accuracy of the data submitted and completion of the data set as necessary.

26. Etherington Environmental Consulting (EEC) reviewed PSI's monitoring data for 2000-2002 to ensure its accuracy. EEC confirmed that the final data submitted accurately reported PSI's flow and TP discharge for the 2000-2002 period. On May 10, 2002, DEQ forwarded a letter to ECC that was copied to Butch Tadlock, PSI, thanking ECC for the quick review and advising that the information would be entered into DEQ's database and then released to the aquaculture industry for use in developing the WLAs.

27. The TMDL was required to be completed by September 30, 2002.

28. In September 2002, the wasteload allocation subcommittee provided to DEQ a proposal for WLAs for TP and TSS. The subcommittee's proposal included the following:

a. The facilities were divided into tiers. Tier 1 facilities are the largest facilities, and include those facilities that EPA categorizes as Class 1 facilities. PSI is a Tier 1, Class 1 facility.

b. The WLAs for each facility were determined based on the 2000-2002 flow data as reported in the Version 13 database multiplied by a concentration of TP.

c. For most of the Tier 1 facilities, a TP concentration of .082 was used. This number was derived from the .086 used in the 1997 TMDL and the 1999 NPDES permit. When the allocations were made based upon the .086, the allocations exceeded the 970.2 lbs/day for the aquaculture industry. Therefore, to meet water quality standards, the concentration was reduced by 5% to .082. In addition, one facility, Clear Springs Foods, agreed to an allocation using .080 as its concentration.

d. To stay within the industry limit of 970.2 lbs/day, the committee recommended restricting the allocations so that no facility received an allocation greater than 4% above the 1999 NPDES permit limitations.

e. Based on the data submitted to DEQ and reported in the Version 13 database, PSI's average net total phosphorus discharged during the 2000-2002 period was a negative 2 lbs, well under PSI's limitation in the NPDES permit of 26.79 lbs/day. When PSI's flow data in the Version 13 database was multiplied by the .082 concentration used by other Tier 1 facilities, PSI's allocation significantly exceeded the limitation set in its 1999 permit and the average net phosphorous discharged over the 2000-2002 period. In order to avoid providing more of an allocation than it appeared PSI needed, it was proposed that PSI receive an allocation

of 26.79 lbs/day. This meant that PSI's proposed allocation was not based on the same formula and concentration of .082 used for the other Tier 1 facilities.

29. In October, DEQ mailed the WLA proposal to representatives of the aquaculture facilities.

F. From 2002 Until 2005 DEQ Received Public Comments On and Revised the WLAs Proposed by the Aquaculture Industry

30. Upon receipt of the September proposal, PSI submitted a request to increase the initial WLA from 26.8 to 53.6 pounds per day. PSI's proposal also reduced the WLAs for the other Class 1 facilities to account for PSI's increased WLA.

31. In December of 2002, DEQ provided public notice and solicited and received comments regarding both the aquaculture industry's proposal and PSI's proposed revisions.

32. In August 2004, DEQ modified the Mid-Snake TMDL and the Upper Snake Rock TMDL to reflect revised WLAs for the fish production and conservation hatchery facilities. This included the WLAs for PSI and the other facilities addressed by the aquaculture industry proposal. DEQ provided notice of this TMDL modification, and solicited, received, and considered comments.

33. In February 2005, DEQ provided a second public notice and comment period regarding the WLAs for the fish production and conservation hatchery facilities.

34. In April and May 2005, DEQ provided public notice and received comments regarding, WLAs for the Billingsley Creek and fish processing facilities on the Snake River.

G. The Upper Snake Rock TMDL Modification

35. On July 22, 2005, DEQ issued the final Upper Snake Rock TMDL Modification (TMDL Modification) that sets forth the WLAs for fish production facilities and conservation hatcheries, fish processors, and Billingsley Creek facilities.

36. DEQ generally allocated the 970.2 lbs/day aquaculture TP by determining the total quantity of water flowing through the facilities and then determining a target water concentration of TP to achieve the 970.2 lbs/day. That load was then calculated for each facility, including PSI, based upon that facility's flow rate determined by the set of data in the Version 13 database.

37. In the TMDL Modification, DEQ also allocated the TP, in pounds per day, that each tributary could discharge to the Snake River by multiplying the 0.10mg/L target concentration by the water flow in the tributary, expressed in cfs, and then converting that figure to lbs/day by multiplying it by 5.39. DEQ referred to this figure at various times as the load capacity for the tributary or the tributary TMDL. DEQ then compared this number to the WLAs and LAs for each point and nonpoint source on the tributary to ensure that the total allocations did not exceed the water quality-based TP allocation for the tributary.

38. PSI did not submit data on warm water flows for the Version 13 database. Therefore, DEQ used PSI's water right for warm water usage to set PSI's warm water allocation.

39. Although initially, DEQ assigned PSI an allocation of 26.79 lbs/day TP, in the final TMDL Modification, DEQ increased PSI's WLA to a total of 55.46 lbs/day TP. In doing so DEQ stated:

Pristine Springs discharges its wastewater to Warm Creek, which in turn discharges to the Snake River. The TMDL sets a load capacity for Warm Creek calculated by multiplying the mean flow by 0.100 mg/L TP and multiplying this number by 5.39. The load capacity for Warm Creek is 126.02 lb/day (233.8 cfs x 0.100 mg/L TP x 5.39 = 126.02). DEQ cannot increase the waste load allocation for Pristine Springs and still meet the load capacity set for Warm Creek unless the allocation of TP for other sources is reduced. Nonpoint sources of phosphorus are also located on Warm Creek, and initially DEQ allocated 29.42 lb/day TP to these non point sources. In order to meet the load capacity for Warm Creek and since Warm Creek resides on Pristine Springs as its private property, DEQ has determined to reduce the load allocation for these nonpoint sources from 29.42 lb/day to 1.33 lb/day.

