Summary of Workshop to Solicit Comments, and Responses to Comments Received Regarding proposed regulation R149-24
Date: August 11, 2025, Time: 13:30 In-Person & Virtual Workshop using Teams

NOTICE & COMMENT PERIOD

This workshop was publicly noticed on 6/25/2025, with additional notice sent the day of the workshop on 8/11/2025. Written comments regarding the proposed regulation were accepted until 8/14/2025. Comments received and NDEP responses are included at the end of this workshop summary.

ATTENDEES

Presenter:
Seth Alm, Supervisor, Bureau of Water Quality Planning, Standards Branch

NDEP Staff:
Jason Kuchnicki, Chief, Bureau of Water Quality Planning
Weston Fettgather, Supervisor, Bureau of Water Quality Planning, Bioassessment Branch
Zack Blumberg, Environmental Scientist, Bureau of Quality Planning, Standards Branch
Holly Holwager, Environmental Scientist, Bureau of Water Quality Planning, Standards Branch
Bryceton Schilling, Environmental Scientist, Bureau of Water Quality Planning, Standards Branch
Daniel Riddle, Environmental Scientist, Bureau of Water Quality Planning, Standards Branch
Lauren Desrosiers, Environmental Scientist, Bureau of Water Quality Planning, Standards Branch
Sean Casler, Environmental Scientist, Bureau of Water Quality Planning, NPS Branch
Zachary Carter, Environmental Scientist, Bureau of Water Quality Planning, NPS Branch

Public:
Karin Peternel, Carson City Public Works, kpeternel@carson.org
Jessica Eastman, JEastman@aga.gold,
Alexandira J Popores, National Park Service, alexnadria_popores@nps.gov
Todd Tietjen, Las Vegas Valley Water District, todd.tietjen@lvvwd.com
Joseph R. Leedy, Clean Water Team, jleedy@cleanwaterteam.com
Carrie Stowers
Birgit M. Widegren, Washoe County, BWidegren@washoecounty.gov
Lisa A. Kirschner, LKirschner@parsonsbehle.com
Haley Brown, Las Vegas Valley Water District, Haley.Brown@lvvwd.com
Tara Nelson, Eocene, TNelson@eocene.com
Danielle Collins, dcollins@crc.nv.gov
Carolyn Faircloth, Las Vegas Valley Water District, carolyn.faircloth@lvvwd.com
Deena Hannoun, Deena.Hannoun@lvvwd.com
Daylin Sigler, Clean Water Team, dsigler@cleanwaterteam.com
John Solvie, Clean Water Team, jsolvie@cleanwaterteam.com
Daniel Fischer, Clean Water Team, dfischer@cleanwaterteam.com
Todd Pickle, Las Vegas Valley Water District, todd.pickle@lvvwd.com
Kai Chung, Las Vegas Valley Water District, Kai.Chung@lvvwd.com
AJ Rodrigues, Clean Water Team, arodrigues@cleanwaterteam.com

Erik Anderson, Clean Water Team, eanderson@cleanwaterteam.com
Brenda Hunt, Carson Water Sub Conservancy District, brenda@cwsd.org
Kimberly Rigdon, Washoe County, KRigdon@washoecounty.gov
Thomas C Ashley. Bureau of Reclamation, tcashley@usbr.gov
Riley Rackliffe, National Park Service, riley_rackliffe@nps.gov
Ariel J Santero, National Park Service, ariel_santero@partner.nps.gov

WORKSHOP SUMMARY

The workshop was held virtually from the Bryan Building at 901 South Stewart Street, Carson City, NV in the Bonnie Conference Room, located on the 1st floor. The workshop was organized for participation in-person or virtually using a provided link to a virtual TEAMS meeting. The workshop presentation is available on the NDEP current and past actions website at: https://ndep.nv.gov/water/rivers-streams-lakes/water-quality-standards/current-and-past-actions.

Seth Alm, Supervisor, Bureau of Water Quality Planning (BWQP) opened the workshop with contextual introduction of the proposed regulation and Clean Water Act Section 304(a) EPA recommended criteria for recreational contact with the water.

QUESTIONS (Q), ANSWERS (A) AND COMMENTS (C):

Comments and questions regarding the HAB Task Force, sampling protocols, CWA 303(d) impairment decisions, and EPA Nationally Recommended Criteria were made by the public participants and were discussed, answered or clarified during the workshop.

Q- Todd Tietjen, Southern Nevada Water Authority: At the Southern Nevada Water Authority, we care mostly about Lake Mead and Lake Mojave for these purposes. If there's a detection at any location in the lake in a 10-day period across 2 water years, would that meet the criteria for impairment? For example, if we have two locations that are miles apart on the same lake.

A- Seth Alm, NDEP: Currently Lake Mojave is a single assessment unit, so all the samples collected during the reporting cycle for that assessment unit would be considered in total. And it's not just the detection of toxins, but the associated levels would have to be above the proposed thresholds.

Q- Todd Tietjen, Southern Nevada Water Authority: We have seen more frequently in both lakes that there's very low concentrations of algae or the toxin itself, until there's a wind event that aggregates it all in one location. And then we do have what looks like a bloom in a very small part of the lake overall. Then, the next morning it's gone, and the wind has shifted, and it's dissipated. How does one account for that because it would be relatively easy to cheat the system and not measure at a standard (representative) location when the wind has driven microsystins there.

