Responsiveness Summary for Pacific Coast Coal Company Permit
NPDES Permit No. WA-003083-0

Water Quality

Comment:
Q from public meeting.
Arsenic was eliminated based on diluted samples. If the samples were not correctly sampled how can you conclude there is no problem?

> **Response:**
> *Good point. According to the sampling values, PCCC does not have a reasonable potential to pollute. With the understanding the samples were collected with unauthorized mixing of state waters prior to sampling, there would have been some dilution inherent to the current data. Arsenic has been added to the required monitoring table.*

Comment:
Q from City of Black Diamond.

Process Water Influences
The draft NPDES permit is for discharge of stormwater from the PCCC site. The site was historically used for mining and operations, for processing mined coal, but there are no current contracts for mining or processing coal. Fill is currently being accepted at the site which includes filter cake from sand and gravel operations, waste materials from Ashgrove Cement, and fines and sediments from the Tolt River reservoir and from Sound Transit. Spoil piles from coal processing following blasting with ammonium nitrate and fuel oil are one source of stormwater runoff.

The draft NPDES permit prohibits discharge of process water and mine dewatering water, and is limited solely to stormwater runoff. However, the fact sheet indicates Ecology found that Pond G was an unlined stormwater pond discharging process water from thickener tank wash water. Pond G discharges at Outfall 001 to Ginder Lake, as does stormwater runoff from spoil pile 2. Ecology notes that the sampling to date has not been representative of actual discharge locations from pond G (or pond F) due to a poorly selected monitoring location. The permit requires that separate monitoring of Pond G and Pond F occur in the future, but the permit decision to allow continued discharge from Outfall 001 to Ginder Lake was made without Ecology's ability to determine whether process water influences at this location were ongoing**.** If this is to be allowed, it is reasonable to expect that initial monitoring would need to be reported more frequently than quarterly, until there was assurance process quality water is not being discharged under this permit.

Response:
Process water discharged to pond G from the overflow valve of the clarifier tank was documented in an Ecology inspection in September 1998. Several inspections since then performed both by the Department and by the Federal Office of Surface Mining have not documented ongoing process water discharges. In conversations with the facility managers and the inspectors from the Office of Surface Mining, they have not seen ongoing process water discharged into Pond G from the clarifier tank. This permit requires the disconnection of the overflow pipe from the tank to the pond in Condition S8. This permit further prohibits the discharge of any process water to surface and ground waters of the state.

Permit Condition S2.A requires sampling at each point of discharge for each storm event greater than .5 inches with a maximum of two per month. This is to characterize stormwater during a precipitation event.

Comment:
Q from City of Black Diamond.
Outfall 002 discharges stormwater that originates on spoil piles 3 north and 3 south and on haul roads, from three separate contributing flowpaths. In the past, monitoring has occurred downstream in Mud Lake Creek after dilution, which prevents Ecology from making a permit decision based on specific knowledge of water quality in discharge from the spoil piles. While Ecology does require the three flow contributions be separately monitored in the future, this at minimum ought to require more frequent reporting than quarterly at least until there was reasonable assurance about the quality of these discharges.

Response:
The Department concurs and the permit has been modified to require monthly reporting.

Comment:
Q from City of Black Diamond.
It is difficult to argue that the quality of discharges noted in Ecology's fact sheet for the outfalls is uninfluenced by site conditions. For example, we measured water quality in Ginder Creek at SR 169 on April 19, 2007, and found concentrations of dissolved copper and zinc to be less than the detection level of 0.001 µg/L. Ecology's fact sheet indicates the outfall discharges after some amount of dilution had copper ranging from 23 up to 25,000 µg/L and zinc ranging from 0.5 up to 380 µg/L. The chronic state water quality standards for dissolved copper and zinc (at the hardness of 92 mg/L as CaCO3 we measured in Cinder Creek) are 10.6 µg/L and 97.4 µg/L, respectively. Not only are these discharges exceeding state water quality standards even after some dilution, but they range orders of magnitude higher than the background water quality in Ginder Creek immediately upstream of the Mud Lake Creek confluence.

The same is true for phosphorus, which is a significant concern for eutrophication in Lake Sawyer downstream. Ecology's fact sheet indicates phosphate concentrations after an unknown amount of dilution from the outfalls ranged from 1 up to 190 µg/ L. The background total phosphorus in Ginder Creek measured in April 2007 was 18 µg/L, or more than 10 times lower than the higher range.

It is impossible to say from Ecology's fact sheet presentation of the data (which gives only ranges) how much of the time the outfalls likely discharged water with heavy metals and phosphorus concentrations that were one or more orders of magnitude higher than background in Ginder Creek. This review did not take on the task of trying to obtain or review the underlying data in detail, which presumably is Ecology's responsibility. The point, however, is that the quality of discharge so greatly exceeds background conditions for the few parameters reviewed that it is hard to conceive how industrial process influences, perhaps from historic use, could not be playing some role in the water quality results. Stormwater alone should not have these types of concentrations. Ecology's fact sheet indicates it requested monitoring plans to determine where the water quality violations originated, but there is no indication whether those plans were prepared or implemented, or what the results may have been. Without those results, the appearance is that process water could be included in the outfall discharges from 001, 002, 003, and 008, which is not allowable under the permit.

Response:
NPDES permits for existing or non-expanding facilities do not require facilities to meet background concentrations in the receiving water. Instead, industrial facilities are required to meet technology- or water quality-based standards and to comply with AKART. See Water Quality Standards WAC 173-201A-100.

Although all of the data tables did not get attached to the online permits, analysis was performed to ensure compliance with water quality criteria. Water quality criteria are summarized under "Surface Water Quality Criteria" on page 16 of the fact sheet. As required in the State Permit Writer's Manual performance-based limits were calculated in order to determine the effluent limitations for Condition S1. Information related to permit issuance is available through our Central Records Department, 425-649-7239. Data related to Discharge Monitoring Reports are not considered confidential and may be viewed through the Central Records Office. In addition, I would be happy to send the spreadsheet with the complete data set to you at any time. This facility has been implementing an ongoing monitoring plan since permit issuance and has not been able to correlate the infrequent exceedences with any specific industrial activity.

Ecology's Effluent Limitations

Comment:

Q from City of Black Diamond.

Ecology's effluent limitations and interim limits (authorized through 2008) in Table 1 of the draft NPDES permit would allow discharge of copper at 16 µg/l, which is greater than the state chronic or acute water quality standards for copper (10.6 µg/L and 15.7 µg/L, respectively), as determined by the hardness in Ginder Creek at the Mud Lake Creek confluence in April 2007. It is difficult to understand how this interim limit was developed, unless Ecology is allowing a mixing zone and is unconcerned that background dissolved copper in Ginder Creek is below 1 µg/L. Similarly, given that increased phosphorus loading has been determined harmful to Lake Sawyer, it is difficult to understand how an average monthly or maximum daily limit of 41 µg/L and 82 µg/L respectively were established, given the background total phosphate measured in Ginder Creek of 18 µg/L. It appears that Ecology's permit will allow an ongoing source of phosphorus loading to Lake Sawyer to continue at past levels under the draft permit.

Response:

The Department is required to bring the facility into compliance with water quality standards within a reasonable amount of time. It is not reasonable to assume that Pacific Coast Coal would be able to meet more stringent effluent limitations without some time to develop and install a more effective treatment system. The Department has developed a compliance schedule noted in Condition S9. This gives the facility two years to collect surface water and ground water quality data and perform a Hydrogeologic Investigation and one year to write an Engineering Report and construct a treatment system to meet water quality design standards at the point of discharge. This sequenced compliance schedule will provide the treatment specifications necessary to meet the state water quality standards. The interim limits are based on demonstrated performance.

Also, Lake Sawyer may meet water quality goals in the future. According to the conclusion in "Effectiveness Monitoring for Total Phosphorus Total Maximum Daily Loads in Fenwick and Sawyer Lakes," (Publication No. 02-03-054) "Evaluation of available effectiveness monitoring data indicates that both lakes have periods when total P concentrations are above their in-lake mean summer total P concentration target limits as set by their respective TMDL goals, especially at Lake Fenwick. For several years at Lake Sawyer, total P concentrations at individual stations or years are below the TMDL target limits, but they appear not to be a typical trend. In the short term, the state's narrative water quality standard for aesthetics cannot be met and sustained for Fenwick and Sawyer Lakes without strategically targeting further reduction of total P contributions from internal and stormwater loadings. Although Lake Sawyer seems to be meeting the TMDL target limit as a long-term average, more data is required to validate this improvement. Progress in reducing total P levels in these lakes should be tailored to: 1) reducing cumulative loadings from internal phosphorus sources following turnover of the lakes, 2) reducing the increased fall and winter stormwater runoff activities, 3) continuing aeration at Lake Fenwick and considering its appropriateness at Lake Sawyer, and 4) considering alum addition to take phosphorus out of the water column, which may improve adsorption to the sediments. Without strategically targeting the sources of total P, both lakes may likely continue to experience elevated total P concentrations and subsequent eutrophication."

Comment:
Q from Pacific Coast Coal.
The studies already conducted, together with the results of over 21 years of extensive monitoring of both surface and ground water, are more than sufficient to characterize the nature of PCCC's water discharges and demonstrate the negligible impacts of PCCC's operations on water quality. PCCC should not be punished for Ecology's lack of institutional memory by being required to perform unnecessary and redundant studies…

Response:
Pacific Coast Coal may use existing information, where applicable, during the development of the Hydrogeologic Investigation required under the permit. Data collected during the last 21 years may also be used in the study. The goal of the hydrogeologic study is to assess the current condition of the hydrogeologic environment and to characterize the facility's activity. This information is used to establish enforcement limits, permit conditions and develop a monitoring plan which will accurately assess each individual facility's impact on ground water quality. Please see Ecology's Publication No. 96-02, revised October 2005. There may be additional data needed to complete the investigation. The studies must be performed to meet the requirements of 173-200-080. (2)" If the department determines a potential to pollute the ground water exists, the department shall request a permit holder or responsible person to prepare and submit for departmental approval a ground water quality evaluation program for its activity. Each evaluation program shall be based on soil and hydrogeologic characteristics and be capable of assessing impacts on ground water at the point of compliance."

