April 3, 2006

Leah Krafft
Department of Environmental Quality
Water Quality Division
122 West 25th. Street
Herschler Building
Cheyenne, WY 882002

RE: Willow Creek Watershed General Permit

Dear Ms. Krafft,

I am writing on behalf of the Wyoming Outdoor Council (WOC) concerning the proposed Willow Creek General Permit, noticed to the public on Feb. 16, 2006. Thank you for the opportunity to present these comments to the Department of Environmental Quality. It is our hope that he DEQ will consider these comments very seriously before adopting this permit.

The Willow Creek General Permit Violates Wyoming Law and Regulations

WOC believes that this proposed general permit is illegal. First, there is no statutory authorization in the Environmental Quality Act (EQA), which was passed in 1973, that authorizes or instructs the DEQ to issue general water quality permits. Even though the EQA goes through an elaborate enumeration of the authority of the Director of the Department and the Water Quality Administrator (see W. S. 35-11-109, and W. S. 35-11-302 and -303, respectively), nowhere does it mention any authority to issue general permits. The EQA is fairly specific as to the types and varieties of permits that DEQ/WQD can issue. See W. S. 35-11-302. Also, it is clear from a reading of W. S. 35-11-801(b) that any permit must have an application. But general permits are not the kind of permit that a permittee must apply for. The authority to issue permits is mentioned, but it is fairly clear from the language of the statute that it is discussing individual permits, not general permits.

Second, and more importantly, even assuming that the DEQ has authority under the EQA to issue general permits, the Wyoming Administrative Procedure Act (APA) does not allow a general permit to be adopted in the way that is proposed by DEQ in the instant case. The APA is clear that any agency statement of "general applicability" must be promulgated as a rule. But the Willow Creek Watershed General Permit is not being promulgated as a rule, and is therefore illegal, since it violates the APA. See W. S. 16-3-101(b)(ix), and W. S. 16-3-102 through -104.

EXHIBIT 2

Third, even assuming that the above permit may permissibly be promulgated under the EQA, and assuming further that its issuance does not violate the APA, it also cannot be issued since it is also violative of Chapter 2, Section 4, Water Quality Rules and Regulations. Chapter 2 sets forth the criteria for the issuance of general permits. Those criteria are not met in the case of the Willow Creek Watershed General Permit. One criterion, that the discharges must require the same effluent limitations and operating conditions, is obviously not met. There are five separate categories of discharges, with important distinctions between them. Notably, there are differences in SAR limits, EC limits, and iron limitations. Furthermore some constituents have limitations set forth for some categories, and yet are entirely left out of consideration by other categories. Secondly, the operating conditions clearly vary between categories: some involve direct discharges to streams, others involve on-channel reservoirs, and still others involve off-channel reservoirs. These significant differences in effluent limitations and operating conditions make it abundantly clear that the Willow Creek General Permit does not meet one of the most important criteria for qualifying as a candidate for a general permit.

A Permitting Plan Would be Appropriate, and Will Not Violate Wyoming Law

The approach that should be taken for Willow Creek watershed should be similar to the one used for the Four Mile Creek Watershed. The general permit process appears to be designed to skirt the right of the public to be involved in individual permitting for coal bed methane discharges. DEQ should simply use this document as a guideline for the issuance of individual permits. But individual permits should be issued for all discharges within the Willow Creek drainage. Then the public can be involved in those crucial decisions that will have to wait until the time comes for the siting of a specific reservoir and/or discharge to discuss soils conditions, holding capacity, agricultural uses, aquatic life uses, and so forth.

