NEVADA
STATE ENVIRONMENTAL COMMISSION

TIME	LOCATION
October 2, 2019 9:30 A.M.	NV Legislative Building, Room 3138 401 N. Carson Street Carson City, NV

SEC members present:

E. Jim Gans, chair
Tom Porta, vice-chair
Kathryn Landreth
Kacey KC
Rich Perry
Cary Richardson
Mark Turner
Tony Wasley
Jennifer Ott
Tim Wilson

SEC staff present:

Henna Rasul, SEC/DAG
Sophia Long, AG Office
Valerie King, executive secretary
Shanon Pascual, recording secretary

Nevada Division of Environmental Protection (NDEP) staff present:

Seth Alm
Weston Fettgather
Mary Siders
Lisa Kremer
Jeff Kinder
Danilo Dragoni
Katrina Pascual
Dave Simpson
Erik Ringle
Greg Lovato

Public present:

Bob Foerster, NV Rural Water Association
Allen Biaggi, Nevada Mining
Jim Kerr, Elko County
John Solvie, Clark Co. Water Quality
Larry Bazel, Clark Co. Regional Flood Control
Steven Parrish, Clark Co. Regional Flood Control
John Tennert, Clark Co. Regional Flood Control
Sandra Brewer, BLM
Angela MacKinnon, HDR
Alex Cannito, LRRC
Alexis Motorey, AGC
David Stoft, Clark County
Rick Donahue, Clark County
Brenda Pohlmann, City of Henderson
Dan Fischer, Clark County
Albert Jankowiak, City of Henderson
Robert McLoughlin, City of North Las Vegas
Todd Tietjen, S. Nevada Water Authority
Peggy Roeffer, CO River Commissioner of Nevada
Sherri McMahon, City of Las Vegas

In these minutes:

Begin summary minutes

1) Call to order, roll call, establish quorum (Discussion)

The meeting was called to order at 9:33 a.m. by Chair Jim Gans. Executive Secretary Valerie King confirmed that the hearing was properly noticed and that a quorum was present.

2) Public comments (Discussion)

There were no public comments.

3) Approval of Minutes — December 12, 2018, SEC Meeting (Action item)

There were no corrections to the June meeting minutes.

Motion: Commissioner Landreth moved to approve the minutes. An unidentified speaker seconded the motion, and it passed unanimously.

Regulatory petitions

Mr. Paul Comba, bureau chief of the Bureau of Water Quality Planning in the Nevada Division of Environmental Protection (NDEP), identified three regulatory petitions that would be presented to the commission: Regulatory Petition R036-19, which involves an update to the statewide cadmium criteria to protect the aquatic life beneficial use; Regulatory Petition R037-19, which involves adding or changing the water quality standards for the Colorado River, Lake Mead, the Las Vegas Wash, and Lake Las Vegas; and Regulatory Petition R043-19, which involves proposed selenium criteria. He stated that the last item would be presented as an informational item only.

4) Permanent Regulatory Petition R036-19: Bureau of Water Quality Planning – Cadmium – (For Possible Action)

Dr. Mary Siders, an environmental scientist with NDEP's Bureau of Water Quality Planning Standards and Monitoring Branch, said the purpose of the petition is to update the existing water quality criteria for cadmium **(Attachment 1)**. It is based on the latest science in order to protect aquatic life from the toxic effects of dissolved cadmium.

Dr. Siders gave the commission a brief refresher about water quality standards. Nevada's water quality standards are in Nevada Administrative Code (NAC) 445A.11704-2234. NDEP is authorized by the U.S. Environmental Protection Agency (EPA) to set water quality standards for Nevada based on EPA criteria, fulfilling the legal requirements of the Clean Water Act. The EPA authorizes states, tribes, and other entities to oversee their own programs.

Dr. Siders explained that the Clean Water Act is actually a set of amendments to the 1948 Water Pollution Control Act. The Clean Water Act's objective is to restore and maintain the physical and biological integrity of the nation's waters. An interim goal is to support water quality to protect fish and other aquatic life and provide for recreation in and on the water. The Clean Water Act also requires the EPA to periodically update all ambient water quality criteria based on the latest science. The agency reviews toxicity studies, evaluates whether studies are usable to develop new criteria, and then update old criteria. Authorized states and tribes review the newly published criteria every three years and then make plans to implement them.

Dr. Siders then explained why the regulatory petition is needed. Water quality criteria establish water quality standards that protect specific beneficial uses — in the case of cadmium, aquatic life. These standards are used to assess the water quality of water bodies across Nevada every two years. NDEP evaluated close to 700 water bodies, equal to just around two million data points.

Dr. Siders then described why the current amendment for cadmium was triggered. In 2016, the EPA released a revision to its ambient water quality criteria for cadmium. Since 2001, when cadmium was last updated, the EPA identified more than 100 new studies. Nevada's current standards were adopted in 2006. What NDEP proposes, Dr. Siders continued, is to update equations for measuring the toxicity of cadmium.

Dr. Siders then showed the SEC how the equation works in Nevada's Toxics Table, found in NAC 445A.1236. The toxics apply to four beneficial uses: domestic supply, aquatic life, irrigation, and the watering of livestock. She explained that the criteria in question will apply to all surface waters that have aquatic life as a beneficial use. One equation will be used for acute exposure for high-level, short-term exposure. Another equation will be used for chronic exposure. Both are hardness-based equations. As hardness increases, the toxicity of cadmium decreases.

Dr. Siders reiterated that the petition at hand concerns changing an exponent in the equation used to measure the toxicity of dissolved cadmium to aquatic life. Referencing a prepared presentation, Dr. Siders said that the median hardness number will change from 0.29 micrograms per liter to 0.84 micrograms per liter for chronic exposure, which is where NDEP finds the most problems with exceedances. The 2016 mean hardness value will be several times the 2001 value. For acute exposure values, the 2001 values are slightly higher. At the median hardness, the standard will decrease from 2.5 to 2.2. Mean hardness will also decrease slightly.

Commissioner Perry asked if the hardness figures were for both water wells and surface flows. Dr. Siders replied that the figures only apply surface water as the program does not deal with groundwater.

Commissioner Perry asked about the realistic detection limit for cadmium. Dr. Siders answered that it depends on the analytical method, but a realistic value would be 0.5 or less micrograms per liter. There are different types of detection limits. Depending on the data needs, NDEP would use one form of a quantitation limit or one form of a detection limit. Labs calculate the method detection limits every year, and a realistic value will depend on the instruments and specific method used.

Dr. Siders said that NDEP had quite a few stakeholder meetings as well as formal public workshops in Carson, Elko, and Las Vegas. There were no comments on cadmium. Because the chronic values will increase, the rule should have only a minor impact on small businesses. The changes to the acute values will also have a minimal impact since they are so small.

Dr. Siders said that NDEP recommends that the SEC adopt the regulatory petition because the updated, science-based cadmium values will better protect fish and aquatic life. Adopting the standard fulfills the requirement to review water quality standards.

Commissioner Perry asked whether any Nevada municipal water suppliers or National Pollutant Discharge Elimination System (NPDES) permit-holders will be impacted negatively. Dr. Siders said no.

Vice-chair Porta asked if the change to cadmium would cause waters to be added to or removed from Nevada's 303(d) list of impaired waters. Dr. Siders replied that Nevada has few waters that are listed for cadmium. The biggest change will involve data reporting, especially using the method detection limit instead of a quantitation limit for censoring data.

Commissioner Perry asked where cadmium comes from. Dr. Siders explained that all inorganic chemicals and metals occur naturally in Nevada's rock.

Motion: Commissioner Perry moved to adopt Regulatory Petition R036-19, the new cadmium standard, for Nevada. Commissioner KC seconded the motion, and it passed unanimously.

5) Permanent Regulatory Petition R037-19: Bureau of Water Quality Planning – Colorado River (For Possible Action)

Mr. John Heggeness, manager of the Water Quality Standards Program in NDEP's Bureau of Water Quality Planning, presented proposed revisions and changes to the water quality standards for the Colorado River basin **(Attachment 2)**. The purpose of the revisions is to update the water quality regulations on the Colorado River, Lake Mead, the inner bay of Lake Mead, the Las Vegas Wash, and Lake Las Vegas. The last comprehensive review of the standards for the Colorado River basin was in 1998.

Mr. Heggeness began by explaining the outreach his program did in preparation for the petition. NDEP staff discussed the specifics of Petition R037-19 with stakeholder groups many times from 2017 to 2019. Some stakeholders questioned the dissolved oxygen standard of 5 milligram per liter for below Hoover Dam on stretches of the Colorado River and Lake Mohave, a standard to protect adult trout. NDEP received no comments on the Colorado petition in the Elko workshop. The top question in Las Vegas revolved around the *Escherichia coli* standard to protect contact recreation to the inner bay, especially whether it would create more problems for the inner bay.

Mr. Heggeness then explained the nature of Lake Mohave, which stratifies but is now included with river water quality standards in the administrative code. The petition would define the limits of Lake Mohave from Willow Beach down to Davis Dam.

Chair Gans asked Mr. Heggeness to explain NDEP's petition about Lake Mohave in more detail. Mr. Heggeness said that Lake Mohave stratifies, which affects dissolved oxygen and temperature. If NDEP includes it as a lake with one temperature number, a problem arises when it stratifies, making the lower portion of the water colder than the upper surface, affecting algae and oxygen levels. Decomposing algae uses up oxygen, which makes it difficult for fish to breathe.

Mr. Heggeness then stated that Nevada uses the same water quality standards from the inlet to the state line. NDEP is proposing to change the temperature criteria to 24 degrees centigrade to protect adult rainbow trout, a change from the current standard that includes varying temperature numbers depending on the time of year to help protect the early life stages of trout. There has been no evidence that the trout actually reproduce, and officials now stock the lake with triploid, sterile trout.

Commissioner Perry asked if the states that border Nevada have similar water quality standards. Mr. Heggeness answered that while other states' standards are presented differently than Nevada, they are ultimately similar.

Commissioner Perry asked about who is responsible for maintaining the dissolved oxygen standards in Lake Mohave. Mr. Heggeness replied that there are ways to maintain the standard but said he didn't know how feasible they are. In essence, the petition seeks to describe the water body more accurately to better protect rainbow trout.

Chair Gans built on Commissioner Perry's question, asking why it is important to make the change if NDEP has no control over it. Mr. Comba replied that NDEP is setting a water quality standard on a water body to protect a beneficial use. If there is a subsequent discharge into that water body, that standard then becomes a permit limit to maintain the conditions they need to protect the beneficial use. By setting a science-based standard for the surface water, it creates a benchmark that entities applying for a NPDES permit must meet or exceed.

Commissioner Wasley said that he appreciated the explanation of the value of setting the standard. He explained that the fishery aspect is complicated and said that he would welcome the opportunity for NDEP to engage with Nevada Department of Wildlife (NDOW) fisheries staff. NDOW may be able to provide data and knowledge on recovering native fishes too. Mr. Heggeness replied that NDEP does try to coordinate with NDOW when creating standards if there might be consequences for aquatic life.

Mr. Heggeness then explained that NDEP is proposing to add Lake Las Vegas into Nevada's water quality standards using current EPA recommended criteria for *E. coli* and chlorophyll A. Currently, the EPA has two *E. coli* standards: an annual geometric mean of 126 and a single value of 410 to protect contact recreation. The petition will change the fecal coliform number to 1000 because the *E. coli* standard will protect swimming. The petition also adjusts the chlorophyll A number to 15 to resolve a clarity issue.

Mr. Heggeness continued explaining the petition, saying that the proposal defines three different reaches below Hoover Dam. The lower section stretches from the Davis Dam (which dams Lake Mohave) to the California-Nevada state line. In addition to adding chloride and sulfate for protection of drinking water, NDEP is changing the water quality standard to 24 degrees centigrade for adult cold water fish as well as adjusting the dissolved oxygen standard to five milligram per liter, year-round. From Hoover Dam to Willow Beach, NDEP is adjusting the water body description, changing the temperature to 24 degrees centigrade, changing the dissolved oxygen to five, and adding chloride and sulfate. NDEP is not changing any of the reach descriptions on Lake Mead or the inner Las Vegas Bay.

Mr. Heggeness then described the Las Vegas Wash, which is diverted underneath Lake Las Vegas and comes out below the dam. The reach continues from just below the dam to the inner bay and then into Lake Mead. The petition makes minor changes to Lake Mead, including changing the units on fecal

coliform and editing a footnote that reads, “The commission recognizes that at entrances of tributaries to Lake Mead, localized violations of standards may occur.” NDEP would like to change that from “violations” to “exceedances,” as a violation refers to a permit limit rather than describing an exceedance of a water quality standard.

Commissioner Perry asked what water bodies feed into Lake Las Vegas. Mr. Heggeness replied that water can be pumped out of Lake Mead, which was the case when the lake was originally filled.

Commissioner Perry asked about a drainage upstream of the lake, wondering whether it was a conduit for stormwater. Mr. Heggeness replied that while stormwater contributes to its flow, the bulk of its water comes from discharges from four water treatment plants. The Las Vegas Wash is currently directed underneath Lake Las Vegas.

Commissioner Perry asked for clarification on whether Lake Las Vegas is an isolated water body that pulls water from Lake Mead on some kind of water right. Mr. Heggeness said that was correct.

Chair Gans asked if the pipes are sized to handle projected flows. Mr. Heggeness replied that it depends on how big Las Vegas grows. Currently, officials are able to shut off one of the tunnels for maintenance periodically. Mr. Heggeness said that he doesn’t know how much flow it could take before topping its limits and flowing into Lake Las Vegas.

Chair Gans added that major floods might also contribute groundwater too, adding to a combination of discharges and stormwater that flow under Lake Las Vegas.

Mr. Heggeness proceeded to give details about the inner bay. Back in 1998 (the last review), NDEP lacked data for *E. coli*, so it wanted to wait before adding contact recreation as a beneficial use. NDEP now has *E. coli* data from samples from Lake Mead taken by dischargers and the Southern Nevada Water Authority. The result is an annual geometric mean of 126 and a single value of 410.

Mr. Heggeness then explained the data and how it is represented on a geometric mean table. He said that there is not a problem with bacteria for recreation within the lake and that the lake is meeting the swimming criteria.

Chair Gans took a moment to recap what he had understood from the presentation: that water coming down the wash has improved greatly to the point that the EPA believes the inner bay can be considered for contact recreation. He pointed to a worry in the past about the “first flush” of a storm event, which is similar to raw sewage, a main reason officials were concerned about contact recreation in the inner bay.

Mr. Heggeness qualified that NDEP is not proposing any changes to the beach description of the inner Las Vegas bay. The inner bay is part of Lake Mead, a national recreation area. In the 1982 water quality standards review, officials separated the inner bay from the lake for noncontact recreation because they didn’t know if it was safe for swimming. In 1998, the SEC added a goal for the Las Vegas bay standards to ensure that all of Lake Mead was fishable and swimmable by the next Triennial Review. Additional monitoring data was needed for *E. coli* in the inner bay to see if it met the standards for protecting contact recreation. After studying samples that were collected during and after storm events, officials determined that *E. coli* was present at higher levels because of stormwater flows from the Las Vegas Wash. After storms, *E. coli* levels in the inner bay decrease with time and distance from the source, and the highest *E. coli* levels were measured at deeper depths.

Mr. Heggeness reiterated that NDEP is now proposing to add contact recreation and water quality standards for *E. coli*. It is also adding a dissolved oxygen footnote for 5 milligrams per liter, which applies to the epilimnion when the lake is stratified or the average of the water column during periods of non-stratification.

Mr. Heggeness said that Las Vegas Valley stormwater permittees have raised a number of concerns that the Las Vegas bay should not have contact recreation as a use, saying that *E. coli* levels would be exceeded and cause the inner Las Vegas bay to be impaired. The argument is that wet weather events would create nonattainment for the proposed *E. coli* standards in the inner bay, a claim allegedly verified by *E. coli* samples taken over a water year.

Mr. Heggeness argued that data from the inner bay shows contact recreation standards would be 126 colony-forming units for the annual geometric mean and a single value of 410. He said that the bay meets the standards for both the annual geometric mean and the single value criteria. NDEP is proposing to include a footnote clarifying that the commission recognizes that water quality standards for the inner bay may be exceeded during storm and flash flood events. During these events, the beneficial use of contact recreation may not be protected.

Chair Gans asked how people could be kept out during a storm event, especially if a beneficial use for contact recreation were added. Mr. Heggeness said that NDEP feels the same, but reiterated that NDEP feels bound to include a protection for contact recreation if there are already people swimming in the inner bay.

Mr. Comba said that all parties have the same concerns; however, he stated that NDEP needs to start with some number around which to base decisions. By putting contact recreation on the inner bay, the National Park Service or the Clark County Health District have a number in hand to use to issue an advisory against swimming during and after a flash flood event or a storm event in the Las Vegas valley. The number provides a baseline for taking action.

Chair Gans wondered aloud whether it could be said that people are protected when it is known that there will be times when contact recreation is not recommended.

Vice-chair Porta also voiced concerns, saying that he would be uncomfortable going forward with a rule that further supports the public to be in that area.

Mr. Heggeness said that he understood what Chair Gans and Vice-chair Porta were saying. He said that NDEP is changing the reach description of the wash to include a buffer zone where water may mix enough to avoid exceedances from dischargers. NDEP is proposing to move the upper wash from what is now the confluence of the Las Vegas and Clark County discharges up to the confluence of Sloan Channel and the Las Vegas Wash, extending down to the historic lateral. The reach adjustment extends approximately 2,500 feet downstream from the current point and about 10,000 feet upstream to the confluence of Sloan Channel and the Las Vegas Wash. Sample site 5.5 is just above the historical lateral, which is used to determine water quality compliance for the upper wash segment. NDEP is proposing to change the reach description for the lower Las Vegas Wash from the historic lateral to its confluence with Lake Mead.

What NDEP is also proposing, he continued, is to extend the upper part of this reach up to the Sloan Channel, in part to make sure the three dischargers are within the same reach. NDEP is also proposing to add noncontact recreation for both Las Vegas Wash segments, chiefly because the wash is an effluent-dominated system that people should not be in contact with.

Mr. Heggeness said that this touches another primary concern of permittees in the Las Vegas Valley, namely that noncontact recreation or *E. coli* water quality standards should not apply during storm

flows in the Las Vegas Wash. He said that NDEP is not trying to promote contact recreation on the wash and understands that it is effluent-dominated. NAC 445A.121.8, which applies to all waters of the state, clarifies that specific standards are not considered violated when the natural conditions of the receiving water are outside the established limits, including periods of extreme high or low flow. In NDEP's proposal, a noncontact recreation *E. coli* standard of 360 would apply to the Las Vegas Wash, the confluence of the wash, and the inner bay. Past that point, the geometric mean of 126 and the single value of 410 would apply.

Chair Gans asked for the definition of "at the confluence." Mr. Heggeness explained that the confluence is more a line than an expansive area. It is the point where the wash comes into the inner bay. At that point, the *E.* coli number of 360 applies, while anything past will fall under the proposed contact recreation number. Mr. Comba interjected that NDEP did not want to define it, which allows some discretion on the size of the confluence.

Vice-chair Porta said he understood it as a line where the effluent-dominated stream mixes with the lake, which moves as the lake rises and falls. He said he was concerned about the immediate transition from an effluent dominated stream into a mixing zone, where the standard switches from 630 to 126.

Mr. Comba explained the difference between the inner bay and the Las Vegas Wash: the Las Vegas Wash is not a water body where contact recreation should apply. Consequently, NDEP is going to assign it the higher *E. coli* number. He said it should not matter when stormwater comes down creating a flush through the wash because no one should be in the wash. Wash water is denser than the inner bay, which forces it to dive below the surface into the depths of the inner bay out of reach for people recreating on the surface, who are unlikely to be exposed to the high bacterial concentrations.

Chair Gans asked if the water may mix at any time during the year. Mr. Comba responded that the results of the 1998 study showed that the water would dive when the inner bay was stratified. When the inner bay is not stratified, it will mix with the water column during times of the year when recreation is still occurring in the inner bay.

Commissioner KC reminded the commission that it is not deciding whether people should swim in these water sources; it is deciding how the waterways should be used.

Mr. Comba said that NDEP is proposing that the beneficial use of contact recreation be considered for the Inner Las Vegas Bay based on criteria that would support that use. How that criteria is used to manage swimming in the Inner Las Vegas Bay falls outside the purview of NDEP. Instead, it would probably fall within the purview of the National Park Service.

Chair Gans said that one of the complicating factors is that Lake Mead is considered a federal body of water. He asked for the EPA's stance on the matter. Mr. Comba said that he could not speak for the EPA, but he speculated that the agency would wonder why Lake Mead and the Inner Las Vegas Bay are not considered one body of water with similar uses as a whole.

Mr. Heggeness went on to detail a footnote within the NAC in both segments of the wash: "The goal of this standard as set forth in this table is to ensure that the beneficial uses for the body of water described in this section will include without limitation the propagation of aquatic life including, without limitation, fish by the next triennial review." The mention of fish, he said, implies fishing, but NDEP does not think people should be fishing in the wash. To account for this, NDEP proposes to add a footnote saying that warm water fish indicates protection of aquatic life, not the establishment of a warm water fishery.

Mr. Heggeness then reiterated the main parts of the proposal:

1. Separating out Lake Mohave as a third reach below Hoover Dam to make the water quality standards more representative.
2. Changing aquatic life for the Colorado River to protect adult rainbow trout to remove unrealistic temperature and dissolved oxygen requirements.
3. Adding bacteria to the water quality standards of the inner bay to help protect swimmers.