Comment:
Q from James Clemens.
I am writing to express myself, and my families concern at the attempt of Pacific Coast Coal Companies request to pump their waste water in to specifically Lake #12. Over the past 10 (plus) years I have observed the open pit adjacent to lake #12 slowly and gradually fill with runoff water from the abandon mine operation. I have also observed at least 10 truck and trailer combinations a day dump waste material into this body of waste water for at least 10 (plus) years. The material that was dumped into this water was not inspected by anyone that I am aware of, but the water level has continued to increase due to the amount of possibly toxic material dumped into this area.

Lake #12 is a public fishing and recreational lake. Having this water which has been sitting in this pit would not be healthy to the fish and animals in and around the lake. You see no birds, Ducks or animals at the waste water open pit mine location. There is a reason why there are no animals or fish in this water. What happened to the reclamation that was to be done according to the original EIS?

Please do not let Pacific Coast Coal Co do what they are proposing. This last winter you had water pumped from Horseshoe Lake outside of Black Diamond into Lake Sawyer. This water was clean and had not had anything dumped into it. Since the last pumping from this lake the county has decided to never do it again due to the impact it has on the streams and Lake Sawyer. Why then would you allow this toxic, smelly unhealthy water to be pumped into a recreational lake such as lake #12 and be at risk of possible lawsuits of sickness from children swimming or, fishermen eating contaminated fish from the lake after they have pumped that foul water.

Please accept my recommendation and do not issue a permit for this application by Pacific Coast Coal Co. This is not stormwater, and not healthy. Besides it goes against the original EIS.

Response:
This is outside the scope of the NPDES permit for PCCC. The permit adds a measure of protection to Lake 12. This permit updates older and less stringent requirements related to water quality. Pacific Coast Coal has had authority to discharge since 1986. The Office of Surface and Mining has authorized this facility to use outside materials to fill pit 1. They have oversight for reclamation, and inspections have been performed monthly with monitoring of fill materials as one aspect of the inspection. The facility is required to analyze the materials prior to acceptance. I am not aware of the pumping done from Horseshoe Lake to Lake Sawyer. This permit is an improvement in protection for Lake 12, Lake Sawyer, and Mud Lake Creek. Any new discharges to Lake 12, which is water of the state, must be authorized and conditioned to protect Lake 12.

Comment:
Q from Floyd L. Claggett.
I am a property owner on Lake 12 at 30726 270th Ave SE. I would like to place my objection to the issuing of a permit to discharge wastewater into Lake 12 to the Pacific Coast Coal Company.

When the mining of the coal terminated years ago, the Company allowed the open pit to fill up with rainwater and seepage. Since the mining was not completed the water was exposed to the coal and undoubtedly arsenic would be present. This water has remained stagnant over the years because the walls of the pit are high enough that the wind doesn't strike the water. They allowed trucks to haul in excess earth which they shoved into the pit. During this time they were fined or warned twice about allowing contaminated earth to be dumped. To my knowledge there was no program put in effect that this would not happen again.

I am concerned about the effect of the wastewater on our swimming and fishing in the Lake. Many of us pump the Lake water into our houses for certain uses.

The outlet of Lake 12 is the start of Rock Creek which flows around the hills and returns to town of Ravensdale and continues on to the Watershed of the City of Kent; then flows north to empty in the Cedar River. Rock Creek is the largest tributary of the Cedar River.

As you can see, many persons might be affected by your dissension.

Response:
The Department is requiring that all discharges from the mining facility be monitored to ensure compliance with state standards. State water quality standards are based on testing of organisms to ensure that they are maintained and protected. This includes flows coming from the pit which has accepted waste materials from other facilities as fill. This facility has no authority to discharge flows directly to Mud Lake so any flows coming from the pit will go through the treatment system or series of ponds for treatment prior to discharging into Ginder Lake. There is a monitoring point prior to flowing into Ginder Lake, which is a water of the state. The only stormwater flowing into Lake 12 would be stormwater coming off of the east side of Spoil Pile 1, which is mostly reclaimed according to the Federal Office of Surface and Mining.

Comment:
Q from George McPherson.
For more than ten years volunteers who live on Lake Sawyer have been working with the City of Black Diamond, King County and state agencies on monitoring the water quality of the lake as well as streams flowing into the lake. We are extremely concerned about activities at the John Henry Mine operated by Pacific Coast Coal Company. These concerns have been raised by 1) continued reports of notices of violations by mine operators as noted on page 9, Paragraph 2 of the Fact Sheet for Permit WA-003083-0 Pacific Coast Coal Comp my and 2) that during storm events water quality sampling has shown that total suspended solids (TSS) and phosphorus levels are higher in mine outfalls compared to streams entering the mine area. Since water flows from the John Henry Mine property into creeks that ultimately flow into Lake Sawyer, our monitoring group is concerned that material deposited on mine property may have a detrimental effect on lake waters.

Response:
The Department is requiring that all discharges from the mining facility be monitored to ensure compliance with state standards. Permit Conditions are enforceable through the Federal Clean Water Act and carry with them a potential fine of up to $10,000 per day per violation. Although this facility has had numerous exceedences during the last 20 years, they have not had ongoing violations of any one criteria. The Department has enforced on exceedences of phosphorous limitations in the past. This permit requires testing during the critical period of stormwater runoff (first flush) to determine if there is a higher concentration of pollution leaving the mine during initial rainfall events. Reclamation concerns must be brought to the attention of the OSM. The contact name and number follow.

Comment:
Q from George McPherson.
We understand materials from the Ash Grove Cement Plant in Seattle have been deposited on the mine site. It is our understanding this material carries a high phosphorous content. We also understand that several years ago material referred to as fly ash was sent to the mine area from a power plant in Centralia, Washington. It was obviously not clean fill. We believe this

material was not authorized to be deposited on mine property, a clear violation of the terms of permits existing at the time. This could not have been done without the knowledge of the mine operators.

Response:
The Department has checked with the OSM, and they have approved materials from Ash Grove Cement as road building material. Recently they have required PCCC to pull some of this material up out of the area that is expected to constitute the final cut of the lake. Please contact OSM regarding fill materials. I have been in communication with them regarding this permit and they said they have tested the materials prior to authorizing them and are managing the reclamation plan as dictated under Federal Law. Condition S6 of this permit requires PCCC to handle and dispose of all solid waste material in a manner as to prevent entry into ground and surface waters of the state.

Comment:
Q from George McPherson.
The fact sheet provided by the Department of Ecology indicates that water samples taken by mine employees have been commingled with pond water. Samples should obviously have been taken from the culverts where the greatest concentration of pollutants would have been located. This means the samples were undoubtedly diluted and could not have provided an accurate sample of what was being discharged. Was this a deliberate act or an accident? It is an obvious source of concern to our volunteers. We recommend that the DOE perform independent water sampling to validate the sampling done by mine operators. Enforcement of DEO permit conditions is critical.

Response:
The Department is committed to performing an inspection with sampling by Ecology employees during the permit cycle. Pacific Coast Coal has stated they sampled at locations they considered to be approved.

Comment:
Q from George McPherson.
In July of 2006 the mine operators were clearing some land adjacent to Ginder Creek and the Black Diamond Ravensdale Road. A backhoe operator drained a pond allowing the water to run directly into Ginder Creek. The water that flowed into the creek was described by Black Diamond's former city administrator as being "chocolate colored." Discharging the pond water through a trench directly into the creek seemed to be an unusually careless act. The Department of Natural Resources was contacted about this event and required the mine operators to repair the damage to the site by replanting.

Response:
In the future, please contact the Department Emergency Response Tracking System at 425-649-7229 when contamination is observed discharging off of this site or any site within the Northwest Regional Office of the Department of Ecology. The permit manager is always interested in notification of a violation of a Permit Condition. Any discharges of contaminants, either not authorized or exceeding the limitations in the permit, are violations.

Comment:
Q from George McPherson.
Would it be possible for DOE to provide a list of what parameters will be monitored as specified in the permit if the NPDES permit is granted and at what intervals? For example, will storms be checked closely and compared to base flows? In addition, our group would like to know what criteria will be needed to revoke the permit if the conditions of the permit are not followed or if monitoring suggests violations. Who would have the authority to do so and what procedures would be followed?

Response:
The specifics of monitoring are listed in Condition S2 of the permit. The permit requires monitoring for each storm event greater than one-half inch. The facility must monitor for each parameter at each discharge point listed in Table 6. The permit manager of the facility is responsible for ensuring compliance through phone conversations, emails, or formal enforcement. The Department of Ecology also has the authority to enforce and revoke permits. Under the Federal Clean Water Act, permit violations are also enforceable through citizen law suits. The permit does not require a comparison of discharge flows to base flows.

Comment:
From Pacific Coast Coal.
<u>Coal Processing Water</u>
Like mine dewatering water, the proposed renewed permit attempts to revise federal law as it applies to coal processing water. While PCCC's coal processing system is closed circuit and does not discharge water, this was done as a best management practice and not in accordance with any federal or state law or regulation. The Fact Sheet for the existing permit addresses this issue on page 5 in the last paragraph of that page. It specifically notes that 40 CFR 434 is the controlling law and provides limitations based on NSPS for coal preparation plants and coal preparation plant associated areas. These areas include: discharges which are pumped, siphoned or drained from the coal preparation plant water circuit and coal storage, refuse storage and ancillary areas related to the cleaning or beneficiation of coal. The best practicable control technology currently available to remove pollutants from coal processing plants is, according to the EPA, sedimentation ponds. 40 CFR. Part 434 - EPA Guidelines for the Coal Mining Point Source Category.

Two different sections of Part 434 apply to PCCC including Subpart B related to coal preparation plants:
Subpart B - Coal Preparation Plants and Coal Preparation Plant Associated Areas
§ 434.20 Applicability.
The provisions of this subpart are applicable to discharges from coal preparation plants and coal preparation plant association areas, as indicated, including discharges which are pumped, siphoned, or drained from the coal preparation plant water circuit and coal storage, refuse storage, and ancillary areas related to the cleaning or beneficiation of coal of any rank including, but not limited to, bituminous, lignite, and anthracite.

§ 434.22 Effluent limitation guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):
Note:
(a) deals with discharges with pH < 6.0;- it has the same limits but adds manganese, with limits of 4.0 mg/l maximum/day and 2.0 mg/l 30-day average.
(b) Except as provided in 40 CFR 125.30-125.32, 40 CFR 401.17 and §§434.61 and 434.63 of this part, the following limitations establish the concentration or quality of pollutants which may be discharged by any existing coal preparation plant and coal preparation plant associated areas subject to the provisions of this subpart after application of the best practicable control technology currently available if discharges from such point sources normally exhibit a pH equal to or greater than 6.0 prior to treatment:

BPT Effluent Limitations

Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
	Concentration in mg/l	
Iron, total	7.0	3.5
TSS	70	35
pH	(1)	(1)

[(1)]Within the range of 6.0 to 9.0 at all times.

