MEETING MINUTES
WATER POLLUTION CONTROL ADVISORY COUNCIL
January 10, 2020
METCALF BUILDING
1520 EAST SIXTH AVE., HELENA, MT

PRESENT

Councilmembers Present:
Trevor Selch
Michael Wendland
Bob Zimmer
Eric Campbell

Via Phone:
Stevie Neuman
Adam Sigler
Craig Workman
Mary Ahmann Hibbard

Councilmembers Absent:
Karen Sanchez
Earl Salley

Others Present:
Darryl Barton, DEQ
Sandy Matule, DEQ
Kurt Moser, DEQ attorney
Rainie DeVaney, DEQ
Mike Suplee, DEQ
Dean Yashan, DEQ
Maya Rao, DEQ
Christine Weaver, DEQ
Kristy Fortman, DEQ
William George, DEQ
Eric Sivers, DEQ
Joanna McLaughlin, DEQ
Derek Fleming, DEQ
Jon Kenning, DEQ
Tim Davis, DEQ
Derf Johnson, MEIC
Caroline Canarios, Northern Plains Resource Council
Larry Bean, Yellowstone Valley Citizens Council

Others on phone:
Myla Kelly, DEQ
Vicki Marquis, attorney with Holland & Hart
representing CHS Laurel Refinery
Scott Mason, Geochemist with Hydrometrics
Kalispell, MT

CALL TO ORDER

Chair Selch called the meeting to order at 10:00 A.M. Chair Selch asked for those on the phone to give their name and affiliation.

APPROVAL OF AGENDA

Chair Selch brought forward the approval of the agenda. Councilmember Wendland moved to approve the agenda. Councilmember Zimmer seconded the motion. The agenda was approved.

APPROVAL OF MINUTES

Chair Selch brought forward approval of the November 8, 2019, meeting minutes. Chair Selch commented that the minutes had been disbursed to everyone via email for additions and corrections. He asked if there were any additional corrections. Michael Wendland moved to accept the minutes as corrected. Stevie Neuman seconded and the minutes were approved.

Action Item

Arsenic Standards for Parts of the Yellowstone River presented by Michael Suplee, Acting Section Supervisor, DEQ Water Quality Standards and Modeling Section

Dr. Suplee reminded the council that at the last WPCAC meeting DEQ had presented proposed arsenic standards for the Yellowstone River. There were some concerns from industry regarding the rule proposal. WPCAC decided to table the action on the rulemaking. Since that meeting DEQ has completed more analysis that will be presented today that changes the way DEQ is expressing the standards. Dr. Suplee explained the details. The arsenic standards were proposed for five segments of the Yellowstone River that started at Yellowstone Park and ended at the confluence of the Big Horn River. At the last meeting DEQ had proposed nonanthropogenic standards. *(Note: Dr. Suplee, with the aid of a Power Point presentation, explained in detail the technical analysis. The Power Point presentation will be posted on the DEQ/WPCAC website along with these minutes.)* Dr. Suplee framed the legal side of the issue and the statutes that are involved in this. There are three major statutes that are involved – 75-5-222 which is the statute that led us to begin working on this rule change. It says for parameters for which the standards are more stringent than the nonanthropogenic condition, the standard is the nonanthropogenic condition. Another statute is the basic Board authority to adopt rules, and it says the Board shall adopt water quality standards giving consideration to the economics of waste treatment and prevention. The other statute that is important is the state's general policy. The state's policy under 75-5-101 is to conserve water by protecting, maintaining and improving the quality and potability of water for public water supplies. DEQ took a step back and asked how might this be looked at in a way that could best objectively assess the standards in terms of their protection of the use. The reasoning was if DEQ is adopting a nonanthropogenic arsenic standard in a particular way, while conforming with the statutes, and DEQ can demonstratively show a decrease in cancer risk for people using the Yellowstone River as a water supply, then that is the best expression of the standards. Arsenic is a carcinogen that can cause cancer, and DEQ is trying to protect the drinking water use.

There was background noise and Chair Selch asked everyone to mute their phones. Adam Sigler let the council know the Skype call isn't working and he just called in to the number. Mary Ahmann Hibbard also could get no audio with the Skype call, so she called in directly. They missed the first part of the presentation.