Chair Gans then asked what might happen if the bacterial water quality standard were exceeded. Mr. Heggeness said that dischargers have a condition in their permits to treat for bacteria, so there is no bacteria coming from the treatment plants.

Chair Gans asked about the source of the bacteria. Mr. Heggeness replied that it comes from the rest of the valley whenever there is a flash flood event. The source may be a bird sanctuary, animals, or maybe people living in and around the wash.

The first person from the public to speak was Mr. Steven Parish, general manager and chief engineer of the Clark County Regional Flood Control District, who gave a brief presentation **(Attachment 3)**. The Regional Flood Control District is a planning and funding agency established in the 1980's in accordance with Nevada Revised Statute 543 with the primary purpose of developing master plans for the control of floods in Clark County and the establishment of a capital improvement program to implement the design and construction of those master plan facilities. The agency works closely with all of the public works agencies in Clark County to fulfill that flood control mission.

In addition to the implementation of the flood control projects, the agency are also co-permittees with Clark County, Las Vegas, Henderson, and North Las Vegas on the municipal separate storm sewer systems or "MS4 permit." It works closely with NDEP to ensure it complies with its permit, and the program has grown significantly over the last two decades.

The Regional Flood Control District formed a stormwater quality management committee, which is made up of high-ranking officials from each of the public works agencies of the co-permittees. The committee meets quarterly to identify and resolve concerns with the program and verify progress of the permittees in meeting the minimum requirements set forth in the MS4 permit.

Mr. Parish said that the committee agrees with some of the concerns the commissioners raised during the presentation regarding the new standards for bacteria. Specifically, it is concerned about NDEP's proposed bacterial standards within and around the Las Vegas Wash and has some common sense suggestions to resolve the concerns. Mr. Parish then introduced their consultant, Mr. Larry Bazel, to speak.

Mr. Bazel introduced himself and then introduced Mr. John Tennert, with the district; Ms. Angela MacKinnon, consultant to the district; and Mr. John Solvie, with the Clark County Water Reclamation District.

Mr. Bazel said the group has issues designating the inner bay for contact recreation and setting an *E. coli* standard. He stated that it will not make any environmental difference and will put the district on a track that could lead to serious trouble in the future.

Mr. Bazel said that there are high levels of bacteria in the inner bay and reminded the commission that the lower Las Vegas Wash is downstream from the wastewater treatment plants. As a result, the lower, designated segments have a lot of flow, albeit high-quality flow because of the excellent work of the treatment plants. The bacterial standards that apply to the treatment plants are 200/400 — the standard fecal coliform standards — but the treatment plants do such a good job that it is common for

them to report non-detectable levels of bacteria for their effluent. However, there are birds in the wash and in the inner bay, and the boundaries of the confluence can be fuzzy.

Mr. Bazel said that the concept behind the Clean Water Act is that water quality standards should be implemented so that all the waters in the nation comply with those standards. The process for doing that is to set standards and then see whether they are being exceeded. If they are exceeded, Mr. Bazel continued, they are put on the 303(d) list, the impaired waters list. To bring waters back into compliance, a total maximum daily load (TMDL) is set, which is the obligation of NDEP.

Mr. Bazel said that his group is concerned that once the standard is set it will be extremely hard or impossible to remove. Ultimately, he argued, the segment is going to be listed on the 303(d) list, requiring a TMDL without a reasonable way to implement it. Therefore, it will result in unreasonable implementation requirements and will send the wrong message: that it is okay to swim in the inner bay when it is not.

Mr. Bazel then spoke about the proposed *E. coli* criteria. He said the proposal is for a 30-day geometric mean of 126, not an annual geometric mean, which makes a big difference. The 30-day geometric mean depends on how many samples are taken during those 30 days, and a single sample taken during peak runoff will exceed the geometric mean. The single value number is exceeded quite frequently.

Mr. Bazel said that the data is collected during dry weather and at the surface where people swim rather than at depth. He also pointed out that the sampling point is 1.2 miles out from the confluence, which means the bacterial count will be higher at the confluence and much higher during wet weather. If people are going to be swimming there, he continued, they need to be protected all the time, but officials do not have *E. coli* data from the wet weather. The wash in wet weather produces numbers into the millions.

Mr. Bazel then pointed out that the Clark County Regional Flood Control District and NDEP simply do not see eye to eye on the matter. While NDEP feels a need to put a number in place, Mr. Bazel said his organization finds no need for a number. Once the number is set, it is up to the state of Nevada to determine whether it is being exceeded, which involves the 303(d) list of impaired waters. If it is impaired, it is the obligation of the state of Nevada and NDEP to produce a TMDL and correct the issue. The problem that arises, Mr. Bazel suggested, is that the commission and NDEP will be telling everyone that the water is classified for contact recreation when the water is not safe.

Regarding the Las Vegas Wash, Mr. Bazel said that it is easy enough to say that the wash is not designated for non-contact recreation during wet weather but pointed out that people should not be getting close to the water during flooding. Dozens of people have been killed by flash floods over the years.

As a summary, Mr. Bazel stated that the Regional Flood Control District would like to uncheck the boxes that say contact recreation for the inner bay, delete the proposed *E. coli* criteria, and modify footnote I. He said that while the district agrees with the first sentence — that standards may be exceeded during storm and flash flood events — it disagrees on the second sentence that suggests that the beneficial use of contact recreation may not be protected. The district feels the use should not be designated in the first place. As an alternative, Mr. Bazel suggested the language, “these exceedances are not violations” or “these don’t count as exceedances” to underscore that the standards should not be applied in wet weather. For the Las Vegas Wash, the district requests that neither the beneficial use nor the *E. coli* criterion apply during storms, a concept for when flows are greater than 110% of average.

Mr. Bazel concluded by clarifying that under the Clean Water Act states get to set their own standards that the EPA may then approve. Water quality standards for the states are very different. States get to

segment water bodies and designate or exclude beneficial uses like swimming in the inner bay. Mr. Bazel argued that health districts or the park service can already use the EPA's recommended *E. coli* criteria without designation. Both have the authority to post signs at the inner bay with warnings. The state of Nevada, he said, does not need to step in and say the inner bay is safe for swimming.

Commissioner Perry then asked if Mr. Bazel objects to NDEP's other proposed standards besides those affecting the Inner Las Vegas Bay and the Las Vegas Wash. Mr. Bazel replied that Commissioner Perry is correct with the caveat that the proposed changes be made to the two segments of the Las Vegas Wash that are above and below the lateral.

Mr. Comba said that the only thing NDEP could offer is what was presented. While NDEP acknowledges that high loads of *E. coli* are flushed down the wash during flood events, it finds no exceedances of the proposed standards based on the data available. He noted that the footnote language provides an "out" for anybody claiming that a standard is exceeded. Regarding the Las Vegas Wash, Mr. Comba stated that it doesn't matter whether one considers wet weather or dry weather flows — the 630 criteria would stay the same. The beneficial use NDEP is proposing is non-contact recreation, which means that nobody should be in the wash, making the exception for high bacterial loads a moot point.

Mr. Comba then said that NAC 445A.121 applies to all surface waters across the state, including the Las Vegas Wash. He said that the Las Vegas Wash has a consistent base flow between the four plants that discharge into it, all four of which release clean water at non-detectable fecal coliform levels. Wetland parks have been built, which have improved water quality from nonpoint sources. Nevertheless, the wetland parks attract birds, which creates water quality challenges.

Mr. Comba reminded the commission that the Las Vegas Wash has always had non-contract recreation listed as a beneficial use. What NDEP is proposing is adding an *E. coli* criteria — with an annual geometric mean of 630 — to support the non-contact recreation that has always been on the Las Vegas Wash. Previously, the footnote on the Las Vegas Wash tables — a 200/400 requirement— more or less protected the use before *E. coli* was introduced to the tables.

Mr. Bazel then shared a history on why an *E. coli* standard was never adopted. The inner bay and both Las Vegas Wash segments have unusual bacterial standards. Normally, bacterial standards apply to the water rather than the discharges going into the water. Both the inner bay and the wash segments have a standard that says all discharges into the segments shall not exceed 200/400. The thinking at the time was that nothing could be done about the birds, so it didn't make sense to set a bacterial standard for the wash or the inner bay. However, officials didn't want the treatment plants to release bad stuff under cover of the birds, so the standards for both Las Vegas Wash segments and the inner bay say, "Any discharge from a point source into Las Vegas Wash must not exceed."

Mr. Comba added that the EPA now has national recommended criteria to protect either contact or non-contact recreation, and through EPA studies, *E. coli* has been found to be a better indicator of the presence of bacteria than fecal coliform.[1]

Chair Gans wondered aloud whether the situation put the commission in a "squeeze play." He said he is still concerned that there will be contamination in the inner bay during storm events.

Chair Gans asked if NDEP was going to stand by its footnotes as written. Mr. Comba said that NDEP was, arguing that NDEP's proposed footnote essentially says the same thing as the recommended additional phrase by Mr. Bazel's group. He said that saying that the beneficial use of contact recreation is not supported infers that the water quality standards are not being met.

[1] *E. coli* is a subset of fecal coliform.

Chair Gans said that his only concern was the inner bay and whether the commission can go from non-contact to contact.

Commissioner Landreth asked why NDEP felt the need to go from non-contact to contact rather than making all the other changes and keeping the inner bay as a non-contact area. She suggested that NDEP need not necessarily make a change merely because people are using the water body in a different manner than is prescribed.

Mr. Heggeness said that NDEP has the authority to set standards that are more restrictive than a beneficial use, so it could leave non-contact and include *E. coli* numbers, though the EPA would still have to approve the change.

Chair Gans commented that he thought the footnotes were needed based on the discussion. He asked whether people were being protected even while the proposal does its duty to meet the EPA standard. Mr. Heggeness replied that by having standards for contact recreation, NDEP is protecting the people even though it doesn't have contact recreation as a specific use in the table.

Commissioner Turner said that he also has concerns about anything that could suggest that regular contact in that area is advisable or safe, especially when it has been demonstrated that large amounts of pathogenic bacteria are commonly present in that water. A large portion of that pathogenic bacteria cannot be controlled, which comes from animal sources and the detritus of more than two million people that gets flushed down during a major rainstorm. Commissioner Turner said it would be better to do something to discourage people from using that area.

Commissioner Perry commented that some of the proposed language in NAC 445A.2154 gives allowance for Commissioner Turner's concern: "During these events the beneficial use of contact recreation…may not be protected." He said that "may not" could be made more forceful to protect entities like the Flood Control District from potential litigation.

Mr. Comba said that he thought everyone was in agreement that exceedances would occur during a wet weather event. He said the data shows that the Inner Las Vegas Bay will normally meet the proposed standards during dry weather flows.

Mr. Bazel said that he disagrees, pointing out that NDEP's statistical calculations show no more than 10 percent exceedances. He said that no more than 10 percent exceedances belies the fact that the standard is exceeded quite frequently 1.2 miles into the bay; it is fair to assume that it is exceeded all the time closer to the Las Vegas Wash.

Mr. Comba said that an impairment would take into account all available data to see whether the water body has a 10 percent exceedance. By including a footnote stating that the standards and beneficial use don't apply during wet weather events, the data set that's left will show that *E. coli* levels are meeting the proposed criteria.

Mr. John Solvie, a water quality compliance manager for Clark County Water Quality, said that Clark County is opposed to the adoption of the standard for the reasons stated in its correspondence and further delineated by Mr. Bazel. He said that Clark County has enjoyed a great working relationship with NDEP for decades, which continues. Clark County met with NDEP in August 2019 to discuss its concerns, but it wasn't able to come to resolution. As a result, it feels the standards should be sent back to NDEP for further work with agencies in southern Nevada to resolve persistent concerns.

Commissioner Perry said the commission has three options:

1) Adopt the regulation the way it is been proposed.
2) Adopt those portions of it that aren't contested or controversial and ask NDEP and the Flood Control District to go back to the other ones and work them over.
3) Adopt the portions of the petition that aren't contested and try to make modifications to address some of the issues raised.

Vice-chair Porta said that his only concern with the proposal is the portion related to the inner bay, which is strictly from the standpoint of public health and public perception. He said that a buffer zone has served the Las Vegas Valley well for years and that there should be some limitations at those points near the inner bay or the inner bay itself to protect the public.

Vice-chair Porta then explained his thought process. A beneficial use comes first followed by a numeric value to protect it. If NDEP removed or didn't change the beneficial use for the inner bay, then those values should not be incorporated in the table or referenced in the footnote. In other words, the proposed number for *E. coli* would be removed and any reference to contact that's been added because of adding the beneficial use to the inner bay should be removed.

Mr. Comba asked Vice-chair Porta to clarify if he was referring to section 12 of the proposal, whether the asterisk under contact recreation should be removed on NAC 445A.2154, and whether the *E. coli* water quality criteria should be removed. Vice-chair Porta said that Mr. Comba was correct. Any reference to or value associated with recreation should have values that pair with either contact or non-contact. If NDEP removes contact recreation from NAC 445A.2154, the geometric mean of 126 and the single value of 410 would be replaced by an annual geometric mean of less than or equal to 630 to support non-contact recreation.

Commissioner Perry, Mr. Comba, and Vice-chair Porta then had an extended discussion about the historic lateral. No changes are proposed for nitrate levels, and *E. coli* is an addition that wasn't there before.

The Flood Control District then suggested adding language to the footnotes that provides legal protection for floods and stormwater. Vice-chair Porta replied that language already exists in NAC 445A.121 to account for such exceedances. Without it, every storm event in Nevada could create an impaired water situation, so the EPA allows the states to include exceptions.

Mr. Bazel said that he is concerned that the standard in NAC 445A.121 was developed many decades ago in the eastern half of the U.S. for extreme floods. Because it rains all the time in the east, an ordinary storm isn't an occasion to exempt water quality standards, but an extreme storm may be. To avoid complications about extreme floods versus everyday storms, he said that his group is asking for language that covers the base flows of the wash but puts a qualification on the *E. coli* standards for whenever a storm washes in pollutants. The 110% of flow metric was developed decades ago to refer to storms, so his group used that same language to qualify when the *E. coli* criteria applies.

Mr. Comba suggested that the commission use the language for the Inner Las Vegas Bay but instead refer to it as the Las Vegas Wash.

Mr. Bazel said his group is okay with using the same language that applies to the inner bay but would prefer the language suggested by Mr. Comba, "the beneficial use does not apply an associated *E. coliform* standard" or "*E. coli* standards do not apply."

Mr. Greg Lovato, administrator of NDEP, said that the broad language in NAC 445A.121.8 is meant to apply to all flowing waters. Adding a specific callout for the Las Vegas Wash might raise the question of

why other streams throughout Nevada are not treated the same, which sets a precedent. He said that it would raise the question of the applicability of the rule to other waters that aren't called out specifically.

Mr. Comba read NAC 445A.121.8 to the commission and said that he agrees that adding a specific callout for the Las Vegas Wash could set a precedent for any flowing river system, water system, or waterway in Nevada.

Mr. Bazel then summed up the discussion: Mr. Bazel's group suggests a footnote. Mr. Comba suggests an inner bay footnote modified to fit the wash. Mr. Bazel said that he likes some of Mr. Comba's proposed language better and that it sounds like the two parties agree on that footnote. However, Mr. Lovato suggests that there may be statewide concerns.

Vice-chair Porta said that he hates to use a footnote when a regulation exists that may incorporate something more localized for Las Vegas in the future. He said he would rather have it in a regulation than in a footnote.

Commissioner Perry said that he agrees with Vice-chair Porta that the footnote is not necessary. Regarding section 12, he recommended that the commission remove the proposal for contact recreation, leave the *E. coli* number at 630, and remove footnote I completely. He recommended no changes to NDEP's proposal in sections 13 and 14.

Mr. Comba reiterated that the footnote in section 12 is still needed.

Vice-chair Porta said he is okay with keeping it as long as both parties agree on the proposed footnote language.

Mr. Comba said that NDEP agrees with language that has been proposed by Commissioner Perry and Vice-chair Porta.

Commissioner Perry then made the first of several motions: "I make a motion to adopt Petition R037-19 with the following changes to the proposed language in section 12 on page 14. The beneficial uses in the table of standards of water quality would remain the same, so there would not be contact recreation as one of those. And the *E. coli* parameter that is proposed be changed to less than or equal to 630. And in the footnotes, item I, the following changes are made to the proposed language: "The commission recognizes that the water quality standards for the Inner Las Vegas Bay may be exceeded during storm and flash flood events. During these events the beneficial use of noncontact recreation and associated standards of *E. coli* do not apply." No changes to section 13 or 14 of the petition." Vice-chair Porta seconded the motion.

Commissioner Perry then made a correction, saying that contact recreation should be removed from the Inner Las Vegas Bay as a beneficial use. Vice-chair Porta seconded the motion.

Commissioner Perry then made another correction to *E. coli* on page 14. Chair Gans asked that Commissioner Perry restate the motion that already had a motion and a second.

Motion: Commissioner Perry moved to adopt Regulatory Petition R037-19 with the following changes in the petition: 1) that the beneficial uses on page 14 under standards of water quality for the Inner Las Vegas Bay remain the same and that contact recreation is not one of those; 2) that the criteria for *E. coli* be less than or equal to an annual geometric mean of 630; 3) that the second sentence of footnote I read, "During these events the beneficial use of non-contact recreation and the associated *E. coli* standard do not apply"; and 4) that page 7 reflects that the beneficial use for the Inner Las Vegas Bay does not include contact recreation. No changes were recommended for sections 13 or 14 of the regulatory petition. Vice-chair Porta seconded the motion, and it passed unanimously.

6) Permanent Regulatory Petition R043-19: Bureau of Water Quality Planning – Selenium (For Possible Action)

Mr. Comba explained that the petition involves proposed selenium criteria but asked that the proposal be presented as an informational item only.

Dr. Siders gave a detailed explanation of a table that shows the four-part criterion, including fish tissue and water column numbers. The criteria is based off egg/ovary data from eight species of fish, a determination based on the EPA's analysis of over 100 toxicity tests and studies.

Dr. Siders explained that it has been 30 years since the EPA last looked at selenium. The agency developed a new egg/ovary number of 15.1 milligrams per kilogram (mg/kg) dry weight of egg/ovary tissue using a national bioaccumulation factor around which all other numbers are based. Chronic values are particularly important in addressing bioaccumulation. Acute values, on the other hand, are not big factors other than having an intermittent value. The numbers proposed by the EPA are 1.5 mg/kg for lakes and 3.1 mg/kg for rivers, numbers which are smaller than the chronic value of five in current Nevada regulations.

Dr. Siders then pointed to an important caveat: agency staff can take fish samples if direct water samples do not meet these numbers. The important thing is that fish samples meet the fish values. In other words, the standard is set up so that egg/ovary data trumps whole body muscle, which trumps the water column. Dr. Siders pointed out that the standards are one of the most complex NDEP has dealt with and don't fit easily into the Toxics Table.

Dr. Siders said that the EPA derived the national value of 15.1 mg/kg using a bioaccumulation factor of 4.87. NDEP, Dr. Siders explained, is proposing slightly different values based on the EPA's recalculation procedure, which allows Nevada to delete non-representative species from a list of species that are sensitive to selenium. By following this procedure, NDEP eliminated sturgeon, the most sensitive species. This changed Nevada's standard from 15.1 mg/kg to 19 mg/kg, a number used to derive all other values.

Dr. Siders noted that the regulation also allows for the development of site-specific standards by any person or entity that follows an approved sampling and analysis plan.

Concerning developing site-specific standards, Mr. Comba said that NDEP will be conducting meetings with Mr. Bazel's group and will report back to the SEC in December. He said that NDEP would demonstrate how it collaborated with stakeholders and permittees to come up with an agreeable selenium standard. He noted that the regulatory petition would incorporate language to make a temporary exemption for the Las Vegas Wash and tributaries until a site-specific number is developed.

Commissioner Perry asked whether Nevada had Selenium criteria before. Dr. Siders responded that Nevada already has criteria in place. The old values — five micrograms per liter for chronic and 20 micrograms per liter for acute — were put in place in 1987, and NDEP adopted them in 1990.

Commissioner Perry asked what the new proposed values would be. Dr. Siders replied that there would be two numbers: 3.9 for still water and 1.9 for flowing water. She reminded the commission that the rule also includes the ability to sample fish for waters that exceed these numbers. Sections two and five will also explicitly give flexibility for developing site-specific standards using two mechanisms developed by the EPA.

Mr. Bazel expressed his thanks to NDEP for being so responsive to his comments. He said NDEP is listening, which is greatly appreciated. Chair Gans said that he, too, appreciated Mr. Bazel's cooperative attitude.

7) Permanent Regulatory Petition R046-19: Bureaus of Air Quality Planning & Air Pollution Control (For Possible Action)

Mr. Jeffrey Kinder, deputy administrator of NDEP, introduced Dr. Danilo Dragoni, bureau chief of NDEP's Bureau of Air Quality Planning, and Ms. Lisa Kremer, bureau chief of NDEP's Bureau of Air Pollution Control. He said they would be presenting an overview on Regulatory Petition R046-19, which amends NAC Chapter 445B **(Attachment 4)**. The proposed regulation amendment seeks to update how NDEP assesses and redistributes fees across the regulated industry to reflect workload and resources required to implement Nevada's air program. NDEP is asking to match its revenues to its budgeted expenses in an equitable approach so that it can continue to issue operating permits to facilities across Nevada.

Mr. Kinder underscored that NDEP is not proposing an expansion of the air program. It is also not proposing changes to fees for Nevada's Mercury Control Program or Chemical Accident Prevention Program.