In this instance Ecology seems to be rewriting the law arbitrarily without going through formal rulemaking or following the requirements of the APA. The proposed requirement that PCCC cannot use a sedimentation pond to discharge coal processing water under emergency conditions is without basis under the existing permit or under the law. Ecology has provided no legal citations that give them authority to make this change to the permit. It should be noted that prior to issuing the first NPDES permit for the mine, Ecology required extensive testing of the coal and reject material including total recoverable analysis and EP toxicity tests to insure that the material would cause no environmental harm. The OSM permit as well as the NEPA and SEPA environmental impact statement's contain the results of that testing. It clearly demonstrated that the material does not cause any water quality degradation. As a point of fact, coal mined at the site has been incorporated into several water filtration systems in Western Canada and in the US.

Response:
Pacific Coast Coal has stated that in the last 21 years there has only been one overflow of process water to the stormwater pond and that they have been able to successfully recycle process water. Since PCCC has reported that they have recycled process water for the last 21 years with only one overflow during maintenance of the clarifier tank, the Department believes a prohibition on process water discharges from coal processing is reasonable and achievable and is therefore AKART.

Ecology does not rewrite laws arbitrarily; however, the Department has the authority to impose more stringent requirements than Federal Law. Under Title V of the Federal Clean Water Act, Section 510 states, "Except as expressly provided in this Act, ***nothing in this Act shall (1) preclude or deny the right of any State*** *or political subdivision thereof or interstate agency* ***to adopt or enforce (A) any standard or limitation respecting discharges of pollutants****, or (B) any requirement respecting control or abatement of pollution;* ***except that*** *if an effluent limitation, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance is in effect under this Act,* ***such State*** *or political subdivision or interstate agency* ***may not adopt or enforce any effluent limitation****, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance* ***which is less stringent than*** *the effluent limitation, or other limitation, effluent standard prohibition, pretreatment standard, or standard of performance under this Act; or (2) be construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters (including boundary waters) of such States. (33 U.S.C. 1370)"*

The Department did undergo the formal rule making process to modify Chapter 173-201A WAC, WATER QUALITY STANDARDS FOR SURFACE WATERS OF THE STATE OF WASHINGTON, on 11-20-06. Effluent limits included in this permit are in compliance with the updated regulation.

RCW 90.48.080 states, "It shall be unlawful for any person to throw, drain, run, or otherwise discharge into any of the waters of this state, or to cause, permit or suffer to be thrown, run, drained, allowed to seep or otherwise discharged into such waters any organic or inorganic matter that shall cause or tend to cause pollution of such waters according to the determination of the department, as provided for in this chapter."

WAC 173-201A-510, states, "Means of Implementation. (1) ***Permitting.*** *The primary means to be used for controlling municipal, commercial, and industrial waste discharges shall be through the issuance of waste discharge permits, as provided for in RCW 90.48.160, 90.48.162, and 90.48.260.* ***Waste discharge permits, whether issued pursuant to the National Pollutant Discharge Elimination System or otherwise, must be conditioned so the discharges authorized will meet the water quality standards.*** *No waste discharge permit can be issued that causes or contributes to a violation of water quality criteria, except as provided for in this chapter. These are in the State Water Quality Standards.*

Comment:
From Pacific Coast Coal.
Mine Dewatering Water
Ecology erroneously states in the Fact Sheet that PCCC maintains no discharges of mine dewatering water and has not applied for authority to discharge such water. Therefore, according to the draft permit, process water and mine dewatering water discharges are prohibited. It should be very apparent that if this were the case or is the case then any surface coal mine operating in Western Washington could not operate (unless underwater mining methods were applied). Ecology offers no explanation why it allowed mine dewatering under the existing permit but now plans to deny it which effectively prohibits further mining and conceivably constitutes a taking of PCCC's remaining coal reserves.

This arbitrary and unexplained position of Ecology is also inconsistent with the existing NPDES permit which is being renewed. In the third paragraph on page 3 of the Fact Sheet for the existing permit, Ecology notes that: Stormwater runoff from spoil piles, roads, and storage areas are the major sources of water pollution. Lesser sources are vehicle washing and storm water pumped from the working areas of the pits.

To claim that PCCC's permit does not allow the discharge of mine dewatering water is without basis. It is also inconsistent with PCCC's renewal application submitted in 1996. If there has been a change in the federal or state laws that prohibit this it is unknown to PCCC. To impose such an arbitrary restriction prohibits surface mining and is done without regard to the Administrative Procedures Act RCW 34.05.

Ecology's current position is also inconsistent with its position when permitting began in 1982 and the mine was opened in 1986. Then, Ecology required PCCC to obtain a non-consumptive water right to discharge stormwater from the pit (Permit S1-24201 P). Ecology's report of examination issued in response to PCCC's application stated clearly explains that this water right was issued to allow continuous mining which includes sumps in the pits and pumping to dewater the pits and allow mining. To claim otherwise now is disingenuous.

Response:
Ecology has reviewed the definition of mine dewatering water and will use the same as the Sand and Gravel General Permit. Mine Dewatering Water means any water that is impounded or that collects in the mine and is pumped, drained, or otherwise removed from the mine through the efforts of the mine operator. This term shall also include wet pit overflows caused solely by direct rainfall and ground water seepage. However, if a mine is used for treatment of process generated waste water, discharges of commingled water from the mine shall be deemed discharges of process generated water.

Given this definition Ecology concurs with Pacific Coast Coal. The permit has been modified to authorize discharges of mine dewatering water. Stormwater flowing into either pit 1 or pit 2 would be considered mine dewatering water. Sampling and effluent limits related to mine dewatering water will be the same as stormwater as this water will be comingled with stormwater as it is pumped through the current pond system for treatment prior to flowing into waters of the state.

Comment:
From Pacific Coast Coal.
Effluent Limitations
In section S1, Ecology presents four tables of proposed effluent limits for the discharges from PCCC's 8 sedimentation ponds. In addition to average monthly and maximum daily limits for phosphorous, pH, and turbidity, these tables list both "interim" and "final" maximum daily limits for oil & grease, chromium (hex), copper, manganese, and dissolved oxygen. No sampling schedule is provided for these parameters.

Response:
The Permit has been modified to reflect the changes necessary to clarify the monitoring conditions.

Comment:
Effluent Limitations
From Pacific Coast Coal.
PCCC questions these tables and the proposed limits. Why is PCCC required to monitor parameters that no other mine in the state is required to test for? Why does Ecology deem it necessary to further reduce the limits for oil & grease, chromium, copper, and manganese after January 1, 2009? PCCC can find no reference to these parameters and limits in 40 CFR or state regulations. Ecology seems to be getting some of these from drinking water standards - surely they are not proposing that the stormwater discharges from PCCC (and by extension, all other mining and industrial concerns in the state) be required to meet drinking water standards? Manganese is only of concern when the pH is below 6.0, which has never been the case at PCCC. Indeed, the treatment for high manganese levels is to raise the pH. This is in fact, what the Covington Water District does to treat for naturally occurring manganese at one of its drinking water wells located nearby. Guidelines for manganese listed in the EPA Gold Book, is for drinking water and not stormwater. Does Ecology now expect PCCC's stormwater discharges to meet drinking water standards?

Response:
Code of Federal Regulations, Protection of the Environment under CFR 125.332 (f) states, "Nothing in this section shall be construed to impair the right of any State or locality under section 510 of the act to impose more stringent limitations than those required by Federal law." The Department used Washington Administrative Code -201A, Water Quality Standards for Surface Waters of the State of Washington, Chapter 173-201A as a basis for most of the parameters listed in S1. In addition, the Department utilized the EPA publication, "Quality Criteria for Water, 1986," for parameters which the state has not yet categorized. Phosphorus was reviewed based on the EPA publication which states, "Section 304(a) of the Clean Water Act (33 U.S.C. 1314 (a)(1) requires the Environmental Protection Agency to publish and periodically update ambient water quality criteria. These criteria are to accurately reflect the latest scientific knowledge (a) on the kind and extent of all identifiable effects on health and welfare including, but not limited to, plankton, fish, shellfish, wildlife, plant life, shorelines, beaches, aesthetics, and recreation which may be expected from the presence

of pollutants in any body of water including ground water; (b) on the concentration and dispersal of pollutants, or their byproducts, through biological, physical, and chemical processes; and (c)on the effects of pollutants on biological community diversity, productivity, and stability, including information on the factors affecting rates of eutrophication and organic and inorganic sedimentation for varying types of receiving eaters.) The studies documented in the "Gold Book" are the foundation for determining standards and limitations and are not published as drinking water standards.

Comment:
Effluent Limitations
From Pacific Coast Coal.
Why does Ecology want PCCC to monitor for oil & grease at the discharges of all ponds, when only two (Ponds B and G) are in any way connected with the maintenance shop?

Response:
Monitoring for oil and grease or sheens in ponds is a way to track discharges to ground as well as surface water. Petroleum contaminants may originate from any piece of equipment working within the mine, in addition to maintenance shop activities. Any hydraulic line breaks or leaks, engine oil leaks or other parts of equipment that may be greased can contribute to petroleum hydrocarbons moving into conveyances which carry stormwater. Upon routine inspections at several sand and gravel mines, equipment was blatantly discharging oil onto the gravel. Although not specifically observed at Pacific Coast Coal relative to equipment there were several oil spots on the gravel observed and there remains the potential for leakage from equipment at the site.

Comment:
Effluent Limitations
From Pacific Coast Coal.
Phosphorous (TP) limitations were imposed in the original NPDES permit in the mid 1980's due to high phosphorus levels in Lake Sawyer. These were causing extraordinary algae blooms in the lake. The high levels were primarily attributed to a failed experimental municipal sewage system owned by the City of Black Diamond and funded by Ecology and EPA. It was a sensitive issue at the time and Ecology and King County wanted to quantify sources of phosphorus in all streams flowing into Lake Sawyer. In 1992 the Black Diamond sewage was diverted into the Metro system.