A- Seth Alm, NDEP: I can speak about our monitoring strategy and monitoring program we have. We sample base locations at water bodies that are sampled for the cyanotoxins. We're not specifically targeting beach areas for ambient water quality monitoring program purposes. However, water body managers working under the harmful algal bloom task force may be collecting targeted samples and submitting that data to us for consideration of these criteria and we would be considering that the same as the ambient water quality data.

Q- Todd Tietjen, Southern Nevada Water Authority: A last maybe simple question, is the proper terms Microcystin or Microcystins.

A- Seth Alm, NDEP: In the slide there is a missing "s" at the end of microcystin. The regulation language has been revised to add "s", clarifying that this will apply to the entire class of microcystins, not just the individual toxin microcystin.

Q- Daniel Fischer, Clark County Water Reclamation District: The wastewater dischargers down here assist with the sampling the ambient water quality of Lake Mead and Las Vegas Wash. We have assigned sites we are responsible for monitoring per our NPDES discharge permits. My guess is that we're never going to see an exceedance of cyanotoxins in wastewater discharges or at the sites that we sample. However, if somebody goes out and targets blooms for sampling, we're probably going to get exceedances of these proposed standards. If you go look for a bloom every single day around the entire lake, you're probably going to find some. I'm not concerned, but I guess what I'm saying is as wastewater people, I think we intend to continue to sample the lake as we're supposed to meet our permit requirements.

A- Seth Alm, NDEP: Thank you Dan for the question and comment. As far as I'm aware these cyanotoxins are not commonly found in treated wastewater discharges. So, it'd be unlikely that it would have to be monitored as part of a wastewater discharge permit. But going on to what I think you're talking about the movable sites in Lake Mead from the Confluence of Las Vegas wash. There's the magnitude and then that's where the duration component of this criterion falls in. The way it's built having to have more than three 10-day periods out of compliance with the criterion and then having that in back-to-back years separates the isolated incidents from where there's really a chronic harmful algal bloom problem occurring in a water body.

Q-Dan Fischer, Clark County Reclamation District: There was a slide toward the end in the presentation where it showed a bloom. My guess is if you are at the top of the photo, it looks blue? And then toward the middle and bottom of the photo, there's a probable bloom present. Within probably 50 feet, someone can go out and get a sample that's going to be hundreds of times over that criteria or 50 feet away it may be non-detects. Todd would be able to speak to that better as to how much dispersion these things happen to be able to maintain when there's a bloom like that. I think sampling is going to be an interesting mechanism to determine whether water bodies are compliant and exactly how the samples are taken. Depending on your sampling methodology if you're targeting ambient water quality or if you were sampling specifically for the protection of contact recreation beneficial use you can certainly, like in the picture grab 2 samples with very different concentrations of cyanotoxins in close proximity.

A- Seth Alm, NDEP: Something worth noting about the criteria, it is established for the most sensitive groups and they're most likely to be recreating near shore. Around the shorelines where the cyanotoxins or at least cyanobacteria are most likely to congregate. And so that's why these criteria were built in such a way to protect the most sensitive groups. These groups may include children and dogs that are likely to be splashing in these shallower areas. Therefore, the criteria apply to the entire water body regardless of the sampling methodology used.

Q- Karin Peternel, Carson City Public Works: The EPA presents this as guidance from the Federal Register it says states can consider using the recommended cyanotoxin values as swimming advisories in making decisions whether to open or warn about concerns in recreational waters in a manner consistent

or like their current recreational water advisory programs. The recommended cyanotoxin values in clean water act section 304(a) criteria even if used as swimming advisories are not regulations and thus do not constitute legally binding requirements. States may consider them as water quality standards, but the primary recommendation is for swimming advisories. I believe that they should be used to address the immediate nature to notify the recreating public about the potential algal bloom and the EPA said that states can choose to implement these as swimming advisories water quality criteria. Both or not at all.

A- Seth Alm, NDEP: To address that we have a 2-pronged approach. The Nevada harmful algal bloom task force which water body advisories are issued for, we don't issue the advisories ourselves that's up to the water body manager, but we advise and provide the technical assistance where applicable. We have a draft of a harmful algal bloom satellite identification tool that can help inform those kinds of water body management decisions. The criterion is to identify where there are the kind of systemic long term effects water bodies are having. HABs happen every summer and are not isolated incidents. So human health really gets protected by issuing advisories and then also when or if water bodies eventually end up on the CWA 303(d) list for algal toxins and address what is causing them. The listing identifies that there's an overall problem at that water body that needs to be addressed.

Q- Karin Peternel, Carson City Public Works: There's already significant funding limitations on monitoring as we've already learned for parameters statewide. I believe in the immediacy for swimming advisories in real time not to create another listing parameter that will take years to assess if a water body is meeting its beneficial uses again. The guidance for real time swimming recreation and swimming advisories should be the goal of NDEP. And further that because there are already nutrient pollution frameworks in place the lack of funding and monitoring, the public would be better informed by guidance for swimming advisories. Adding this is a water quality standard is going to do nothing more than create a significant long-term administrative burden as opposed to these recommendations being used for real time swimming advisories to protect human health. I think we need to be reasonable about where we decide we want an administrative burden such as a TMDL to limit nutrients when a lot of those are already in place with limited and decreasing budgets and funds, we need to use any monitoring we can do to resolve immediate concerns. When we know a water body is in a bad condition we would want to know about this real time and not for the purpose of data that won't be looked at for years after the fact to determine if a water body is meeting its beneficial uses for the water quality integrated report conducted every 2 years. The report uses data from 2 to 5 years prior and that data immediately determines beneficial uses.