Mr. Kinder gave a few reasons for why the fee increase is needed. Nevada Revised Statutes give the SEC the authority to charge fees to implement the air program, and the primary regulation for administering fees is NAC 445B.327. The last significant fee amendment was in 2006, which placed the focus on emission fees for facilities with large emissions. Given the state of emission controls, proactive industry, and more restrictive ambient air quality standards, Nevada will not likely see large-emitting sources in the future. As a result, NDEP does not believe the fee structure is sustainable, especially when coupled with stagnant or declining federal grants with increasing personnel costs.

Mr. Kinder also explained that the Title 5 permitting program, as delegated from the EPA, must be self-funded by fees. During the past legislative session, the Legislature reviewed NDEP's budget and noted that the revenues collected were not sufficient to support the program going forward. On September 12, NDEP received a letter from the Legislature requiring that it submit a long-term plan for financial sustainability that includes potential revenue increases. NDEP must respond to the Legislature or the Interim Finance Committee on June 1, 2020.

Mr. Kinder said that employee salaries are approximately 90 percent of expenditures in the air program, so any increase in personnel costs has a dramatic impact on NDEP's budget. The program currently has 60 full-time staff members, and Mr. Kinder stated that that is an adequate staff to complete the work going forward.

Ms. Kremer then explained that the regulatory petition will change both air permitting application fees and maintenance fees. Both fees support different areas of NDEP's programs. The application fees support permitting, which generally consists of eight things:

1. An administrative completeness check.
2. A technical review with calculations.
3. A look at applicability.
4. The drafting of the permit and a technical review.
5. A public notice period.
6. An EPA review period, if applicable.
7. A public hearing, if applicable.
8. Issuance of a permit.

Maintenance fees support the compliance branch of the air program, which does inspections, reviews source tests, makes observations, analyzes data, writes compliance order, deals with complaints, and conducts investigations. This also includes enforcement, when necessary, and the planning branch, which makes rules, state implementation plans, delegation agreements, and other air quality programs

like regional haze, mobile sources, and greenhouse gases. Maintenance fees also cover database needs, NDEP's ambient air monitoring network, and NDEP's small business outreach program.

Regarding application fees, Ms. Kremer explained NDEP's tiered approach, which is based on insignificant activities (IAs) and emission units — equipment that has a potential to emit a regulated air pollutant. For IA's, the potential to emit is normally insignificant, so NDEP doesn't require the same testing, monitoring, record keeping, and reporting as it does for other emission units. However, staff must still make the same calculations and create the same air dispersion models for IA's as for any other emission unit. NDEP did a study in late 2018 to see how long it takes to process applications. It found that personnel hours correlate and are proportional with the number of emission units and insignificant activities in that application. To account for this, NDEP is also proposing new application fees for things that take staff time that NDEP previously processed with no fee. Additionally, to cover NDEP's time and resources, it is proposing to retain 10% of application fees if an application is deemed administratively incomplete.

Regarding maintenance fees, Ms. Kremer stated that NDEP is proposing to eliminate annual fees based on a facility's emissions. Instead of just calculating annual maintenance for Class 2 permits based on a potential to emit (as it has done in the past), NDEP proposes to include two additional categories:

- Surface area disturbance acreage (the size of disturbed land).
- The number of emission units.

If a facility has both a Class 1 permit and a Class 2 permit, NDEP is proposing that it only pay the maintenance cost at the higher level of the Class 1 permit.

Ms. Kremer then explained NDEP's proposal for a new protocol for administrative renewals. Industries have wanted to simplify the process for renewing permits that make no changes. Nevada's permitting program is modeling centric. Before a permit can be issued, NDEP must model every action to demonstrate compliance with Nevada law. As a result, NDEP was reluctant to make this change. However, through collaboration with industry over the last several years, NDEP has been able to produce more consistent permits with clear compliance expectations. This includes consistent emission factors, controls and control strategies, monitoring, testing, record keeping, and reporting. NDEP also centralized its modeling branch, ensuring that it stays current with the NAC and modeling techniques and that it can assist facilities when modeling challenges arise.

Based on these developments, Ms. Kremer continued, NDEP believes it is a good time to introduce the administrative renewal process, which benefits both the agency and the regulated community based on time, workload, and expense. Under the new procedure, a facility would quality for an administrative renewal if 1) it has a new or renewed permit issued on or after January 1, 2018; 2) the permit does not require any changes; and 3) an air dispersion model from the last five years is still deemed adequate.

Ms. Kremer then gave details about NDEP's outreach activities, which included letters to permit holders with facility-specific estimates and a comparison between new maintenance fees and what facilities currently pay. NDEP also provided fact sheets for each type of permit, which detailed the proposed changes to the application and maintenance fees. NDEP conducted webinars with industry sector-specific presentations for the mining association and general contractors. In addition to outreach meetings, NDEP created and maintained a new web page dedicated to the proposed fee amendment, which was supplemented by established email lists to provide updates and presentations.

Dr. Danilo then provided details about the public workshop that NDEP held on September 5. Twenty-seven people participated, 11 of which joined online and 16 of which were from Carson City and Las Vegas. Dr. Dragoni said that the participants generally understood why the fee increase was needed but

felt concerned about the timing and magnitude of the change. To respond to the comment, NDEP proposes a three-year phase in for all annual maintenance fees for Class 1, Class 2, and surface area disturbance permits.

Dr. Dragoni explained that NDEP also proposes a six-month delay for all application fees, which will now become effective on July 1, 2020. The only exception is the application and fees for administrative renewals.

Dr. Dragoni said that NDEP made revisions based on outreach activities and the public workshop. Following the July outreach activities, the first draft of the regulation was submitted to LCB. This draft already contained a three-year phase in approach for the maintenance fee, but only included a portion of the Class 2 sources. As the outreach activities continued in August, NDEP revised the regulation to expand the phase in to Class 1 sources and more Class 2 sources. These changes are included in the LCB's review and noticed to the public by the SEC. However, based on comments received in early September during and after the public workshop, NDEP prepared a final draft that it submitted to LCB on September 20. In the most recent draft, NDEP expanded the three-year phase in to all Class 1, Class 2, and surface area disturbance permits.

Dr. Dragoni stated that one of the goals of the regulations is to redistribute the fees across the regulated industry to reflect the workload required to issue and maintain a permit. At the same time, NDEP wants to minimize the impact on small operations and facilities. NDEP proposes that maintenance fees be calculated based on the number of emission units, surface area disturbance, and permitted emissions. Facilities with less than 20 emission units may pay less than $4,000. Facilities with hundreds of emission units, on the other hand, will incur fees of $20,000 or higher. Facilities with the potential to emit close to 200 tons per year and hundreds of emission units would incur the highest fees.

Mr. Kinder rejoined the presentation, stating that the inability of NDEP to raise its revenues would result in staff reductions, which would decrease its responsiveness to the needs of the regulated community and eliminate some of its services. If NDEP is unable to staff and pay for its Title V permitting program — which is delegated by the EPA — then the federal EPA would become the permitting authority in Nevada.

Commissioner Perry asked if Class 1 and Class 2 air permits are good for five years. Mr. Kinder replied that they are. He said that renewing each permit every five years basically repeats the work of issuing the initial permit. NDEP is proposing to simplify that process if permittees meet certain conditions.

Commissioner Perry asked how NDEP's proposed fee structure compares to the air programs of Washoe and Clark counties. Mr. Kinder replied that it is difficult to compare air programs because each has its own rules and challenges. He said that he believes that NDEP's fees are less than those counties.

Commissioner Perry asked whether NDEP anticipates that facilities might come back and try to re-permit at lower numbers. Mr. Kinder replied that it is a possibility. Facilities will consider how many emission units and insignificant activities they have. The change may influence whether a facility chooses to revise its permit. Ultimately, Mr. Kinder said, facilities will likely make business decisions based on these new fees.

Chair Gans commented that while no one wants to raise fees, the reality remains that NDEP has not raised fees since 2006. Industry has changed and inflation keeps rising. He said that it is hard for NDEP to find a solution that's totally acceptable to all parties.

Mr. Allen Biaggi, representing the Nevada Mining Association, said that the association was neither for nor against the fees. He said the association was completely supportive of the way NDEP staff approached the effort. The association recognizes that NDEP's air program is not funded by any general

funds; it is entirely fee funded. It also recognizes that fees have not increased since 2006, making a fee increase necessary.

Mr. Biaggi stated that his association would like to see fee increases occur in a more regular fashion for all NDEP programs, preventing massive jumps in fees every 15 or 16 years. Instead, the association supports a plan that is more predictable and incremental so businesses can create long-term budgets. Mr. Biaggi closed by praising NDEP's responsiveness, especially its timeliness in putting permits out and decreasing its permit backlog.

Chair Gans asked how the regulation would affect the mining industry. Mr. Biaggi replied that the effect is fairly significant, that the industry would have to tighten its belt and keep an eye on costs. He said this is not necessarily a bad thing, however, because such changes to facility activities may actually decrease emissions over time, which benefits public health and the environment.

Motion: Commissioner Landreth moved to approve Regulatory Petition R046-19. Commissioner Wilson seconded the motion, and it passed unanimously.

8) Bureau of Water Pollution Control: Update regarding Certified Wastewater Operator Program (Discussion)

Ms. Elizabeth Kingsland, bureau chief of NDEP's Bureau of Water Pollution Control, and Katrina Pascual, supervisor of the bureau's Technical Compliance and Enforcement Branch, provided an update on the wastewater operator regulations that were passed by the SEC in February 2018. The presentation was prepared in response to a request from the SEC to report back on the progress of the changes.

Ms. Kingsland began by providing contextual details. The wastewater operator certification requirements were first added to Nevada's regulations in 1992. State officials recognized the importance of having regulatory requirements in place to ensure that there were qualified operators running wastewater treatment plants throughout Nevada. The 1992 regulations were primarily unchanged until revisions were adopted in 2018. NDEP finds that a developed and managed wastewater operator program is key to protecting the waters of the state from pollution. To act on this foundation, NDEP worked with the Nevada Board of Certification for Wastewater Treatment Plants in 2014 to develop a more robust certification program. NDEP hired a third-party contractor to identify needed improvements to the program to make it more consistent with nationally-recognized programs. The contractor identified areas of improvement that were included in the regulations made effective in May 2018. The regulations identified education, experience, and testing requirements as key components of running wastewater plants with varying complexity.

After a few comments on the education requirements added in 2018, Ms. Pascual shared the results of NDEP's extensive survey of wastewater operators. One of the major sticking points of the old program was continuing education and its effect on the operators. Previously, the program was not recognized by other states because it lacked continuing education requirements. The survey showed that 78% of respondents believed that continuing education would benefit the program and individuals. Another 85% believed that continuing education for renewing their certification was attainable. Results were split for contact hour difficulty and awareness of online resources. 84% believed that their employers support continuing education, and 70% said they would pay for classes on their own.

Overall, Ms. Pascual continued, it seems that people are very receptive to continuing education and overwhelmingly don't believe it would be difficult to achieve the class hours required for their renewals. She explained that 76% said the education requirements for initial certification were obtainable, and 84% found the experience requirements for initial certification adequate. 60% of those surveyed do not plan to be certified at a higher grade in the future, and 7% didn't know what their plant was classified as.

Ms. Pascual said that NDEP has been keeping track of issues operators have faced when trying to meet the new standards. Overall, NDEP hasn't seen many issues with the new certification requirements. For the most part, no one has had difficulty meeting the new standards. Where there is difficulty, it has revolved around misunderstanding the new regulation changes and requirements.

Ms. Pascual said that NDEP spoke to several operators in the program to discuss their vision now that the changes have been implemented. Operators talked about the restricted certification. Previously the restricted certification expired after five years and required retesting. Moving forward, NDEP proposes merely requiring renewal every two years and removing the retesting requirement. Much like an actual certification, operators would have to take continuing education for the renewals.

Ms. Pascual then addressed another change that NDEP will propose in an upcoming SEC meeting. NDEP will seek to reduce the number of initial educations for grades 1 and 2 as operators must now do continuing education as well.

Ms. Pascual said that NDEP now has a program with continuing education, that has value to it, and that provides opportunities for more education classes that work across all states.

Ms. Kingsland then said that there are lots of opportunities for operators to get education that counts toward their renewal and initial certification, including two conferences where people can complete course work. Additionally, NDEP is working to update a "circuit rider" contract in the coming months, which provides services statewide.

Mr. Jim Kerr, the superintendent of Elko County Public Works, said that he appreciates NDEP's hard work across the state and appreciated the attention of NDEP staff. He said he thinks the NAC in question impacted rural areas and small systems more than cities and large systems, especially regarding access to training. Mr. Kerr said that he supports making the restrictive certification a renewable certification.

Mr. Bob Foerster, executive director of the Nevada Rural Water Association and chair of the Wastewater Operators' Forum, said that he supports continuing education for the same reasons already mentioned, especially in how it helps people adapt to new technology. Mr. Foerster said that he is happy that NDEP may revise the front-loaded training requirements as well as change the retention of an operator in training.

Mr. Foerster then said that he hopes NDEP can revisit plant classifications. The new regulations change the threshold for becoming an operator 2 from 100,000 gallons per day to 20,000 gallons per day. New technologies don't require as much attention from operators compared to a conventional extended aeration plant. Mr. Foerster said he thinks such plants need to be at a lower threshold or operator certification level.

Chair Gans thanked Mr. Kerr and Mr. Foerster for their views and work. He commented that operators sometimes get lost in bureaucracy but are vital to the success of the program.

Commissioner Perry asked if there is a website where operators can find information about the programs and regulations. Ms. Pascual said that the Nevada Water Environment Association (NWEA) houses the certification board at nvwea.org, a website with an operator portal with guides that explain the new regulation changes. It lists all available classes, including classes that count for post-secondary courses.

Commissioner Perry asked if there is a way for operators to see the classes they have completed and the status of their certification. Mr. John Solvie, who serves on the Nevada Board of Certification, answered that those features are not currently on the NWEA site but said that his organization has provided access through the association of boards of certification. The ABC Certification Commission for

Environmental Professionals manages the professional operator program, which all Nevada operators are welcome to join to earn their national PO in addition to their state PO. This includes a professional operator portal where people can manage their continuing education.

Counsel R. Henna left the meeting, so Counsel Sophia Long took her place in Las Vegas, NV.

Commissioner Perry suggested that "in-house" refresher courses be developed that would count as continuing education units. Mr. Solvie replied that the idea is a great model that NWEA has been discussing since the implementation of the continuing education program. However, he acknowledged that it is a challenge because NWEA's role is to validate competency based on the regulatory components.

Chair Gans closed out the agenda item by saying that he thought it was important for everyone to look at every negative comment on the issue because sometimes there are "real gems" that are constructive.

9) Administrator's briefing to the commission (Discussion)

Mr. Greg Lovato, administrator of NDEP, briefed the commission on five topics.

Topic 1: Status of Public Notice Process Changes

Mr. Lovato reminded the commissioners that they approved changes to public notice requirements for all NDEP programs in 2018, with the exception of the air programs, which the SEC approved in 2017. The primary change for NDEP was that newspaper notices would no longer be necessary for public noticing requirements. The notices would be replaced by notice via email lists and on the NDEP website. The commission requested a six-month phase out of newspaper notices and an update to the commission within one year. NDEP completed the six-month phasing period from March through August 2019, including a statement in every newspaper notice that newspaper notices would no longer be published and providing a link to NDEP's website to sign up for an email list. Across NDEP's bureaus, the combined email lists now have over 1,000 subscribers. Several tribes and other select members of the public are on hard copy lists. As mentioned in the December 2018 SEC meeting, NDEP continues to send out press releases to media outlets near projects of proposed permit actions.

Mr. Lovato said that he thinks the changes have been successful and that NDEP has not received negative comments about the shift away from newspaper notices.

Topic 2: NDEP Strategic Plan

Mr. Lovato said that NDEP last updated its strategic plan in 2016. The plan outlines priorities, values, goals, objectives, and performance measures for NDEP's programs, providing a focus for NDEP along with measurable outcomes. NDEP plans to update the strategic plan in 2020 in time for 2021. NDEP welcomes input from the commission on this framework document. The current plan is available on the 'about' page of the NDEP website.

Topic 3: Staff Changes

Mr. Lovato said that NDEP has worked with state personnel to reclassify three positions into what are effectively subject matter experts. These are non-supervisory, environmental scientist four positions equivalent in grade and pay to an environmental scientist four but with a focus on developing guidance, technical analyses, and staying up to date on the state of the science without the burden of supervisory and administrative responsibilities. NDEP filled two positions in NDEP's mining and water quality planning bureaus and is recruiting for a third position in the Bureau of Federal Facilities that will focus on regulating the disposal of low-level radioactive waste at the Nevada National Security Site.

Topic 4: Pending Water Pollution Control Permit Actions

Mr. Lovato said that NDEP has pending permit decisions for two wastewater treatment plants that discharge to Swan Lake in Lemon Valley, which is just north of Reno. The city of Reno operates one of the plants, and Washoe County operates the other. Since early 2017, Swan Lake has experienced historically high water levels, and some residents have expressed concerns about the quantity and quality of treated wastewater from these plants.

NDEP posted a public notice of its proposed decision in early August and published notices in the *Reno Gazette Journal*, announcing the public comment period and a public hearing on September 13. Nineteen people attended the hearing, none of which reported hearing about it through the newspaper. All heard through email, other agencies, or existing community Facebook pages.

NDEP will respond in writing to all comments, and it anticipates making a permit decision in late October. Mr. Lovato said that NDEP is taking input from the community seriously and is collaborating with Washoe County and Reno on long-term planning efforts for reducing high water levels in Swan Lake.

Topic 5: Anaconda Copper Mine Site

Mr. Lovato explained that the EPA deferred regulatory oversight of cleanup of the Anaconda Copper Mine Site to NDEP in February of 2018 after Nevada secured a commitment from Atlantic Richfield Company to fund and perform the first of three phases of cleanup. Since then, the final design for the first phase of cleanup is nearing completion, and construction of the remedy began on August 26. These developments involved close coordination with the Yerington Paiute Tribe on a cultural resources monitoring plan. Elsewhere on the site, a 15-year-long remedial investigation of groundwater — which was started by the EPA and is now being completed by NDEP — is nearly finished.

Mr. Lovato said that NDEP anticipates making decisions about how much longer bottled water service should be provided to residences that either have wells outside the area of mine related impacts or that have access to a public water system. The bottled water program started in 2004 as a precautionary measure before the extent of mine related impacts was known. After the installation of over 350 monitoring wells and several years of data and technical analyses, NDEP has much better information on the extent, stability, and migration rate of the plume from the mine. NDEP reviewed the matter of the bottled water phaseout in a public hearing in June 2019 and before the Yerington City Council in early September. NDEP will send out individual letters to the approximately 30 residences that lie outside tribal lands and will offer to meet with residents over the next several weeks. NDEP is also reviewing alterative treatment and water supply options for wells outside the area of mine impacts. NDEP is also working with the EPA and the Yerington Paiute Tribe to determine the future of the bottled water program for tribal members.

Commissioner Perry asked for more details about work on phase one that started on August 26. Mr. Lovato replied that NDEP is currently installing what will be the terminal evaporation ponds for fluid drain down, which is roughly between five and 10 gallons per minute, year-round. This flow will be reduced to below five gallons per minute once NDEP caps the heap leach pads, but the first step is to install evaporation ponds. In the long-term, the ponds will be able to accept all acidic fluids to prevent releases. Overall construction of the first phase will probably be completed by 2023. The second phase will involve groundwater in northern parts of the site and the pit lake in the southern parts. Mr. Lovato said that NDEP doesn't expect to have remedies for either for another few years.

10) Public comments (Discussion)

There were no public comments.

11) Adjournment

Chair Gans adjourned the meeting at 2:42 PM

ATTACHMENTS

ATTACHMENT 1: PowerPoint—Regulatory Petition R036-19

ATTACHMENT 2: PowerPoint—Regulatory Petition R037-19

ATTACHMENT 3: PowerPoint—Public Comment from Larry Bazel

ATTACHMENT 4: PowerPoint—Regulatory Petition R046-1

ATTACHMENT 1:

PowerPoint Presentation on R036-19

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

Nevada Department of CONSERVATION & NATURAL RESOURCES

Regulatory Petition R036-19

Proposed Revisions to Water Quality Standards for Cadmium

Mary A. Siders, Ph.D.
Environmental Scientist IV
Water Quality Standards & Monitoring Branch
Bureau of Water Quality Planning

SEC Meeting, October 2, 2019

BACKGROUND

Purpose of Regulatory Petition R036-19

Update the **ambient water quality criteria** for **cadmium**, based on the latest science, in order to **protect aquatic life from the toxic effects of exposure** to **cadmium** dissolved in Nevada's surface waters.

Water Quality Standards: a brief review

- Nevada's Water Quality Standards are provided in Nevada Administrative Code (NAC) 445A.11704 - 445A.2234
- Nevada is authorized by EPA to set water quality standards, which fulfill the legal requirements and help the state implement the Clean Water Act (CWA)
  - CWA enacted in response to some highly visible events, such as rivers catching fire…
    (June 1969 – fire breaks out on the Cuyahoga River in Cleveland, Ohio; burning down two bridges)

Water Quality Standards: a brief review

- **CWA Objective:** "*Restore and maintain the chemical, physical and biological integrity of the nation's waters.*"
- **Interim Goal:** Achieve water quality that "*provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in and on the water" (i.e., "fishable/swimmable").*
- The **CWA** requires EPA to periodically update all ambient water quality **criteria**, based on the latest science.
- Authorized states and tribes then review those criteria as part of the **Triennial Review process**, and move to adopt criteria into state regulations.

Water Quality Standards – the 3-legged stool

Why is the regulatory petition needed?

