Michael Krall

Don't dump polluted water into our lakes, rivers, and streams. I feel the DEQ needs to analyze other options for disposing of produced water (wastewater) from the Moneta Divide oil and gas field.

If "surface discharge" of produced water is necessary, it should be purified and piped to Boysen Reservoir, not dumped into Alkali and Badwater creeks, where the effects on fish and water quality could be felt for hundreds of miles downstream.

Boysen is one of the most popular state parks in Wyoming — its water quality should remain clean to protect swimming, municipal drinking water supplies, crop irrigation, boating, and fishing.

The DEQ needs to maintain the quality of water that existed in the Wind River when it was designated a Class 1 river in 1979, and to not use 2010-2016 water quality levels as the baseline for establishing existing water quality.

I think the DEQ needs to require Aethon to clean up its existing discharge before allowing more pollution to enter these streams. In particular, the amount of chloride allowed in Aethon's wastewater must be reduced to no more than 230 mg/L in order to restore and protect aquatic life in Alkali Creek and Badwater Creek. Existing chloride concentrations (in excess of 2,000 mg/L) are already much too high to support sensitive aquatic life found in these desert riparian systems.

The DEQ must ensure that the toxic effects of produced water are properly disclosed and addressed in the permit to ensure that sauger (a native species of fish related to walleye) are not harmed by this project.

The DEQ's draft permit fails to discuss the potential negative social and economic impacts for the life of the project from increasing oilfield wastewater volumes to downstream communities. Such consideration is required by the Clean Water Act. Impacts to the Wind River's Blue Ribbon fishery, increased salts on crops, and potential retrofits to Thermopolis' drinking water treatment facility could be substantial, yet the draft permit is silent on those issues. Follow the state's anti-degradation policies by requiring this analysis

The BLM's Moneta Divide draft EIS indicates that the temperature of produced water flowing from the wells is as high as 186° Fahrenheit, yet this issue is not addressed in the DEQ's draft discharge permit. I feel the DEQ needs to include a requirement to ensure that water temperatures in Alkali and Badwater creeks do not exceed the limits specified in the state's rules to protect fish and aquatic life.

Require full toxicity testing. The DEQ should increase the frequency of monitoring and testing of the effluent — liquid waste discharged into surface waters. "Whole effluent toxicity" testing of the discharge into Boysen Reservoir should be required at least quarterly. Once a year is not sufficient.

Water quality and flow data is missing. The DEQ cannot adequately assess the impacts to water quality if it doesn't know the existing quality. If the DEQ is going to rely on a dilution model, it needs adequate flow information to ensure that water quality standards are going to be met, and that existing and designated uses in these streams will be protected.

"Grandfathering" high levels of chloride authorized in previous discharge permits should not be allowed to continue. Multiple successive owners of the Moneta Divide oil and gas field (including

Exxon, Tom Brown, Inc., and Encana) have had 40-plus years to comply with all applicable water quality standards. The DEQ needs to end this legally dubious and environmentally unsound practice. The goal of the Clean Water Act is to restore and maintain water quality. Grandfathering historic and highly damaging pollutant concentrations does not achieve that basic goal.

Provide independent review. The DEQ hasn't established the scientific integrity of the model used by Aethon because it lacks the expertise and data to do so. Without this professional expertise in house, the agency must commission its own third-party review and make sure that the cost of that review is paid by the permit applicant, not Wyoming taxpayers.

Disclose all chemicals. Tell the DEQ to insist that Aethon disclose the trade names and amounts of all chemicals used in well drilling and fracking operations, and submit a plan to the public that ensures that the fracking chemicals contained in the "flowback" water are completely removed before being discharged into surface waters.

M.Krall