A- Seth Alm, NDEP: To address the immediacy of the data used for integrated report development, that is not the practice of our ambient program (recreational advisories). The Integrated report is really a long-term strategy and planning tool, so it is not intended to reflect the immediate “on the ground” conditions of a water body. Waterbody managers are free to issue advisories, whether it be for algal toxins and human health contact recreation. These criteria are set and designed to reflect ambient water quality conditions. The criteria in and of themselves are not intended to be used for recreational advisories. In regard to cyanotoxins, the recreational advisories would be based off the Nevada harmful algal task force guidance.

Q- Karin Peternel, Carson City Public Works: Nevada’s proposing to add recreation with contact beneficial use to the table of standards of toxic materials. It is not the type of organic chemical for which discharges can be regulated. It is a naturally occurring substance. I believe it is not correct to include it here and I'll be providing backup in my written comments. Per the Federal Register cyanotoxins are not part of the 40 CFR part 423 list of priority pollutants. Therefore, states are not required to adopt criteria

for these cyanotoxins. They are ubiquitous in nature, applying it as toxic criteria applicable to all waters where there is no relationship between actual use protection needs and the criteria is not reasonable. The other toxic constituents are truly man created for which discharges can and must be limited. There are no discharges of cyanotoxins. You can't regulate inputs of cyanotoxins because there is no such thing, and we already regulate nutrient inputs.

A- Seth Alm, NDEP: The main crux of the information I want to provide there is that we don't have the option about whether or not to protect contact recreation as a beneficial use. These criteria for the algal toxins were based off EPA 304(a) published criteria. (EPA publishes) Nationally peer reviewed and scientifically reviewed literature that look at all the ecotoxicology studies out their compile that into a nationally recommended criterion. For example, when EPA published selenium that was a geographic constituent based on the geology of waters and were able to approach that from developing a State specific criterion, that was slightly different from EPAs. With the example of algal toxins, someone recreating the water body doesn't care if they're here, in Montana or New York, cyanotoxins are toxic at these thresholds and so we believe it's appropriate to adopt for the State.

Q- Karin Peternel, Carson City Public Works: Why wouldn't you just apply them to the criteria for each waterbody? It's quite a bit cleaner to do it this way. In addition, they are toxic pollutants, whether they're directly human induced as different exposure pathways. My next thing is the magnitude duration and frequency. Nevada 's proposing a 10-day non rolling periods in consecutive years for a water year? However, the EPA is very specific about these parameters. They state if used as a water quality criterion for assessment and listing purposes the EPA recommends a maximum of 3 excursions across a recreational season. An observation of that pattern across multiple years to reflect seasonal dynamics and occurrence patterns of HAB's and then regarding the 10-day non rolling periods. EPA directly says not to use a 10 day non rolling period the Federal Register for this given that cyanobacteria blooms typically are seasonal events recreational exposures are likely to be episodic. And maybe short term in nature if adopted as a water quality scheme for impairment assessment and listing purposes. EPA recommends states use 10-day assessment periods not a rolling 10-day period over the course of a recreation season. To evaluate ambient water body condition and recreational use, attainment the 10-day period links the water body assessment period to the adverse health effects observed from ingestion of the toxins over short term exposures.

A- Seth Alm, NDEP: The reasoning that NDEP decided to pursue a water year as opposed to a recreational season is that they're based on our experience and talking with other water body managers throughout the State that there is no defined recreational or harmful algal bloom season within the State. And expanding the 10-day non rolling periods over the water year is deemed to be more protective than constraining that to a recreational season. So that element of the criteria is more restrictive. This regulation draft language has been shared with and verified by EPA region 9 that it matches their 2019 recreational guidance for criteria for cyanobacteria.

Q- Karin Peternel, Carson City Public Works: But I'm looking at the Federal Register and the EPA guidance and it says don't use a non-rolling or a rolling 10 day. I believe it is said to use pending non rolling periods. It literally says this is straight from the Federal Register. "The EPA recommends use 10-day assessment periods not a rolling 10-day period."

A- Seth Alm, NDEP: Correct, so we're not using a rolling 10-day period which would move forward one day at a time and consider the last 10 days, we're looking at 10 -day blocks.

Q- Karin Peternel, Carson City Public Works: How would the assessment be done?
When talking about a recreation season it generally is 90 or 120 days and often has suggestions for when the 10-day window starts, for example - June 1st go out and collect samples and then you have that 10-day window for June. On June 11th, go out and collect samples. Or the 10- day window would start when you have a bloom identified. What does NDEP intend on doing and will they make that clear in the regulation?

A- Seth Alm, NDEP: I went back to a slide that has the footnote and it defines the water year, which is defined as the 12-month period beginning October 1st and ending September 30th of immediately following calendar year.

Q- Karin Peternel, Carson City Public Works: So those 10-day blocks are intended to start at the beginning of the water year October 1st and roll through September 30th. So how are you in all your financial limitations, going to be able to collect samples every 10 days for 365 days?

A- Seth Alm, NDEP: No, we don't have the financial or manpower resources to sampling every 10 days, but that's also not a requirement or the data threshold for this as proposed regulation. If we were talking strictly about impairing a waterbody, you could have a total of 8 samples. 4 samples in one year, 4 samples in the preceding or the next year which would amount to more than 3 exceedances during 10-day blocks per water year causing impairment and listing on the CWA 303(d) list. And so, if you have a single exceedance in a 10-day block above the magnitude of the criterion values, that entire 10-day block is considered impaired, and you'd need more than 3 of those exceedances in back-to-back water years to impair the waterbody. So, in theory a water body could be listed on as few as 8 collected samples.