- The Clean Water Act requires EPA to periodically update ambient water quality criteria (AWQC).
- AWQC are used to set water quality standards (WQS) to protect beneficial uses (in this case, aquatic life).
- States are required to review their WQS at least once every three years (Triennial Review process) and, if appropriate, revise or adopt new standards (CWA section 303(c)(1)).
- WQS are needed to assess water quality for waterbodies in Nevada, as required by EPA to be reported biennially.
- WQS are used to set limits in discharge permits.

What triggered the amendment?

- In **2016**, EPA released updated equations to calculate **ambient water quality criteria** (AWQC) for **cadmium** to protect aquatic life.
- Since 2001, EPA identified more than **100 new studies** with toxicity data related to acute and chronic exposures of aquatic life to **cadmium**, for 75 new species and 49 new genera.
- Nevada's current criteria for cadmium were adopted in **2006**, based on EPA's **2001** criteria values for **cadmium.**

What are the consequences if the regulatory petition is not adopted?

- Waters could unnecessarily be categorized as impaired for chronic exposure of aquatic life to **cadmium**, because the current equation used to calculate criteria values for chronic exposure is overly protective, based on the latest science.
- If Nevada doesn't adopt updated criteria, then EPA can promulgate criteria onto Nevada (which EPA has done in the past; see 40 CFR 131.36 (11), 1997).

EXPLANATION of REGULATORY PETITION R036-19

Global Summary of Regulatory Petition R036-19

- NDEP proposes to update the equations in the “toxics table” **NAC 445A.1236** for calculating numeric criteria values for **cadmium**, from EPA 2001 to EPA 2016
- These criteria apply to all surface waters that have **aquatic life** as a beneficial use
  - One equation is used to calculate values for acute exposures (1-hr)
  - One equation is used to calculate values for chronic exposures (96-hr and longer)
- Both are “**hardness-based” equations** (as hardness increases, toxicity of **cadmium** decreases)

Excerpt of the Toxics Table (NAC 445A.1236)

Chemical	Domestic Supply (µg/l)	Aquatic Life[1,2] (µg/l)	Irrigation (µg/l)	Livestock (µg/l)
INORGANIC CHEMICALS[3]				
Antimony	146[a]	-	-	-
Arsenic	50[b]	-	100[c]	200[d]
1-hour average	-	340[e,(4)]	-	-
96-hour average	-	150[e,(4)]	-	-
Barium	2,000[b]	-	-	-
Beryllium	0[a]	-	100[c]	-
Boron	-	-	750[a]	5,000[d]
Cadmium	5[b]	-	10[d]	50[d]
1-hour average	-	(1.136672-{ln(hardness)(0.041838)}) *e (~~1.0166~~ 0.9789{ln(hardness)} ~~-3.924~~ -3.866) ~~f~~h,(4)	-	-
96-hour average	-	(1.101672-{ln(hardness)(0.041838)}) *e (~~0.7409~~ 0.7977{ln(hardness)} ~~-4.719~~ -3.909) ~~f~~h,(4)	-	-

Specific changes proposed for cadmium in NAC 445A.1236 ("Toxics Table")

1-hour exposure (Acute)

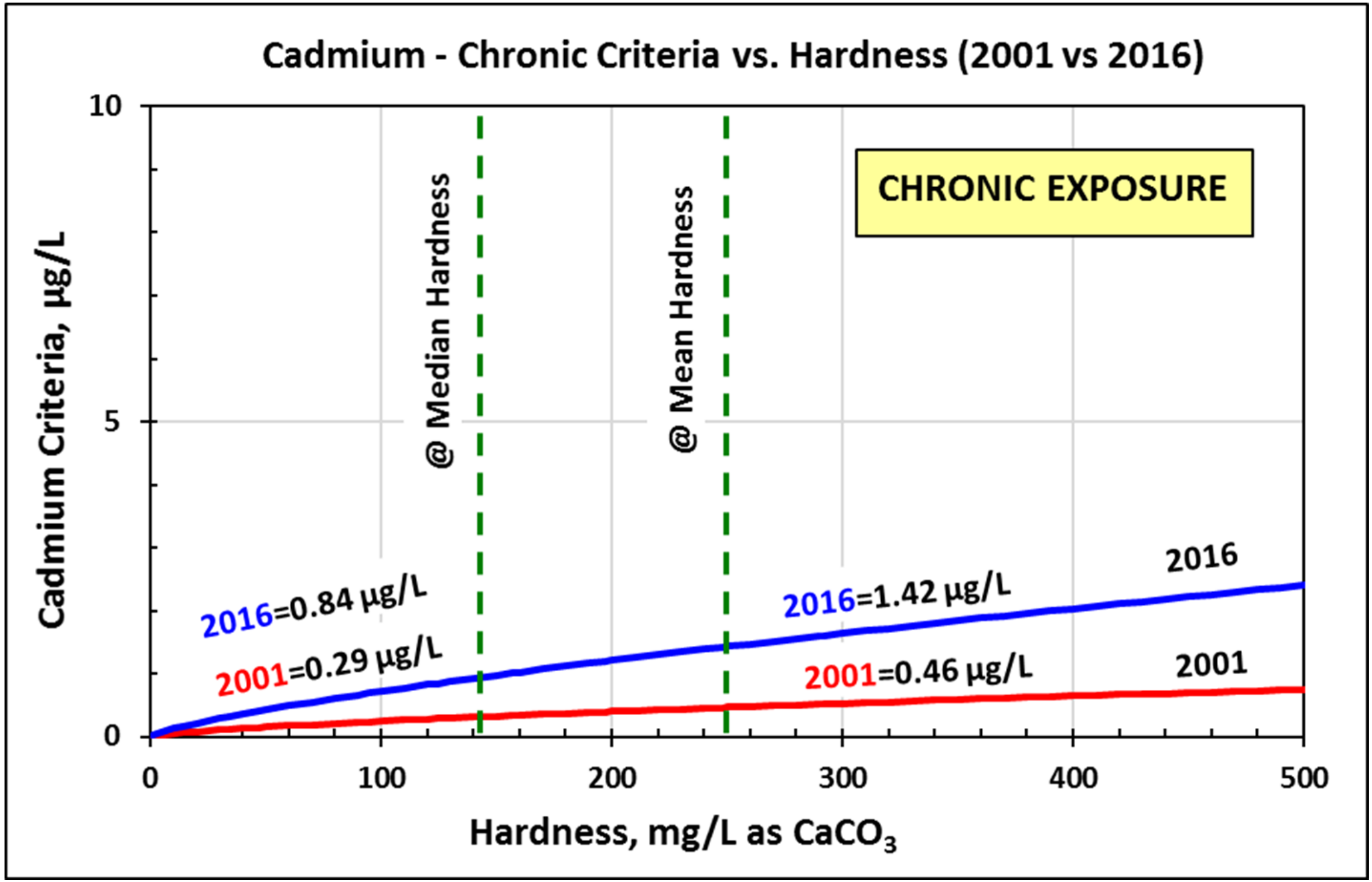
1.136672 - ((ln hardness)*(0.041838)) * e^(~~1.0166~~*(ln hardness) ~~- 3.924~~)

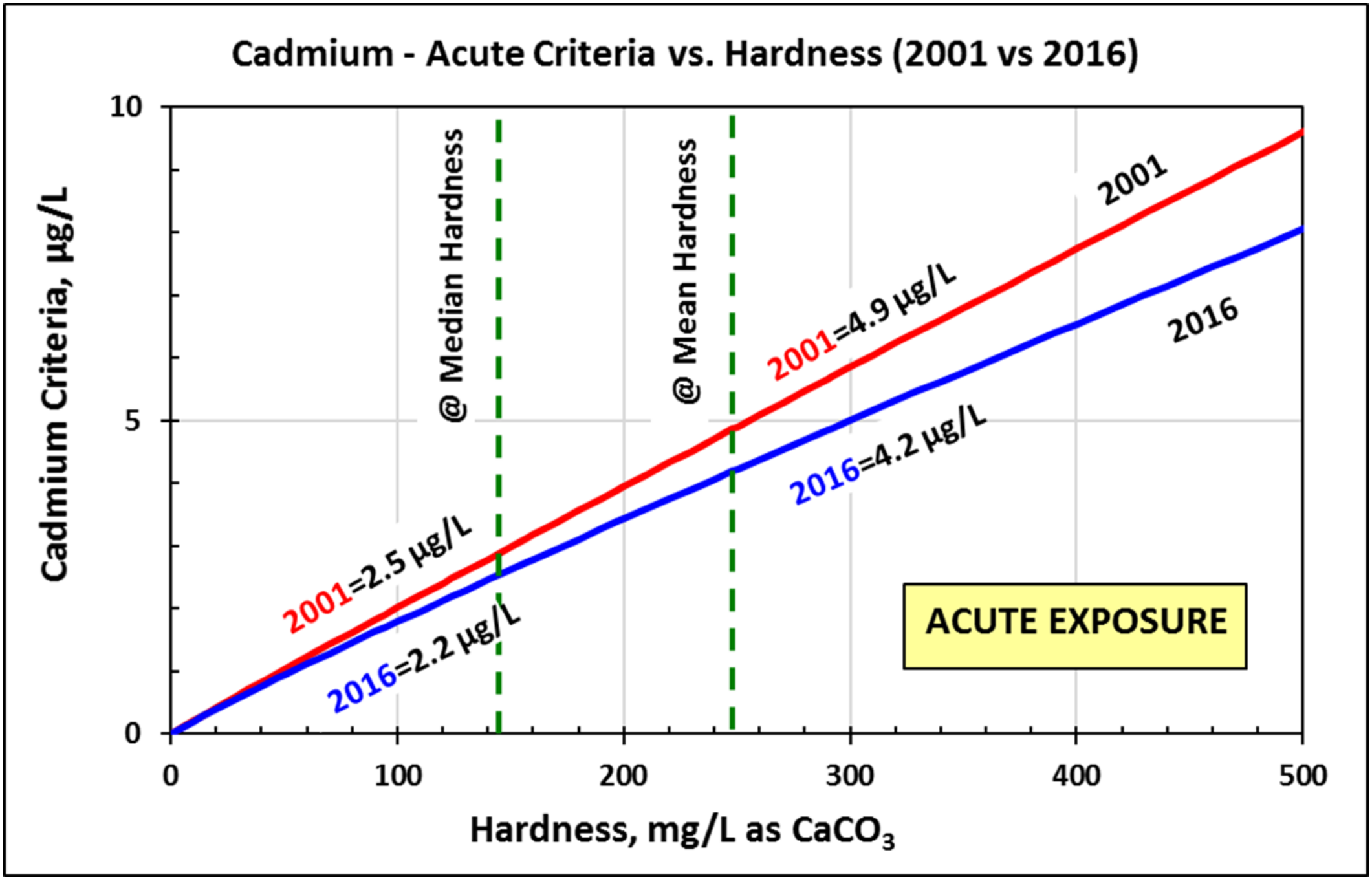
1.136672 - ((ln hardness)*(0.041838)) * e^(**0.9789***(ln hardness) - **3.909**)

96-hour exposure (Chronic)

1.101672 - ((ln hardness)(0.041838)) * e^(~~0.7409~~*(ln hardness) ~~- 4.719~~)

1.101672 - ((ln hardness)(0.041838)) * e^(**0.7977***(ln hardness) – **3.909**)


Cadmium - Chronic Criteria vs. Hardness (2001 vs 2016)
CHRONIC EXPOSURE
@ Median Hardness
@ Mean Hardness
2016=0.84 µg/L
2001=0.29 µg/L
2016=1.42 µg/L
2001=0.46 µg/L
2016
2001
Cadmium Criteria, µg/L
Hardness, mg/L as CaCO3
0
5
10
0
100
200
300
400
500


Cadmium - Acute Criteria vs. Hardness (2001 vs 2016)
Cadmium Criteria, µg/L
10
5
0
0
100
200
300
400
500
Hardness, mg/L as CaCO3
@ Median Hardness
@ Mean Hardness
2001
2016
2001=4.9 µg/L
2016=4.2 µg/L
2001=2.5 µg/L
2016=2.2 µg/L
ACUTE EXPOSURE

OUTREACH & PUBLIC WORKSHOPS

Outreach and Public Workshops

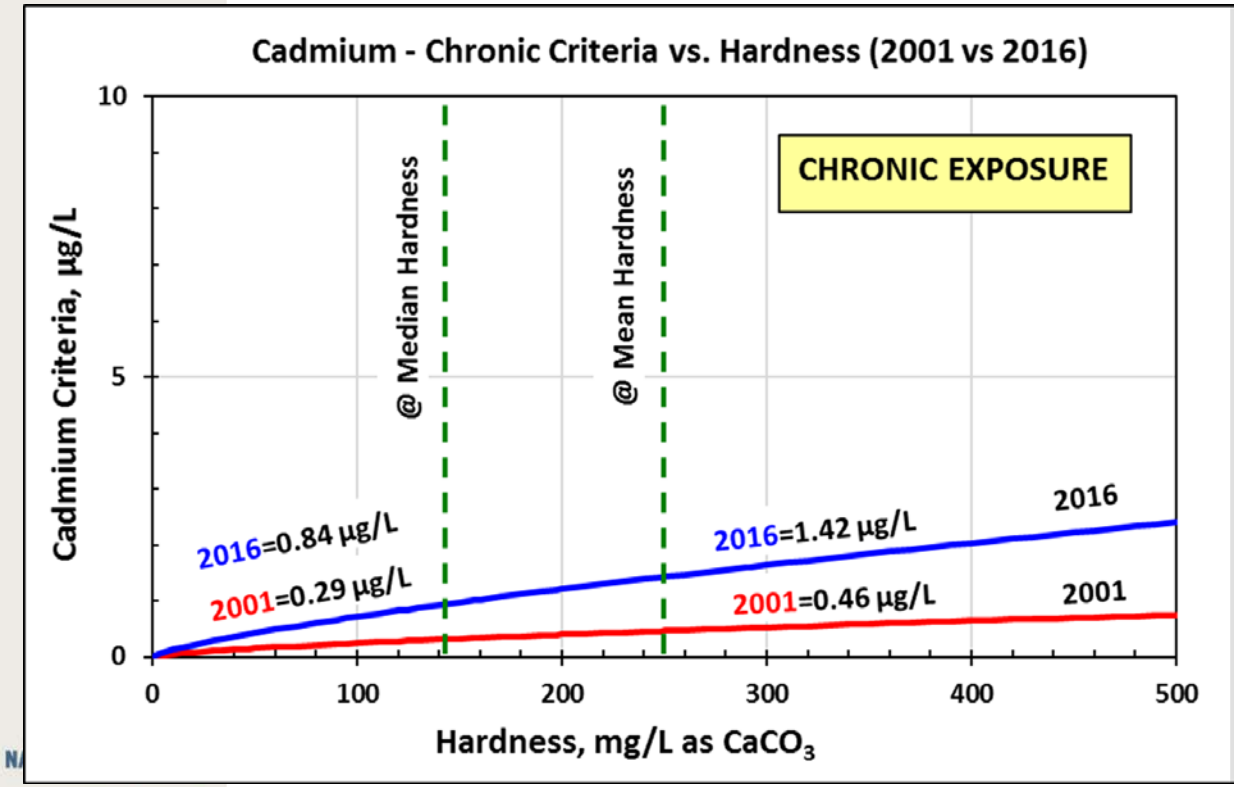
- **September 22, 2017** – **Stakeholders meeting** in Las Vegas
- **March 28, 2018** – **Stakeholders meeting** in Las Vegas to discuss proposed regulations.
- **November 28-29, 2018** – **Stakeholders meeting** in Las Vegas and Triennial Review workshop.
- **April 23, 2019** – **Stakeholders meeting** in Las Vegas
- **Public Workshops** on Colorado, selenium, and **cadmium** petitions:
  - Carson City – **June 6, 2019**
  - Elko – **June 7, 2019**
  - Las Vegas – **June 10, 2019**
- **August 15, 2019** – **Meeting with Las Vegas stakeholders**, in Carson City

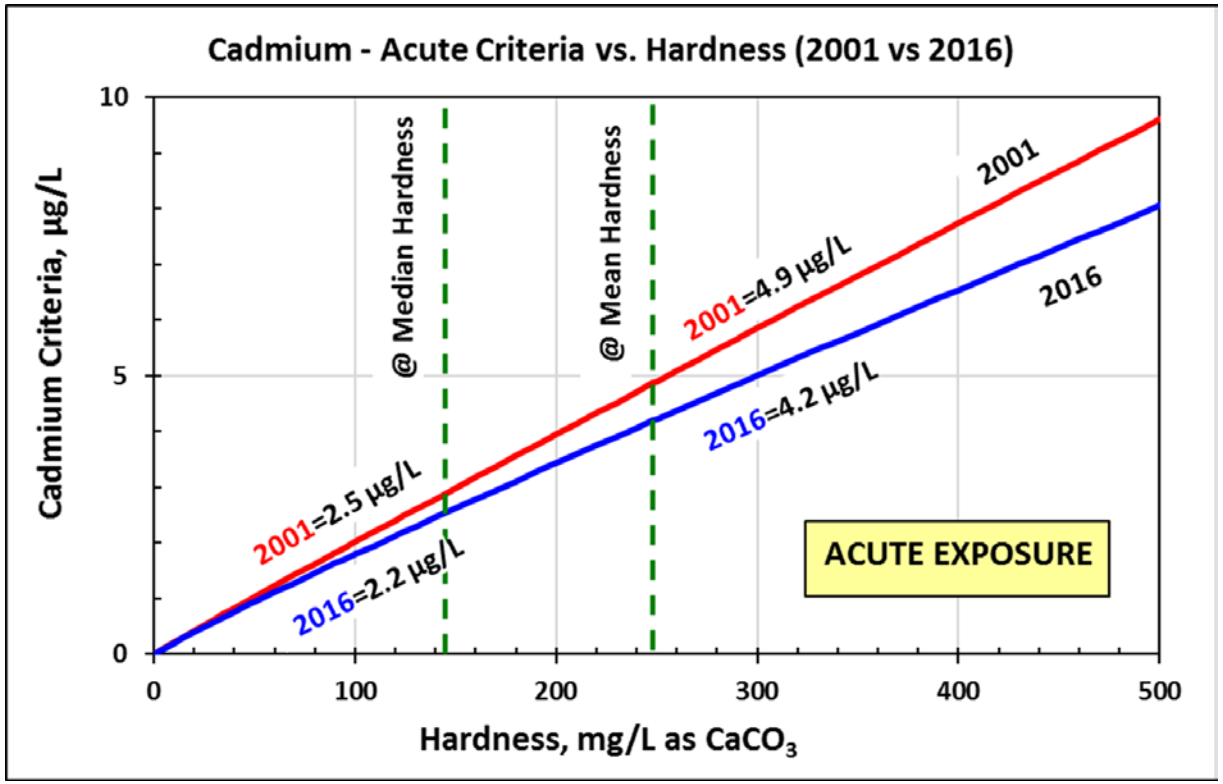
Public Workshops in June, 2019

- Public Workshops on proposed regulations (June 6, 7, 10 in 2019)
  - Carson City – 5 attendees, no questions/comments on cadmium.
  - Elko – 2 attendees (Barrick-Newmont), no question/comments on cadmium.
  - Las Vegas – 16 attendees, no questions/comments on cadmium.
- Other comments received? *No comments on cadmium.*

Small Business Impact Statement

- No impact to WWTPs or small businesses is expected, because the proposed chronic values are greater than current values, and acute values are still significantly higher than chronic values (at equivalent values of hardness).





CLOSING

NDEP recommends that SEC adopt regulatory petition R036-19, because:

- The new values for **cadmium** will be less restrictive for low concentrations that are evaluated using the chronic criteria.
- The new standard will better protect fish and other aquatic life that may be harmed by toxic effects of **cadmium** dissolved in Nevada's surface waters.
- The adoption fulfills the requirement to review WQS at least once every three years and, if appropriate, revise or adopt new or updated criteria (Clean Water Act, Section 303(c)(1)).

NDEP

Greg Lovato
Administrator

Jennifer Carr
Deputy Administrator

Jeffrey Kinder
Deputy Administrator

Rick Perdomo
Deputy Administrator

Bradley Crowell
Director

Nevada Department of CONSERVATION & NATURAL RESOURCES

Questions?