Of course, DEQ must look at the TP allocations and the load capacity of both Warm Creek and the Snake River. By shifting the TP allocation to Pristine Springs' point source, the total aquaculture industry allocation will be more than 970.2 lbs/day but under the 10% allowable variance as discussed in Section 7.6.a of this document. While the aquaculture allocation has been slightly increased, DEQ has made a commensurate decrease in the total nonpoint source allocation. Therefore, the TMDL will still meet the load capacity for the Snake River and Warm Creek and thereby attain compliance with state water quality standards.

TMDL Modification, at 21.

40. The final allocation of TP on Warm Creek in lbs/day is as follows:

nonpoint source LA	1.33
plus storm water/construction LA	0.03
plus Blue Lakes Trout Farm WLA	69.20
plus PSI cold water WLA	50.61
<u>plus PSI warm water WLA</u>	<u>+ 4.85</u>
equals total Warm Creek TP allocation	<u>126.02</u>

VII. ANALYSIS

A. Total Phosphorus Allocations for Warm Creek

PSI asserts that DEQ had no legal authority to assign an allocation of TP to Warm Creek because pollutant allocations in TMDLs can only be established for 303(d) listed streams. PSI's position is that DEQ is limited to addressing only those sources that discharge pollutants directly to a listed water body, not sources that discharge pollutants into a tributary to a listed water body. We disagree. Both the Clean Water Act and the Idaho Water Quality Act authorized DEQ to allocate pollutant loads to point and nonpoint sources on non-listed tributaries as part of the TMDL for the Mid-Snake River.

In advancing its argument, PSI focuses almost exclusively on the fact that DEQ labeled the allocations for the Warm Creek pollutant sources, as well as the allocations for other tributaries, a "TMDL." PSI raised this issue in comments on the draft version of the TMDL Modification. In the final document, DEQ responded and clarified how the term "TMDL" was

being applied to describe TP allocations to sources within the watershed affecting water quality standards in the Snake River:

PSI is correct that Warm Creek is not on the Idaho 303(d) list and therefore DEQ is not required to create a TMDL for Warm Creek alone. DEQ's determination of a load capacity and assignment of LAs and WLAs to sources on Warm Creek, however, was done in order to achieve compliance with WQS in the Snake River. The Snake River, to which Warm Creek is a tributary, is on the 303(d) list. Analyzing and assigning loads to sources within a watershed affecting a waterbody on the 303(d) list, including those sources on tributaries to the listed water body, is a part of the subbasin assessment and TMDL process expressly authorized by the Idaho Water Quality Act As directed by the Idaho Code, the Upper Snake Rock SBA and TMDL look at sources on a watershed basis. The TMDL includes a subbasin with 38 watersheds, approximately 93 miles of the Snake River and 28 named tributaries to the Snake River. The TMDL assigns a target to each of the tributaries as they flow into and thus affect the water quality of the Snake River. The tributaries, including Warm Creek, are assigned a target of 0.100 mg/l TP. In order to meet this tributary target, and thus meet the WQS in the Snake River, DEQ determined the amount of TP each tributary could handle and still meet the target (this is called the "load capacity") and assigned allocations to each point and nonpoint source of TP on the tributary. DEQ's approach to the tributaries has already been approved by EPA in its approval of the Mid-Snake and Upper Snake Rock TMDLs. The approach is one that is authorized by Idaho Code. Moreover, given the number of tributaries and sources of pollutants on the tributaries, it is impossible to conceive of a plan to meet WQS on the Snake River that does not address the water quality and sources on tributaries. In short, DEQ's approach of developing a target load capacity and load allocations to tributaries is authorized by Idaho law and the CWA, and is a rational and reasonable approach to the TMDL.

TMDL Modification, at 158-159.

EPA is not clear about how pollutant allocations on tributaries are to be labeled. The Board acknowledges that use of the term "TMDL" to describe load allocations on tributaries is not a precise use of the term. Regardless, the Board concludes that DEQ had authority to allocate pollutant loads to non-listed tributaries of the Mid-Snake River consistent with both federal and Idaho law.

The Clean Water Act regulations defining TMDLs contemplate that tributaries will receive a load allocation. The regulations define a TMDL as follows:

The sum of the individual WLAs for point sources and LAs for nonpoint sources and natural background. If a receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution **and natural background sources, tributaries, or adjacent segments**

40 C.F.R. § 130.2(i). (Emphasis added.)

DEQ is mandated by the Idaho Water Quality Act to take a watershed approach to TMDL development and evaluate the contribution of all point and nonpoint sources “within the watershed that may be contributing identified pollutants to the water body.” Idaho Code § 39-3611(4)(b). Idaho Code § 39-3611(1) provides that, for 303(d) listed water bodies, DEQ must develop subbasin assessments and TMDLs. Subbasin assessments must describe:

[A] watershed or watersheds for which a total maximum daily load is proposed, the water quality concerns, the status and attainability of designated uses and water quality criteria for individual water bodies, **the nature and location of pollutant sources**, past and ongoing pollutant control activities, and such other information that the director with the advice of the local watershed advisory group determines is pertinent to the analysis of water quality and the development and implementation of a total maximum daily load.

Idaho Code § 39-3602(29). (Emphasis added.)

Consistent with the definition of subbasin assessment, Idaho Code § 39-3611(4) requires that subbasin assessments and TMDLs include, among other things, “an **inventory of all point and nonpoint sources of the identified pollutant(s)**, if practical, or an analysis of the land types, land uses and geographical features **within the watershed that may be contributing identified pollutants to the water body**,” and “pollution control strategies for both point sources and nonpoint sources.” Idaho Code § 39-3611(4)(b) and (e). (Emphasis added.) Idaho Code specifically provides that allocations may be made to tributaries that are causing or contributing to a violation of water quality standards in the listed water body:

No instream target for a pollutant shall be set as part of a TMDL process unless the data and analysis in the subbasin assessment demonstrate that the pollutant is

causing or contributing to a violation of a water quality standard in the stream for which the TMDL is being developed. **If a pollutant load is allocated to a tributary inflow as part of a downstream TMDL, the director shall develop a plan to meet such allocation** in consultation with the tributary watershed advisory group as provided in subsection (8) of this section.