Dr. Suplee proceeded with his presentation, telling them he was just getting into the meat of the matter, and they hadn't missed too much. Since the last WPCAC meeting in November, Dr. Suplee explored the effects on the drinking water beneficial use when the nonanthropogenic standards are expressed in different ways. He looked at high flow and the low flow seasonal median standards – that is the original proposal standards, versus a single annual median standard – noting that the annual median would be one single value per year. The question posed was 'which nonanthropogenic standards – the two seasonal or the one annual – results in lower cancer risk to people drinking water from the Yellowstone River downstream from the arsenic discharges? For this line of reasoning to have any meaning, you must assume or need to demonstrate that arsenic in finished drinking water varies with river arsenic concentrations. If treatment of the drinking water results in no relationship to that (i.e., to arsenic levels in drinking water) there is really no reason to pursue this. DEQ explored that end of things and it turns out that arsenic in Billing's finished drinking water does vary with river arsenic concentrations

(Someone on the phone said they couldn't see the visual PowerPoint that Mike was referring to – no one could see it. Took a break to see if they could get Skype operational. Darryl Barton emailed presentations to council members on phone. Tim Davis, DEQ WQD Administrator let everyone know that DEQ is aware of the problems with Skype and have addressed it with the IT folks. Tim Davis apologized for the inconvenience.)

Dr. Suplee directed everyone to the slide he was referring to and continued with his presentation.

Dr. Suplee gave a brief overview for those who weren't initially connected to the meeting. Since the last WPCAC meeting DEQ has looked at things in different ways of how the nonanthropogenic standard could be expressed. DEQ looked at it from the perspective of which nonanthropogenic standards - either the two seasonal or the one annual – would lower cancer risk to people drinking water from the Yellowstone downstream from permitted arsenic discharges.

You have to assume in this case or demonstrate that arsenic in finish water actually varies with the river arsenic concentrations.

DEQ looked at that and in fact arsenic concentrations in the finished Billings drinking water for example do go up and down with the river. The relationship is pretty strong so about 71% of the concentration changes we see in arsenic in the finished drinking water in the Billings water supply is a function of what is in the river. The point is that all concentrations are below the 10 MCL (the drinking water standard), but nevertheless, any concentration increase in the river will be reflected to some degree in the drinking water supply as would any reduction. Montana DEQ is not the only agency that finds this relationship. DEQ looked at literature and found that in other parts of the country, there have been relationships like this between arsenic and finished water and the source.

There are other principles and assumptions that go into what is being seen. Human cancer risks of a carcinogen like arsenic is continuous from the origin. It has no safe lower concentration to our knowledge. So, for example, EPA – and also the City of Billings, for example, in their drinking water reports that they put out every year state that the maximum contamination level goal is zero. The standard right now is 10 µg/L, but they would like to see it much less than that. Arsenic is a Category A carcinogen, which means it is a known human carcinogen. The relationship between arsenic concentration and cancer risk was computed based on accepted EPA equations and risk factors and assumptions that we already have in DEQ-7. For example, we have a cancer potency risk factor of 1.75, a bio concentration factor of 44, and we assume a body weight of 80 kg. It is a long-term exposure issue of 70 years. If you were to compute out a human health standard for arsenic in Montana right now based on our laws, you would come up with a concentration of 13.6 micrograms per liter. The MCL is 10, so state law says you adopt the lower of the two, so that is why we have 10 as the standard. The important part to remember from this is the relationship is like this – it continues down to zero, so any increase in arsenic levels in a drinking water source is some degree of increase in cancer risk.

Dr. Suplee explained how DEQ analyzed the cancer risk. It still must meet the other statutes. To meet 75-5-222 which is the nonanthropogenic part, Dr. Suplee asked "in each segment does the annual median ever actually occur during high flow"? High flow is the period when the river is the most diluted. *The median for the year is of course a higher value. Does it ever actually occur during high flow and, yes, it turns out that it does; each annual median is within its corresponding nonanthropogenic high flow concentration range.* For example, in segment 4, the annual median is 13 micrograms per liter and the high flow maximum during that period is 13.7, so it is just within a nonanthropogenic range. So, essentially the basic intent of 75-2-222 is met in all five segments. The next step was to compute new concentrations for each expression of the nonanthropogenic standards. One would be the river plus the discharge at two seasonal standards and the other was the river plus discharge at one annual standard. Harmonic means was used as a long term standard method for looking at long term flows in a river. This is the basic mixing equation which mixes the river with the discharge to come up with a new concentration. The new concentration can be used to calculate total cancer risks or risk associated with the river concentration that comes from that.