King County has been monitoring Lake Sawyer water quality using volunteers since the 1980's. These efforts have demonstrated that TP declined significantly since the Black Diamond sewage was diverted into Metro and unusual algae blooms are no longer of concern. Mean TP levels from 2001-04, as reported in annual King County Monitoring Reports, were as follows:

Year	TP (µg/l)	
	Mean	Max
2000	9.5	14.5
2001	18.2	65.3
2002	9.2	11.7
2003	10.3	13.8
2004	12.2	26.4

The 2001 King County Lake Monitoring Report notes that for many lakes, total phosphorus levels were typically larger in bottom water samples by August compared to 1m and mid-depth concentrations. This is due to stratification that takes place by June and lasts until well after August. According to King County, this suggests that significant release from sediments was occurring over the summer months. They also note that the measurement of the total amount of phosphorus is not a direct measure of the phosphorus that is available for algal uptake, since the phosphorus contained in particles both organic and inorganic will be included in the assay.

Given the relatively low levels of TP in Lake Sawyer compared to the mid 1980's it is not reasonable to require PCCC to continue to monitor for TP. While PCCC's monitoring data do show that there are occasional spikes in TP in the fall when the sedimentation ponds begin discharging, the overall yearly averages (as noted above) clearly demonstrate that PCCC discharge is not a major contributing factor in Lake Sawyer TP levels.

Ecology has not explained what goal that it intends to accomplish by imposing this requirement given the reality of Lake Sawyer water quality now compared to twenty years ago. It has not explained what benefits will accrue from this monitoring, or why PCCC must continue this costly monitoring for undefined benefits. Nor has Ecology explained why discharges from Pond A and A^1 must be monitored for TP given that the entire drainage into those ponds is from land that is completely reforested and hasn't been disturbed by mining activities for over 15 years. The requirement should be dropped at all locations.
Even if PCCC is required to continue monitoring TP the relevant standard is the annual average TP and not monthly average based on one sampling point. The data gathered by PCCC and King County clearly shows there are natural spikes in the TP levels in the fall due to climatic and vegetative conditions. PCCC has no control over these conditions and the short term natural spikes do not degrade Lake Sawyer or Lake 12 water conditions.

Response:
The Department disagrees that PCCC is not a contributor to phosphorous discharges to Lake Sawyer. Phosphorous discharges from PCCC ranged up to 170 ug/L compared to the TMDL target of 16 ug/L. Sampling from the mine was also diluted with natural stream and pond water which added a dilution factor and the direct discharge of phosphorous is most likely greater than reported.

The Total Maximum Daily Load (TMDL) performed for Lake Sawyer prior to the installation of the sewer line conveying sewage to the wastewater treatment plant set a goal of 16 ug/L phosphorus for mid-summer upper strata sampling. Although there was a downward trend for phosphorus for several years following the connection to the treatment plant, in recent years the concentrations of phosphorus has been escalating (as shown in the table you provided).

Phosphorus does not diminish in the lake bed but accumulates as continued sources of phosphorus become available through stormwater runoff. During the studies performed in the late 1980s, Rock Creek was found to contribute about 35 percent of the total phosphorus flowing into the lake. Both Mud Lake Creek and Ginder Creek are tributaries to Rock Creek.

Consultants for the City of Black Diamond have reported a value of 18 µg/L for total phosphorus in background samples taken above the influence of the mine. The Department is required to maintain or require more stringent Conditions in the permit when there is an ongoing potential to pollute state waters.

Ponds A and A[1] may be removed from the permit when the site has been fully reclaimed and the Office of Surface Mining has returned the bond for that area. In addition, Pacific Coast Coal should show compliance with permit conditions prior to removing those outfalls from the permit.

As of January 10, 2007, PCCC has never submitted a bond release application to OSM.

Water Quantity

Comment:
From the public meeting.
How can the permit regulate flow if there are no flow limits?

Response:
The permit does not regulate flow, however, flow is necessary to determine an estimate of pollution moving through the system. As this permit only authorizes stormwater and mine dewatering water discharges, Ecology would not expect PCCC to retain this water on-site or limit the amount of rain water that can be discharged to waters of the state. Stormwater is necessary to maintain in-stream flows and lakes for beneficial uses.

Comment:
It is my understanding through the City of Black Diamond that Ecology no longer expects to permit discharge from Outfalls 003 and 008 to Lake 12 (as indicated in the draft permit), and instead will direct all discharge to the Cinder Creek/Rock Creek/Lake Sawyer basin. This review assumes that to be the case and is focused on protection of the Lake Sawyer basin and tributaries.

Response:
This permit includes monitoring, reporting, and effluent limitations for Outfalls 003 and 008 which ultimately drain to Lake 12. The Office of Surface Mining has recommended that once the ponds associated with these outfalls are in a final reclamation state, they will no longer require coverage under the mining reclamation plan as all future plans for the mine should not impact the hillslope that feeds these ponds. The Department will continue to include these discharge points in the permit until the site is fully reclaimed and all discharges meet water quality standards. As far as the Department is aware, there are no plans to route the flow from 003 and 008 to Lake Sawyer. Outfall points 003 and 008 have been replaced with points A and A^1 as the focus is on monitoring and reporting wastewater prior to comingling with natural waters of the state.

Monitoring Requirements

Surface Water Discharge Monitoring

Comment:
From Pacific Coast Coal.
Monitoring Locations
In this proposed new permit, Ecology insists on separate monitoring of the discharges from each sediment pond. This is a complete, and we believe unnecessary, reversal of the monitoring program established in the previous NPDES permit. That permit, issued June 30, 1992 and extended by Ecology to the present date, established four Monitoring Points where

the discharges left the permit boundary. Outfall 001 combined the discharges of Ponds B, F, and G, and was taken where they entered Ginder Lake. Outfall 002 combined the discharges of Ponds HI, H2, and I, and was taken where Mud Lake Creek exits the permit area, before passing under SR169 and combining with Ginder Creek. Outfall 003 monitored the discharge from Pond A, and was located before it passed under 270th Ave. SE and entered Lake 12. Outfall 008/010 monitored the discharge from Pond A' at two locations; 008 was located at the pond discharge and sampled all parameters other than phosphorous and turbidity. These were sampled at 010, which was located where the discharge left the permit area, before passing under SE 306th St. and flowing to Ginder Lake. This was done to maintain the phosphorous sampling point established for the Lake 12 phosphorous study conducted by King County in the late 1980's.

These monitoring points were established by Ecology to maintain consistency with the Federal Mining Permit administered by the Office of Surface Mining, Reclamation and Enforcement (OSM). Although Ecology usually elects to monitor surface water discharges directly at each pond, it determined that the advantages of having common monitoring points with OSM, and avoiding having PCCC sample effectively the same discharges at different points for the two agencies, outweighed any advantage gained by sampling each pond discharge separately. Both OSM and Ecology agreed that the key objective of the monitoring program was to ensure that the surface water met all applicable standards as it exited the mining permit area. It was PCCC's responsibility to determine the source of any exceedence and to correct any ongoing condition leading to the exceedence.

Now, after 15 years and without justification, Ecology has completely reversed course and unilaterally decided that these monitoring points are no longer acceptable and the discharge from each pond must be sampled directly and independently. This appears to be at the whim of ECOLOGY staff since there were no references to changes in the laws or regulations that would lead to this change. This not only serves to invalidate the preceding 15 years of monitoring, but places an undue burden of dramatically increased sampling requirements, without any increased protection of the environment. Since OSM still interprets the applicable EPA guidelines of 40 CFR to apply to the surface water discharges as they exit the permit area, PCCC will have to continue sampling the four previously established outfalls for OSM, in addition to the 8 new outfalls now proposed by Ecology. This is not good government and is inconsistent with provisions of the Clean Water Act, the Surface Mining, Control and Reclamation Act of 1977 and the Regulatory Reform Act Chapter 34.05 RCW.

Response:

Upon field reconnaissance of outfall locations of the mine, review of the mine drainage map and review of data submitted to Ecology, it has become clear that the sampling done in the past is not representative of discharges from Pacific Coast Coal, but that PCCC has been utilizing an unauthorized mixing zone when performing sampling. WAC 173-220-210 (a) states, "Any discharge authorized by a permit may be subject to such monitoring requirements as may be reasonably required by the department, including the installation, use, and maintenance of monitoring equipment or methods (including, where appropriate, biological monitoring methods)."

The Department is required to ensure that the facility is in compliance with effluent limitations in the permit. WAC-173-220-210 (1) (b) states, "(b) Each effluent flow or pollutant required to be monitored pursuant to (a) of this subsection shall be monitored at intervals sufficiently frequent to yield data ***which reasonably characterizes*** *the nature of the discharge of the monitored effluent flow or pollutant. Variable effluent flows and pollutant levels may be monitored at more frequent intervals than relatively constant effluent flows and pollutant levels which may be monitored at less frequent intervals." As there has been no receiving water study or mixing zone study or approval, PCCC is required to meet the effluent limitations at the point of discharge prior to mixing with state waters. Both Ginder Lake and Mud Lake Creek are waters of the state even though they are located within the mining permit boundary. The representative from the Federal Office of Surface and Mining, Joe Wilcox, has agreed that Ecology is the lead agency for NPDES permits. Although OSM may require sampling at the permit boundary, that is not sufficient for Ecology to determine concentrations originating from treatment ponds which will already be mixing with lake or stream water by the time samples are taken on the outside of the mining permit boundary. Since stormwater has an inherently high variability in concentration it is necessary to monitor during the precipitation events.*

Comment:
Pacific Coast Coal
S2. Monitoring Requirement
Surface Water Monitoring Schedule. The new permit requires that all surface discharges be sampled within 24 hours of each storm event in excess of 0.5 inches of rainfall, not to exceed 3 samples per month. Ecology states that they may change this frequency after 2 years of data collection. PCCC suggests that Ecology perform this review now to avoid unnecessary sampling. Precipitation records kept by PCCC since 1984 show that a rainfall event of 0.5 inches is relatively common in the Black Diamond area, which averaged over 50 inches/year. This almost guarantees that sampling will be performed the maximum three times per month stated in the permit. PCCC proposes that a more appropriate triggering event would be 1.0 inches of rainfall.

Response:
The Department will consider reducing the frequency of sampling once the wastewater has been sampled appropriately to effectively characterize discharges flowing from the treatment ponds prior to mixing with waters of the state. Since all of the past data resulted from samples of treated pond water comingled with state waters that data is not valid to base a decision on whether or not PCCC is in compliance with the effluent limitation in Permit Condition S1. Following two years of data collection, with approximately two samples per month of stormwater discharges, the Department will review the data for reasonable potential to exceed water quality criteria. The monitoring schedule has been modified to reflect a change to a maximum of two samples per month.