Idaho Code § 39-3611(6). (Emphasis added.)

The Idaho Water Quality Act recognizes that the purpose of a TMDL and its implementation is to achieve water quality standards. To achieve that goal, TMDLs are to be developed with the advice of watershed advisory groups (WAGs).⁴ Idaho Code § 39-3616 states that the job of the advisory groups is to recommend those "specific actions needed to control point and nonpoint sources of pollution **within the watershed,**" and to "consult with the director and participate in the development of each TMDL and any supporting subbasin assessment for water bodies within the watershed, and shall develop and recommend actions needed to effectively control sources of pollution." (Emphasis added.) The statute provides that subbasin assessments and TMDLs should take a watershed approach and look at all point and nonpoint sources of pollutants "within the watershed that may be contributing identified pollutants to the water body." Idaho Code § 39-3611(4)(b).

DEQ regulations do not prohibit DEQ from addressing sources of pollutants to a listed water body that are located on an unlisted tributary. The rules require DEQ to develop TMDLs for impaired water bodies and, consistent with the Idaho Code, require DEQ, after determining a water body does not support its uses, to identify "sources of pollution affecting the impaired water body" and analyze pollution control strategies for those sources. IDAPA 58.01.02.054.01. The rules do not suggest that sources of pollution located on tributaries to a listed water body cannot be identified and allocated pollutant loads. If controlling the sources of pollutants on

⁴ PSI appears to argue that DEQ must establish separate WAGs for each tributary, no matter how small, within the watershed addressed by a TMDL. This argument is inconsistent with the definition and concept of a WAG which is a group that represents interests in a watershed, including tributaries. See Idaho Code § 39-3602(34).

unlisted tributaries was prohibited, DEQ would be prevented from meeting state water quality standards on 303(d) listed water bodies, like the Mid-Snake River. Clearly, it is within DEQ's authority to identify and allocate pollutant loads on Warm Creek and other non-listed tributaries.

In applying the requirements of the Idaho Water Quality Act to the development of the TMDLs at issue here, DEQ followed the directives of the Legislature. Beginning with the Mid-Snake TMDL, continuing with the Upper Snake Rock TMDL, and concluding with the TMDL Modification, DEQ, in cooperation with advisory groups, technical advisory committees, industry representatives, and other stakeholders assessed the watersheds involved with the listed water bodies, including the Mid-Snake watershed, and identified the point and nonpoint sources that contribute TP to the Mid-Snake River. In the TMDL Modification, DEQ specifically addressed the aquaculture facilities that are sources of TP that contribute to a violation of water quality standards in the Snake River and made allocations to those sources, including facilities on tributaries that contribute pollutants to the Snake River. This process is authorized by Idaho law.

Finally, PSI asserts that Warm Creek was the only tributary not placed on the 303(d) list that was assigned point and nonpoint source allocations. PSI cites to nothing in the record to support its statement that Warm Creek was the only nonlisted tributary for which DEQ made allocations. This assertion has no basis in fact. The TMDL Modification allocates pollutant loads to sources on a number of non-303(d) listed tributaries, in addition to Warm Creek.

In sum, federal and Idaho law authorized DEQ to allocate pollutant loads to point and nonpoint sources on non-listed tributaries as part of the TMDL for the Mid-Snake River. This is consistent with Idaho's watershed approach to the implementation of the Clean Water Act and the Idaho Water Quality Act.

B. PSI's Allocations

PSI is not challenging the total phosphorus load allocated to Warm Creek or the loading capacity established for the Mid-Snake River. Nor does PSI challenge the allocation to BLT, the only other significant source of phosphorus on Warm Creek. PSI concedes that BLT's allocation should not be decreased, and argued that by using a different calculus, PSI's allocations could be increased without a corresponding decrease for BLT. PSI asserted that this could be accomplished without exceeding the water-quality based allocation of 126.02 lbs/day for Warm Creek.

During oral argument, counsel for PSI acknowledged that the formula used to support this argument was not applicable. Apparently, PSI initially misunderstood how compliance with allocations in NPDES permits is calculated and after further review, determined that its calculations were incorrect because the numbers used were not based on net effluent values. Nevertheless, PSI maintains that its WLAs and LAs should be increased, although doing so would result in an exceedence of the TP limit of 126.02 lbs/day set for Warm Creek. In so doing, PSI contends that DEQ's use of the Version 13 database to establish PSI's waste load allocation was irrational, arbitrary and capricious and constituted unequal treatment in violation of the United States and Idaho Constitutions. There are a number of problems with this argument and we address each in turn.

1. The Water-Quality Based Load Capacity for Warm Creek.

PSI is not requesting a decrease in BLT's allocation. DEQ, therefore, cannot increase PSI's allocations without exceeding the TP limit for Warm Creek. There are only two point sources of TP on Warm Creek - the BLT fish facility, and PSI. PSI has both a fish facility and a cattle operation which is a nonpoint source of TP. Using the same formula and data it used for

all facilities, DEQ provided an allocation to PSI's fish facility of 55.46 lbs/day; an allocation to BLT of 69.20 lbs/day; a nonpoint source allocation of 1.33 lbs/day; and a storm water allocation of .03 lbs/day, to equal 126.02 lbs/day. Simple addition indicates that DEQ can not increase PSI's allocations and maintain BLT's allocation without exceeding the 126 lbs/day limit for Warm Creek.