Q- Karin Peternel, Carson City Public Works: And then EPA states that you must declare how many years and it doesn't have to be consecutive in fact they say it could be every other year. So will our final document say the number of years for the regulation. Right now, it just says what it will be for the following years. Will you specify water years or recreational seasons, or that it doesn't have to be consecutive years.

A- Seth Alm, NDEP: We've specified that it must be in consecutive water years.

Q- Karin Peternel, Carson City Public Works: 2 or 3 years?

A- Seth Alm, NDEP: 2 consecutive water years.

Q- Karin Peternel, Carson City Public Works: The reason that I am supportive of following EPA guidance process with E coli and the regulations have changed. Are you adopting the regulations such that you must have a 30-day geometric mean? For exceedances to list or delist E coli, but you only collect samples twice a year, sites are indefinitely going to be listed if we don't collect enough data. So, I worry that we're going to get into another data hole again with this.
And then one thing is everybody is talking about where we're going to go collect samples. The EPA states that when collecting samples, you don't go out to target a bloom. You're supposed to target where the swimming areas are where people are likely to be exposed. I noticed in the NDEP QAPP it says, “yes go collect samples but if you see a bloom go collect samples from it as well.” And to me that's probably where you got the very elevated concentration sample and that's not representative. People

aren't going to go swim in that. I remember one time I went to Walker Lake with my dogs, and we were excited to go to Walker Lake, and it looked like soup. I figured that nobody 's going to get in that. Given the HAB and if I sampled here, it would probably just be exorbitant high concentrations of cyanotoxins but it's not representative of what people would swim in.

A- Seth Alm, NDEP: I'll try and work through everything we touched on there for what is required when developing the Nevada water quality integrated report. Which is to consider all readily available surface water quality data or information, so outside entities are free to monitor and provide that data to us for consideration under regulation. And that goes for all our surface water quality criteria, not just the ones being proposed today. Getting back to the statement "no one 's going to swim in it" comment. We aren't going to assume that no one 's going to swim in it and that the HAB in the water exists whether we are out there sampling or not. And so, collecting those samples from the area of most likely exposure as well as our index sites is well within the bounds of our program and makes sense for the beneficial use and to determine support of this regulation.

Q- Karin Peternel, Carson City Public Works: And are you going to collect additional data to characterize why HAB's are happening? Or sampling efforts to just collect the cyanotoxins. Just wondering because the USGS and EPA suggest collecting a whole suite of chemical samples to determine what's happening in the waterbody.

A- Seth Alm, NDEP: Currently our monitoring program is sampling select lakes and reservoirs throughout the State. There's no increased sampling planned because of this regulation.

Q- Karin Peternel, Carson City Public Works: Then how are you going to do the assessment period of 10 days? I guess I don't understand if you're applying this to toxics criteria so it's applicable to every water body in the State even sites that don't have recreation as a beneficial use.

A- Seth Alm, NDEP: We're proposing adding the "recreation involving contact with the water" beneficial use (to the toxics table), and it's providing protection under that use, so all water bodies with the recreation involving contact with the water beneficial use will have this criteria apply.

Q- Karin Peternel, Carson City Public Works: Does it mean that you must go out and sample every 10 days starting on October one?

A- Seth Alm, NDEP: No, we will sample as part of our ambient routine monitoring program. Which would be twice yearly.

Q- Karin Peternel, Carson City Public Works: And then if there is a bloom detection then you must have a clean reading before you can take off the advisory for the water body. Would you go collect that sample or would someone else?

A- Seth Alm, NDEP: That could be up to the water body manager for placing or lifting advisories. If we have resources, we're happy to collect data and support what we can.

Q- Karin Peternel, Carson City Public Works: But then how would you know when to put take down the advisory.

A- Seth Alm, NDEP: The advisories are separate from what are being proposed today. We're talking about adopting surface water quality criteria for algal toxins. The harmful algal bloom advisory program has different requirements for adding and removing water bodies to the advisory list. Anything listed under these proposed criteria would appear on the CWA 303(d) list.

Q- Karin Peternel, Carson City Public Works: I still believe we should use this as EPA's recommendation. Which is that swimming advisories for HAB detection and elevated concentrations are not a water quality standard. I think that just leads to administrative burden when it's more of a concern to let the public know when there's an actual bloom. Thank you.

A- Seth Alm, NDEP: Seeing no other hands raised in the room or virtually, we're going to go ahead and wrap this workshop up. I'd like to remind everyone that the comment deadline for written comments is this Thursday August 14th at 5:00 PM. Additional information is available on the NDEP website regarding this regulation. We are intending to present to the September 9th State Environmental Commission Hearing for possible action.

Adjournment:

Workshop adjourned by Seth Alm after providing an overview of the next steps, written comment deadline, and tentative schedule for adopting the regulation, including the September 9, 2025, State Environmental Commission meeting to be held in Carson City, NV.

Written Responses to Comments Received

"Please justify why we would not just use these as swimming advisories, as opposed to adding as water quality standards for which there will be a significant administrative burden."

Thank you for your comment regarding R149-24 proposing the adoption of EPA's 2019 304(a) *Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin*. These criteria were developed from EPA's nationally recommended 304(a) criteria intended to support states in protecting recreational uses through formal water quality standards.