Categories of Discharges

This permit discusses five categories of discharges (three of which are "sub-categories"). Aside from the fact that DEQ does not have the legal authority to delineate such separate categories in this permit, there are additional questions: Is it DEQ's contention that Chapter 1, Water Quality Standards, gives the DEQ the authority to have five different categories of discharges? Another question is: Does this make sense from a biological, aquatic, hydrologic and fluvial geomorphological standpoint? Whether it will work may depend upon localized conditions that may vary within the drainage. Is it certain that transport of the effluent constituents of concern, such as iron, will "drop out" and will not reach the Powder River? Furthermore, why is the concern limited to the Powder River? Why is there not an equal concern about the quality of Willow Creek water? How does Chapter 1 allow DEQ to differentiate between protecting the Powder River and Willow Creek?

It would seem that the degree of success or failure of this plan will depend in large part upon how much water is being discharged. DEQ has not yet set a limit, unfortunately, on

the volume of water that will be allowed for discharges in this drainage. How can DEQ know that the effluent limits are appropriate for this drainage when they don't know what the volume of water will be that will be flowing into the drainage? This permit does not limit water volume. Only certain guidelines as to in-stream flow constraints and channel capacity are given, and they are not calculated based upon the transport of constituents of concern. Water volume is certainly the main ingredient in determining assimilative capacity -- not only in the Powder River, but also in Willow Creek. Water volume, furthermore, will be one of the main determinative factors in calculating whether or not effluent constituents will reach the Powder River or not.

Category II discharges are particularly disturbing. Why are these reservoirs allowed to be built with less stringent effluent standards? How can this be justified? Many of the constituents that are listed with effluent limitations in the other categories of discharges, are not even listed for Category II. This does not make any sense. The discharge is being made to the drainage, just as with all the other categories of discharges. The effluent will leave the "non-discharging" reservoir somehow. It will either over-top the reservoir when there is a big enough precipitation event, or it will leak into the groundwater and then seep out back into the stream channel a little further downstream.

The ultimate problem with this category of discharge is that DEQ is allowing a water of the state to be used as a treatment works. See W. S. 35-11-103(c)(iv). This should not be allowed. If the primary purpose of a reservoir is to treat, stabilize or hold waste, it is a treatment works. It ought to be treated as such and separated from a water of the state, not made a part of it. Reservoirs, built for the primary purpose of storing CBM produced water, should not be built within a drainage, i. e. within a water of the state.

Furthermore, whether the effluent from the reservoir will meet the standards for discharge water for a water of the state may depend tremendously upon soils, alluvium and streambed conditions at the particular location where the reservoir is built. Yet the general permit contains no restrictions as to the type of soils conditions, other than to say it is to be built into "headwater reservoirs or playa lakes." That information must be known, it would seem, in order for such a reservoir to be successful (i. e. in order for it to not exacerbate the pollution of Willow Creek, but rather aid in the prevention of pollution). And while there is some attempt to monitor the downstream effects of these "non-discharging" reservoirs, there is no guarantee that the permittees will monitor those effects in the appropriate places since exactly where seepage to the surface will occur cannot be determined in advance, without a lot of test wells and soil sampling, which DEQ is not requiring as part of this permit.

This whole discussion merely serves to emphasize this point: reservoirs should not be allowed to be built in a drainage, and furthermore, they should all be lined so that their contents will not leak into shallow groundwater tables. There is obviously, and quite clearly, a hydrologic connection between shallow groundwater and surface water in these locations, and DEQ cannot ignore this fact by saying that "groundwater contamination cannot be addressed in this permit." This is preposterous and untenable, when it is precisely this permit that is creating the circumstances for such contamination.

Water Volume

The approach that this permit has taken, in terms of addressing water volume (total flow) issues, is distressing. While at least some guidance is given in the permit, there are no total flow limits for the watershed. See Part I, Para. 6.2. It is good that some field evaluation will be required if channel stability thresholds are exceeded. But this after-the-fact approach is not adequate. The whole idea of developing these general permits was to get some sort of regulatory control on the total volume of water that will be foisted upon the drainage, rather than allowing a piecemeal issuance of individual permits to eventually overwhelm the watershed, with no concern for the bigger picture. The In Stream Flow Constraints should be made mandatory, and should form an upper limit, or cap, on the total flow for the watershed.