That DEQ must stay within the allocations set for tributaries, including Warm Creek, should not surprise PSI. This was explained in detail in several places in the final TMDL Modification. For example, DEQ explained its approach to Warm Creek as follows:

Pristine Springs discharges its wastewater to Warm Creek, which in turn discharges to the Snake River. The TMDL sets a load capacity for Warm Creek calculated by multiplying the mean flow by 0.100 mg/L TP and multiplying this number by 5.39. The load capacity for Warm Creek is 126.02 lb/day (233.8 cfs x 0.100 mg/L TP x 5.39 = 126.02). DEQ cannot increase the waste load allocation for Pristine Springs and still meet the load capacity set for Warm Creek unless the allocation of TP for other sources is reduced. Nonpoint sources of phosphorus are also located on Warm Creek, and initially DEQ allocated 29.42 lb/day TP to these nonpoint sources. In order to meet the load capacity for Warm Creek and since Warm Creek resides on Pristine Springs as its private property, DEQ has determined to reduce the load allocation for these nonpoint sources from 29.42 lb/day to 1.33 lb/day.

TMDL Modification, at 21.

2. *The Version 13 Database*

PSI asserts that the use of the Version 13 database was arbitrary and capricious and injured PSI such that it was denied equal protection under the state and federal constitutions. The basis for this argument appears to be that missing data in the Version 13 database for other facilities outside the Warm Creek drainage somehow prevented DEQ from using a correct flow rate to assign allocations to PSI's point and nonpoint sources on Warm Creek. We address this issue by first reviewing the history and development of the Version 13 database.

DEQ began working with the aquaculture industry in 1997 to develop an allocation plan that could be applied equally to all like-sized facilities on an objective basis. The methodology used for the allocations was originally proposed by the aquaculture industry, taking into account operational and economic considerations. The method chosen was the equal concentration method, which is one of the most common allocation methods recommended by EPA. The equal concentration method is based on water flow. The water flow used by a facility in its operation is multiplied by a concentration set for a particular size class of facilities. DEQ's method for determining flow rates for facilities was to base flow rate on the monthly discharge monitoring reports filed by each facility as required by the NPDES permit. Using the same concentration and formula and the same database for all the similarly sized facilities was determined to be the best method to arrive at fair and equitable allocations. For PSI and the other large facilities, DEQ used an equal concentration formula, applying .082 mg/L TP to each of the facilities and multiplying this by the facility flow.

Because the allocations were to be flow based, and flows change from year to year, DEQ needed to choose a precise time period for the collection of data. This approach was first outlined in the 1997 Mid-Snake TMDL. This approach was supported by the aquaculture industry whose representatives recommended that an additional three years of data be collected and used to refine the facility allocations in future permits.

The Version 13 database is data collected during 2000 to 2002. Use of this time period for collecting data was dictated by deadlines in the 1997 Mid-Snake TMDL (providing that refined WLAs would be developed by 2002) and by EPA timelines for the issuance of NPDES permits. The general permit issued by EPA in 1999 required the collection of three years of data

for use in setting revised waste load allocations in the 2004 permit. DEQ established a deadline of September 2002 to get the waste load allocations set and approved by EPA.

Because use of the Version 13 database to calculate TP allocations does not account for production expansion requiring changes in water use after 2002, DEQ clearly communicated to all aquaculture facilities that data collected during this discrete period would be used to set WLAs for the 2004 general permit. In addition, both the 1997 Mid-Snake TMDL and the Upper Snake Rock TMDL cautioned that expanded facilities would likely have to acquire additional allocation through effluent trading with other facilities or other measures to accommodate increased production.

To make sure that PSI understood the consequences of expanding operations, at the time DEQ approved plans for the facility's expansion in 2001, DEQ advised PSI that notwithstanding DEQ's approval, additional waste load reductions from the facility may be required.

As BLT explains, other members of the aquaculture industry agreed that use of the Version 13 database for a discreet period of time was a rational approach to the development of allocations. In arguing against a decrease in the TP allocation for BLT to accommodate an increased allocation to PSI, BLT advises that "its allocation is rationally based upon the Version 13 database and isolating BLT for differential treatment would violate DEQ's principle of equity in allocating TP to aquaculture facilities." *Intervenors' Brief on Petition for Review and Exceptions to Preliminary Order*, at 2. "BLT's allocation cannot be reduced to 'make room' for PSI to add phosphorus in excess of valid TMDL limits." *Id.*, at 3.

PSI, however, continues to assert that it has been injured by use of the Version 13 database and therefore should be allowed to use a different data set to document its flow rate and

set its allocations. This remedy, the argument goes, would address the fact that PSI was allegedly singled out for unfair treatment.

In advancing this argument, PSI does not assert that the 2000-2002 flow data submitted by PSI in the Version 13 database is inaccurate. This is appropriate because PSI, through a consultant, confirmed that the 2000-2002 data set in the Version 13 database accurately reflected PSI's water use during the reporting period.

Nevertheless, PSI insists that the fact that other facilities outside the Warm Creek drainage failed to submit the required data has somehow resulted in unfair and arbitrary and capricious treatment of PSI by DEQ. However, PSI can not show how missing data for facilities outside of the Warm Creek drainage has any impact whatsoever on the PSI allocation. This is understandable because the Version 13 database was used by DEQ to solve the aquaculture allocation, not the tributary allocation for Warm Creek. Thus, the Version 13 database was used to divide the total Warm Creek TP allocation between PSI and BLT. PSI is not asserting that the data submitted by BLT and used to set BLT's flow rate is inaccurate or in any way caused injury to PSI and PSI is not challenging the total allocation for Warm Creek. In any event, speculation about the potential for the unfair application of the Version 13 database does not support PSI's assertion. Although the missing data may lend itself to conjecture that allocations outside the Warm Creek drainage were based upon inaccurate information, the missing information had no effect on the calculation of PSI's water flow or on its TP allocations. PSI is restrained by the 126 lbs/day limit for Warm Creek, and the fact that the missing data for facilities in other segments of the Snake River or in other tributaries is incomplete is irrelevant to PSI's allocations.