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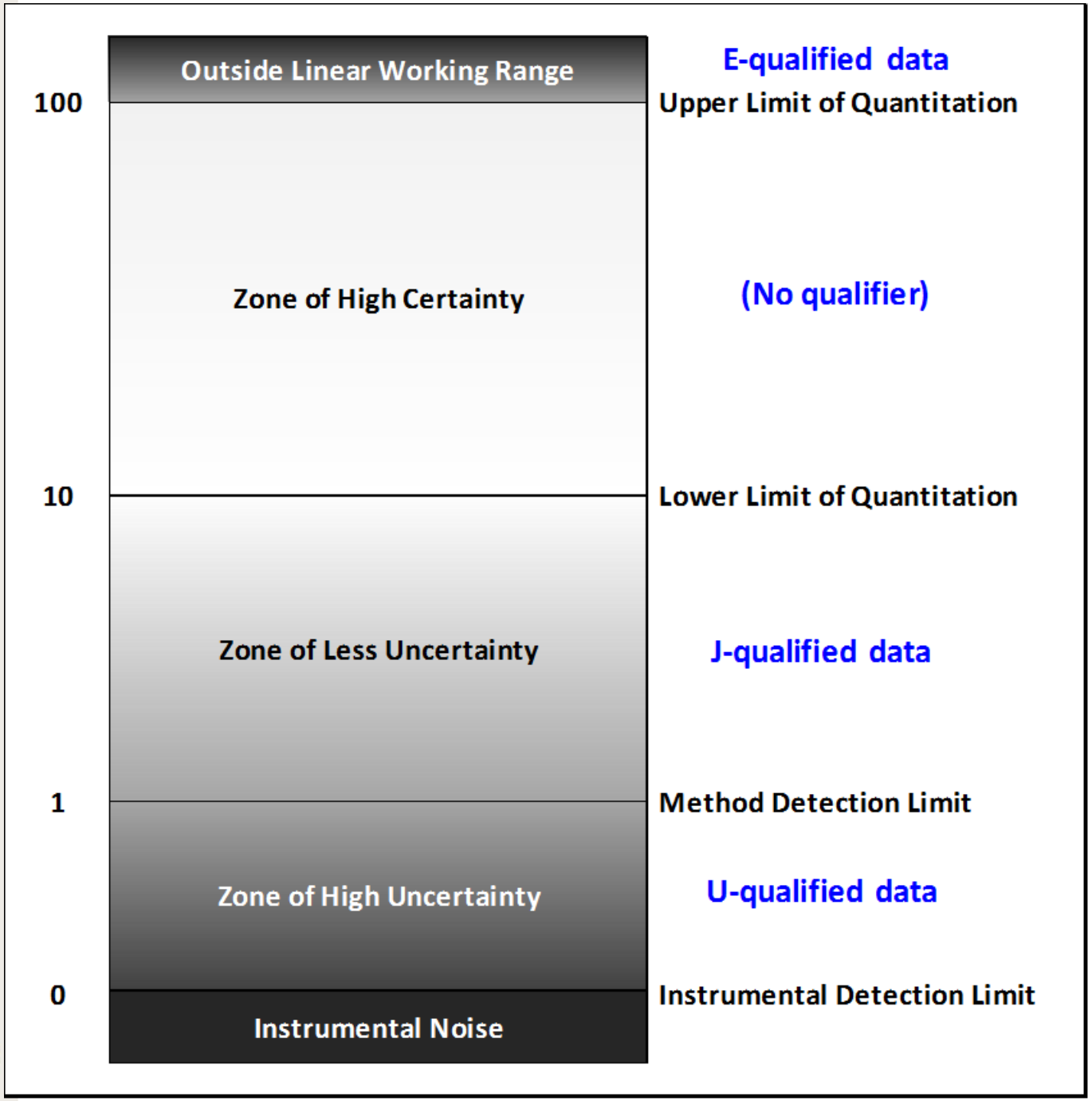
A Note about Method Detection Limits (MDLs)

NAC 445A.1236 **"**Standards for toxic materials applicable to all designated waters" ("**The Toxics Table**")

NAC 445A.1236(1)(c) **requires** reporting to the "***detection limit of a method*** *that is acceptable to the Division*…" In other words, the **method detection limit** (MDL), ***not*** the quantitation limit (QL), must be used as the "censoring limit"

"…***the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results***."
EPA – December 2016



Relationship of quantitation limits, QLs (upper and lower limits of quantitation) to detection limits (here, the MDL and the IDL)

NAC 445A.1236 requires that data for toxics be censored at the MDL

The range of values between the QL & MDL are qualified as "estimated" values ("J")

Labs have the MDL, you just need to ask them to include MDLs in the lab reports

What are the implications for reporting Cd data?

- **Values reported as "less than" the QL will not be acceptable to show that water is meeting standards for cadmium (and other toxics)**

Method	Analysis	Typical MDLs - Cd	Typical QLs - Cd
EPA 200.8	ICP-MS	0.5 µg/L	1, 2 µg/L
EPA 200.8	ICP-MS SIM	0.03 µg/L	1, 2 µg/L
EPA 200.7	ICP-MS	1.0 µg/L	5 µg/L
EPA 200.9	GFAA	0.05 µg/L	1, 2 µg/L

Stakeholders will have to talk with their laboratory about MDLs achievable for cadmium in their samples…

ATTACHMENT 2:

PowerPoint Presentation on R037-19

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

Nevada Department of CONSERVATION & NATURAL RESOURCES

Revisions to Nevada's Water Quality Standards (WQS)

R-037-19 Changes To Colorado Basin Surface Water Quality Standards

Las Vegas Wash
Las Vegas, Nevada

John Heggeness
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Nevada Department of CONSERVATION & NATURAL RESOURCES

Proposed Regulation R-037-19

Proposed Revisions to the
Nevada Water Pollution Control Regulations
NAC 445A.122, 445A.2142 – 2160

Update Water Quality Regulations on The Colorado River, Lake Mead, the Inner Bay of Lake Mead, Las Vegas Wash and Lake Las Vegas.

Why is the regulatory petition needed?

- The Clean Water Act requires EPA to periodically update **ambient water quality criteria** (AWQC).
- AWQC are used to protect beneficial uses.
- States are required to review WQS at least once every three years and, if appropriate, revise or adopt new standards (CWA section 303(c)(1)).
- WQS are needed to assess water quality for waterbodies in Nevada, as required by EPA to be reported biennially.
- Comprehensive Colorado WQS review last completed in 1998.

Proposed Regulation R-037-19

- Met in Las Vegas with a Stakeholder group 5 times from 2017 to 2019 to discuss potential
  - Water Quality Standards changes to the:
  - Colorado Basin.
  - Add Selenium WQS
  - Add Cadmium WQS

Public Workshops

- Carson City – June 6, 2019 (5 people, NDEP, USGS and NDOT)
- Elko – June 7, 2019 (2 people, Barrick Mining)
- Las Vegas – June10, 2019 (16 people, Consulting, City and County Officials, Dischargers, Legal Representation)

- Workshops were noticed in Newspapers (Reno, Las Vegas and Elko), Sent to BWQP's mailing list (approximately 170 mailings), and posted on NDEP's Website.

Public Workshop - Verbal Comments

- Carson City

  - Question on where is the Historic Lateral

  - What was the D.O. below Hoover Dam – 5 mg/l to protect for Adult Trout

- Elko

  - No comments

Public Workshop - Verbal Comments

Las Vegas

- By adding Contact Recreation to the inner bay will it bring more problems on Inner bay such as Lifeguards?

- For E. Coli on the inner bay, could NDEP add something like standard does not apply if flow is greater than 110 % of Average.

Lower Colorado Basin

Lake Mohave

- **NAC 445A.2147 Colorado Region: Lake Mohave. (NRS 45A.425, 445A.520) The limits of this table apply to the body of water known as Lake Mohave, which extends from Willow Beach to Davis Dam. Lake Mohave is located in Clark County.**

  - The Lake Mohave reach description was changed from “Lake Mohave inlet” to Willow Beach to separate the lake from the River Reach below Hover Dam. The high water elevation of the lake (947 m) extends up to Willow Beach.

Lake Mohave

- Same WQS as the Lake Mohave inlet to Stateline
  - Except for Change Temperature standard to 24° C for protection of Adult Coldwater fish – Rainbow Trout
  - Add D. O. footnote:

[c] *Applies to the epilimnion when stratified, or average in water column during periods of nonstratification.*

Lake Las Vegas

- **NAC 445A.2160 Colorado Region: Lake Las Vegas. The limits of this table apply to the entire body of water known as Lake Las Vegas. Lake Las Vegas is located in Clark County.**

Lake Las Vegas

- Proposed Water Quality Standards taken from 1988 208 Water Quality Management plan amendment for the Lake at Las Vegas, with updates to current EPA recommended Criteria

Lake Las Vegas

- **E. Coli ≤ AGM 126 and S.V. 410 cfu/100 mL for the protection of Contact Recreation. Subset of Fecal Coliform.**
- **Changed Fecal Coliform to ≤ 1,000 No./100 mL to protect for irrigation**
- **Adjusted Chl_a to not to exceed 15 µg/L**

Colorado River below Davis Dam.

NDEP is proposing to add/adjust the following reaches as shown below: ~~**Red bold and strikeout**~~ are deletions, **Blue and bold** are insertions.

- **NAC 445A.2146 Colorado Region: Colorado River below Davis Dam. (**NRS 445A.425**,** 445A.520**)** The limits of this table apply to the body of water known as the Colorado River from ~~**the Lake Mohave Inlet**~~ **Davis Dam** to the California-Nevada state line ~~**below Davis Dam**~~, except for the length of the river within the exterior borders of the Fort Mojave Indian Reservation. This segment of the Colorado River below Davis Dam is located in Clark County.

Colorado River below Davis Dam.

- Change Temperature standard to 24° C for protection of Adult Coldwater fish – Rainbow Trout

- Change D.O. to 5 mg/l year around.

- Add Chloride (S.V. 400 mg/l) and Sulfate (S.V. 500 mg/l)

Colorado River Below Hoover Dam

- **NAC 445A.2148 Colorado Region: Colorado River below Hoover Dam. (**NRS 445A.425, 445A.520**)** The limits of this table apply to the body of water known as the Colorado River from Hoover Dam to ~~**the Lake Mohave Inlet**~~ **Willow Beach**. This segment of the Colorado River is located in Clark County.

Colorado River below Hoover Dam

- Change Temperature standard to 24° C for protection of Adult Coldwater fish – Rainbow Trout

- Change D.O. to 5 mg/l year around.

- Add Chloride (S.V. 400 mg/l) and Sulfate (S.V. 500 mg/l)

Lake Mead and Inner Las Vegas Bay

- **NAC 445A.2152 Colorado region: Lake Mead** and **NAC 445A.2154 Colorado region: Inner Las Vegas Bay**:

- No changes are proposed for the reach description for either Reach
    - o Lake Mead and
    - o Inner Las Vegas Bay.

Las Vegas Wash/Lake Las Vegas

Lake Mead

- D.O Move comment to footnote (currently in standards table).
  - **Applies to the epilimnion when stratified, or average in water column during periods of nonstratification**
- Change Fecal from ~~**MF or MPN**~~ to No. /100 mL
- The Commission recognizes that at entrances of tributaries to Lake Mead, localized ~~***[violations]***~~ **exceedances** of standards may occur.

E Coli Lake Mead Contact Recreation

		Proposed Criterion	
Water Year	Sample Size	AGM - 126 cfu/100 mL	S.V. - 410 cfu/100 mL Criteria Exceeded
2003	1026	2.3	1%
2004	1347	1.9	0%
2005	1001	2.3	0%
2006	951	2.3	1%
2007	1072	2	0%
2008	1495	2.3	0%
2009	1442	2.3	0%
2010	814	2	0%
2011	661	3	3%
2012	438	3.1	0%
2013	175	2.4	0%
2014	0	No Data	No Data
2015	498	3.2	2%
2016	447	4.1	1%

AGM = Annual Geometric Mean

S.V. = Single Value

Inner Las Vegas Bay

- **NAC 445A.2154 Colorado Region: Inner Las Vegas Bay. (**NRS 445A.425**,** 445A.520**)** The limits of this table apply to the body of water known as Inner Las Vegas Bay, consisting of Lake Mead from the confluence of the Las Vegas Wash with Lake Mead to 1.2 miles into Las Vegas Bay. Inner Las Vegas Bay is located in Clark County.

- The Inner Bay is part of Lake Mead.
- Lake Mead is a National Recreation Area.

Inner Las Vegas Bay

- 1982 Water Quality Standards Review
  - Separate this reach from Lake Mead
  - Noncontact recreation, unknown if safe for swimming

Inner Las Vegas Bay

- 1998 WQS Review

  SEC added goal of Inner Las Vegas Bay standards is to ensure that all of Lake Mead is fishable and swimmable by the next Triennial Review required by the CWA.

  – Additional Monitoring data needed for E. Coli in the inner bay to determine if it meets WQS for the protection of contact recreation.

  – Assess the effects of storms on health concerns related to swimming.

  – Triennial Review - A review of state water quality standards required at least once every three years.

Inner Las Vegas Bay

- Lake Mead Water Quality Forum - Technical Subcommittee study summer 1998 (July 20 – 28) – Samples collected during and after storm event.
  - Increase in storm water flows in the Las Vegas Wash cause higher E. Coli Levels to enter the Inner Las Vegas Bay
  - E. Coli levels in the Inner Bay decreased with time (after storm) and as the distance from the source increased.
  - Highest E. Coli levels measured at deeper depths.

Inner Las Vegas Bay

- **Proposing to add Contact Recreation to Inner Las Vegas Bay - Add E. Coli ≤ AGM 126 and S.V. 410 cfu/100 mL for the protection of Contact Recreation.**

- **People have been swimming in the Inner Bay, therefore the use is considered an existing use and has to be protected.**

- D.O. 5 mg/l with footnote - **Applies to the epilimnion when stratified, or average in water column during periods of nonstratification.**

Las Vegas Valley Storm water Permittees Concerns

- Inner Las Vegas Bay should not have Contact Recreation as a use.
- E. Coli levels would exceed and cause the Inner Las Vegas Bay to be impaired.
- The effect of wet weather events on the proposed E. Coli Standards of the inner Bay.

Inner Las Vegas Bay

- When all E. Coli sample results are evaluated over a water year, proposed water quality standards are met.
- Using the same method to assess for the impaired waters report.
- Addressing concerns related to bacteria WQS being exceeded.

E. Coli Inner Bay Contact Recreation

		Proposed Criterion	
Water Year	Sample Size	AGM - 126 cfu/100 mL	S.V. - 410 cfu/100 mL Criteria Exceeded
2003	0	No Data	No Data
2004	0	No Data	No Data
2005	72	3.6	0.0%
2006	72	3.7	4.2%
2007	84	3.9	0.0%
2008	113	4.6	3.0%
2009	78	6.9	4.7%
2010	80	3.4	1.3%
2011	93	7.19	7.8%
2012	70	5.1	0.0%
2013	29	3.2	0.0%
2014	0	No Data	No Data
2015	78	7.2	3.8%
2016	66	9.9	6.4%

AGM = Annual Geometric Mean
S.V. = Single Value

Inner Bay

- Footnote

  The Commission recognizes that water quality standards for the inner Las Vegas Bay may be exceeded during storm and flash flood events. During these events, the beneficial use of contact recreation may not be protected.

  - ***Violations are violating the permit limits, exceedances are above/below the a WQS***

- Added due to stakeholder comments about storm flows in the Las Vegas Wash carrying pollutants into the Inner Las Vegas Bay.

Las Vegas Wash

- **NAC 445A.2156 Colorado Region: Las Vegas Wash at ~~Telephone Line Road~~ the Historic Lateral.** (NRS 445A.425, 445A.520) The limits of this table apply to the body of water known as the Las Vegas Wash from the confluence of ***Sloan Channel and Las Vegas Wash to*** ~~**[the discharges from the City of Las Vegas and Clark County wastewater treatment plants to Telephone Line Road.]**~~ ***the Historic Lateral***. This segment encompasses the discharges from ***City of Las Vegas, Clark County and*** the City of Henderson wastewater treatment plants. This segment of the Las Vegas Wash is located in Clark County.
  - This reach adjustment extends the reach approximately 2,500 feet downstream and 10,000 feet upstream. Sample Site LW5.5 is just above the Historical Lateral and that sample site is used to determine water quality compliance for the Upper Las Vegas Wash reach (NAC445A.1256).

Las Vegas Wash

- **NAC 445A.2158 Colorado Region: Las Vegas Wash at Lake Mead.** (NRS 445A.425, 445A.520) The limits of this table apply to the body of water known as the Las Vegas Wash from ~~**Telephone Line Road**~~ **the Historic Lateral** to its confluence with Lake Mead. This segment of the Las Vegas Wash is located in Clark County.

Upper Las Vegas Wash

Las Vegas Wash, Historic Lateral

Both Las Vegas Wash Segments

- Both Segments of the Wash NDEP is proposing to add Noncontact Recreation (AGM ≤ 630 cfu/100 ml).

- NDEP understands that the Las Vegas Wash is an effluent dominated system and it is not suitable for fishing or swimming.

Las Vegas Valley Storm water Permittees Concerns

- Noncontact beneficial use designation or E. Coli Water Quality Standards should not apply during storm flows in the Las Vegas Wash.

NAC445A.121.8

- Applies to all waters of the state.

- NAC 445A.121 8. **The specified standards are not considered violated when the natural conditions of the receiving water are outside the established limits, including periods of extreme high or low flow.** Where effluents are discharged to such waters, the discharges are not considered a contributor to substandard conditions provided maximum treatment in compliance with permit requirements is maintained.

Las Vegas Wash

- At the confluence of the Las Vegas Wash and the Inner Bay, the noncontact recreation WQS applies, E. Coli AGM ≤ 630 cfu/100 ml. Past that point, a geometric mean of E. Coli ≤ AGM 126 and S.V. 410 cfu/100 mL apply.

Las Vegas Wash Noncontact Recreation

	Proposed Criterion - Non Contact			
	Upper LV Wash		Lower LV Wash	
Water Year	Sample Size	AGM - 630 cfu/100 mL	Sample Size	AGM - 630 cfu/100 mL
2003	64	109	89	76.0
2004	73	99	122	25.0
2005	98	3.6	125	60.1
2006	76	164	124	73.3
2007	140	111	211	60.7
2008	140	108	266	42.3
2009	125	67	243	49.0
2010	98	122	192	59.4
2011	69	66	150	87.8
2012	27	70	87	68.9
2013	19	59	76	61.7
2014	0	No Data	0	No Data
2015	24	150	94	107.7
2016	19	132	81	72.1

AGM = Annual Geometric Mean

Both Las Vegas Wash Segments

- **NAC445A.2156 & 2158**
- **[The goal of the standards set forth in this table is to ensure that the beneficial uses for the body of water described in this section will include, without limitation, the propagation of aquatic life, including, without limitation, fish by the next triennial review required by the Clean Water Act, 33 U.S.C. §§ 1251 et seq.]**

Both Las Vegas Wash Segments

- Warm Water Fish in Las Vegas Wash – from NDOW

  Carp, Green Sunfish, Mosquito Fish, Black Bullhead, Red Shiner, Fathead Minnow, Suckermouth Catfish and Shaft Fin Moly

- Add Footnote
  - † Warmwater fish indicates protection of aquatic life warm water fish, not the establishment of a warm water fishery.

Small Business Impact Statement

- No impact to small businesses is expected, but some impact cannot be ruled out.

NDEP recommends that SEC adopt the regulatory petition, because:

- States are required to review WQS at least once every three years and, if appropriate, revise or adopt new standards (CWA section 303(c)(1)). Last comprehensive review in 1998.
- Separating out Lake Mohave as a third reach below Hoover Dam makes the WQS more representative.
- Changing Aquatic life for the Colorado River to protect Adult Trout removes unrealistic Temperature and D.O. requirements on the River.
- Adding the Bacteria WQS to the Inner Bay will help protect swimmers in the inner bay.

NDEP

Greg Lovato
Administrator

Jennifer Carr
Deputy Administrator

Jeffrey Kinder
Deputy Administrator

Rick Perdomo
Deputy Administrator

Bradley Crowell
Director

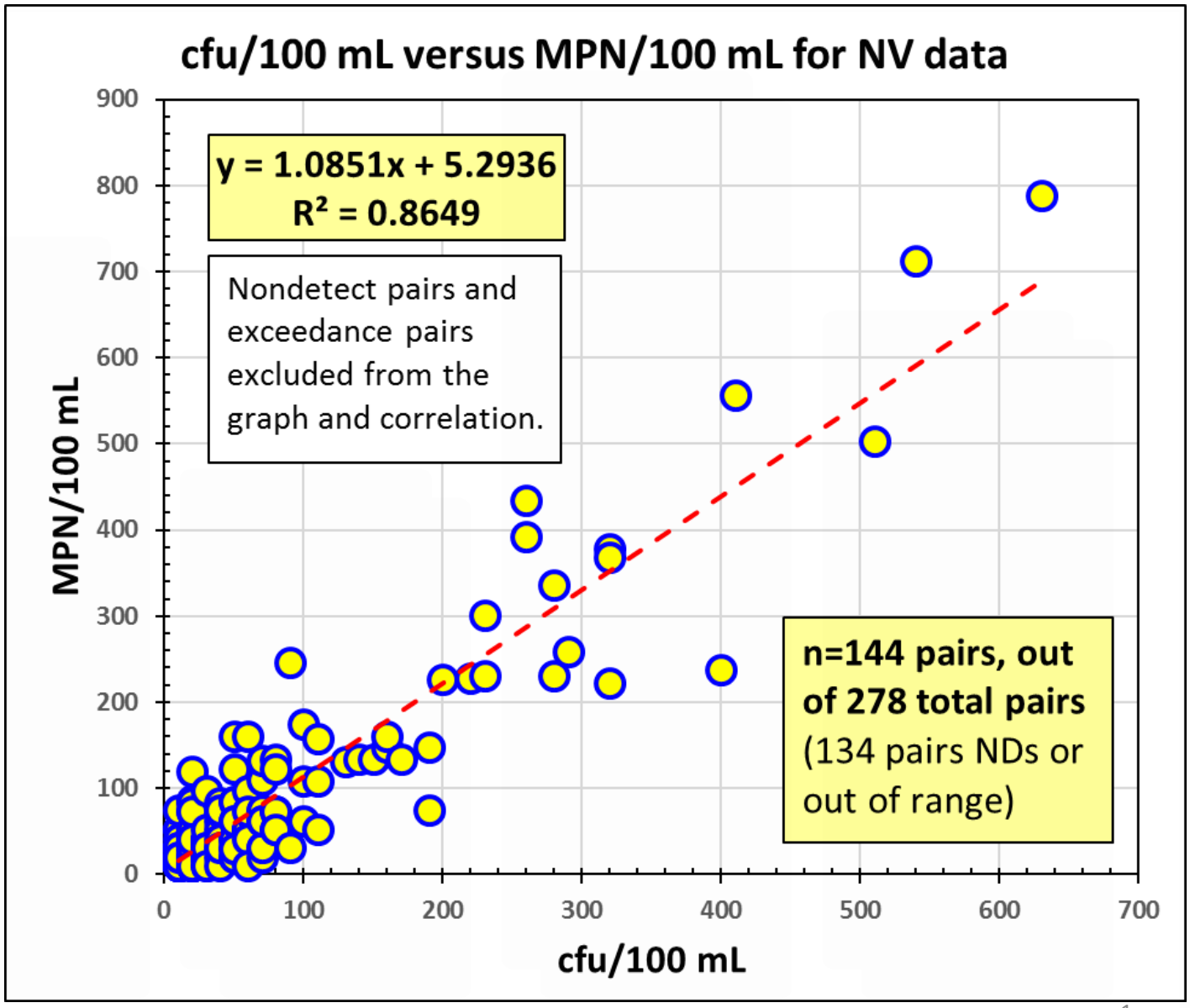
Nevada Department of CONSERVATION & NATURAL RESOURCES

Las Vegas Wash
Below Lake Las Vegas

Questions?