Comment:
Pacific Coast Coal
Additionally, PCCC has been monitoring all surface water discharges since mining commenced in 1986, and has provided Ecology with spreadsheets summarizing the data collected from 1993 through 2006. The data collected demonstrates that the parameters monitored are relatively constant, and at most fluctuate seasonally.

In Table 6 "Surface Water Discharge Monitoring Schedule," Ecology presents a lengthy list of parameters to be monitored at the discharges from PCCC's 8 sediment ponds. This list goes well beyond what was shown in Tables 1 through 4 in section S1, and in some cases contradicts them. Tables 1 - 4 list specific limits for the following parameters: phosphorous, pH, turbidity, dissolved oxygen, oil & grease, chromium, copper, and manganese. Table 6 specifies that the following additional parameters at to be sampled after every 0.5-inch rainfall event: flow, TPH, zinc, aluminum, antimony, beryllium, cadmium, lead, mercury, nickel, silver, and selenium. No limits are given these parameters, but the required lab method and detection limits are listed. Tables 1 - 4 call for oil & grease analysis, while Table 6 specifies TPH analysis. Also, Table 6 shows the phosphorous results are to be reported in pounds/day, although the lab results will be in mg/I. This would require continuous flow meters to be installed at all pond discharges, which is not only excessive and unjustified, but impossible as there is no power source at any of the ponds.

Response:
While Pacific Coast Coal has monitored for several parameters for a number of years, the data does not demonstrate that the parameters monitored are relatively constant. Since the data is comingled with state waters, the dilution may be so great that samples would more likely characterize the background water concentration and not the effluent concentration. The Department will not set limits for a parameter until we know if there is a reasonable potential to pollute. Monitoring pollutants is the first step to observe the concentrations in the effluent. Once the samples are analyzed, then a determination can be made to set effluent limits.

Hardness, DO, pH, and phosphorus are eliminated as monitoring and analysis requirements at background stations 005, 007 and 009, eliminating the daily, monthly, and quarterly monitoring for these parameters. Compliance is at the point of discharge as PCCC has commented. Only turbidity remains at a reduced frequency of no more than twice per month because it requires a downstream station and a background station for compliance monitoring.

Three new outfalls, B, F, and G, are added to replace Outfall 001 to characterize wastewater discharges to waters of the state of Washington, Ginder Lake. Three new outfalls are also added to replace Outfall 002 to characterize discharges to waters of the state, Mud Lake Creek. These new outfalls are monitored at a frequency which is no more than two per month.

Monitoring at Outfall 010 has been eliminated.

Specific conductance monitoring is dropped at all monitoring points.

Iron does not have a surface water quality criteria and monitoring is dropped at all monitoring points.

Total Suspended Solids have been dropped at all monitoring points. Turbidity is a fine solid measured by light diffraction of fine particles and is more difficult to control than total suspended solids, which is measured by weight. If turbidity is controlled, than the heavier harder-to-control TSS will also be controlled.

The basis for dissolved aluminum, antimony, beryllium, cadmium, mercury, nickel, silver, selenium, and manganese is that they are recommended by four agencies in a document entitled "Interim Chemical/Biological Monitoring Protocol for Coal Mining Permit Applications, January 19, 2000." Further investigation to address this comment with knowledgeable contacts about the report has revealed it does not apply to the West Coast. It applies to Appalachia hill top mining. Since there is no other basis to suspect these pollutants are coming from PCCC, Table 6 is modified to remove them from the list of parameters requiring monitoring.

Inconsistencies between the tables in the permit and fact sheet have been modified. Thank you for your observations and comments on those tables.

Comment:
Pacific Coast Coal
No other mine in the State of Washington is required to test for anything even approaching this proposed list of parameters. Indeed, none are required to test for most of the parameters specified in the current NPDES permit. For comparison, here are the sampling requirements for other mines in the state:

TransAlta Centralia Mining, Centralia, WA (Permit No. WA-0037338). This is the only other coal mine in Washington, with peak annual production of more than 6 million tons/year and a permit area in excess of 14,000 acres. This mine is over twenty times larger than PCCC's operation. Required sampling: pH, TSS, turbidity, dissolved oxygen, and temperature (monthly); and TPH and iron (once every 2 months). Additional turbidity monitoring is required after rainfall events in excess of 1.5 inches.

Sand and Gravel General Permit. This permit covers all the sand and gravel mines, industrial sand, stone and rock quarries, and other non-metal mining operations in Washington. Required sampling: turbidity (twice/month), pH and TSS (quarterly). No oil & grease or TPH sampling is required, regardless of the presence of maintenance shops or repair facilities.

Response:
The TransAlta Centralia Mine has not proposed to excavate and process coal under their current permit according to Unit Manager of the Industrial Section, Steve Eberl. They perform a full suite of priority pollutants analysis for each permit application and they are required to perform biological monitoring, or whole effluent toxicity (WET)

testing. That sampling is quite expensive and gives a comprehensive analysis on whether sensitive organisms can survive concentrations of pollutants in the wastewater. Pacific Coast Coal may be required to WET test in future permits.

Sand and gravel mines have been sampling at the point of discharge (end of pipe). Their discharge has been characterized and the required sampling has been customized toward the parameters with a potential to pollute. Sampling at these sites has been reduced in the past after demonstrating certain pollutants did not occur in the wastewater. In addition, all facilities are required to monitor for sheens which is a stringent requirement given it takes only a drop or two to create a sheen and it can easily be photographed upon an inspection. Most of the maintenance shops are covered and contained and don't allow drainage into the rest of the pit.

The wastewater discharged from Pacific Coast Coal may not be similarly characterized as sand and gravel mines or TransAlta mine.

Comment:
Pacific Coast Coal
PCCC is concerned that, in listing the lab analysis method for the various parameters, Ecology specifies the method with lowest detection limit available, which coincidently is also the most expensive method. PCCC has calculated the expected annual cost of laboratory analysis required for the proposed surface water sampling. For comparison, costs incurred by using the sampling parameters and frequencies specified by the Centralia large coal mine and Sand & Gravel permits are also included, as well as those associated with the current NPDES permit.
Current permit schedule: $2,588
Centralia sampling schedule: $2,420
Sand & Gravel sampling schedule: $405
Proposed permit schedule: $20,088
Note: Based on 3 samples/month and discharges for 12 months/year at Ponds B & F, and 8 months/year at Ponds A, A', F, G, HI, H2, and I.
Indeed, it would appear that Ecology's goal is to make the lab fees required to remain in operation so excessive that PCCC will be forced to close the mine and cease operations.

Response:
The Department would consider alternate analysis methods that meet the intent to analyze the effluent within the concentration ranges that are required in the effluent limitations. If your limit is 5 parts per billion, it is necessary to utilize analysis that can detect concentrations at least measuring 5 ppb. For turbidity and pH a meter can be used such as what has been used in the past at the mine site. Monitoring in the permit has been reduced to a maximum two samples per month.

Comment:
Pacific Coast Coal
To summarize PCCC's responses to the proposed sampling schedules: PCCC feels it should be held to the same standards as other comparable operations in the State of Washington. We do not ask for any special treatment, nor do we feel we should be subject to more stringent standards. We therefore propose that Ecology should apply the same sampling schedule as that listed in the Sand & Gravel General Permit: turbidity (2/month), pH and TSS (quarterly).

In Table 7 "Surface Water Background Stations," in addition to monitoring turbidity, pH and dissolved oxygen, Ecology calls for PCCC to pay for laboratory analysis of hardness and phosphorous at each of the three background points. The proposed limits for these parameters at PCCC's surface water discharges are not based on a comparison with background levels, but on fixed levels. There is therefore no need for PCCC to sample the background points for these parameters. If Ecology wants to do a study of the background levels at these locations, it can and should conduct and pay for such a study itself.

Response:
The Sand and Gravel Permit has characterized the wastewater for that industry and the data shows it is not similar to wastewater discharged from Pacific Coast Coal. The Department concurs that compliance with state water quality standards is at the point of discharge except for turbidity. Background sampling is eliminated except for turbidity.

Comment:
Pacific Coast Coal
Throughout the Fact Sheet and draft Permit, Ecology criticizes the surface water sampling conducted by PCCC over the course of the current permit. Ecology seems to forget that Ecology, not PCCC, wrote that permit and established the sampling points, parameters, and schedules. PCCC has sampled in accordance with the requirements of that permit since July 1992. Ecology now seems fixated on the necessity of sampling each pond discharge directly as it leaves each pond. When the current permit was written, Ecology decided to authorize monitoring points that monitored surface water discharges as they left the mine's permit area. OSM (the lead permitting agency for all surface coal mining in Washington) interprets EPA environmental guidelines as applying to water discharges as they leave the permit boundary. It is the permittees responsibility to ensure that all applicable water quality standards are being met at that point. Despite their normal protocol of directly sampling pond discharges, Ecology consulted with OSM (the lead agency) and decided to co-locate their monitoring points with OSM's. Ecology reasoned that despite the fact that some discharges were combined or even mixed to some extent with background waters, the waters of the state were adequately protected and that any adverse effect of PCCC's mining activities could be accurately determined at these monitoring points. This was done for several reasons:

- To avoid having multiple sampling points for the same discharges.
- To have common points with OSM so that both agencies were monitoring the same conditions.
- To reduce the sampling requirements and laboratory fees incurred by PCCC.

Now, in this proposed permit, Ecology wants to completely do away with this concept of coordination with OSM and require sampling of each pond discharge separately. The result will be to dramatically increase the required sampling time from a couple of hours to visit 4 monitoring points and 3 background points that can be easily accessed from paved roads, to 12 discharge points and 3 background points some of which can only be accessed by walking substantial distances through rough terrain and will take a full day to accomplish. Lab fees for the required analyses specified in the proposed permit alone are estimated to increase from approximately $2,500/year to over $20,000/year. The total cost of this is significantly higher given the added manpower required.

None of the changes in sampling locations and schedules proposed in the new permit will result in any increased protection of the environment, as the sampling conducted by PCCC over the course of the present permit clearly demonstrate that no degradation of water quality has occurred. Again, the key measurement is the quality of water as it leaves the mining permit area. This was the criteria agreed upon by both OSM and Ecology until Ecology's recent proposed permit that ignores PCCC's 21 year history and develops a completely new permit as though the mine was just starting operations and without regard to the wealth of background information available.