While recreational advisories play an important role in informing the public about immediate short-term risks associated with recreation in a waterbody, they do not provide a regulatory mechanism for identifying and addressing waterbodies with chronic or recurring harmful algal bloom (HAB) issues. Incorporating these criteria into Nevada's Water Pollution Control Regulations enables NDEP to assess long-term support for the "Recreation Involving Contact With the Water" beneficial use and identify impaired waters for inclusion on Nevada's 303(d) List.

Listing a waterbody/pollutant combination as impaired under Section 303(d) of the Clean Water Act requires the waterbody to be prioritized for development of a plan to improve water quality (Advance restoration plan, Total Maximum Daily Load (TMDL)), which provides a framework for reducing pollutant inputs that contribute to HABs. This process also opens the door to federal restoration funding opportunities, such as 319(h) grants, which can support local efforts to improve water quality and protect public health.

It's important to note that this regulation does not impose new monitoring requirements. NDEP's Standards, Assessment, and Monitoring Program already includes select lakes where algal toxin monitoring is conducted. Therefore, no significant increase in administrative burden is anticipated.

To support waterbody managers in issuing recreational advisories, NDEP has established the Nevada HAB Task Force, which provides guidance, resources, and coordination. More information on NDEP's Harmful Algal Bloom Program can be found on the NDEP website: https://ndep.nv.gov/water/rivers-streams-lakes/water-quality-monitoring/harmful-algal-bloom-program

"What other states have added this to their toxics provisions? What are the magnitude, duration and frequency specified in those instances, and monitoring associated with the addition of the provision."

Information on other states HAB programs and resources may be found on EPA's website: https://www.epa.gov/habs/state-tribal-hab-programs-and-resources.

Under the Clean Water Act, states are legally obligated to adopt water quality criteria that protect public health. Section 304(a) of the Act requires states to consider nationally recommended criteria—such as EPA's 2019 *Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin*—and to provide robust justification if they choose not to adopt them. EPA retains final approval authority over all state water quality standards to ensure alignment with federal requirements, and maintains the authority to promulgate 304(a) criteria on states that do not adopt 304(a) criteria into their water pollution control regulations.

The proposed criteria in R149-24 reflect EPA's 304(a) recommendations and include magnitude, duration, and frequency components designed to identify waterbodies experiencing sustained and recurring HABs. These components support long-term planning and beneficial use assessments, rather than short-term advisories alone. EPA has final approval authority for all surface water quality standards actions taken by states and has made a preliminary determination that R149-24 is consistent with its nationally recommended criteria.

More information on section 304(a) may be found on EPA's website https://www.epa.gov/wqc/basic-information-water-quality-criteria

"Please explain how this is valid to be added to the Toxics criteria. I do not believe it belongs here for the following reasons... It is not the type of organic chemical for which discharges can be regulated. It is a naturally occurring substance…Cyanotoxins are not part of the 40CFR part 423 list of priority pollutants…It is also not on the priority pollutant list (40 CFR Part 423, Appendix A); also not in 40 CFR 401.15 – toxic pollutants under Effluent guidelines and standards."

R149-24 recommends adopting Nationally recommended surface water quality criteria published under section 304(a) of the Clean Water Act. EPA's list of priority pollutants was developed to assist states when developing effluent guidelines and are not nationally recommended criteria. Additional information on EPA's list of priority pollutants may be found on EPA's website https://www.epa.gov/eg/toxic-and-priority-pollutants-under-clean-water-act#priority.

Microcystins and Cylindrospermopsin are toxins, therefore NDEP has determined it is appropriate to adopt these criteria into Nevada's Standards for toxic materials applicable to designated waters (NAC 445A.1236). Including these parameters in NAC 445A.1236, allows the proposed criteria to apply to all waters with the "Recreation Involving Contact With the Water" beneficial use.

"Currently the proposed regulation says "in consecutive water years." How many – two, three, four? States must state how many years and if consecutive or not."

Language in footnote 8 of R149-24 states, "*The applicable criterion value must not be exceeded in more than three separate 10-day non-rolling periods in consecutive water years. As used in this footnote, "water year" means the 12-month period beginning on October 1 and ending on September 30 of the immediately following calendar year*". This language means that exceedances of the magnitude and duration thresholds must occur in two consecutive (back-to-back, following one after the other in order) water years for the "Recreation Involving Contact With the Water" beneficial use to be considered impaired. The use of consecutive years ensures that the impairment determination reflects a sustained or frequently recurring condition rather than isolated or short-term events.

"EPA says to use recreational season not year…What is the sampling burden that will be established, and cost, associated with a 'water year' approach? What is the sampling burden as a toxic constituent – do you have to monitor it every time you collect your twice-yearly samples, even during the middle of winter, when no one is recreating?"

EPA's 2019 304(a) *Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin* and the associated Implementation Technical Support Document (https://www.epa.gov/system/files/documents/2021-08/final-tsd-implement-2019-rwqc.pdf.pdf) allow states flexibility when defining a "recreational season".

"*The length of a "recreational season" is an important consideration because states and authorized tribes would likely monitor the quality of their highest-priority recreational waters throughout the recreational season…Because local health departments or departments of parks and recreation may define the recreational seasons for inland waterbodies, it is important for states and authorized tribes to coordinate with these local authorities when identifying the length of the state's or tribe's recreational season in WQS*"

NDEP is proposing to use a "water year" approach for impairment determination instead of a "recreational season". This change is intentionally more restrictive, allowing the consideration of more data, and allows for more comprehensive assessments as opposed to only considering exceedances during a defined date range within a water year. In Nevada, particularly in southern part of the State, both HAB formation and contact recreation have been observed year-round. Using a water year framework ensures that these events are not excluded from assessment simply due to timing.