Contact:

John Heggeness, Surface Water Quality Standards Supervisor
NDEP/Bureau of Water Quality Planning
(775) 687-9449 jheggene@ndep.nv.gov


cfu/100 mL versus MPN/100 mL for NV data
y = 1.0851x + 5.2936
R² = 0.8649
Nondetect pairs and exceedance pairs excluded from the graph and correlation.
n=144 pairs, out of 278 total pairs
(134 pairs NDs or out of range)
MPN/100 mL
cfu/100 mL
0
100
200
300
400
500
600
700
800
900

ATTACHMENT 3:

PowerPoint from Larry Bazel - Public Comment

Objections To Proposed Standards For Inner Las Vegas Bay and Las Vegas Wash

Larry Bazel

October 2019

On behalf of:

- Clark County Regional Flood Control District
  - Clark County
  - City of Henderson
  - City of Las Vegas
  - City of North Las Vegas

Issues

- Inner Bay: designating for contact rec
- Inner Bay: setting E. coli criteria
- Las Vegas Wash: applying E. coli criteria to wet weather

Bacteria In The Inner Bay

- There are high levels of bacteria in the inner bay
  - Las Vegas Wash flows into inner bay
  - Birds in Las Vegas Wash provide bacteria
  - Flows into inner bay
  - Inner bay birds add more
- Inner Bay levels routinely exceed proposed standard

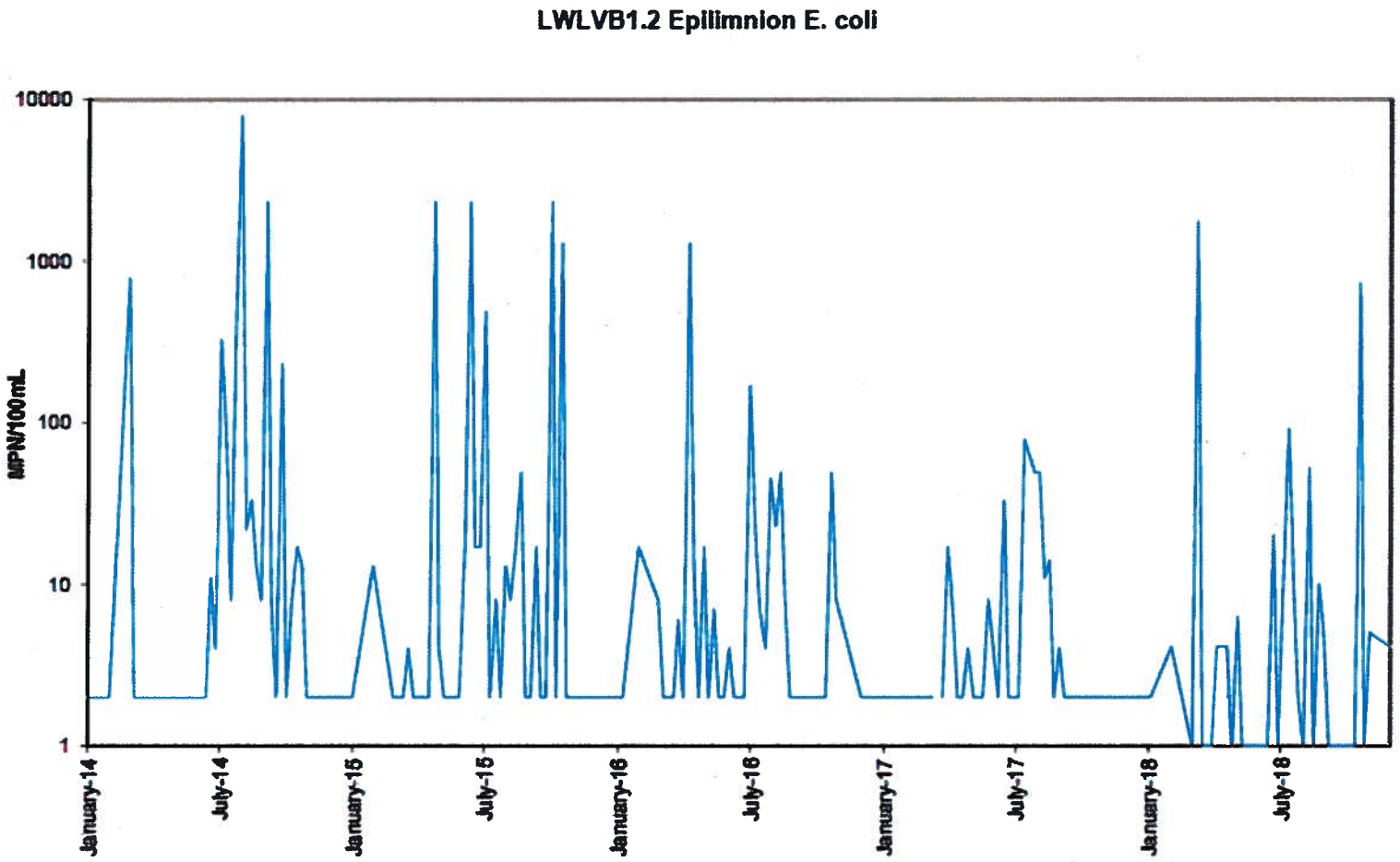
Nothing Can Be Done

- Birds are important part of environment
  - No reasonable way of implementing standard
- CWA requires achievement
  - TMDLs if necessary
- Result: 303(d) listing, TMDL, unreasonable implementation requirements

Proposed E. coli Criteria

- For inner bay:
  - 30-day geometric mean: 126
  - Single-value max: 410

1.2 Miles From LV Wash



Higher Levels Likely

- Lake monitoring data taken in dry weather
  - 1.2 miles from LV Wash
- Higher levels likely
  - At confluence
  - During wet weather
- LVW wet-weather numbers into millions

Inner Bay Was A Mixing Zone

- 40 years ago, SEC recognized that there were high bacterial levels in inner bay
- Created the inner bay segment so that there would be a mixing zone in which bacteria could be elevated

What's The Need?

- Criteria don't protect anything if they're not achieved
- Tells public inner bay is safe for swimming
- NDEP has no plans to implement
  - No idea on how to implement
- Once standard established, generally impossible to remove

NDEP's Response

- Less than 10% exceedances
  - Won't 303(d) list, nothing will happen
  - But: swimming in millions of bacteria?
- Low priority
  - Won't get to a TMDL for many years
  - But: mess for the next generation
- Required by EPA regs
  - But: hasn't been required for decades

Las Vegas Wash

- NDEP wants to designate LVW for noncontact recreation during wet weather
- The problem: no one should be recreating in LVW during wet weather
  - Flash floods are deadly

Requested Actions for Inner Bay

- Do not list inner bay for contact rec
  - Uncheck contact rec boxes in NAC 445A.2154 and NAC 445A.2142
  - Delete proposed E. coli criteria
- Modify footnote i

Footnote i

- First sentence no problem:
  - The Commission recognizes that water quality standards for the inner Las Vegas Bay may be exceeded during storm and flash flood events.

Proposed Second Sentences

- NDEP: During these events, the beneficial use of contact recreation may not be protected.
- Ours: These exceedances are not violations.

Requested Actions For LVW

- Add footnote:
- Owing to safety and bacterial concerns from storm and flash flood events, neither the noncontact beneficial use designation nor the E. coli criterion applies when flows are greater than 110 percent of average flow as measured at the nearest gage.

ATTACHMENT 4:

PowerPoint Presentation on R046-19

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

Nevada Department of CONSERVATION & NATURAL RESOURCES

Permanent Regulatory Petition R046-19
NAC Chapter 445B – Air Controls

Jeffrey Kinder, P.E., Deputy Administrator

Danilo Dragoni, PhD, Bureau Chief

Lisa Kremer, P.E., Bureau Chief

Division of Environmental Protection – Air Program

State Environmental Commission Meeting

October 2, 2019

ndep.nv.gov

Presentation Outline

Introduction

- Statutory Authority
- Why is the Regulatory Petition Needed

Regulatory Amendment

- Application vs. Maintenance Fees
- Key Changes

Outreach Activities

Public Workshop

Main Concerns from Outreach Activities / Workshop

Greg Lovato
Administrator

Jennifer Carr
Deputy Administrator

Jeffrey Kinder
Deputy Administrator

Rick Perdomo
Deputy Administrator

Bradley Crowell
Director

Presentation Outline

Regulation Timeline

Small Business Impact

Consequences if the Regulatory Petition is Not Adopted

Air Program Improvements and the Future

Questions

Greg Lovato
Administrator

Jennifer Carr
Deputy Administrator

Jeffrey Kinder
Deputy Administrator

Rick Perdomo
Deputy Administrator

Bradley Crowell
Director

Introduction

Permanent Regulatory Petition R046-19

October 2, 2019

The NDEP Air Program is Proposing a Regulatory Change to Amend the Fee Schedule.

The change seeks to:

- Update the Air Program's approach to how fees are assessed; and
- Redistribute the fees across the regulated industry to reflect workload and resources required to implement NDEP's Air Program.

Bradley Crowell
Director

Statutory Authority

Permanent Regulatory Petition R046-19

October 2, 2019

- **Authority in Nevada Revised Statutes (NRS) 445B.300(2)(a)**
  - The State Environmental Commission shall by regulation provide for "The issuance, renewal, modification, revocation and suspension of operating permits, and **charge appropriate fees for their issuance in an amount sufficient to pay the expenses of administering NRS 445B.100 to 445B.640, inclusive, and any regulations adopted pursuant to those sections**."

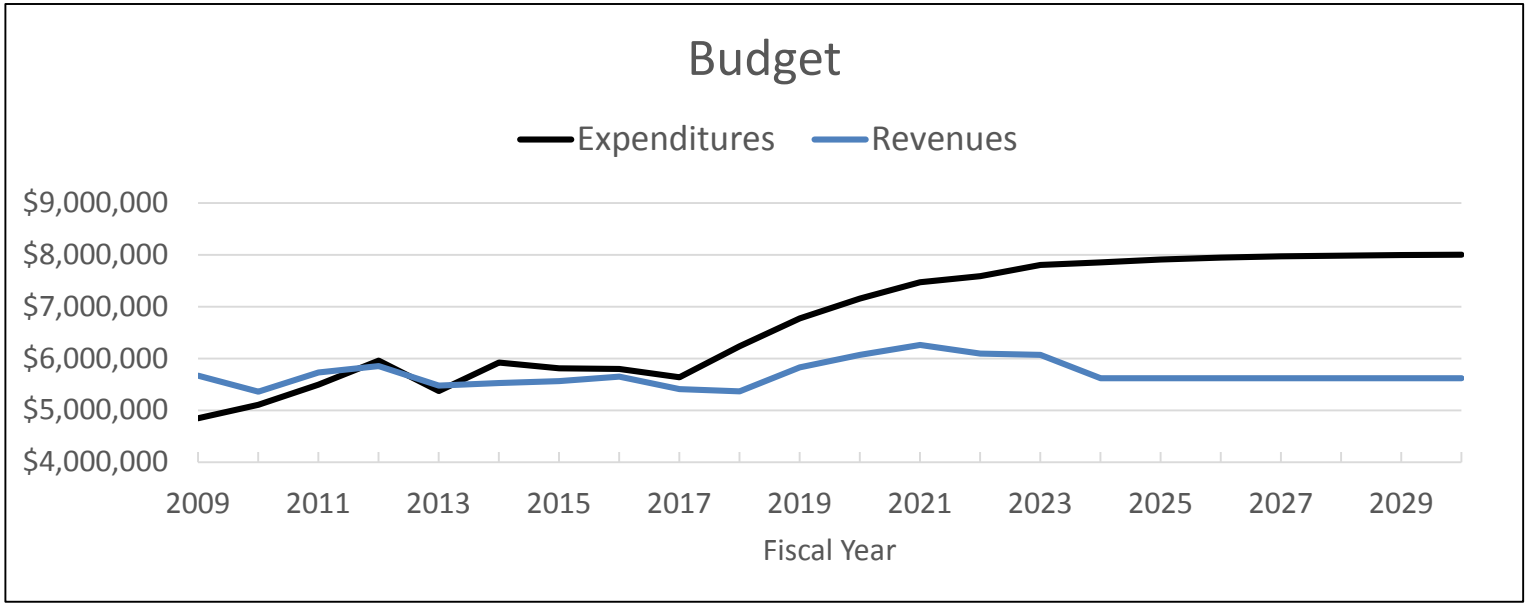
- **Air Program Proposal to Amend Nevada Administrative Code (NAC)**
  - NAC 445B.327 Fees; late penalty
    - Associated Changes in NAC 445B.019, 445B.2205, 445B.224, 445B.288, 445B.2915, 445B.315, 445B.319, 445B.331, and 445B.342

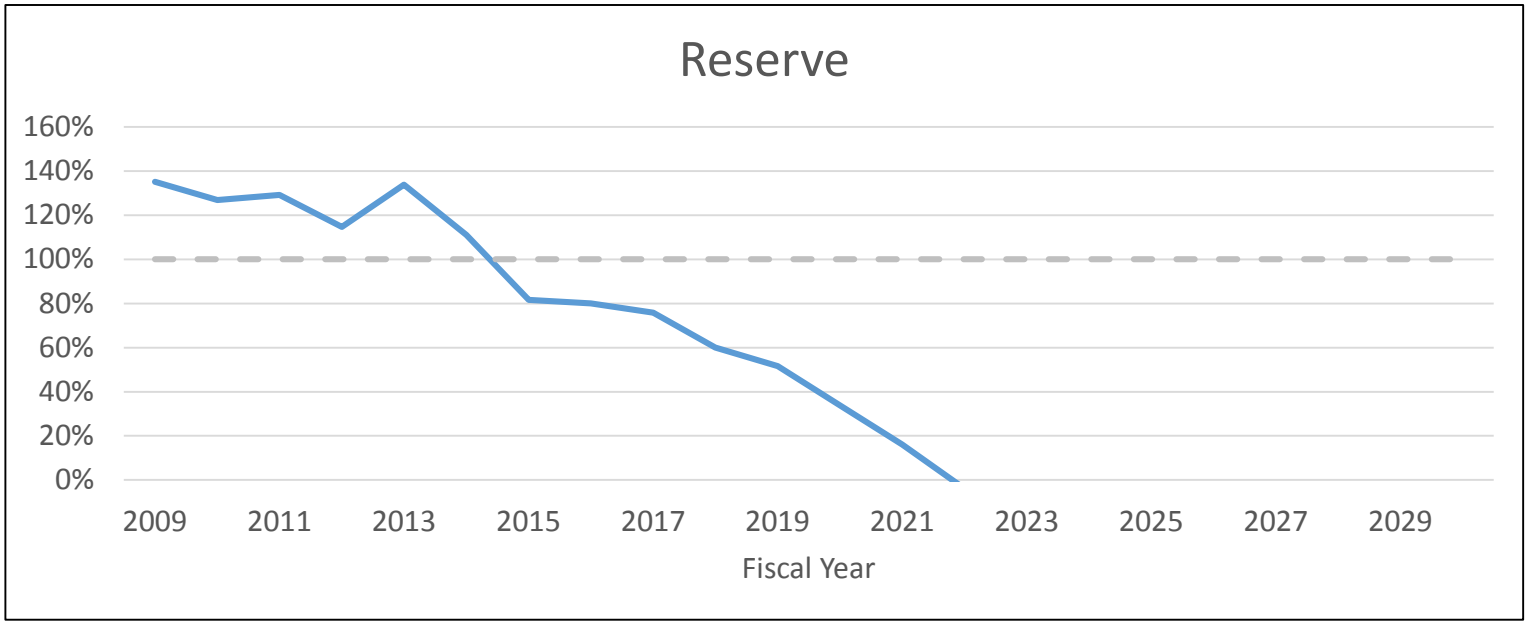
Bradley Crowell
Director

Why is the Regulatory Petition Needed?

Permanent Regulatory Petition R046-19

October 2, 2019





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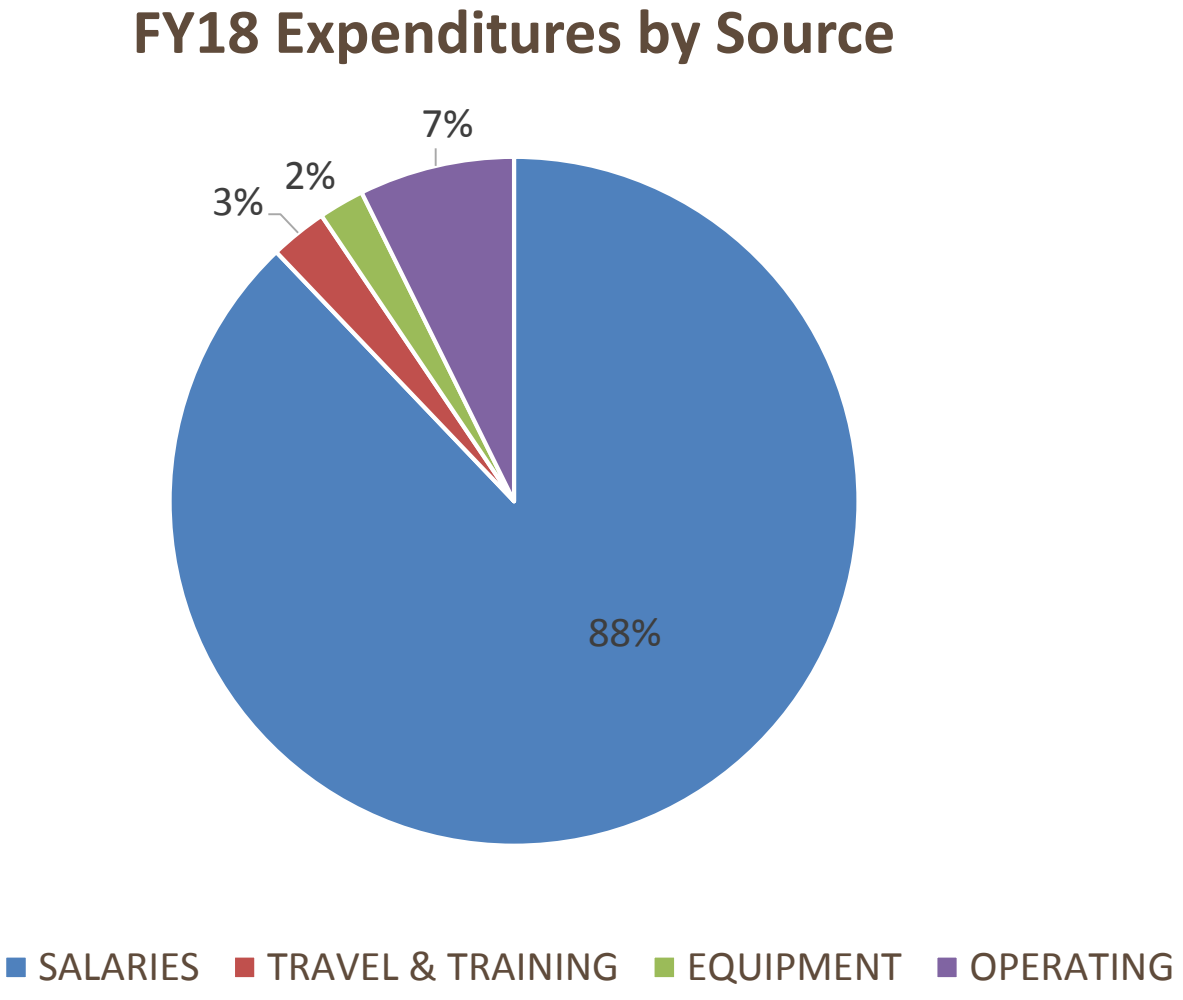
Director

Why is the Regulatory Petition Needed? (continued)

Permanent Regulatory Petition R046-19

October 2, 2019



60 Positions in the Air Program

Bradley Crowell
Director

Regulatory Amendment: Application vs. Maintenance Fees

Permanent Regulatory Petition R046-19

October 2, 2019

The Air Program is Proposing Amendments to Both Application and Maintenance Fees

- Application Fees generally support permit writers, modeling staff, and administrative support.

- Maintenance Fees generally support compliance and enforcement activities, planning functions (delegation), modeling for planning purposes, database, and operation of the ambient monitoring network.