Furthermore, the calculations for the flow limits appear to be flawed. Note that at SM4, a point about one third of the way up the drainage, the flow limit is 1.5 cfs. Yet, upstream at SM5, the next listed measurement point, about 5 miles upstream, the flow limit is 9 cfs. But if the flow limit at SM4 is 1.5, and assuming a conveyance loss of .1 cfs per mile, the maximum flow limit for SM5 should be 2 cfs (1.5 + .5). Any more water than 2 cfs would cause the flow limit at SM4 to be violated. Yet the limit at SM5 is set 7 cfs higher than that. And that is assuming that no other discharges would occur between SM4 and SM5, which of course is not a good assumption.

The DEQ/WQD has plenty of authority to regulate the total flow of water in this drainage, if total flow will have environmental impacts that must be considered. Erosion, stream stability, siltation, sedimentation, effects on fish and aquatic life, are all legitimate considerations that DEQ must take into account. If water volume or total flow causes such effects to occur, DEQ can regulate them. Therefore DEQ need not be worried about running afoul of the jurisdiction of the State Engineer's Office (SEO).

Just to be clear: The Wyoming DEQ has the authority to regulate water quality. No one disputes this. What it cannot do, and has never done, is regulate or administer water rights. That is exclusively the province of the State Engineer and the Board of Control. "Water quantity," however, is inextricably linked to the regulation of water quality -- and DEQ regulates matters of water quantity all the time.

For instance, the whole idea of a mixing zone is a water quantity issue. A mixing zone is calculated by computing the volume of the pollution discharge, and the volume of the receiving stream. The regulation allows a certain amount of pollution to be discharged into a stream, and a certain amount of mixing to occur, before a stream can be said to have stabilized. This calculation could not be done without considering water volume. The whole notion of assimilative capacity (the ability of a water body to "assimilate" or handle the volume of water discharged into it), in fact, is based upon the volume of a stream, lake, reservoir or river, and the volume of the discharge to be put into the water body. These are water quantity calculations. But DEQ does not hesitate to regulate in this arena. With regard to assimilative capacity, in fact, DEQ states, as part of this

permit, that a whole new scheme, designed to put limits on the pollution discharges of CBM operators, will be based upon the assimilative capacity of the Powder River.

All discharge permits, furthermore, have volume limits imposed upon them. "Flow" has always been one of the primary elements that a permittee must test for, and submit records of, on a regular basis, under all WYPDES permits.

The DEQ is required by the Clean Water Act, at 40 CFR Part 435, Subpart E, to not allow discharges of pollution from oil and gas facilities unless it can be beneficially used. So, the jurisdiction of the DEQ to do this should not be questioned. If the discharge is not, in fact, being used beneficially for agricultural purposes, or other purposes, then it should not be allowed. But DEQ has allowed huge discharges of CBM produced water even though most of the discharge is often not a benefit, but is in fact a detriment, to the ecology, the environment, and to water users such as ranchers, irrigators, and anglers.

There appears to have been no beneficial use calculation performed by DEQ for this general permit. Perhaps this calculation cannot be made on a watershed-wide basis. But if that is the case, then that is simply another good reason why this permit should not be adopted as a general permit. DEQ should make sure that excess CBM water, and we will have huge volumes of it in the years to come, as this burgeoning boom shows no signs of letting up, will not ruin people's land, crops, environment and lifestyle. DEQ should make sure that only the water that is actually needed for cattle or other livestock, or for wildlife, will be discharged. This will prevent all the additional pollution that threatens to inundate the Powder River Basin from playing havoc with the existing prairie rivers environment.