Further, PSI's assertion that DEQ took no efforts to ensure accurate data was collected, and in fact, purposefully used inaccurate data, is completely unsupported by the material PSI

references or anything else in the record. DEQ relied upon the DMRs required by the NPDES permits and by the Clean Water Act to be submitted and to be accurate. DEQ made it clear to the aquaculture facilities, including PSI, that data were missing, and asked industry to supply any missing data or correct the data that was supplied before final calculations were conducted. While the fact that not all aquaculture facilities submitted the required information is of concern, it is significant that DEQ has no enforcement authority with respect to compliance with NPDES reporting requirements and appears to have made its best efforts to secure the missing information.

3. *PSI's Nonpoint Source Allocation*

As requested by PSI, in the TMDL Modification, DEQ applied the data and formula used for similarly situated facilities to set PSI's waste load allocation. This increased PSI's WLA from 26.8 to 50.61 lbs/day for PSI's cold water facility, and when added to the 4.85 lbs/day for the warm water facility, the total point source allocation to PSI is 55.46 lbs/day. The draft TMDL Modification assigned a 29.42 lbs/day load allocation to nonpoint sources on Warm Creek. When the increased allocation for PSI was added to the waste load allocation for the BLT facility and the nonpoint source allocation of 29.42 lbs/day, the total allocations exceeded the load capacity for Warm Creek of 126.2 lbs/day. Therefore, DEQ decreased the nonpoint source waste load allocations from 29.42 lbs/day to 1.33 lbs/day. This reduction was required to meet the water quality goal of .10 mg/L total phosphorus discharged by tributaries to the Mid-Snake River.

PSI argues it was arbitrary and capricious for DEQ to reduce its nonpoint source allocation when its point source allocations were increased. This argument was based, in part, on the assertion that, using a different calculus, PSI's waste load allocations could be increased

without decreasing BLT's allocation and without exceeding the load limits for Warm Creek. PSI now concedes that its calculations were incorrect.

Reducing nonpoint sources to accommodate increases in point sources is contemplated by the Clean Water Act and there is nothing unusual or arbitrary about DEQ's actions here. The Clean Water Act regulations at 40 C.F.R. § 130.2 include the following in the definition of TMDL:

If best management practices (BMPs) or other nonpoint source pollution controls make more stringent load allocations practicable, the waste load allocations can be made less stringent. Thus, the TMDL process provides for nonpoint source control tradeoffs.

40 C.F.R. § 130.2.

DEQ did not single PSI out when it reduced the nonpoint sources to stay within the load capacity of the tributary. DEQ did the same thing for facilities that received an allocation that varied by season. Thus, as a facility's allocation was increased in a particular season, the nonpoint source in that water body was reduced by a corresponding amount to stay within the load capacity. DEQ also did this with respect to allocations for the fish processors. If DEQ allowed the load capacity on Warm Creek to be exceeded, this would result in DEQ treating Warm Creek and the point/nonpoint sources on Warm Creek differently than any other tributary covered by the TMDL Modification. DEQ acted within the authority of the Clean Water Act and did not act in an arbitrary and capricious manner in reducing nonpoint sources on Warm Creek.

4. PSI's Warm Water Allocation

PSI asserts that DEQ was arbitrary and capricious in its use of PSI's water right to set the warm water allocation. The record indicates that DEQ's approach to the warm water allocation was rational.

DEQ adopted the aquaculture committee's approach to determining waste load allocations for facilities that produced warm water fish. DEQ used a concentration of total phosphorus of .200 mg/L, multiplied by the Version 13 database flow for the warm water production, and then multiplied that number by 5.39 to convert to total phosphorus lbs/day.

PSI claims that DEQ erred with respect to PSI's warm water allocation because DEQ did not use the warm water flow PSI claims it uses. Instead, DEQ used PSI's water right for warm water fish production of 4.5 cfs. PSI, however, is unique among the warm water facilities. Unlike any other facility that produces warm water fish, PSI produces both warm water and cold water fish, combines the flow from its warm and cold water facilities into one discharge, and reports only one combined flow on its DMRs. Therefore, unlike any other warm water facility, there is no flow data in the Version 13 database that reflects the flow PSI uses for its warm water fish production. At various times, PSI has claimed warm water flows anywhere from 6 to 20 cfs without supporting data. In the absence of any reliable information about the amount of warm water used by PSI, it was reasonable for DEQ to use PSI's water right for warm water fish production of 4.5 cfs to determine the warm water allocation.

C. The 1997 Mid-Snake Aquaculture Industry Allocation

The Mid-Snake TMDL, issued in 1997, set a total phosphorus water quality target for the Mid-Snake River which was then translated into a lbs/day target for TP of 3559.60. The Mid-Snake TMDL then set a general allocation for each of the industries contributing TP to the Mid-Snake River, allocating 970.2 lbs/day to the aquaculture industry. PSI now challenges the general allocation of TP to the aquaculture industry, arguing that an increase in the aquaculture industry allocation will result in an increase in each individual facility's WLA for TP, and therefore a proportionate increase in PSI's allocation. The Board concludes that even if the

general aquaculture allocation was increased, it would not provide the relief PSI requests. This is because PSI's WLA is limited by the water quality-based tributary target of 126.02 lbs/day TP.

As discussed earlier, when determining the effluent limits for a NPDES permit, EPA compares technology-based effluent limitations and water quality-based effluent limits and chooses the more stringent of the two as the limits for the permit. Regardless of the amount of the aquaculture industry allocation, the TP entering the Snake River from Warm Creek must not exceed 126.02 lbs/day. PSI has not challenged the TP target for Warm Creek or provided evidence that would prove the target is incorrect.