Bradley Crowell
Director

Regulatory Amendment: Key Changes

Permanent Regulatory Petition R046-19

October 2, 2019

Application Fees

- Significant Increase
- Tiered Approach
  - Emission Units + Insignificant Activities
  - Representative of Workload
- New Application Fees
- **6 Month Delay in Implementation**
- **New "Administrative Renewal"**

Maintenance Fees

- Significant Increase
- Elimination of annual emission fees
- Class II Tiered Approach:
  - Potential to Emit
  - Surface Area Disturbance Acreage
  - Number of Emission Units
- **3-Year Phase-In**

Bradley Crowell
Director

Outreach Activities

Permanent Regulatory Petition R046-19

October 2, 2019

Events	Date
Letters to all permitted entities with new estimates of maintenance fees and fact sheets of all proposed changes	Early July
Webinar #1 – Open to regulated community and public (Participants: 45)	August 6
Presentation to the Nevada Mining Association Environmental Committee (NvMA, 59 participants)	August 8
Webinar #2 – Open to regulated community and public (Participants: 16)	August 21
Conference Call with NvMA Air Working Group (Participants: 13)	August 27
Presentation to the Nevada Chapter Associated General Contractors (AGC, Participants: 9)	August 28
NDEP Public Workshop (Participants: Carson City – 13, Las Vegas – 3, On-line – 11)	September 5

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Director

Outreach Activities (continued)

Permanent Regulatory Petition R046-19

October 2, 2019

Elements and Tools
NDEP Air Program's Website • "Learn more about the proposed fee changes" link on Air's main page • Established new Air Fee Schedule page (kept updated for the entire period)   • ***Viewed 426 times between August and September*** • Provided Fact Sheets and Updates • Provided Webinar & Workshop Notices and Presentations

NDEP Email Lists
• Used to regularly inform about proposed regulation and updates
  • Regulated sources (294 subscribers)
  • Consultants (28 subscribers)
  • Public (61 subscribers)

Fact Sheets • Described in straight-forward terms and presentation the proposed changes and fees • Distributed through website, email list, and during outreach events
Dedicated email Account for Comments and Questions • AirComments@ndep.nv.gov • Used to simplify the process of submitting questions and comments from the public and stakeholders

Bradley Crowell
Director

Public Workshop

Permanent Regulatory Petition R046-19

October 2, 2019

September 5, 2019 **Public Workshop in Carson City Video-Conference to Las Vegas Online Webinar**

- **Notice to 698 Recipients**
  - 21 Recipients on Mailing List (Industry/NGO/Public/County Commissioners)
  - 677 Recipients on E-Mail List (ListServs/Environmental Organizations/General/Libraries/Tribal/Planning Agencies/ASIP Working Group/Legislators/Newspapers/NDEP)
- **Posted on Websites** - NV.gov, LCB and NDEP
- **Physically Posted at Bryan Building**
- **Provided to 50 Libraries for Posting**
- **27 Participants**
- **6 Participants With Questions**

Bradley Crowell
Director

Main Concerns from Outreach Activities / Workshop

Comments	Response/Changes
General Comment(s) Magnitude and timing of fee increase significantly impact businesses' budgets and activities.	3-Year phase-in for annual maintenance fees for Class I – based on fixed tiers Class II, SAD – based on percentage of the fee increase (35%, 70%, 100%) Delay of 6 months for application fees*
Received by letter and email in July and early August Officials from 2 counties: Opposition for sharp increase, which significantly impacts rural county budgets. Request for exemption from annual fee.	3-Year phase-in for all SAD and Class II annual maintenance fees to minimize the increase impact and provide regulated sources with time to adjust.
Holder of Class II General Permit - Letter 9/10/2019 Excessive increase for Change of Location application (from $100 to $200 per emission unit), doubling annual cost from $10,000 to $20,000.	Delay of 6 months for application fees

*Except for the "Administrative Renewal" application process and fee

Permanent Regulatory Petition R046-19

October 2, 2019

Bradley Crowell
Director

Regulation Timeline

Permanent Regulatory Petition R046-19

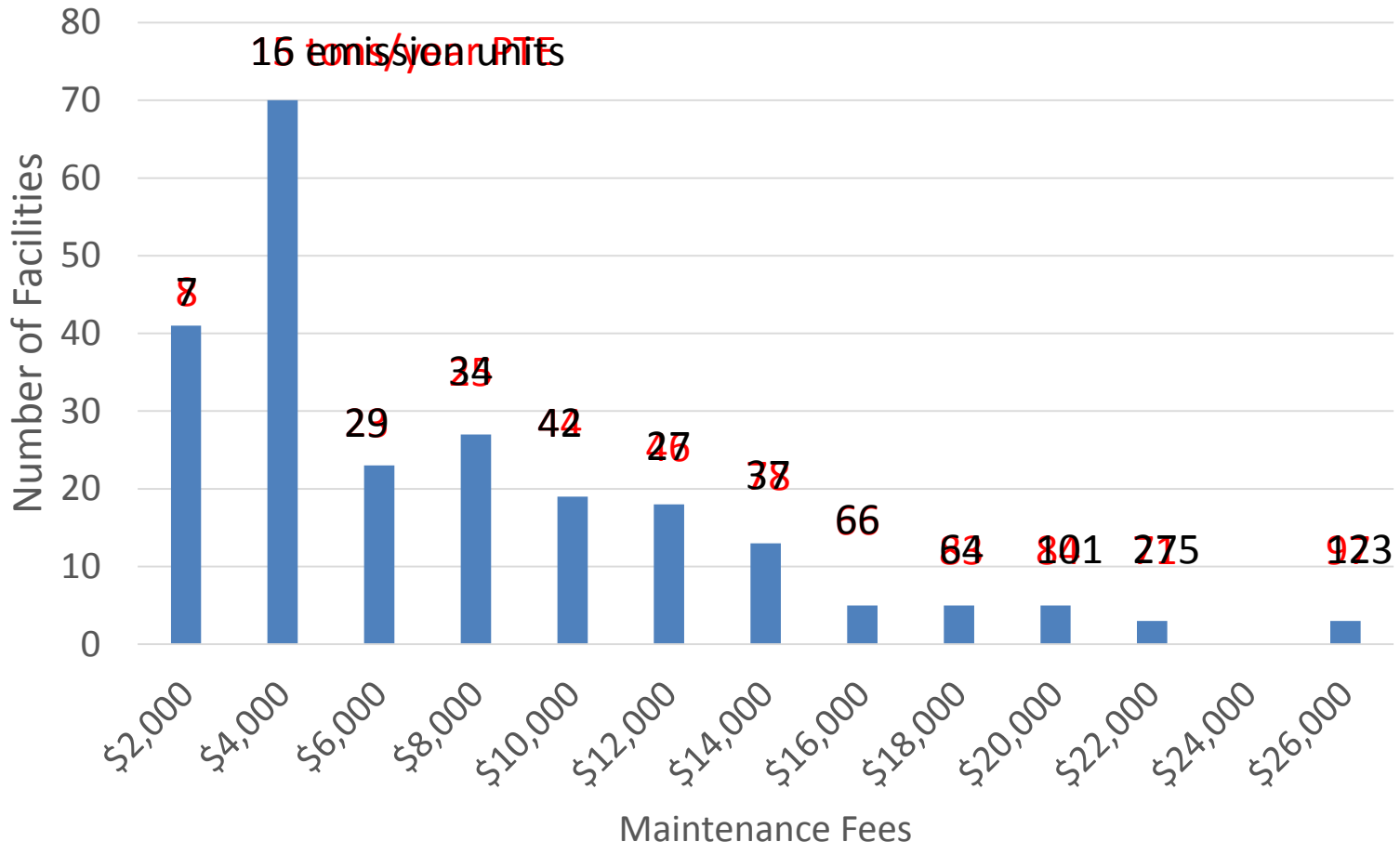
October 2, 2019

Date	Event	Revisions to Regulation
Early July	Initial Outreach to regulated community	
End of July	First Draft Submitted to LCB	3-year phase-in for maintenance fees for some of Class II sources
Aug. 6	Webinar #1	
Mid Aug.		3-year phase-in for Class I
Aug. 21	Webinar #2	
Aug. 27	LCB Completed Review	
Aug. 29	SEC Public Notice	
Early Sept.		• Phase-in for more Class II sources, SAD • 6-month delay for application fees
Sept. 5	Public Workshop	
Mid Sept.		Phase-in for ALL Class II and SAD
Sept. 20	Second Draft submitted to LCB	

Bradley Crowell
Director

Small Business Impact

Proposed Annual Maintenance Fees Across Class II Small Businesses



Class III and Class IV small businesses were exempted from permitting in 2016

Permanent Regulatory Petition R046-19

October 2, 2019

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Director

Consequences if the Regulatory Petition is Not Adopted

Permanent Regulatory Petition R046-19

October 2, 2019

Air Program Fiscal Sustainability

- Projected to deplete reserves end of FY21

Staffing Reductions

- Responsiveness and Support of Nevada Business Needs
- Backlog of Permitting Actions Expansion
- Compliance with the State and Clean Air Act Requirements
  - For Example, Air Monitoring Network and Attainment Status Demonstration

Title V Delegation and PSD Delegation

- EPA directly regulating Nevada industry

Bradley Crowell
Director

Air Program Improvements and the Future

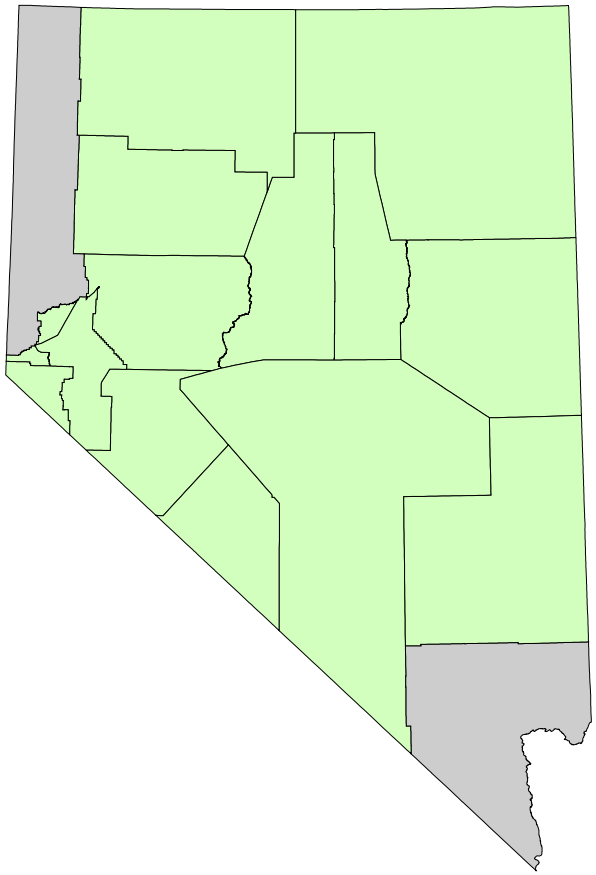
Permanent Regulatory Petition R046-19

October 2, 2019

- Excellent Customer Service and Regular Communication
- UNR Business Environmental Program (BEP) for Small Business Outreach and Assistance
- Expanded General Permit Program
- Updated (and Simplified) Applications and Guidance Documents
- Centralized Completeness and Modeling Efforts
- Defensible Modeling
- Improved Public Notice/EPA Review
- Emission Reporting with SLEIS

Bradley Crowell
Director

Questions?



Greg Lovato
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Bradley Crowell
Director

NDEP

Permanent Regulatory Petition R046-19

October 2, 2019

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Director

Nevada Department of CONSERVATION & NATURAL RESOURCES

Outreach & Public Workshops

Permanent Regulatory Petition R046-19

October 2, 2019

July 10, 2019

Letter to Regulated Facilities

Proposed fee amendment

Current vs Proposed Maintenance Fee

August 6, 2019

Online Webinar

Notice by email to ListServ & on website

45 Participants

Mainly Regulated Community, a few Association Members, Counties, and Consultants

Approximately 5 questions/comments

Bradley Crowell
Director

Outreach & Public Workshops

Permanent Regulatory Petition R046-19

October 2, 2019

August 8, 2019

Nevada Mining Association's Environmental Committee Meeting in Winnemucca

Noticed by NvMA

59 Participants

Association Members

Approximately 5 questions/comments

Bradley Crowell
Director

Regulatory Amendment

Permanent Regulatory Petition R046-19

October 2, 2019

Application Fees for All Stationary Sources

Miscellaneous Fees for All Stationary Sources	Current Fee	Proposed Fee
Insignificant Activity Determination	$0	$1,000
Applicability Determination	$0	$1,000
Confidentiality Request	$0	$1,000
Incomplete Application Fee	$0	10% of application fee
Administrative Amendment	$200	$1,000
Permit Replacement	$200	$ 0
Change of Location (per Emission Unit)	$100	$200
Class I Notification Of Authorized Change	$0	$1,000

Bradley Crowell
Director

Regulatory Amendment

Greg Lovato
Administrator

Jennifer Carr
Deputy Administrator

Jeffrey Kinder
Deputy Administrator

Rick Perdomo
Deputy Administrator

Bradley Crowell
Director

Application Fees for Class I Stationary Sources

Sources	Current Application Fees	Proposed Application Fees
Class I Prevention of Significant Deterioration (PSD) Action	$5,000 - $50,000	$20,000 - $80,000
Class I Operating Permits to Construct	$500 - $30,000	$10,000 - $60,000

Class I (Title V) Operating Permits				
# Emission Units & IAs in Application	New	Minor Revision	Renewal	Admin Renewal
Current Fee	$30,000	$5,000	$5,000	N/A
<=10	$35,000	$10,000	$30,000	$5,000
11-20	$40,000	$15,000	$35,000	
21-50	$45,000	$20,000	$40,000	
51-100	$50,000	$25,000	$45,000	
>100	$55,000	$30,000	$50,000	

Regulatory Amendment

Greg Lovato
Administrator

Jennifer Carr
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Jeffrey Kinder
Deputy Administrator

Rick Perdomo
Deputy Administrator

Bradley Crowell
Director

Application Fees for Class II Stationary Sources

Class II Stationary Sources				
# Emission Units & IAs in the Application	**New**	**Revision**	**Renewal**	**Admin. Renewal**
Current Fee	$3,000	$2,000	$2,000	N/A
<=10	$5,000	$2,500	$2,500	$2,000
11-20	$10,000	$5,000	$5,000	
21-50	$15,000	$7,500	$7,500	
51-100	$20,000	$10,000	$10,000	
>100	$30,000	$15,000	$15,000	

- Similar tiered approach for Surface Area Disturbance Permits ($500 vs. $1,000 to $5,000)
- Minimal changes for General Permits ($500 vs. $1,500)

Regulatory Amendment

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

Maintenance Fees for Class I Stationary Sources

Class 1 Stationary Sources	Major Stationary Source with one or more Class I OP/OPTC	Major Source or Class II Source with one or more Class I OP/OPTC	Major Source with one or more Class I OP/OPTC for a Municipal Solid Waste Landfill
Current Fee	$25,000 - $30,000	$20,000	$15,000
For the fiscal year beginning on July 1, 2020	$40,000	$30,000	$20,000
For the fiscal year beginning on July 1, 2021	$50,000	$35,000	$22,500
For the fiscal year beginning on July 1, 2022 and each year thereafter	$60,000	$40,000	$25,000

Bradley Crowell
Director

Regulatory Amendment

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

Maintenance Fees for Class II Stationary Sources

Class II Stationary Sources		
PTE Fee + SAD Fee + Range of Emission Units Fee		
Potential To Emit (TPY)	**Current Fee**	**Proposed Fee**
PTE 80 to 99.9*	$5,000	$10,000
PTE 50 to 79.9*	$3,000	$6,000
PTE 25 to 49.9*	$1,000	$2,000
PTE <25*	$500	$1,000
SAD Area (ac)	**Current Fee**	**Proposed Fee**
5-19.9	N/A	$1,000
20-99.9	N/A	$2,000
100-499.9	N/A	$3,000
≥500	N/A	$5,000
# Emission Units (not including IAs)	**Current Fee**	**Proposed Fee**
<=10	N/A	$500
11-20	N/A	$1,000
21-50	N/A	$2,000
51-100	N/A	$5,000
>100	N/A	$10,000

* Potential to Emit of any single regulated pollutant, except CO and CO_2

Bradley Crowell
Director

Regulatory Amendment

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

Maintenance Fees for Class II General & SAD Permits

Class II General Permits	Current Fee	Proposed Fee
Stationary	$500	$500
Temporary	$500	$500

Class II Surface Area Disturbance (SAD) Permits	Current Fee	Proposed Fee
5-19.9 acres	$250	$1,000
20-99.9 acres	$500-$750	$2,000
100-499.9 acres	$1,000-$2,000	$3,000
≥ 500 acres	$5,000	$5,000

Bradley Crowell
Director

Introduction

Greg Lovato
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Jennifer Carr
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Rick Perdomo
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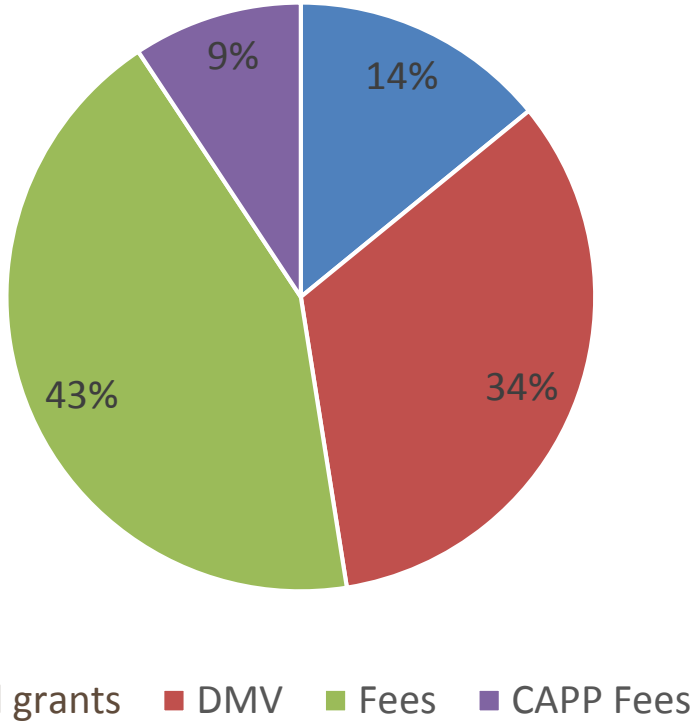
Bradley Crowell
Director

FY18 Actual Revenues by Source

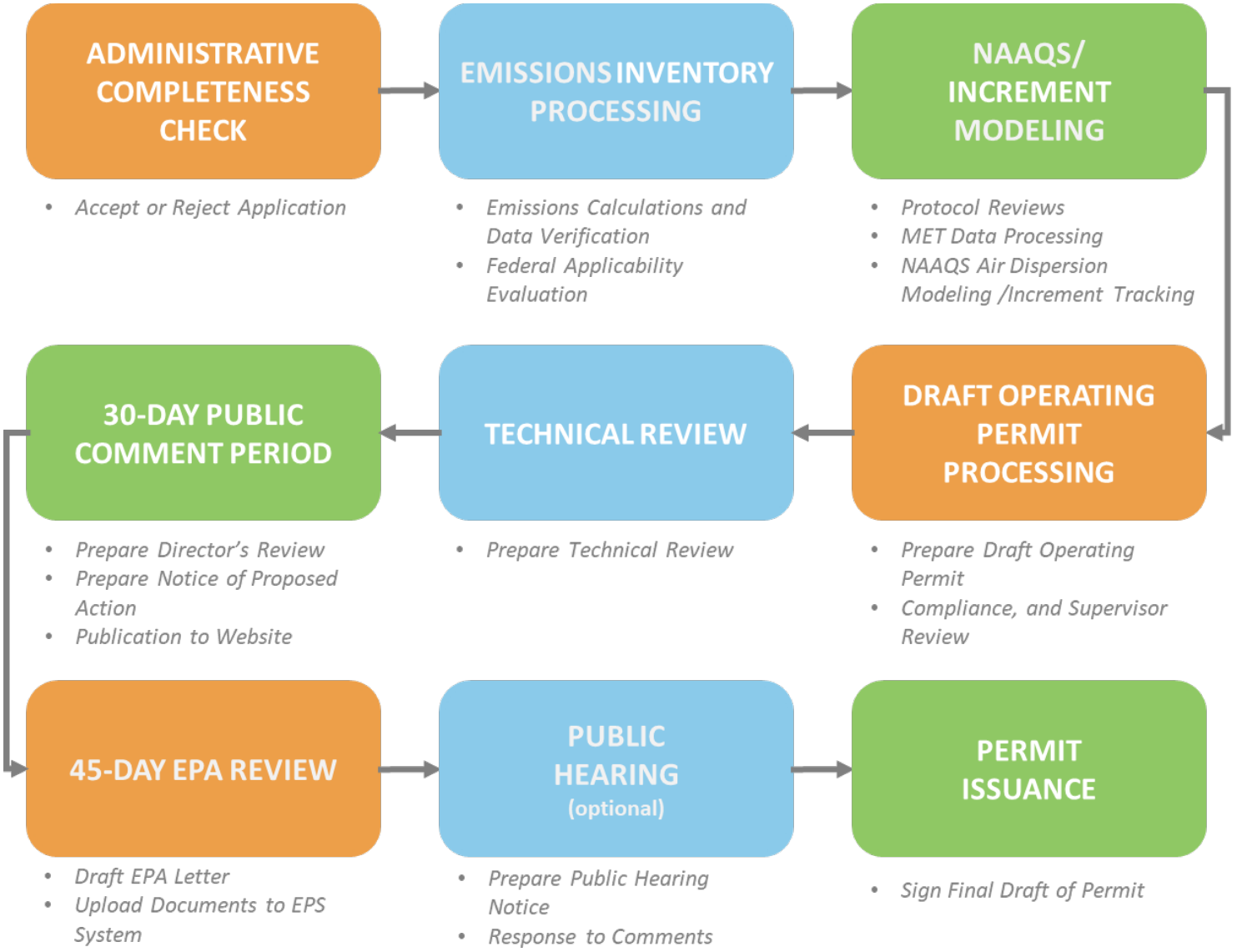


All grants: EPA-PPG, EPA-$PM_{2.5}$, DOE, excluding "pass-through" grants (EPA-DERA)
DMV: Smog Check Program
Fees: Application Fees, Emission Fees and Maintenance Fees (including Mercury Program)
CAPP Fees: Chemical Accident Prevention Program – Not Considered

What Does My Application Fee Pay For?