"What is the monitoring frequency?... NDEP should define their assessment period."

Additional information on Nevada's Water Quality Integrated Reports, including the data period considered during the development of the report, may be found on the NDEP website

https://ndep.nv.gov/water/rivers-streams-lakes/water-quality-standards/303d-305b-water-quality-integrated-report.

Additional information on Nevada's ambient water quality monitoring program may be found on the NDEP website https://ndep.nv.gov/water/rivers-streams-lakes/water-quality-monitoring. In general, NDEP monitors most major waterbodies in the State twice per year. Additional monitoring may occur on select waterbodies to support the goals of the Standards, Assessment, and Monitoring program. This approach aligns with 40 CFR 130.7(b)(5), which requires BWQP to evaluate all existing and readily available water quality-related data and information when making beneficial use support determinations for inclusion in Nevada's Water Quality Integrated Report.

"Where are you going to collect the samples?... If you're instead going out and targeting blooms, that is more sensationalism than determining if there is a bloom at a swimming location. No one is going to be recreating in pea-soup consistency water."

NDEP does not view sampling for algal toxins during a suspected HAB as sensationalism. Rather, it is a scientifically appropriate response—similar to investigating a suspected pollutant spill or other water quality concern. Sampling is conducted to evaluate support for designated beneficial uses, and when visual indicators or public reports suggest potential degradation of a use, targeted sampling is warranted. This approach aligns with 40 CFR 130.7(b)(5), which requires BWQP to evaluate all existing and readily available water quality-related data and information when making beneficial use support determinations for inclusion in Nevada's Water Quality Integrated Report.

As part of its surface water ambient monitoring program, NDEP collects surface water quality samples at a set location for each waterbody. When a suspected HAB is observed—either through field reconnaissance, remote sensing, outside entity, or public notification—additional samples may be collected for algal toxin analysis (by NDEP or other entities). This ensures that assessments reflect both baseline conditions and episodic events that may pose risks to public health. Additional information on NDEP's surface water ambient monitoring program may be found on the NDEP website https://ndep.nv.gov/water/rivers-streams-lakes/water-quality-monitoring.

It is important to note that the presence of a HAB does not always deter public contact recreation. NDEP and its monitoring partners have observed individuals wading, swimming and tubing in waterbodies under active HAB advisories. Therefore, sampling during bloom conditions is not only appropriate, it is necessary to understand exposure risk and inform public health messaging.

Additional discussion on recreational use during HAB events is included in NDEP's response to comments submitted by the National Park Service.

"Instead of creating an administrative burden that will lead to the obvious "water not meeting it's beneficial uses" and future TMDLs, work with the data now to warn the public. Creating a TMDL isn't going to do anything for 5-10 years, and who knows, maybe the cyclic seasonal highs will change by then."

Comment noted. Incorporating these criteria into Nevada's Water Pollution Control Regulations enables NDEP to assess long-term support for the "Recreation Involving Contact With the Water" beneficial use and identify impaired waters for inclusion on Nevada's 303(d) List. Listing a waterbody/pollutant

combination as impaired under Section 303(d) of the Clean Water Act requires the waterbody to be prioritized for development of a plan to improve water quality (Advance restoration plan, Total Maximum Daily Load (TMDL)), which provides a framework for reducing pollutant inputs that contribute to HABs. This process also opens the door to federal restoration funding opportunities, such as 319(h) grants, which can support local efforts to improve water quality and protect public health.

"…Could this guidance be used instead to inform or help our advisories better?"

NDEP has established a "Nevada HAB Task Force" that provides resources, information, and guidance to assist waterbody managers when determining the appropriateness of issuing recreation advisories. These resources were developed considering EPA's guidance. More information on NDEP's Harmful Algal Bloom Program can be found on the NDEP website: https://ndep.nv.gov/water/rivers-streams-lakes/water-quality-monitoring/harmful-algal-bloom-program. All data pertaining to HABs (collected by NDEP or provided by outside entities) will be used to both inform the Nevada HAB Task Force and assist in beneficial use support determinations for the water quality integrated report.

"…Suggest reviewing this document (if you haven't already) to understand the challenges."

Comment noted.

"In light of some of the discussions at the meeting I wanted to share two pictures we collect over the course of our monitoring efforts, one from last week. The comment was that no one would actually swim in the pea green water. Our experience is that members of the public do contact the water, and allow their children to do so. And their dogs."

Thank you for your comment and for sharing photographs showing recreation of sensitive groups in a suspected HAB at Lake Mohave. NDEP recognizes that despite the presence of visible HABs and posted advisories, contact recreation continues to occur in these waterbodies. We share your concern that individuals, including children and pets, may still enter the water even when it appears visibly impacted, such as exhibiting the "pea green" coloration often associated with elevated algal toxin concentrations.

"…Its true that our worst case sampling makes the lake look bad from a data standpoint, but our intention is to protect public health so it seems like the worst patch is what we should prioritize, with the understanding that most of the lake has lower concentrations. That said, this form of sampling is designed to generate public health advisories rather than long term planning, which would be better serviced by a more representative sample."

Thank you for your thoughtful comment. NDEP agrees that protecting public health is paramount, and we appreciate your recognition that worst-case sampling—while potentially unrepresentative of broader lake conditions—can be critical for identifying areas of elevated risk.