Therefore, PSI is facing a simple mathematical problem. A TMDL can be described by the following equation: TMDL = WLAs + LAs + margin of safety. One type of allocation cannot be increased without a corresponding decrease in another. The allocation of TP on Warm Creek in lbs/day is as follows:

nonpoint source LA	1.33
plus stormwater/construction LA	0.03
plus Blue Lakes Trout Farm WLA	69.20
plus PSI cold water WLA	50.61
plus PSI warm water WLA	+ 4.85
equals total Warm Creek TP allocation	<u>126.02</u>

Subtracting BLT's allocation from the 126.02 lbs/day leaves only a fixed amount of TP for PSI's cold and warm water WLAs and nonpoint source LA.⁵ PSI is requesting an increase in all three but has not challenged the actual tributary load. Therefore, even if the total phosphorus for the aquaculture industry was increased and re-allocated, such re-allocation would provide no relief because PSI is limited by the 126.02 lbs/day allocation of TP on Warm Creek. There is no additional TP allocation available on Warm Creek to allocate to PSI.

⁵ PSI did not challenge the storm water/construction activity allocation.

Because the Hearing Officer concluded that increasing the total aquaculture industry TP allocation would not result in an increase in PSI's allocations on Warm Creek, the Preliminary Order did not include findings and conclusions on related issues raised by the parties. To provide guidance on contested case proceedings related to TMDLs, the Board now addresses the timeliness of PSI's challenge to the aquaculture industry allocation set forth in the 1997 Mid-Snake TMDL and the allegations of PSI and Intervenors that the industry allocation was arbitrary and capricious and void as a matter of law.

1. The Timeliness of PSI's Challenge to the 1997 Mid-Snake TMDL

The decision to allocate 970.2 lbs/day of TP to the aquaculture industry was set forth in the Mid-Snake TMDL in 1997. The TMDL was approved by EPA and used as the basis for issuing a general permit to the aquaculture industry in 1999. PSI now challenges this decision as part of its challenge to the 2005 TMDL Modification. DEQ asserts that under Idaho law, PSI's challenge to the 1997 Mid-Snake TMDL is time-barred. We agree.

Contested case proceedings before the Board are governed by the Environmental Protection and Health Act (EPHA), Idaho Code § 39-101, *et seq.*, and the Rules for Administrative Procedure Before the DEQ Board (Rules of Procedure), IDAPA 58.01.23. The EPHA provides that "[a]ny person aggrieved by an action or inaction of the department" may initiate a contested case pursuant to the state Administrative Procedure Act and the contested case rules of the agency. Idaho Code § 39-107(5). Section 100 of the Rules of Procedure provides that an aggrieved person shall have 35 days from the action or inaction of DEQ to file a contested case petition before the Board. IDAPA 58.01.23.100. DEQ's contested case rules explain further that an aggrieved person who may initiate a contested case is any person who has legal standing to challenge an action or inaction of the department. IDAPA 58.01.23.010.01.

Standing, in turn, rests upon whether a person can show an injury in fact which will result from the agency action and a substantial likelihood that the claimed relief will prevent the claimed injury. Order of the Board of Environmental Quality, *In the Matter of 401 Certification For Relicensing the C.J. Strike Hydroelectric Facility*, (November 4, 2002).

PSI avers that it did not initiate a contested case to challenge the aquaculture industry allocation because the Mid-Snake TMDL was not a final agency action as defined by federal case law. The federal case law cited by PSI is not applicable here. The EPHA and Rules of Procedure govern contested case proceedings before the Board. The decision by DEQ in the 1997 Mid-Snake TMDL to allocate 970.2 lbs/day TP to the aquaculture industry was clearly an "action" by DEQ. Owners of aquaculture facilities were directly affected or potentially "aggrieved" by the decision to limit the amount of TP that could be discharged to the river by the aquaculture industry. Importantly, the industry allocations in the Mid-Snake TMDL were used by EPA in issuing NPDES permits for all dischargers, including but not limited to, the aquaculture facilities. The WLAs in the Mid-Snake TMDL were incorporated by EPA in the general NPDES permit for aquaculture issued in 1999. PSI and other permittees were required to be in compliance with the TMDL-based total phosphorus effluent limitations for the duration of the permit. As a result, PSI was regulated by the terms of the permit (which were based on the industry allocation PSI now challenges) and subject to penalties for violations of the permit conditions. The argument that the industry allocation set in 1997 was not a final agency action with significant consequences for PSI is therefore without merit.

Moreover, the argument that the Mid-Snake TMDL could not be challenged because the document indicates that allocations for individual aquaculture facilities and industry would be re-evaluated after additional data was collected is unpersuasive. Idaho Code § 39-3611(2) provides

that DEQ's final decision on a TMDL is subject to appeal under the EPHA, § 39-107(5), and the agency contested case rules. At the same time, Idaho Code § 39-3611(7) provides that DEQ shall re-evaluate TMDLs every 5 years. Using PSI's logic, because the legislature requires 5 year re-evaluations, TMDLs could never be challenged.

2. *The TMDL and the Idaho Administrative Procedure Act*

PSI's other argument is that the Mid-Snake TMDL is void because it is an administrative rule promulgated in violation of the rulemaking procedures of the Idaho Administrative Procedure Act (Idaho APA), Idaho Code §§ 67-5201, *et seq.* This line of reasoning is not consistent with Idaho law. PSI is correct that in *Asarco Inc. v. State*, 138 Idaho 719, 69 P.2d 139 (2003), the Idaho Supreme Court determined that TMDLs involved rulemaking and must be adopted pursuant to the rulemaking provisions of the Idaho APA. The Legislature responded immediately to the *Asarco* ruling by amending Idaho Code § 39-3611 to specifically provide the following:

The rulemaking provisions in sections 67-5220 through 67-5231, Idaho Code, shall not apply to TMDLs.