In short, the total flow volume that is allowed for Willow Creek should be limited to a certain additional percentage of flow, within Willow Creek, over and above normal flow that occurs within the Willow Creek drainage. If the average flow of water in Willow Creek, on a yearly basis, is 1.5 cfs, then total flow for Willow Creek, including all permitted discharges, should not be allowed to exceed 2 or 3 or 4 cfs at any given time. Any greater volume of discharges would tend to alter the ecology of Willow Creek to too great an extent. It would, in all likelihood, not be protective of existing aquatic life in Willow Creek.

It should be noted, furthermore, that the Pumpkin Creek general permit does impose a total flow limit of 1 million gallons per day for Category 1A discharges. This should be done for the Willow Creek general permit as well, and it should be done for all categories of discharges in aggregate, and not just one type of discharge.

Assimilative Capacity

While the question of assimilative capacity is tangential to this proposed general permit, DEQ states that it need not worry about resolving issues relating to Montana's water quality requirements in this permit because it will develop an elaborate assimilative

capacity cap-and-trade scheme to take care of that issue. But, it is not wise to wait on such a questionable scheme to be developed.

First of all, if Montana is reporting that 58% of the time, there are exceedences in their standards, this means that there is not much assimilative capacity left to divide up among the various CBM companies. Secondly, DEQ/WQD only proposes to protect water for the assimilative capacity of the Powder River in Montana. Why not protect for the assimilative capacity of Wyoming's waters, too? What is the assimilative capacity of Wyoming's waters in the Powder River drainage? Shouldn't DEQ/WQD try to discover this, and protect Wyoming's waters also? Thirdly, it is very difficult to put all of this grand scheme for allocating assimilative capacity into a general permit. Wyoming Outdoor Council suggests that a general permit is not the correct way to develop this system.

Furthermore, considering the breadth and scope of this assimilative capacity proposal, Wyoming Outdoor Council suggests that DEQ/WQD seek an Attorney General's opinion about this scheme. There does not appear to be any statutory authority to proceed with such an unusual approach. Nor does there appear to be any regulatory authority for this. What regulation authorizes DEQ/WQD to set up a whole system of credits, ownership and trading of "rights to discharge" up to a certain level? This is all new and the authority of DEQ to set up such a system may not be addressed in the regulations or the Wyoming Environmental Quality Act.

Protecting Agricultural Uses

The approach taken for protecting agricultural uses is also far too limited. The only category of discharges where any effort is made to protect agricultural uses is Category 1C. Discharges below all existing irrigation are not covered, nor are discharges to reservoirs (either off-channel or on-channel). This is rather absurd. The on-channel reservoirs will affect the water quality of Willow Creek as much as direct discharges will -- or at least they have the potential to do so -- through subsurface conveyance and eventual day-lighting of the seeping polluted groundwater back to the surface. Clearly, there is a hydrological connection there that DEQ must take into account. All of the on-channel reservoirs are unlined, and as such, they will leak their contents into Willow Creek. Whether the seepage from the reservoirs will be of better or worse water quality than the discharge itself is not known. But it could be worse -- and DEQ should not assume otherwise, until it has the data (from soil core studies, taken at the site in question, submitted by the permittee, for instance) to prove such assumptions. In fact, the available data indicates that it will be worse quality than normal surface flows.

There is an additional assumption being made that if no irrigation is occurring, there is no agricultural use to protect. This is clearly wrong. Ranchers make use of bottomlands to graze and water their livestock and the grass that grows in these bottomlands is often crucial to their operations. Irrigating should not be the sole criteria used to determine whether the DEQ will protect the water for agricultural uses. The DEQ should also (in any event) protect the water even if it is only for potential uses -- i. e. the water could be

put to agricultural use in the future -- and not just for actual on-going uses that are currently documented. See Chapter 1, Section 20 , WWQR&R.

Bottomlands, rangelands, and other lowlands will be negatively and permanently injured by these limits, or rather the lack thereof. These levels will result in vegetative alterations to salt tolerant less palatable species. These bottomlands capture natural moisture events and capitalize on this by exhibiting vegetative production far in excess of uplands. These lowland areas in question are important component in sustaining rangeland use by livestock and wildlife.