The magnitude and duration components of the proposed criteria are designed to identify waterbodies that experience frequent and sustained HAB events for inclusion on Nevada's 303(d) List of Impaired Waters. While nearshore sampling may not reflect open-water toxin concentrations, these area are often where the most sensitive groups—such as children and pets—engage in contact recreation.

Therefore, incorporating nearshore data is appropriate when evaluating support for the "Recreation Involving Contact With the Water" beneficial use.

In accordance with 40 CFR 130.7(b)(5), BWQP evaluates all existing and readily available water quality-related data and information when making beneficial use support determinations for inclusion in Nevada's Water Quality Integrated Reports.

Additionally, waterbody managers may choose to place recreational advisories for specific locations (e.g., individual beaches or coves). If sufficient data demonstrate that a segment of a waterbody consistently exhibits different water quality conditions—such as elevated algal toxin concentrations—NDEP may consider delineating separate "assessment units" for more targeted beneficial use evaluations in future Integrated Reports and 303(d) listings.

"Thank you for your work on this issue. It is a problem out here that needs a solution."

Thank you for your engagement and providing your input on the development of this regulation. NDEP shares your concerns and agrees that HABs are a pressing issue requiring proactive solutions. The adoption of LCB File No. R149-24 represents a significant step toward protecting public health by establishing clear criteria for algal toxins. These criteria will help identify waterbodies where focused management efforts are most needed and support the protection of recreational uses involving contact with the water.

Written Comments Received

From:	Rackliffe, Riley R
To:	Seth B. Alm
Subject:	Alga toxin changes
Date:	Monday, August 11, 2025 5:19:01 PM
Attachments:	IMG_8380.PNG

Hi Seth,

I was in attendance at the meeting today where you were discussing the addition of a water quality criteria for microcystin and cylindrospermopsin. We've been monitoring small algae blooms down at Lake Mohave for a few years and it seems likely that changes would apply to us down here. So I am deeply invested. In light of some of the discussions at the meeting I wanted to share two pictures we collect over the course of our monitoring efforts, one from last week. The comment was that no one would actually swim in the pea green water. Our experience is that members of the public do contact the water, and allow their children to do so. And their dogs. (note, I am the person standing in the first photo, with waders on. The other people were visitors to the park that were recreating when we came to sample.)

I have pondered the question about where/how we should sample, since our blooms of Microcystis tend to be heavily concentrated in restricted coves where the winds blow them. By default I usually sample the thickest patch of algae I can find, thinking it is best to find the worst case patch of water. I know our partners at SNWA take integrated samples from the middle of the lake covering 5 m and find much lower concentrations than we do sampling surface water along the beach. Its true that our worst case sampling makes the lake look bad from a data standpoint, but our intention is to protect public health so it seems like the worst patch is what we should prioritize, with the understanding that most of the lake has lower concentrations. That said, this form of sampling is designed to generate public health advisories rather than long term planning, which would be better serviced by a more representative sample.

Thank you for your work on this issue. It is a problem out here that needs a solution.

Cheers

D. Riley Rackliffe, PhD
Aquatic Ecologist
Research Permit Coordinator
Wilderness Specialist
Lake Mead National Recreation Area
riley_rackliffe@nps.gov

702-600-6659 (updated!)

From: Karin Peternel
To: Seth B. Alm
Subject: Written Comments re Algal Toxins
Date: Thursday, August 14, 2025 2:46:56 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png

Seth,
In response to the request for comments: R149-24 proposes to adopt numeric criteria for algal toxins (cylindrospermopsin and microsystins) relating to the recreation involving contact with the water beneficial use, please find the following comments.
Thank you for your work in protecting Nevada's waters.

Statement or question	Comment or question
Nevada is proposing to add recreation with contact beneficial use to the table of standards for toxic materials.	1. The EPA presented this guidance – guidance. From the Federal Register: "States can consider using the recommended cyanotoxin values as swimming advisories in making decisions whether to close, open, or warn about concerns in recreational waters in a manner consistent or similar to their current recreational water advisory programs. **The recommended cyanotoxin values in these CWA section 304(a) recommended criteria, even if used as swimming advisories, are not regulations, and thus do not constitute legally binding requirements."** States may consider them as water quality standards, but the primary recommendation is for swimming advisories. Use them and the data you collect to address the immediate nature to the recreating public. EPA said that states can choose to implement these as Swimming advisories, water quality criteria, both, or not at all. "The EPA is publishing these recommended values …for states to consider as the basis for swimming advisories for notification purposes to protect public health in recreational waters. Please justify why we would not just use these as swimming advisories, as opposed to adding as water quality standards for which there will be a significant administrative burden.
	2. What other states have added this to their toxics provisions? What are the magnitude, duration and frequency specified in those instances, and monitoring associated with the addition of the provision.
	3. What other states have added this to their water quality criteria, and what are the magnitude, duration and frequency specified? I see Utah has, and has prepared a brief "implementation document". They are adopting it as numeric criteria for waters classified as primary contact recreation use (not as a toxic). As prescribed by EPA, they are also using 10-day assessment period, a recreational season, and for more than one year.
	4. Please explain how this is valid to be added to the Toxics criteria. I do not believe it belongs here for the following reasons: a. It is not the type of organic chemical for which discharges can be regulated. It is a naturally occurring substance. I believe it is not correct to include it here. I suggest it should be included in the specific water bodies' criteria table where there already is a RWC criteria. It should also only be applied to the water bodies for which there exists a problem. b. Per the federal register, Cyanotoxins are not part of the 40CFR part 423 list of priority pollutants, therefore states are not required to

