

Public Comments and DWQ Responses to the Proposed Selenium Standard for Gilbert Bay, Great Salt Lake

The Division of Water Quality (DWQ) received many useful stakeholder comments about the proposed selenium standard of 12.5 mg/kg for shorebird eggs. A summary of some of these comments and associated responses is provided below:

Many stakeholders expressed support for the proposed selenium thresholds and associated regulatory triggers.

DWQ Response

- The overall process was maintained in rule
- Specific trigger values and regulatory responses were refined and clarified

Why?

- The Selenium Science Panel recommended tiered triggers to minimize the possibility of inadequately protecting aquatic life beneficial uses due to scientific uncertainty surrounding their selenium studies
- Should selenium ever increase, these triggers allow DWQ to respond early, which should ensure long-term beneficial use support

A few stakeholders suggested that the triggers proposed in the assessment procedures seemed arbitrary and inconsistent with other policies.

DWQ Response

- Propose trigger values that are directly tied to scientifically derived endpoints

Why?

- Selenium values that lead to regulatory responses should be scientifically defensible

Many expressed concern over capping all selenium discharges at selenium concentrations less than the standard.

DWQ Response

- The strict requirement of capping *all* discharges was removed from rule
- Options of capping or requiring reductions to discharges of selenium were maintained through the Level II Antidegradation Review process

- A new trigger was added, with the response of conducting preliminary TMDL studies that evaluates point source and nonpoint source selenium loadings to the lake

Why?

- Caps could be considered “default standards” which could be illegal under Utah Code 19-5-105
- Caps would place the selenium increases entirely on point sources, without considering the entire scope of the problem

Some pointed out that while the science behind the standard is commendable, significant uncertainty about selenium ecology in Great Salt Lake remains.

DWQ Response

- Keep assessment procedures in rule so that the intensity of data collection and interpretation increases should selenium values increase
- Initiate studies to answer many of the remaining significant questions about selenium processes in Great Salt Lake over the next two years

Why?

- Delays of protections to the Great Salt Lake ecosystem against selenium are not appropriate. Yet, it is also important that we continue to evaluate the assumptions of studies that were used to develop the standard
- Great Salt Lake is a globally important ecological resource, so it is especially important that all reasonable measures are taken to ensure protection of the ecosystem

Some commented that the monitoring methods suggested in the assessment framework lacked enough specificity to be meaningful.

DWQ Response

- Remove monitoring triggers and specificity from rule and discuss them in a separate monitoring and assessment document
- Maintain a reference to the outside monitoring and assessment document in rule

Why?

- Rigid monitoring requirements in rule do not allow emerging scientific or policy concerns to be addressed without having to follow significant and lengthy administrative procedures
- Without details, monitoring plans are mostly meaningless. For instance, eggs will be collected for what species? Where will samples be collected? When will samples be collected?

- Monitoring resources vary and some flexibility is needed to balance statewide monitoring demands

As with bird eggs, triggers and regulatory responses are needed for brine shrimp cysts to protect the brine shrimp industry.

DWQ Response

- Studies have been initiated to develop appropriate cyst triggers and responses
- If needed, DWQ has made a commitment to move forward with cyst selenium concentration triggers as soon as scientifically defensible thresholds can be developed. Given time constraints, this may involve future revisions to Great Salt Lake selenium standards

Why?

- Brine shrimp cysts are an important economic resource
- Brine shrimp are an important part of the Great Salt Lake food web
- Additional studies are needed because selenium cyst standards to protect aquatic life uses have not been investigated. From early in the process, the Selenium Science Panel proceeded under the assumption that bird eggs were the most sensitive endpoint and clear links with brine shrimp cysts need to be established