Effluent limits on SAR and EC for these bottomland areas, as well as any irrigated areas, should be set no higher than 6 and 1300 respectively. The effluent limits now set in this general permit for non-irrigated areas (7500 for EC and no limit for SAR) are totally inappropriate for native plants, for aquatic life, and for wildlife.

Erosion Control

The primary effort that DEQ makes in this permit to address erosion concerns is found in Part 1, Para 6.1, concerning headcuts. Language giving responsibility for monitoring and/or mitigation to the permittee for all head cuts is rather vague and insufficient. It will result in much dispute between different drillers as to who is really responsible for the head cuts. In any event the permittee should be *required* to undertake remediation and site mitigation where damage is caused by discharge of effluent.

The language given in the permit for corrective action for head cutting is insufficient and will not correct head cutting and related resource damage in a timely manner. Monitoring will only occur if there is a determination of head cut movement of more than four feet within a calendar year. DEQ/WQD will then process this data over a several month period. The permittee may then be required to submit a mitigation plan to DEQ/WQD. Several more months of review would undoubtedly follow. Assuming a plan approval, operator is given three months to implement corrective action. Any damage from a head cut originally noted as greater than four feet may well have increased to far greater damage in eighteen months or longer. This process must tighten up timelines so that drainages do not experience major damages due to bureaucratic lag time and loose timelines required for reporting by operator. Head cuts damage of any type caused by CBM discharges should be immediately identified and corrected. A time line for action after identification should be no greater than three months. Monthly identification of changes to head cuts should be required, with immediate follow-up for correction.

The present language of the permit allows downstream landowners to waive the need for correction and remediation of channel damage. No waivers should be allowed. Resource damage may have greater impacts than only upon one individual's property. This, in effect, allows upstream users to condemn downstream users land and property. Furthermore, the landowner may be willing to sign a waiver for monetary reasons (i. e. compensation) having nothing to do with a concern for the water quality of the stream in question. To put it in legal jargon, damages may make a landowner whole, but it does

not make waters of the state whole, not the people of the state of Wyoming, who own the water.

Permit language that allows head cuts to occur if, for some reason, it is not affecting water quality, should be stricken. Preventing erosion is the duty of the DEQ. Head cutting is, by definition, erosion. Therefore it cannot be allowed to occur, and any suggestion to the contrary in the general permit is just plain wrong.

Furthermore, erosion control must be managed much more thoroughly than just addressing head cuts. Bank erosion, bed erosion, siltation, and sedimentation must all be effectively addressed if this permit is to adequately protect the watershed. At this point, DEQ has done nothing, other than using constriction points as "guidelines," to address any of these concerns in the permit.

Whole Effluent Toxicity Testing

The approach of the permit, to only require WET testing after the fact, is not acceptable. Each authorization request should be accompanied by a WET test for water from the discharge that the driller proposes to use, or as close to that discharge as is possible.

Other species besides the fathead minnow should be utilized to determine toxicity. The fathead minnow is notoriously tolerant of stream conditions that other species cannot tolerate, and therefore it is not a good candidate for a WET test.

It should also be noted that Part 1, Para7.1 refers to seven categories of discharges. But there are only three categories of discharges that are now part of this proposed permit.

Public Involvement

A significant objection to this permit is the way in which it will eliminate all public involvement in making permit authorization decisions (when, and if, this general permit is adopted). The public has some (but not enough) involvement in this general permit proposal. But it will have no ability to be involved once the general permit is issued. This is a significant decision to reduce public involvement in the permitting process, and while it may ease the burden on DEQ to respond to public comments, it does little else that serves the public interest.

Thank you for this opportunity to comment. It is the hope of Wyoming Outdoor Council that you will review these comments carefully and conclude that this general permit should not be issued.

Sincerely,

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