<u>Summary of Findings</u>:

In comparing cancer risk for a two-seasonal standard versus a one seasonal standard, a one annual standard is more protective in all cases except for Segment Five where essentially either approach is equal. So, in all cases there is a small but demonstrable decrease in cancer risk by setting up the standard as one annual standard as opposed to the two-seasonal standard. Dr. Suplee explained that although it seems counterintuitive in some ways, the example from Segment One should illustrate why it occurs. Dr. Suplee used a graph to explain that there is greater dilution when it matters most. *(Refer to Power Point presentation).* On the y-axis, it shows the concentration of arsenic in the river in Segment One as it varies throughout the year. The shaded area is the high flow season – the other line on the graph is associated with the dilution factor on the other axis. It shows the degree of dilution that the river offers because of the amount of water in the river; so, it has a relatively low amount of dilution during the low-flow season. During high-flow season the dilution factor goes up by over almost 2 orders of magnitude during that time period. When you set up the standard as a single annual standard all during this time period during low flow from January to May and then again

from August to December, the concentration that the discharger is putting out, which would 28 µg/L, is lower than what's actually in the river. So, there is a slight dilution effect there; and here now at this time period (*referring to the high flow period*) what the discharger would be putting out is higher than the river, but the dilution of the river is so strong that the effect is almost negligible. If you compare that to the 2-season low-flow standard which was set at a higher concentration, it has less dilution during that same time period, then the annual standard. That is why it turns out that, in combination of the 2-season low-flow having less dilution when it matters and then the very high river dilution effect during runoff, the annual standard is better. A single annual median standard reduces cancer risk overall compared to the other approach.

DEQ looked at this to understand this pattern and its results. For example, in Segment One, cancer risk from the nonanthropogenic standards goes down incrementally as the standards are set to longer and longer time scales. For example, DEQ never proposed a monthly standard, but we did look at it or at least consider it during many of our deliberations. The graph shows what a monthly standard would look like that has a cancer risk of 2.035 times 10 to the minus third. If you then move to a two-seasonal standard, the cancer risk is ever so slightly smaller, and if you go to the single annual standard, the cancer risk is again ever so slightly smaller for the reasons explained. In Segment Four, that pattern is not quite as consistent from time scale to time scale, but still the annual standard clearly comes out in each case as the lowest cancer risk approach.

Some other findings: discharge volumes would have to be far in excess of the Yellowstone River's highest flows to change any of these conclusions; so, they are a solid conclusion that won't change within any realistic permitting scenarios. However, that also indicates that the approach just described has to be very carefully evaluated where effluent dominated waterbodies are concerned. Also, depending on the beneficial use and the type of impact, it may occur. In other words, this is a very highly site-specific parameter specific analysis that may or may not hold up to exactly these same patterns as we look at other nonanthropogenic standards.

The conclusions from this additional analysis that DEQ carried out since the last WPCAC meeting is that increases and decreases in the Yellowstone River's arsenic concentrations are reflected in drinking water supplies that use the river. DEQ has shown that annual nonanthropogenic median is the better expression of the nonanthropogenic standard compared to the two seasonal median standards which DEQ proposed originally; it reduces cancer risk in Segments One through Four. Dr. Suplee pointed out that the cancer risk reductions are very small. They are on the order of 1M to 10M and a 100M, but they are demonstrable. Risk in Segment Five is the same whether we do two seasonal or single annual risk. Segment Five is apparently also the same under DEQ-7. DEQ learned through all the permitting and modeling scenarios that it essentially comes out the same way because at that part of the river, the background is 10, and the annual median is 10, and, of course, the current standard is 10. So, it all comes to the same place. (*DEQ did not propose nonanthropogenic standards for Segment Five.*)

We would state that adopting the standards as annual nonanthropogenic medians meets the key statutes that DEQ looked at in the beginning regarding the 75-5-222 nonanthropogenic statute. All the annual medians are of a lower concentration than the corresponding maximum nonanthropogenic high-flow values. What this means is the annual medians are always within the nonanthropogenic condition. DEQ has not set a standard outside of the nonanthropogenic condition of the river. Per 75-5-301(2) annual median standards are apparently more economical. Dischargers have expressed that this single annual median would work better for them. It also is less work for the department to manage and to monitor in the future. So, it is simpler in that way. Finally, for 75-5-101, annual median standards improve the quality and potability of water for public water supplies in a very small amount, but it is demonstrable.