Idaho Code § 39-3611(2). Understanding that there were many existing TMDLs that had not been adopted as rules, the Legislature specifically provided that the exemption in Idaho Code § 39-3611(2) applied to all TMDLs adopted by the State after January 1, 1995, except the specific TMDL challenged in *Asarco*:

The provisions of this subsection shall apply to all total maximum daily loads developed by the director after January 1, 1995. Provided however that the rulemaking provisions in sections 67-5220 through 67-5231, Idaho Code, shall apply to TMDLs for metals in the Coeur d'Alene River basin, upstream from the head of the Spokane River.

Idaho Code § 39-3611(2).

The Mid-Snake TMDL was issued by DEQ in 1997 and clearly falls under the exemption. It cannot be challenged for failure to follow Idaho APA rulemaking provisions because the APA rulemaking provisions do not apply.

Even assuming, arguendo, that the Mid-Snake TMDL was subject to the rulemaking requirements of the Idaho APA, a proceeding, either administrative or judicial, to contest any rule on the ground of noncompliance with the public notice and comment provisions and other procedural requirements of the Idaho APA must be commenced within two years from the effective date of the rule. Idaho Code § 67-5231(2).

3. *DEQ's Allocation of Total Phosphorus to the Aquaculture Industry*

We now address the claim that DEQ acted in an arbitrary and capricious manner and without sufficient evidence when it set the 970.2 lbs/day allocation for the aquaculture industry. This argument appears to rest on the following assertions: (1) DEQ did not adequately involve the public in the decision making process; (2) the allocation decision was made by only a few industry representatives and was an unconstitutional delegation of DEQ's authority; and (3) there was no rational basis for the allocations. The facts in the record do not support these assertions.

First, a review of the TMDL document, which includes meeting notes, industry plans, and comment letters, shows that there was extensive involvement by affected industries, including the aquaculture industry. PSI not only participated in the public review and comment process, the record indicates it authored portions of the Mid-Snake TMDL. A representative of PSI was a member of the drafting committee.

Second, while it is the case that DEQ used the industry plan as the basis for setting the general industry allocation, the final allocation was the result of modeling and analyses conducted by DEQ to ensure state water quality standards were met. PSI acknowledges that DEQ is required to develop TMDLs with the input of basin and watershed advisory groups. Yet,

PSI makes a remarkable assertion stating that “DEQ placed the complete power to make law (*i.e.* 970.2 lbs/day TMDL for phosphorous) in the hands of a few members of the aquaculture industry. The potential for misuse of power is clear in this case.” *Petitioner’s Brief On Petition for Review Of and Exceptions to Preliminary Order*, at 41. There is nothing in the record to support these allegations. We conclude there was no unlawful delegation.

Finally, the fact that there was incomplete information for use in determining pollutant allocations in the Mid-Snake TMDL does not support a finding of arbitrary and capricious conduct. An action is capricious if done without a rational basis; it is arbitrary if done in disregard of the facts and the circumstances presented. *American Lung Assoc. v. Idaho*, 142 Idaho 544, 547, 130 P.3d 1082, 1085 (2006). DEQ used a rational method for developing industry allocations and in so doing, considered the relevant facts and circumstances.

For aquaculture facilities, DEQ used the DMRs submitted by the facilities for the period 1990-1991 and flow of 3000 cfs to estimate the industry contribution of TP, or baseline load. The DMR’s are required by law to be accurate. DEQ then took the estimated baseline load and reduced it by 40%. This figure was based upon the goal outlined in the aquaculture industry’s proposed management plan for nutrients. The plan estimated that the TP discharged into the river could be reduced by 40% using revised best management practices.⁶ Other industry plans also provided the basis for DEQ’s evaluation and determination of general allocations. DEQ and EPA then applied modeling techniques to determine whether a 40% reduction by aquaculture, along with reductions from other industries, would achieve compliance with state standards. Chapter 4 of the Mid-Snake TMDL provides a comprehensive discussion of the scientific tools used to compare the relative effectiveness of management actions and estimate the assimilative

⁶ Best Management Practices are practices, techniques, or measures determined to be cost effective and practical in preventing or reducing pollutants generated from nonpoint sources to meet water quality standards. *See* Idaho Code § 39-3502(2).

capacity of the Snake River. In the TMDL, DEQ advises that monitoring and evaluation is crucial to the success of the management plan because, as more data becomes available, refinement of management decisions to instream conditions can be accomplished. The approach and methodology used to develop the Mid-Snake TMDL, while not perfect, was rational and based on the best information available.

Moreover, the Clean Water Act and the EPHA anticipate that TMDLs may be based upon less than perfect information. TMDLs must “take into account any lack of knowledge concerning the relationship between effluent limitations and water quality.” 33 U.S.C. § 1313(d)(1)(c). “Load allocations are best estimates of the loading, which may range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading.” 40 C.F.R. § 130.2(g). The Idaho Water Quality Act requires that:

[p]ollutant allocations established through TMDLs shall be at a level necessary to implement the applicable water quality standards for the identified pollutants with seasonal variations and a margin of safety **to account for uncertainty concerning the relationship between the pollutant loading and water quality standards.**

Idaho Code § 39-3602(30). (Emphasis added.)

Finally, in finding that the schedule DEQ and EPA had developed for completing TMDLs in Idaho was inadequate, the Court, in *Idaho Sportsmen's Coalition v. Browner*, 951 F. Supp. 962 (W.D.WA 1996), emphasized that a lack of precise information was not a basis for delaying TMDLs:

Congress provided that TMDLs might incorporate "a margin of safety which takes into account any lack of knowledge," 33 U.S.C. § 1313(d)(1)(C), showing that a lack of precise information must not be a pretext for delay: Although these tight deadlines might mean that initially established TMDLs would be based on less than ideal data, that fact was considered and addressed by Congress, as demonstrated by the statutory direction to use "a margin of safety which takes into

account any lack of knowledge." (Citation omitted.) As expressed by an EPA employee, "In other words, Congress says ignorance is no excuse for inaction. Just add a margin of safety to compensate for the lack of knowledge and keep moving."