Response:
This permit requires monitoring at the point of discharge prior to mixing with waters of the state. As waters of the state include Mud Lake Creek and its tributaries as natural channels, as well as Ginder Lake and Lake 12, it is necessary to sample for possible contaminants in the PCCC wastewater prior to the confluence with state waters. WAC 173-201A-400 Mixing Zones includes requirements for granting a mixing zone, including a receiving water study, and AKART study and specific language in an NPDES permit authorizing a mixing zone. The Department cannot grant a mixing zone without first determining the impacts to the receiving waters. This Code derives its authority from: Chapters 90.48 and 90.54 RCW. 03-14-129 (Order 02-14), § 173-201A-440, filed 7/1/03, effective 8/1/03.]

There is no way to determine compliance with effluent limitations and water quality standards from wastewater discharged from PCCC without sampling prior to discharging into the receiving waters. If, after a period of two years, the results show there are no exceedences, PCCC may request a change in number of samples required. It is not protective of state waters to sample potentially polluted water following mixing without the proper studies already in place.

Groundwater Discharge Monitoring

Comment:
<u>Pacific Coast Coal</u>
PCCC does not discharge ground water. It has been monitoring five wells since before it began mining in 1986. This was done primarily in accordance with SMCRA requirements even though all baseline hydrologic reports concluded that the mine would have minimal impact on

surrounding water wells. The data gathered over the past 20 years strongly supports the expert's and OSM's hypotheses. Ecology actively participated in many of these early studies and has reviewed all reports. It is apparent that there is no or minimal impact of mining on surrounding water wells. The requirement to continue monitoring these wells is costly and provides no useful information related to this NPDES permit. It should be dropped from the permit.

Response:
As Pacific Coast Coal has proposed to excavate and process coal as well as draw down the water in pit one (which has been taking fill materials) to the bottom in order to construct the lake bed required by OSM. Past data may or may not be characteristic of future contaminants. Monitoring of discharged wastewater is a cornerstone of discharge permits. Completion of a Hydrogeologic Investigation will help the Department to make further determinations of whether or not the monitoring schedule is appropriate.

Comment:
Pacific Coast Coal
Ecology presents a table of "Triggering Limits" for groundwater monitoring. In the event that continued well monitoring is required PCCC objects to the following items:

pH - Ecology proposes a pH limit of 6.5 to 8.5. The pH's at Well 12-4 and Pit 2 are both commonly above this proposed limit. This represents the natural conditions at both locations, as was demonstrated by baseline studies conducted before the commencement of mining in 1986, as well as the monitoring results over the past 15 years. The previous NPDES permit recognized this fact by adjusting the pH range for groundwater to 6.0 to 9.0. PCCC has pointed this out to Ecology on several occasions during the draft process for this proposed permit, but Ecology has yet to modify the pH limits for groundwater. Ecology must change the proposed pH limits to 6.0 to 9.0 as established in the previous permit to reflect the natural groundwater conditions in the area.

Response:
PCCC is welcome to include baseline study information in the Hydrogeologic Investigation required in this permit. Upon review of the drainage map and without information related to the natural flow of groundwater, it appears that the two wells on the outskirts of the mine boundary, Reichert to the east and PCCC to the west, are able to meet the 8.5 limit but that the wells in the middle of the mining boundary, 12-4 and Pit 2, exceed ground water quality criteria. In fact, looking at the map I was provided with, it appears that both of the wells that meet the standard are located outside the mining boundary and the wells within the mining boundary exceed standards. The permit has been modified to include interim limits that would allow PCCC time to design a treatment system that would result in compliance with WAC-173-200 Ground Water Quality Standards for the state of Washington.

Comment:
Pacific Coast Coal
Manganese - Ecology proposes to reduce the limit for manganese to 0.050 mg/L at all locations. The previous permit had limits of 0.113 mg/ L at Reichert, 0.135 mg/L at PCCC, 0.092 mg/ L at 12-4, and 0.050 mg/ L for Pit 2. These limits were based on the baseline studies and reflected the naturally occurring levels of manganese at the respective locations. Monitoring results for the period from 1993 to 2006, summarized and provided to Ecology by PCCC, show that these limits were set appropriately. The maximum levels recorded were 0.100 mg/I at Reichert, 0.092 mg/ L at PCCC, 0.080 at 12-4, and 0.070 mg/ L for Pit 2. Again, Ecology must change the proposed manganese limits to reflect the natural groundwater conditions in the area; PCCC suggests that the limits established in the previous permit are appropriate and should be maintained if well monitoring can be justified. To date Ecology has not provided any justification for such monitoring.

Response:
Again, PCCC is welcome to include baseline study information in the Hydrogeologic Investigation required in this permit. The 50 ppb limit for manganese placed in the permit is a Human Health Standard that Ecology is required to enforce. This limit is listed under WAC-173-200-050 as the water quality criteria for groundwater. PCCC does have an interim limit which will allow them time to design and construct a treatment system that meets the effluent limitations in the permit. The surface water quality limit is referenced in 40CFR 122.44(d)iv)(B). If the Hydrogeologic Investigation finds natural condition higher then the criteria, then WAC 173-200-050(3)(b) applies:
(b) Where a criterion is established for a given contaminant, the enforcement limit shall not exceed the criterion except as follows:
(i) When the natural ground water quality for a contaminant exceeds the criterion, the enforcement limit for that contaminant shall be equal to the natural level.
(ii) When the background ground water quality exceeds a criterion, the enforcement limit at the point of compliance shall not exceed the background ground water quality for that criterion. Enforcement limits based on elevated background ground water quality shall in no way be construed to allow continued pollution of the receiving ground water.

Comment:
Pacific Coast Coal
Groundwater Monitoring Schedule. The new permit duplicates the groundwater sampling requirements and schedule from the current permit. After examining the TransAlta Centralia Mining Permit in detail we find that Ecology does not require them to sample any monitoring wells or water reservoirs. Like Centralia, the PCCC mining operations are conducted in impermeable strata with an absence of aquifers that would permit the movement of or discharge to groundwater. Additionally, PCCC has been monitoring groundwater at these same monitoring locations since mining commenced in 1986, and has provided Ecology with spreadsheets summarizing the data collected from 1993 through 2006. The data collected demonstrates that the parameters monitored are relatively constant with at most seasonal fluctuations, and that there has been absolutely no impact to groundwater by mining operations at any location. PCCC therefore requests that it also be exempted from any and all requirements to monitor groundwater.

Response:
As TransAlta is no longer excavating and processing coal, their permit may have less stringent requirements. Data collected so far demonstrates that PCCC has the potential to exceed groundwater standards. The Hydrogeologic Investigation should result in site specific information related to groundwater flow and contaminants. Following the investigation, the groundwater monitoring schedule may be modified.

Other Permit Requirements

Comment:
Pacific Coast Coal
Surface coal mines are among the most heavily regulated industries in the country. Prior to the commencement of mining operations in 1986, PCCC went through an exhaustive and comprehensive permitting process. Extensive background studies were conducted to thoroughly examine and mitigate any potentially negative impacts to the immediate and surrounding environment and area. Issues studied included the operating and reclamation plans, land use, geology, hydrology, soil resources, vegetation, fish and wildlife, air quality, noise, and traffic impacts. Ecology was an active participant throughout this process.

Among the numerous reports produced (under the direction of OSM) were both NEPA and SEPA environmental impact statements, Probable Hydrologic Consequences (PHC) and Cumulative Hydrologic Impact Assessment (CHIA) and other hydrologic related studies. These documents and studies are all incorporated either directly or by reference in the OSM permit, as required by federal law. Ecology was provided one of the official copies of this permit by OSM. OSM provided regular updates and revisions directly to Ecology until Ecology requested that they be removed from the distribution list during PCCC's major permit revision that was completed in 2001.

Given the studies being proposed in the Fact Sheet and the draft Permit, it is apparent that Ecology staff either no longer has access to or has not read the OSM permit or the supporting documents. PCCC provided a copy of the hydrology section of the OSM permit to Ecology for them to read and/or copy, but Ecology now demands PCCC conduct new, expensive, redundant and unnecessary studies. The studies already conducted, together with the results of over 21 years of extensive monitoring of both surface and ground water, are more than sufficient to characterize the nature of PCCC's water discharges and demonstrate the negligible impacts of PCCC's operations on water quality. PCCC should not be punished for Ecology's lack of institutional memory by being required to perform unnecessary and redundant studies, especially since Ecology had this information and either discarded it or filed it where it is not readily available. All this information is available from OSM, which by federal law (Surface Mining, Control and Reclamation Act of 1977, "SMCRA") is required to coordinate with all state and local government agencies.

Response:
As Pacific Coast Coal has stated, some of the studies are over twenty years old. The permit requires Pacific Coast Coal to follow the Guidelines mandated by Ecology for the Hydrogeologic Characterization. Any data collected that meets the requirements may be used in the document. As Ecology does not have time to review all of the materials pre and post mining, Ecology is requiring PCCC to put the information necessary into a format that is easily available for review. Where data is not currently available, PCCC will need to perform sampling to include in the report.

Vehicle/Wheel Wash Water

Comment:
Pacific Coast Coal
The same mistaken concept that this is a completely new permit for a new operation is further evident in Ecology's insistence that PCCC must line the sumps for its vehicle wash facility and truck wheel wash. The vehicle wash facility was required by Ecology as a condition of the current NPDES permit, and the truck wheel wash was required by King County DDES to prevent mud track-out onto the county road. Designs for the vehicle wash were submitted to and approved by Ecology, and no lining was required. The design for the truck wheel wash was approved by King County Department of Development and Environmental Services and conformed to Best Management Practices as recommended by Ecology. Now, with this proposed draft permit, Ecology wants PCCC to provide lined discharge sumps. This is a completely unreasonable requirement. Ecology already approved both designs, and made no mention of any required lining for the sumps. Ecology cannot change requirements after the fact. If PCCC constructs new structures at some point in the future, Ecology can then reasonably request that any sumps be lined.

Response:
The renewal process for the NPDES Permit not only allows updates but requires the Department to review changes in technology and guidance and implement them in the reissued permit. Soap and other contaminants resulting from vehicle washing may access ground water where there is no liner or impermeable barrier. It has become standard industry practice at sand and gravel mines where similar vehicle washing occurs, to construct a pad with a berm to collect vehicle wash water and recycle this water.