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019



Bradley Crowell
Director

Fee Amendment: Class I Stationary Sources

Application Fees

Class I - Prevention of Significant Deterioration (PSD) Action	Current Fee	Proposed Fee
New Operating Permit	$50,000	$80,000
Major Modification	$50,000	$80,000
New OPTC	$50,000	$80,000
OPTC Rollover	$5,000	$20,000
OPTC Revision	$5,000	$20,000

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

Bradley Crowell
Director

Fee Amendment: Class I Stationary Sources (continued)

Application Fees

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

Class I (Title V) Operating Permits						
# Emission Units + Insignificant Activities	New	Minor Revision	Significant Revision	Renewal	Admin Renewal	Admin Revision
Current Fee	$30,000	$5,000	$20,000	$5,000	N/A	$500
<=10	$35,000	$10,000	$35,000	$30,000	$5,000	$1,000
11-20	$40,000	$15,000		$35,000		
21-50	$45,000	$20,000		$40,000		
51-100	$50,000	$25,000		$45,000		
>100	$55,000	$30,000		$50,000		

Bradley Crowell
Director

Fee Amendment: Class I Stationary Sources (continued)

Application Fees

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

Class I Operating Permit to Construct (OPTC)			
# Emission Units + Insignificant Activities	New	Revision	Rollover
Current Fee	$20,000	$5,000	$5,000
<=10	$40,000	$10,000	$5,000
11-20	$45,000	$15,000	
21-50	$50,000	$20,000	
51-100	$55,000	$25,000	
>100	$60,000	$30,000	

Bradley Crowell
Director

Fee Amendment: Class II Stationary Sources

Application Fees

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

Class II Stationary Sources				
# Emission Units + Insignificant Activities	New	Revision	Renewal	Admin. Renewal
Current Fee	$3,000	$2,000	$2,000	N/A
<=10	$5,000	$2,500	$2,500	$2,000
11-20	$10,000	$5,000	$5,000	
21-50	$15,000	$7,500	$7,500	
51-100	$20,000	$10,000	$10,000	
>100	$30,000	$15,000	$15,000	

Bradley Crowell
Director

Fee Amendment: Construction Permits

Application Fees

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

Class II General Permits	Current Fee	Proposed Fee
Temporary	$500	$1,500
Stationary	$500	$500
Stationary (Revision)	Not Applicable	$250

Class II Surface Area Disturbance (SAD) Permits – New/Renewal	Current Fee	Proposed Fee
5-19.9 acres	$500	$1,000
20-99.9 acres		$2,000
100-499.9 acres		$3,000
≥ 500 acres		$5,000
Revision	$200	$500

Bradley Crowell
Director

Nevada Department of CONSERVATION & NATURAL RESOURCES

NDEP

What Does My Maintenance Fee Pay For?

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

Compliance Activities

- Implement Compliance Monitoring Strategy (CMS) Plan in lieu of federal EPA Inspections
- More than 1,000 Stationary Sources
- Source Tests (observation and review)
- Compliance Orders (often the bridge between facility needs and permitting)
- 160 Complaints (average per year)
- 100 Excess Emission Reports (average per year)

Planning / Modeling

- Legislative and Rule Making (SB 42)
- Nevada aSIP (State Implementation Plan)
- Delegation Agreements
- NAAQS
- Regional Haze
- Mobile Sources (DERA, VW Settlement)
- GHG Annual Inventory and Report
- Clean Power Plan / Affordable Clean Energy Rule
- 139 NESHAP (MACT) Standard Source Categories
- 71 New Source Performance Standards (NSPS)
- 50 Regulatory Notices / Proposed Rules (average per year)

Bradley Crowell
Director

Nevada Department of CONSERVATION & NATURAL RESOURCES

What Does My Maintenance Fee Pay For?
(continued)

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

Ambient Monitoring

- https://airnow.gov/
- Regulatory – 9 sites/11 instruments
- Meteorological Towers – 3 (2 stationary, 1 mobile), used for modeling
- Non-regulatory – 11 non-regulatory instruments in operation, 6 sites with infrastructure but instrument is not currently operating at the site
- Exceptional Events analysis

Database

- National Emissions Inventory (NEI)
- SLEIS – Emissions Reporting
- ICIS-Air EPA Reporting

Administrative

- Keeps the Air Program running smoothly!

Small Business Outreach Program

- Free and Confidential Assistance
- Environmental Assistance Line
- Consulting Assistance
- Publications
- Training Seminars

Bradley Crowell
Director

Key Components of Proposed Fee Amendment

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

Maintenance Fees

- Elimination of annual maintenance emissions fees
- Increase in annual maintenance fees for major stationary sources and major sources
- Major source maintenance fees apply for a stationary source with both Class I and Class II operating permits
- Maintenance fees for Class II operating permits based on PTE + SAD acreage + number of permitted emission units (instead of only PTE)
- No change for general permits
- Slight increase depending on range of SAD acreage, decreased from 6 categories of SAD acreage to 4

Bradley Crowell
Director

Work Load Considerations and Staffing Levels

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

In December of 2018, the permitting staff performed a two week study which included:

- Hours each permit writer on average spent on:
  - Emission Calculations
  - Permit Development
  - Technical Review Document
  - Peer and Supervisor Review
  - Public Notice and EPA Documents (if applicable)
- Number of emission units in each action
- Type of permit (Class I or II)
- Amount of actions per year

Bradley Crowell
Director

Work Load Considerations and Staff (continued)

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

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Director

Nevada Department of CONSERVATION & NATURAL RESOURCES

The results from the two week study on average are as follows:

- Class I:
  - It takes 340 hours per permitting action to process
  - There are 35 actions per year processed
  - There are 60 emission units per action
  - 6 permitting staff are required
- Class II
  - It takes 315 hours per permitting action to process
  - 85 actions per year processed
  - 35 emission units per action
  - 13 permitting staff are required

NDEP's Air Program in Comparison with Other Programs

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

Considerations when comparing different Air Programs:

- **Structure of Program**
  - Construction and Operating Permitting vs Hybrid Approach
- **Attainment vs Non-Attainment Permitting**
- **Prescriptive Emission Factors and Controls vs Modeling**
- **Regional Challenges**
  - Dust Concerns
  - Smoke Impacts
  - Cross-State Pollution
- **Focus on Compliance vs Enforcement**

Bradley Crowell
Director

NDEP's Air Program in Comparison with Other Programs (continued)

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

2018 NACAA Title V Survey Result Summary

- **27 States and 17 Local Air Agencies Responded**
- **Staffing levels for NDEP's Title V program are in line with average staffing levels at other state agencies.**
  - NDEP employs 0.23 full time employees per Title V source compared to an agency average of 0.24 full time employees per Title V source.
  - NDEP employs 0.09 Title V permit writers per Title V source compared to a state agency average of 0.09 Title V permit writers per Title V source

Bradley Crowell
Director

NDEP's Air Program in Comparison with Other Programs (continued)

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

2018 NACAA Title V Survey Result Summary (continued)

- **NDEP has the lowest emission fees among the agencies who responded to the survey.**
  - NDEP charges an emission fee of $17.32/ton compared to a state average emission fee of $53/ton.
  - NDEP does not have an emission fee for HAPs; whereas the average emission fee for HAPs is $60/ton among the states who do charge a HAP emission fee.

Bradley Crowell
Director

Comparison With Other Air Quality Agencies

Agency	Application Fees	Maintenance Fees	Emission Fees
 Arizona	Fees per hour	Based on type of industry, and synthetic vs. not synthetic minor	$44.60
 Utah	Fee per hour	N/A	$82.75
 Oregon	Based on the type of facility/permit	Variable	$63.26
 Clark County	Based on the type of emission unit AND fees for testing and inspection	Based on type of emission unit	$42-$56
 NDEP	Number of emission units in the application	Based on the 'size' of the operation	None – was $17

Greg Lovato
Administrator

Jennifer Carr
Deputy Administrator

Jeffrey Kinder
Deputy Administrator

Rick Perdomo
Deputy Administrator

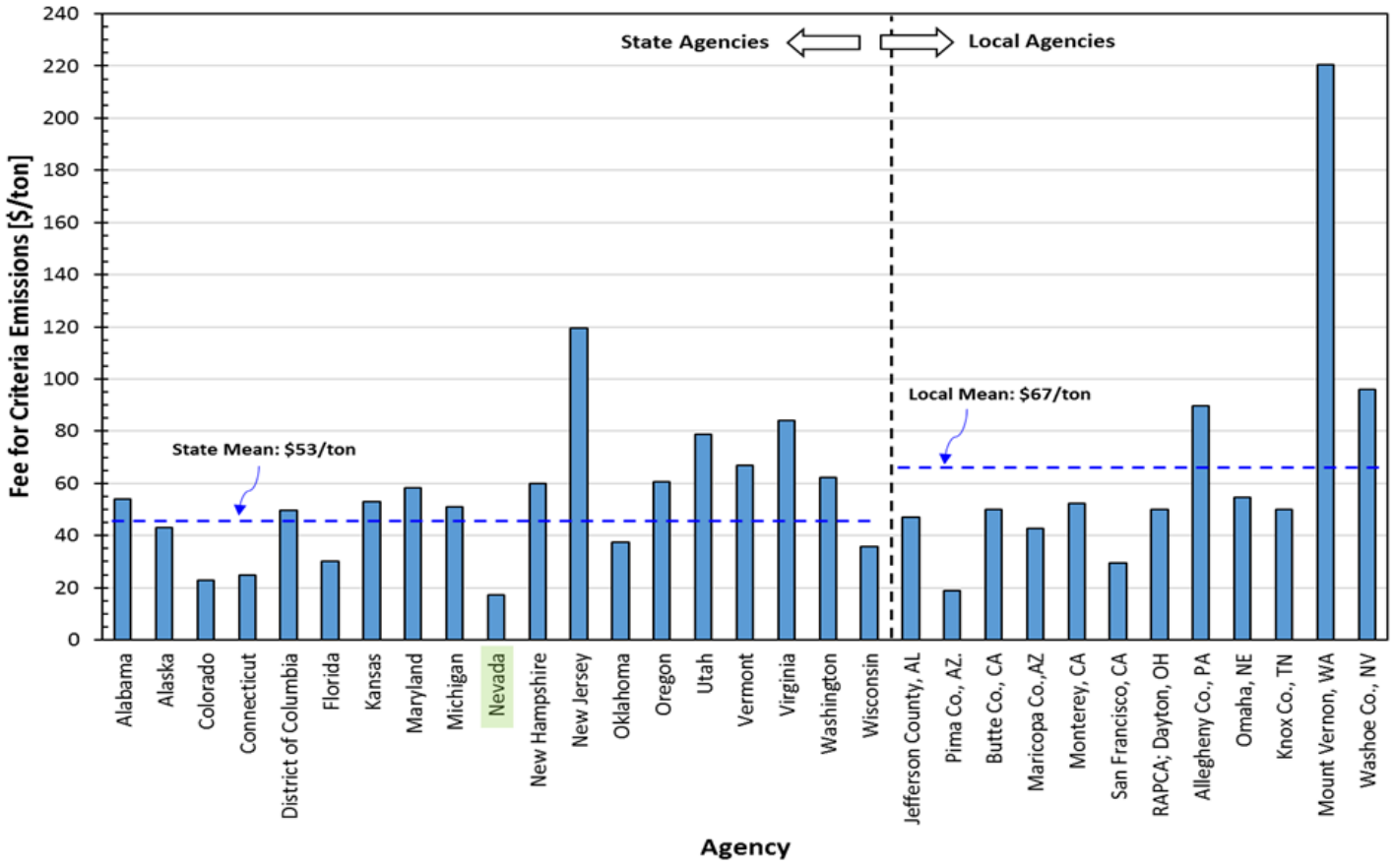
Bradley Crowell
Director

NDEP's Air Program in Comparison with Other Programs (continued)

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

2018 NACAA Title V Survey Result Summary (continued)



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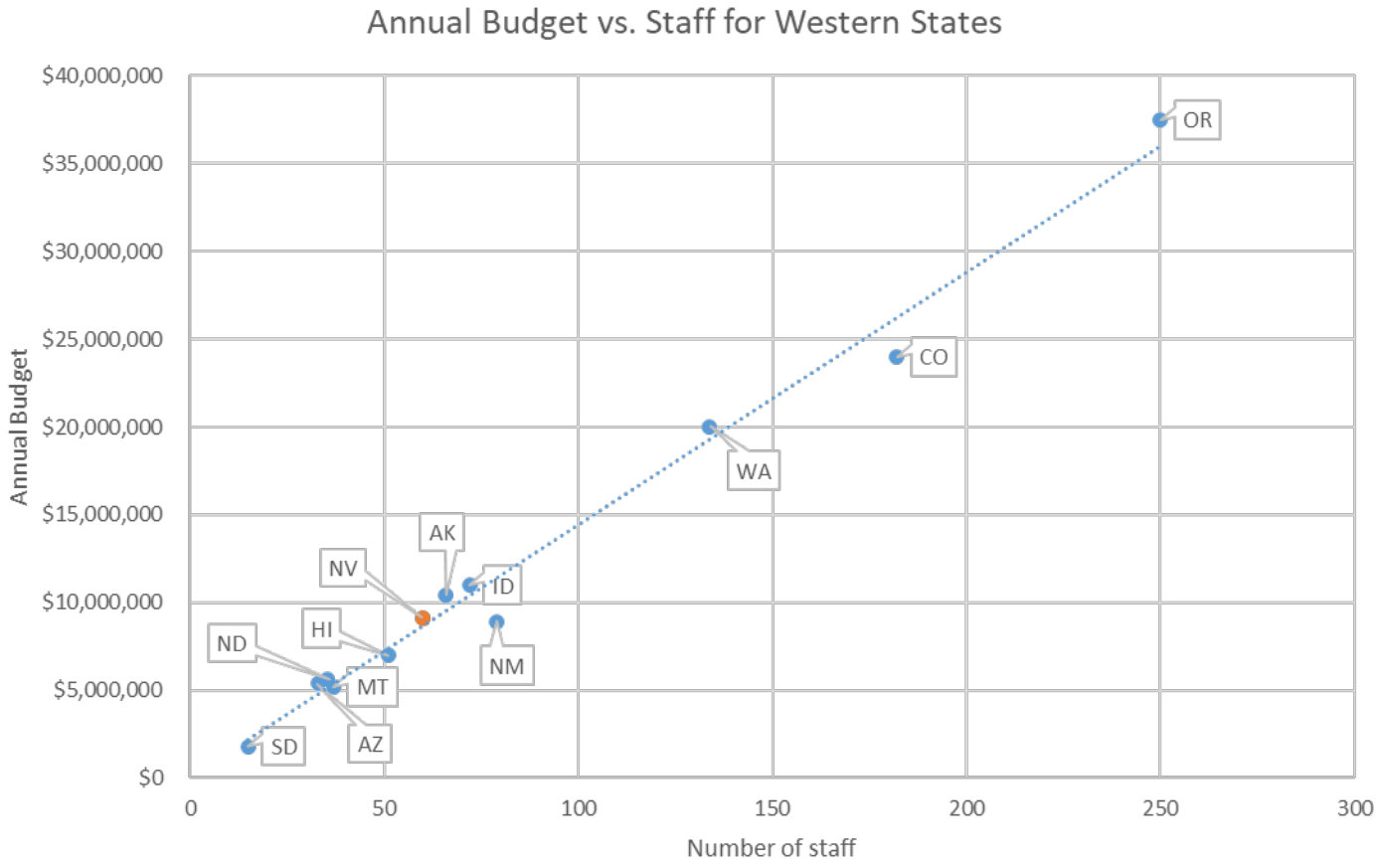
Director

NDEP's Air Program in Comparison with Other Programs (continued)

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

Air Program Budget Comparison with Other Western States



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Director

Nevada Department of CONSERVATION & NATURAL RESOURCES

Outreach & Public Workshops

Proposed Regulation Amendment to NAC 445B – Air Controls

October 2, 2019

Summary of Comments Received

- **Large increase in fees**

- **Increase , Impact on Already Established Budget**
  - We are proposing delaying Application Fees from January 2, 2010 to July 1, 2020
  - We are also proposing to phase-in Maintenance Fees for Class I Stationary Sources and for Class II Stationary Sources and Surface Area Disturbance Permits with large increases in Maintenance Fees

- **Indexing Fees to Prevent Large Increases in the Future**
  - We will evaluate this option in the next Biennium

Bradley Crowell
Director

Outreach & Public Workshops

Permanent Regulatory Petition R046-19

October 2, 2019

Positive Feedback:

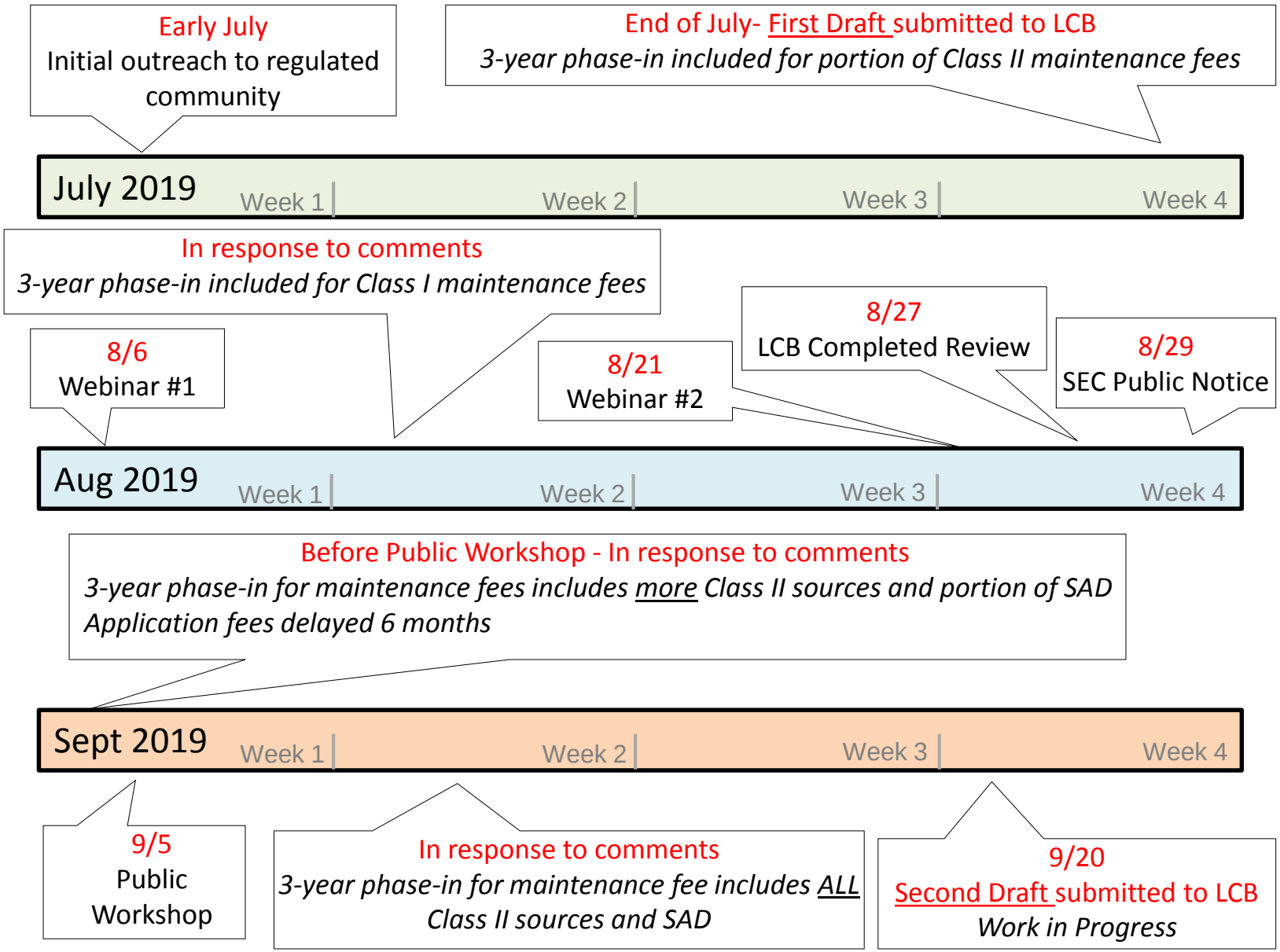
- Appreciate early engagement
- Really like phased-in approach of fees and would like to see it applied on a broader sense
- Appreciate the Administrative Renewal
- People are satisfied with the services provided by your agency, the communication, streamlining, the reduction in permitting backlog, and the number of permits being issued. We don't have the permitting issues we had 3-4 years ago.
- Appreciate the phased-in approach for Class II facilities but can we eliminate the thresholds so it applies to all Class II facilities?

Bradley Crowell
Director

Regulation Timeline

Permanent Regulatory Petition R046-19

October 2, 2019



Bradley Crowell
Director