At the last WPCAC meeting we talked about how we would use something called the Wilson Interval for assessing the two seasonal standards – that was a statistical way to look at whether the river has changed in the future. Its arsenic levels have gone up or down. DEQ can use the same thing to evaluate annual medians – DEQ has already run all of these analyses. To check this, it would require Darrin's section, for example, to carry out proportional sampling of the low

flow which is about 75% of the year versus the high flow period which is 25%, and with that we can detect at about the same levels as we saw before whether changes in the river are being detected and that is the way it would work. Zero exceedances full compliance and one exceedance would be non-compliance. So, the recommended standards are changed from what we proposed last meeting based on the analyses that DEQ has looked at since that time. DEQ is proposing that in Segments One through Four, we have an annual nonanthropogenic arsenic standard that is reflective of the annual median. Dr. Suplee referred to his Power Point presentation where the numbers are 28, 22, 16 and then 13. Segment Five DEQ-7 standards would continue to be applied since the river comes to 10 and that fits the statutes the best. Regarding other aspects of the nonanthropogenic standards, DEQ is not going to be needing to do any changes along the river as explained in the November 2019 meeting. The standards would apply end of pipe with no mixing zones for permits. An average monthly limit and a maximum daily limit for the nonanthropogenic standards would be calculated per the EPA's 1991 methods and the no sample shall provision that is in DEQ-7 would not apply. What was explained in the November 2019 meeting about how to calculate a maximum daily load would continue to be true for the nonanthropogenic standards. The long-term condition of the river would be assessed using the Wilson's Interval.

Dr. Suplee offered to answer any questions and go over any details that need clarification.

Chair Selch asked if any council members had any questions for Dr. Suplee.

Councilmember Craig Workman asked if a human health standard had ever been enforced by DEQ on discharges on the Yellowstone?

Dr. Suplee responded that he did not know the answer to that question. Offered that maybe someone from permitting may be able to answer. Indicated he was seeing nods of yes from permitting.

Councilmember Workman asked, "do we know what those dischargers are typically seeing in their effluence?"

Rainie Devaney responded they did not have that information here at the meeting.

Dr. Suplee responded that he did know, for example, that one of the discharges in Segment 5 is the City of Billings and their concentration is, as far as Dr. Suplee could tell, based on the last permit, at concentrations where they don't even have RP (reasonable potential) because their average value is only 3.8 micrograms per liter, which kind of makes sense because much of what they are discharging is water that has already been treated and that brought the concentration down.

Councilmember Adam Sigler said he had no questions.

Chair Selch asked if anyone else in the room or on the phone had questions for Dr. Suplee.

Larry Bean of the Yellowstone Valley Citizens Council asked if someone could explain a little better what monitoring means.

Dr. Suplee referred to a slide in his Power Point presentation and explained that there will be a standard that is based on the median nonanthropogenic condition. That would be whatever that concentration is as it varies by location. In the future the Water Quality Planning Bureau, Monitoring Assessment Section will go out and collect a smaller data set. Something on the order of 15 or 16 samples and then calculate a median and then a confidence interval around that value. If the lower whisker of that confidence interval overlaps or is within the concentration shown on the slide, that would be a condition where there is no exceedance. Basically, the river has not changed enough that we are confident that it has changed, because what we are saying is with that small future data set that is the median concentration and DEQ is 95% confidence that it falls within this band. In contrast, in the future if you were to go out, and again the standard is the same, but collect a future data set where the lower whisker has moved beyond the median concentration, that means the rivers concentration for arsenic has increased. We had another proviso in our technical document that shows that you know if that second scenario occurs that doesn't necessarily immediately just assume

that it is caused by people, because so much of the river is influenced by the part (like something on the order of 98% of it). We would dig into whether there are any problems with permit compliance, has there been any spills, there is something weird going on – if nothing of that nature shows up, we would probably dig into whether it is the park or perhaps lower flows in the river. Over the long haul that may be leading to changes – in which case we may need to revisit the standards and that can be done too.

Dr. Suplee reported that like the last WPCAC meeting, the Department is requesting that with this new group of standards, the Council support and move to vote on the rule change to move it forward to the Board of Environmental Review.

Councilmember Adam Sigler asked if the 12 samples were a monthly sampling over the year.