Comment:
Pacific Coast Coal
S12. Best Management Practices at A requires that PCCC's existing wheel wash to remove mud from trucks leaving the site, be torn up and reconstructed to include an impermeable liner.

In 2001, at the direction of King County Department of Development and Environmental Services (KC DDES), PCCC constructed a wheel wash to remove dirt from trucks leaving the mine site. This was constructed in accordance with direction from KC DDES and in accordance

with federal surface mining regulations. According to DDES and the contractor who constructed the wheel wash it was identical to other wheel washes constructed in King County and was consistent with Ecology guidance as BMP at the time it was constructed.

The wheel wash design is closed circuit and incorporates a small sedimentation pond that captures the settled storm water and is periodically cleaned. The removed sediment is identical to other sediment that settles in the mine's sedimentation ponds and is place back into the mine. During the winter months the water level is stable and there is no apparent discharge of water into the surrounding soil. The sediment contains a high degree of clay and has effectively sealed the small pond.

The design was submitted to OSM and was open to agency review including review by Ecology. OSM provided no negative comments from Ecology and certainly no comments that referenced the need to line the sedimentation pond as Ecology is now requiring. Ecology has provided no detailed discussion on why a liner is required or what environmental benefits will accrue from such an effort. It is PCCC's professional opinion that it will add significant costs for no environmental benefit. In that Ecology is directing that it be installed retroactively it will cause the ground around the pond, which is now heavily vegetated, to be ripped up in order to place a synthetic liner. This will result in a net negative environmental impact and will provide no long term environmental benefits. It will certainly add unnecessary cost to an operation that already qualifies for extreme hardship when calculating annual NPDES permit fees. Ecology has not explained under what authority it can retroactively direct PCCC to change the wheel wash design even if a liner is now considered P. BMP C106 regarding wheel wash design from Ecology's Construction Stormwater Pollution Prevention was used when the wheel wash was designed and constructed. Contrary to Ecology's assertion to the contrary, there is no discussion in this BMP that the sump must be lined with a synthetic liner. Ecology should eliminate this demand from the final permit in that there is no legal or practical basis for it and it is not best management practice for wheel washes at construction sites or mines.

Response:

The Department disagrees with PCCC's allegation that the current wheel wash is closed circuit. This would imply that the water is collected and reused without loss. As there is no liner under the current pond where the spent wash water is held, and no monitoring to show otherwise, the Department has determined that at least some of the collected water has a pathway to groundwater. The Department will not authorize a discharge to groundwater without characterization of the wastewater and assurance that groundwater quality standards are met. The renewal process for the NPDES Permit not only allows updates but requires the Department to review changes in technology and guidance and implement them in the reissued permit. The current Stormwater Manual for Western Washington has a developed Best Management Practice BMP 106 that states, "Wheel wash or tire bath wastewater shall be discharged to a separate onsite ***treatment system****, such as closed-loop recirculation or land application, or to the sanitary sewer with proper local sewer district approval." In discussing the specifics of this BMP with the Design Engineer, the intent was to require the spent wash water to be collected in a contained vessel, then treated to meet requirements of recycling or discharging to sanitary sewer.*

Land application requires a nutrient uptake study to determine if the plants will use the contaminant of concern so it will not be available for groundwater. This permit prohibits process water discharges to ground. Condition S12A defines a lined impoundment as having a minimum six inch thickness of asphalt or concrete, or a steel lined tank or 30 mil thick membrane.

Comment:
Pacific Coast Coal
As we understand the process, Ecology is supposed to examine the compliance record and discharge levels reported by the permittee and adjust the monitoring levels and parameters to eliminate unnecessary monitoring when the record indicates that potential pollutants are not present at levels damaging to the environment. Ecology has not explained why it does not apply this process to the John Henry mine, and instead adds a whole new list of parameters to be monitored, while providing absolutely no justification for the new testing.

Response:
Ecology has done exactly that. At this time, with monitoring that includes an unknown amount of dilution within the data set, Ecology must require monitoring of the wastewater that fully characterizes potential pollutants. The new monitoring protocol minimizes sampling during the dry season when there may not be events greater than .5 inches. At the same time, it will display the effectiveness of Best Management Practices at the most critical time, the wet season. Following this sampling regime Ecology will have enough information to make a determination on reducing or eliminating parameters and sampling sites.

Comment:
City of Black Diamond
Ecology is requiring monitoring after all rainstorms equal to or greater than 0.5 inches of rain for a number of parameters listed in Table 6 of the draft NPDES permit, which will provide a very large set of data more than adequate to characterize discharge quality. A far lesser number of parameters are required for the background stations (Table 7 of the permit), against which impacts from the outfall monitoring would be evaluated. It may be wise to consider at least a one-time sampling of the background stations for all parameters, to determine the change in background Ecology is authorizing under the permit.

Response:
This permit includes monitoring background turbidity which is required to ensure compliance with the state water quality standards for turbidity. Since the point of compliance for other parameters is at the point of discharge, no other samples of background are required.

Comment:
City of Black Diamond
Ecology is requiring quarterly Discharge Monitoring Report (DMR) submission. Notices of violations of permit conditions must be sent within 24 hours after results are obtained, which could be 3 weeks or more after sampling where laboratory analyses are required to obtain results (for example, for heavy metals and phosphorus). Given the uncertainty in actual outfall discharge concentrations (given the past monitoring locations that allowed dilution) and the extensive history of violations at this site and the lengthy time between sampling and observing results under the best of conditions, Ecology's permit schedule could allow an adverse water quality condition to persist for months before becoming aware of it. The city's interests in water quality in the Ginder Creek, Rock Creek, and Lake Sawyer basins may be better served if DMRs were required every month at minimum, at least during an initial period that would serve to provide reasonable assurance water quality was being protected at all times.

Response:
The Department concurs. The reporting period has been changed to monthly.

Comment:
Pacific Coast Coal
The new permit requires that monitoring results are submitted to Ecology on a quarterly basis, and that the results must be submitted by the 15th day of the month following the completion of the monitoring period. PCCC requests that this submittal deadline be extended to be the last day of the month following the monitoring period. This is the same submittal deadline as the current permit, and reflects the reality of lab turnaround times. The laboratory PCCC uses (AmTest in Redmond, WA) promises normal turnaround times of 2 to 3 weeks, plus mailing time; if samples are taken at the end of the monitoring period due to a triggering rainfall event, PCCC will often not receive the lab analysis reports until the 20th or 25th of the following month. Extension of the deadline until the end of the month would then provide PCCC ample time to complete the DMR's and submit them to Ecology.

Response:
The Department will allow PCCC an additional fifteen days to report. The reporting schedule has been modified to allow submittal by the 30th day of the month.

Timing of Construction

Comment:
Q from public meeting.
Construction should only occur during fish windows. Steelheads are emerging during summer making construction difficult. July through September is better for fish.

Response:
Restrictions during fish windows are determined and implemented by the Washington State Department of Fish and Wildlife. Their Hydrolytic Project Approval (HPA) if required will establish as appropriate the fish windows for any in-water construction work at Pacific Coast Coal to meet the compliance schedule.

Out of Scope of Permit

Comment:
Q from public meeting.
Work is currently conducted on the berm inside of the spoils pile. Why is this occurring if the mine is not operating?

Response:
The Federal Office of Surface Mining is the regulatory authority for reclamation. Please refer this question to Glen Waugh at OSM, phone 360-753-9538.

Comment:
Q from George McPherson.
PCCC is currently awaiting results of a hearing by a federal judge from San Francisco as to whether or not the mine operators can continue to use the area as a site to dispose of fill. The Office of Surface Mining said during the hearing that they monitored coal mines and that PCCC now appears to be in the business of importing fill. Is PCCC in the coal mining business or are they going to be in the business of bringing in waste and other material from various sources? OSM indicated that the material being brought into the mine is "waste." Is waste considered clean fill? If the federal judge determines that coal mining is no longer taking place at the mine, and is not likely to take place in the future, will PCCC be required to reclaim the land? If they are required to reclaim, can they continue bringing in fill? When will the mine operators remove the huge spoil piles that dot the area? These are questions that members of our volunteer group, as well as other citizens, have been asking. Can the Department help us with answers to these questions?

Response:
No. The Department of Ecology does not have authority to oversee laws related to reclamation of mines. The Federal Office of Surface Mining is the regulatory authority for reclamation. Please refer this question to Glen Waugh at OSM, phone 360-753-9538.

Comment:
<u>Pacific Coast Coal</u>
The requirements Ecology is attempting to impose on PCCC are significantly more severe and onerous than what Ecology imposes on others including a surface coal mine that is twenty times larger in scope than PCCC's mine. In this Ecology is overtly discriminating against PCCC and is inventing new rules and regulations without regard to fairness and consistency.

Ecology is mandated to consider water use when imposing NPDES requirements. It does not do so in the instant as it sets standards appropriate to drinking water and not aquatic life or recreational uses. Ecology has failed to explain why this is necessary, especially as it relates to a Manganese standard that is lower than natural background conditions. The facts are that water discharges from PCCC's mine permit area have not caused any environmental degradation and are consistent if not of higher quality than downstream water bodies.

As noted above, Ecology's actions in developing the draft permit are often arbitrary and capricious. The proposed changes from the existing permit are made willfully, without sound reasoning and taken without regard to the attending facts and circumstances. At the very least the terms and conditions of the existing permit should remain in force absent reasonable justification provided by Ecology. To date such justification is lacking. In reality, based on the wealth of monitoring information available and the standards applied to other surface mines in the state under Ecology's jurisdiction the monitoring requirements should be adjusted so they are consistent with those at other mines.

Response:

Ecology has already shown that this mine is not similar to TransAlta in Centralia as that mine is not proposing to excavate and process coal and has demonstrated compliance with stringent biological monitoring. Ecology has included protections for aquatic species as water quality standards are based on scientific and biological testing of species with the intent to protect species of the state. Hopefully Ecology has done a good job of documenting legal standards for imposing permit conditions with this responsiveness summary.

References

RCW 90.48.080

Discharge of polluting matter in waters prohibited.

It shall be unlawful for any person to throw, drain, run, or otherwise discharge into any of the waters of this state, or to cause, permit or suffer to be thrown, run, drained, allowed to seep or otherwise discharged into such waters any organic or inorganic matter that shall cause or tend to cause pollution of such waters according to the determination of the department, as provided for in this chapter.

WAC 173-201A-010 Purpose. (1) The purpose of this chapter is to establish water quality standards for surface waters of the state of Washington consistent with public health and public enjoyment of the waters and the propagation and protection of fish, shellfish, and wildlife, pursuant to the provisions of chapter 90.48 RCW.