951 F. Supp. at 966.

D. The Impact of Additional Total Phosphorus on Water Quality

The Intervenors argue that because background levels of phosphorus in the springs that feed the Mid-Snake are sufficient to cause maximum aquatic plant growth in the river, the addition of more TP from fish facilities has no adverse impact on water quality. Therefore, Intervenors contend that there is no basis for any limits on TP and no basis for the 970.2 lbs/day limitation allocated to the aquaculture industry. This position is not supported by any facts in the record in this contested case. Moreover, the DEQ Board has already addressed this argument and rejected it in a prior contested case.

BLT's argument rests upon a misreading of the statements made in Dr. Buhidar's deposition. Dr. Buhidar is asked whether TP above the .02 mg/L, which BLT contends is the amount of TP at which plants reach maximum plant growth, would have any impacts on water quality. Dr. Buhidar's response made clear that the additional TP would have a detrimental effect on lateral and downstream water quality. In *Earl Hardy v. Idaho Department of Health and Welfare*, Docket No. 0102-91-24 (1993), the Board rejected this same argument.⁷ In that case the Board concluded as follows:

[T]here is a well recognized distinction between "growth rates" and algal and macrophyte bio mass accumulations in a river system. Growth rates generally reflect the amount of new plant tissue produced per a given unit of time, that is, how quickly a plant will develop and grow. Bio mass accumulation, on the other hand, measures the density and lateral and downstream extent of plant growth across a river. Therefore, although increased nutrient loading may not increase maximum growth rate for a given unit or time for aquatic plants if concentrations

⁷ This decision is listed by DEQ in its index of precedential orders pursuant to Idaho Code § 67-5250(i).

are above .03 mg/l phosphorus in the receiving water, the amount of net plant bio mass growth and accumulation lateral and downstream will increase.

Hardy, Recommended Findings of Fact, Conclusions of Law and Order, at 17 - 18.

E. PSI's Equal Protection Claim

To prove a class of one equal protection claim, PSI must prove subjective ill will on the part of DEQ, a deliberate plan to treat PSI differently than any other like-situated facility, and the absence of a rational state interest. *Anderson v. Spalding*, 137 Idaho 509, 50 P.3d 1004 (2002). PSI did not meet its burden of proof on this claim.

First, in setting PSI's cold water WLA, DEQ used the same data set used for all other like-sized facilities; thus, DEQ did not treat PSI differently. Second, although DEQ used PSI's water right to set its warm water production allocation rather than the Version 13 database flow numbers it used for other warm water facilities, it was the only information available for setting the allocation. Using the only information available to set the allocation furthers the State's interest in allocating loads to meet water quality standards. This does not support a finding of subjective ill will.

PSI seeks relief on the theory that it was singled out and treated differently from similarly situated aquaculture facilities while, at the same time, requesting that it be treated differently from those same facilities. PSI requests that more recent flow data than used for any other facility be used to determine its WLA and that its nonpoint source LA for Warm Creek be increased as well. This would require treating PSI differently than any other facilities located on tributaries to the Mid-Snake River and would also result in a violation of water quality standards.

F. PSI's Takings Claim

In the proceedings before the Hearing Officer, PSI asserted that the WLA assigned to PSI by DEQ operates as a governmental taking without just compensation in violation of Article I,

Section 14 of the Idaho Constitution. PSI acknowledges that the Board does not have jurisdiction to hear claims brought under Article I, Section 14 of the Idaho Constitution and that this claim was raised only to preserve the issue on appeal.

VII. CONCLUSIONS OF LAW

Based upon a review of the record and oral and written arguments of the Parties, the Board concludes that:

1. Federal and state law authorized DEQ to assign a load allocation of total phosphorus to Warm Creek to ensure that state water quality standards will be met in the 303(d) listed segments of the Mid-Snake River.
2. It was not arbitrary and capricious for DEQ to assign a waste load allocation to the PSI facility based on flow and discharge data submitted by PSI for the 2000-2002 time period.
3. It was not arbitrary and capricious for DEQ, in the absence of any data, to assign a warm water flow rate using PSI's state water right for warm water use.
4. It was not arbitrary and capricious for DEQ to reduce PSI's nonpoint source allocation to account for the increase in PSI's point source allocation in order to meet water quality standards in the Snake River.
5. PSI is time-barred from challenging the aquaculture industry allocation for total phosphorus set forth in the 1997 Mid-Snake TMDL.
6. The 970.2 lb/day total phosphorus limit for the Mid-Snake was not determined in an arbitrary, capricious, and unlawful manner.
7. DEQ's consultation and cooperation with the aquaculture industry and other stakeholders to develop waste load allocations was not an unconstitutional delegation of legislative authority.
8. DEQ did not violate the equal protection provisions of the Idaho or United States Constitutions.

In consideration of the foregoing, it is hereby ordered that PSI's motion for summary judgment is DENIED, the relief sought in the *Petition* is DENIED, and DEQ's motion for summary judgment is GRANTED.

This is a final order of the Board. Pursuant to Idaho Code §§ 67-5270, -5272, any party aggrieved by this final order or orders previously issued in this case may appeal this final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which (i) a hearing was held; (ii) the final agency action was taken; (iii) the party seeking review of the order resides, or operates its principal place of business in Idaho; or (iv) the real property or personal property that was the subject of the agency action is located.

An appeal must be filed within twenty-eight (28) days of the service date of this final order. *See* Idaho Code § 67-5273. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.

DATED THIS _____ day of June 2007.

BOARD OF ENVIRONMENTAL QUALITY

Dr. Joan Cloonan

Kermit Kiebert

Donald J. Chisholm

Nick Purdy

Marti Calabretta