	adopt criteria for these cyanotoxins. They are ubiquitous in nature. Applying it as toxic criteria applicable to all waters where there is no relationship between actual use protection needs and the criteria is not reasonable. The other toxic constituents are man-created and things for which discharges must be limited, and generally are carcinogenic. There are no discharges of cyanotoxins; they are not carcinogens. You can't regulate inputs of cyanotoxins because there is no such thing. c. It is also not on the priority pollutant list (40 CFR Part 423, Appendix A); also not in 40 CFR 401.15 – toxic pollutants under Effluent guidelines and standards.
For the magnitude, duration and frequency, Nevada is proposing 10-day non-rolling periods in consecutive years, for a water year. However the EPA Is very specific about these parameters. They state, "if used as water quality criterion for assessment and listing purposes, the EPA recommends a maximum of three excursions across a recreational season and observation of that pattern across multiple years to reflect seasonal dynamics and occurrence patterns of HABs."	5. EPA says States must declare how many years – doesn't have to be consecutive, that the documentation should describe the number of years. Currently the proposed regulation says "in consecutive water years." How many – two, three, four? States Must state how many years and if consecutive or not. They have draft language which states examples 3 or 5 years over which there can be exceedances
NDEP is proposing a "water year approach" instead of a recreational season, saying "this change is more restrictive and allows for more comprehensive assessments as opposed to only considering exceedances during a defined date range within a water year."	6. EPA says to use recreational season not year. The purpose of this is to warn the recreating public about the harm. The blooms are not likely to happen year-round (temperature, sunlight), and recreation doesn't happen year round at all sites, so this is not useful. All it does is force NDEP to take weekly samples throughout the year? Focus limited resources to where they can be effective. The May 2019 report states, "Given that toxigenic cyanobacterial blooms typically are seasonal events, recreational exposures are likely to be episodic, and may be short term in nature." The length of a "recreational season" is an important consideration because states would likely monitor the quality of their highest-priority recreational waters throughout the recreational season" (July 2021 EPA document). What is the sampling burden that will be established, and cost, associated with a 'water year' approach? What is the sampling burden as a toxic constituent – do you have to monitor it every time you collect your twice-yearly samples, even during the middle of winter, when no one is recreating? What is the sampling burden if you add it to the specific numeric criteria to each applicable water body instead of as a toxic constituent?
	7. What is the monitoring frequency? In the May 2019 and July 2021 guidance documents it details suggested example 10-day assessment periods, and that the states should state what they are in their documentation. For example, the month of June could have three (3) 10-day assessments, starting on the first day of the month. Or start their 10-day clock in response to a bloom. NDEP should define their assessment period.
	8. Where are you going to collect the samples? The EPA says to target swimming areas, not go out and target the blooms; that's likely why the state has a high sample reading ((6962.5 ug/L). The July 2021 guidance states: "EPA recommends that states collect single grab-samples from designated swimming areas, near the shoreline, or a composite of samples taken at the same time from points within the splash zones where children play." The purpose of this is to protect the health of the recreating public, and the guidance was developed based on ingestion by children. If you're

	instead going out and targeting blooms, that is more sensationalism than determining if there is a bloom at a swimming location. No one is going to be recreating in pea-soup consistency water.
We can utilize the EPA guidance without creating nothing more than an administrative burden that you can't sustain. Swimming advisory decision based on water quality monitoring are intended to reduce the risk to recreators and other users of these waters from illnesses associated with exposure and provide the public with information to make decisions about their actions. The recreational criteria values that are part of a state's approved WQS have a direct bearing on the issuance of NPDES discharge permits, waterbody assessments, the decisions regarding attainment of WQS under CWA sections 303(d) and 305(b), and the development of targets for TMDLs for restoring impaired waters.	9. We know this is occurring more, it is throughout the country (and the world), somewhat due to temperature increases. There are no point sources of nutrients on the Carson River for example, so you can't target a TMDL to reduce inputs of nutrients that lead to eutrophication any more than you already are. Instead of creating an administrative burden that will lead to the obvious "water not meeting it's beneficial uses" and future TMDLs, work with the data now to warn the public. Creating a TMDL isn't going to do anything for 5-10 years, and who knows, maybe the cyclic seasonal highs will change by then. This is a recreational criteria.
	10. Just like E. coli, they are not pathogenic under usual circumstances, but similar to E. coli's presence in water above specified levels can indicate the presence of fecal contamination potentially containing viral, bacterial, or protozoan pathogens associated with an elevated risk of illness. Again this should be used to inform public safety to the potential risk of a HAB. Right now, the NDEP HAB advisory tool shows a couple of HAB warnings based on visual observations, with Date Reported going back to June 5. Sure seems like some monitoring could be done to validate whether these are still ongoing, or are they just left in place for the rest of the summer? Sure seems like if we used this guidance for swimming advisories we could have been out there collecting data every 10 days to see if it's still active or not. Are people just not supposed to go to Lahontan "forever"? Could this guidance be used instead to inform or help our advisories better?
May 2019 Response to Public Comments on the USEPA's draft Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cynlindrospermopsin	11. Many states expressed support of swimming advisories, but no 304(a) criteria. It is a recognized critical water quality issue across the US, but there are significant implementation challenges. Suggest reviewing this document (if you haven't already) to understand the challenges.

Karin Peternel, CFM, CPSWQ, QSD/P
Stormwater Program Manager
Public Works Department | Carson City
3505 Butti Way, Carson City, NV 89701
Direct: 775-283-7713 | Email: kpeternel@carson.org