All actions must comply with this chapter.

As part of this chapter:
(a) All surface waters are protected by narrative criteria, designated uses, and an antidegradation policy.
(b) Based on the use designations, numeric and narrative criteria are assigned to a water body to protect the existing and designated uses.
(c) Where multiple criteria for the same water quality parameter are assigned to a water body to protect different uses, **the most stringent criteria for each parameter is to be applied.**
(2) Surface waters of the state include lakes, rivers, ponds, streams, inland waters, saltwaters, wetlands, and all other surface waters and water courses within the jurisdiction of the state of Washington.
(3) This chapter will be reviewed periodically by the [3] department and appropriate revisions will be undertaken.
(4) WAC 173-201A-200 through 173-201A-260 describe the designated water uses and criteria for the state of Washington.

These criteria were established based on existing and potential water uses of the surface waters of the state. Consideration was also given to both the natural water quality potential and its limitations. Compliance with the surface water quality standards of the state of Washington requires compliance with chapter 173- 201A WAC, water quality standards for surface waters of the state of Washington, chapter 173-204 WAC, sediment management standards, and applicable federal rules.
[Statutory Authority: Chapters 90.48 and 90.54 RCW. 03-14-129 (Order 02-14), § 173-201A-010, filed 7/1/03, effective 8/1/03. Statutory Authority: Chapter 90.48 RCW. 92-24-037 (Order 92- 29), § 173-201A-010, filed 11/25/92, effective 12/26/92.]

"AKART" is an acronym for "all known, available, and reasonable methods of prevention, control, and treatment." AKART shall represent the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants associated with a discharge. The concept of AKART applies to both point and nonpoint sources of pollution. The term "best management practices," typically applied to nonpoint source pollution controls is considered a subset of the AKART requirement.

TMDL
Effectiveness Monitoring for Total Phosphorus Total Maximum Daily Loads in Fenwick and Sawyer Lakes, Publication No. 02-03-054

Lake Sawyer, the fourth largest natural lake in King County, is located in the city of Black Diamond. Although the lake suffers from eutrophication, it is used extensively for several recreational activities that include sailing, water skiing, scuba diving, swimming, picnicking, wildlife observation, and aesthetic enjoyment (King County, 2000). In order to improve water quality and maintain the beneficial uses of the lake water, the city of Black Diamond wastewater treatment plant (WWTP) diverted effluent discharges from a wetland on Rock Creek to a Metro sewer line in 1992. The effluent diversion reduced phosphorus loading from the lake inlet, however, the initial overall improvement associated with the WWTP diversion was minimal due to internal phosphorus loading from sediments (King County, 2000).

The purpose of this report is to assess the effectiveness of past TMDL implementation programs set for both lakes in complying with the in-lake mean summer total P concentrations of 19 and **16 µg/L** for Fenwick and **Sawyer Lakes**, respectively. **These were target limits set through modeling in their TMDLs to deter progression of eutrophication and improve water quality.**

WAC 173-200-080 Evaluation. (1) The purpose of this section is to establish minimum requirements for evaluating the impacts of an activity on the ground water quality to determine compliance with this chapter.
(2) If the department determines a potential to pollute the ground water exists, the department shall request a permit holder [13] or responsible person to prepare and submit for departmental approval a ground water quality evaluation program for its activity. Each evaluation program shall be based on soil and hydrogeologic characteristics and be capable of assessing impacts on ground water at the point of compliance.

Sec. 122.4 Prohibitions (applicable to State NPDES programs, see Sec. 123.25).

No permit may be issued:
(a) When the conditions of the permit do not provide for compliance with the applicable requirements of CWA, or regulations promulgated under CWA;
(b) When the applicant is required to obtain a State or other appropriate certification under section 401 of CWA and Sec. 124.53 and that certification has not been obtained or waived;
(c) By the State Director where the Regional Administrator has objected to issuance of the permit under Sec. 123.44;

(d) When the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States;

(e) When, in the judgment of the Secretary, anchorage and navigation in or on any of the waters of the United States would be substantially impaired by the discharge;

(f) For the discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste;

(g) For any discharge inconsistent with a plan or plan amendment approved under section 208(b) of CWA;

(h) For any discharge to the territorial sea, the waters of the contiguous zone, or the oceans in the following circumstances:

(1) Before the promulgation of guidelines under section 403(c) of CWA (for determining degradation of the waters of the territorial seas, the contiguous zone, and the oceans) unless the Director determines permit issuance to be in the public interest; or

(2) After promulgation of guidelines under section 403(c) of CWA, when insufficient information exists to make a reasonable judgment whether the discharge complies with them.

(i) To a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards. The owner or operator of a new source or new discharger proposing to discharge into a water segment which does not meet applicable water quality standards or is not expected to meet those standards even after the application of the effluent limitations required by sections 301(b)(1)(A) and 301(b)(1)(B) of CWA, and for which the State or interstate agency has performed a pollutants load allocation for the pollutant to be discharged, must demonstrate, before the close of the public comment period, that:

(1) There are sufficient remaining pollutant load allocations to allow for the discharge; and

(2) The existing dischargers into that segment are subject to compliance schedules designed to bring the segment into compliance with applicable water quality standards. The Director may waive the submission of information by the new source or new discharger required by paragraph (i) of this section if the Director determines that the Director already has adequate information to evaluate the request. An explanation of the development of limitations to meet the criteria of this paragraph (i)(2) is to be included in the fact sheet to the permit under Sec. 124.56(b)(1) of this chapter.

[48 FR 14153, Apr. 1, 1983, as amended at 50 FR 6940, Feb. 19, 1985; 65 FR 30905, May 15, 2000]

40CFR Subpart 122.44

In addition to the conditions established under Sec. 122.43(a), each NPDES permit shall include conditions meeting the following requirements when applicable.

(d) Water quality standards and State requirements: any requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under sections 301, 304, 306, 307, 318 and 405 of CWA necessary to:

(1) Achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality.

(i) Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or

contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.

(ii) When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a State water quality standard, the permitting authority shall use procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water.

(iii) When the permitting authority determines, using the procedures in paragraph (d)(1)(ii) of this section, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a State numeric criteria within a State water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant.

(iv) When the permitting authority determines, using the procedures in paragraph (d)(1)(ii) of this section, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the numeric criterion for whole effluent toxicity, the permit must contain effluent limits for whole effluent toxicity.

(v) Except as provided in this subparagraph, when the permitting authority determines, using the procedures in paragraph (d)(1)(ii) of this section, toxicity testing data, or other information, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative criterion within an applicable State water quality standard, the permit must contain effluent limits for whole effluent toxicity. Limits on whole effluent toxicity are not necessary where the permitting authority demonstrates in the fact sheet or statement of basis of the **NPDES** permit, using the procedures in paragraph (d)(1)(ii) of this section, that chemical-specific limits for the effluent are sufficient to attain and maintain applicable numeric and narrative State water quality standards.

(vi) Where a State has not established a water quality criterion for a specific chemical pollutant that is present in an effluent at a concentration that causes, has the reasonable potential to cause, or contributes to an excursion above a narrative criterion within an applicable State water quality standard, the permitting authority must establish effluent limits using one or more of the following options:

(A) Establish effluent limits using a calculated numeric water quality criterion for the pollutant which the permitting authority demonstrates will attain and maintain applicable narrative water quality criteria and will fully protect the designated use. Such a criterion may be derived using a proposed State criterion, or an explicit State policy or regulation interpreting its narrative water quality criterion, supplemented with other relevant information which may include: EPA's *Water Quality Standards Handbook*, October 1983, risk assessment data, exposure data, information about the pollutant from the Food and Drug Administration, and current EPA criteria documents; or

(B) Establish effluent limits on a case-by-case basis, using EPA's water quality criteria, published under section 304(a) of the CWA, supplemented where necessary by other relevant information; or

(C) Establish effluent limitations on an indicator parameter for the pollutant of concern, provided:

(1) The permit identifies which pollutants are intended to be controlled by the use of the effluent limitation;

(2) The fact sheet required by Sec. 124.56 sets forth the basis for the limit, including a finding that compliance with the effluent limit on the indicator parameter will result in controls on the pollutant of concern which are sufficient to attain and maintain applicable water quality standards;

(3) The permit requires all effluent and ambient monitoring necessary to show that during the term of the permit the limit on the indicator parameter continues to attain and maintain applicable water quality standards; and

(4) The permit contains a reopener clause allowing the permitting authority to modify or revoke and reissue the permit if the limits on the indicator parameter no longer attain and maintain applicable water quality standards.

(vii) When developing water quality-based effluent limits under this paragraph the permitting authority shall ensure that:

(A) The level of water quality to be achieved by limits on point sources established under this paragraph is derived from, and complies with all applicable water quality standards; and

(B) Effluent limits developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA pursuant to 40 CFR 130.7.

(2) Attain or maintain a specified water quality through water quality related effluent limits established under section 302 of CWA;

(3) Conform to the conditions to a State certification under section 401 of the CWA that meets the requirements of Sec. 124.53 when EPA is the permitting authority. If a State certification is stayed by a court of competent jurisdiction or an appropriate State board or agency, EPA shall notify the State that the Agency will deem certification waived unless a finally effective State certification is received within sixty days from the date of the notice. If the State does not forward a finally effective certification within the sixty day period, EPA shall include conditions in the permit that may be necessary to meet EPA's obligation under section 301(b)(1)(C) of the CWA;

(4) Conform to applicable water quality requirements under section 401(a)(2) of CWA when the discharge affects a State other than the certifying State;

(5) Incorporate any more stringent limitations, treatment standards, or **schedule** of compliance requirements established under Federal or State law or regulations in accordance with section 301(b)(1)(C) of CWA;

(6) Ensure consistency with the requirements of a Water Quality Management plan approved by EPA under section 208(b) of CWA;

(7) Incorporate section 403(c) criteria under part 125, subpart M, for ocean discharges;

(8) Incorporate alternative effluent limitations or standards where warranted by "fundamentally different factors," under 40 CFR part 125, subpart D;

(9) Incorporate any other appropriate requirements, conditions, or limitations (other than effluent limitations) into a new source permit to the extent allowed by the National Environmental Policy Act, 42 U.S.C. 4321 et seq. and section 511 of the CWA, when EPA is the permit issuing authority. (See Sec. 122.29(c)).