

**WYPDES PUBLIC MEETING  
PROPOSED MONETA DIVIDE GAS FIELD DISCHARGE PERMIT  
May 21, 2019  
THERMOPOLIS HIGH SCHOOL AUDITORIUM**

**QUESTION 1**

Cyanobacteria also known as blue-green algae, can multiply quickly in surface waters and form blooms when favorable conditions prevail, such as high temperature, intense light, high pH, and increased availability of nutrients, especially phosphorous and nitrogen, artificially released by anthropogenic activities.

In humans, exposure to cyanotoxins can occur in various ways, however, the oral route is the most important. This is mainly through drinking water, or by eating contaminated foods; it may even involve ingesting water during recreational activities. Furthermore, dermic exposure and inhalation are both possible. Depending on the concentration in the aquatic environment, they can cause severe poisoning, and produce chronic diseases such as cancer.

Cyanotoxins are an important group of chemical compounds, from the point of view of ecotoxicology, toxicology, and environmental chemistry. Cyanotoxins can be divided on the basis of two main criteria: (1) their action mechanism in land vertebrates, especially mammals, in three principal classes: hepatotoxins, neurotoxins, dermatotoxins; and (2) their chemical structure, within which they may be classified as cyclic peptides, alkaloids, or lipopolysaccharides (LPS) Another type of toxin produced by many cyanobacteria and also by all gram-negative bacteria is the group of lipopolysaccharides which are involved in toxic shock syndrome.

Boysen Lake is a well known destination for residents of Wyoming and tourists who enjoy aquatic activities. Introducing a higher prolonged level of nutrients into the water increases the possibility of blooming frequency, propagation and sustained growth of algal colonies.

How will the Class 1 and Class 2AB water ways be monitored for algal bloom and tested for the potential cyanobacterial toxicity?

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**QUESTION 2**

Many people are looking forward to the anticipated economic influx from the Moneta project, however there are health concerns for wildlife, fish, botanicals and humans.

Heavy metals such as lead, mercury and arsenic, along with hydrocarbons are well known for the cumulative effects of causing cancer, kidney disease, neuro degeneration, and birth defects in humans. Stock animals and wildlife generally do not live long enough to have cumulative diseases caused by heavy metals and hydrocarbons, although fish are well known for toxic mercury levels.

Is there a cumulative impact statement or a cumulative effects statement?

If not I suggest these statements should be provided and another water treatment plant built, or the current RO plant expanded to help carry the additional load of water that will be discharged before the permit is issued.

Building another RO plant to clean the water will provide additional employment and possibly prevent any further degradation to Class 1 and Class 2AB water ways.

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