Dr. Suplee responded, yes, and DEQ has calculated that in order to get a less than 10% false positive rate and to be able to detect a change of around (it varies from site to site, but) something on the order of 5% to 20% change in the river. The Monitoring and Assessment Section would have to collect 16 samples equally distributed among the high flow and the low flow season. So, a grand total of 16 for the year or that could be spread across a couple of years depending on staffing and timing.

Chair Selch asked for other questions or comments.

Councilmember Sigler asked if there is an opportunity to leverage data collected by the National Park Service Inventory and Monitoring Program. Councilmember Sigler doesn't feel like in the past they have prioritized arsenic because it is a nonanthropogenic.

Darrin Kron responded to Councilmember Sigler that the Park Service funds the monitoring at the USGS gauging Corwin Springs and includes our . So, DEQ would use that data.

Someone on phone didn't identify himself asked Are the municipal dischargers on the Yellowstone going to have to start monitoring arsenic in their effluent monthly?

Dr. Suplee responded that has to do with whether they have reasonable potential or not. Dr. Suplee asked permitting staff to answer the question.

Rainie DeVaney responded that is possible. I wouldn't say everybody, but it is possible. Ms. DeVaney couldn't say that it would be a monthly frequency, but there might be some.

Dr. Suplee commented that Billings WWTP were the big ones because they put out 32 MGD in the river. They already do monitoring as that is part of their permit requirements.

Chair Selch asked if there were any additional questions.

Councilmember Bob Zimmer made a motion that the council move this rule change to the Board of Environmental Review (BER).

Councilmember Michael Wendland seconded the motion.

Chair Selch asked if there was any additional discussion.

Councilmember Bob Zimmer commented that at the last meeting he was probably the single person who voted to not table this as he was interested in moving this issue forward to the BER. Councilmember Zimmer commended the Department of Environmental Quality for taking the extra step to look at the cancer issues. He believes moving forward with this as an annual mean process is much better and much more protective of people on the river. He thanked DEQ for doing that and hopes the council can move forward today.

Dr. Suplee mentioned that the public process helps with this and all of this was a fairly new analysis. DEQ has not worked on nonanthropogenic standards before. It is a lot more complex than we thought. It has some counterintuitive results like the one he just showed the council. Dr. Suplee believes the next time DEQ does this for another parameter the Department will have a better understanding of the process to get to the final and best result.

Councilmember Sigler applauded DEQ for this work. It seems like a great solution that meets both the public health interests and the interests of dischargers based on what he remembered from the last meeting. Councilmember Sigler asked if it made sense to open up for broader comment before voting.

Chair Selch asked if there were any additional comments from the public.

Vicki Marquis of Holland & Hart (on the phone) representing CHS. Ms. Marquis reminded the council that she spoke at the last WPCAC meeting and greatly appreciates the committee's motion to allow additional time to look at this. Ms. Marquis echoed the applause that has already been given to DEQ for putting in the work to do another analysis and for doing it in such a timely manner. Ms. Marquis knows DEQ had to coordinate with EPA and that is not always easy, especially given the holidays. She appreciates that and is very pleased that the annual standard is more protective of the most sensitive beneficial use, but pointed out that even levels up to 60 micrograms per liter are protective of the most sensitive use and as a legal basis there is no requirement that a water quality standard be the most protective or even that it be more protective. Instead the water quality standards have to comply with all provisions of the Water Quality Act and the distinction here is important because you can see it sets up sort of a slippery slope by promoting a water quality standard as the most protective. You could end up in a situation where the standards for a whole host of parameters would have to be zero and that's not at all what the Water Quality Act requires. So, compliance, does it need to result in the most protective standard as long as the standard is protective of beneficial uses and complies with the Water Quality Act. In this case, the median standard is preferred because it is equally protective as the seasonal standards and it is simpler to implement and monitor. Ms. Marquis thinks DEQ spoke to that and it is easier and simpler to manage from the industry's perspective as well. One other thing on the draft rule, Ms. Marquis commented that she didn't know if a paper copy of that has been submitted to the committee for consideration. The second provision of that where it eliminates mixing zone – that provision and some language in the technical support document really eliminate some key components that are necessary to implement the standard in a balanced manner and implementing it in a balanced manner is important because that is what the Water Quality Act requires in that policy statute which is 75-5-101, subparagraph 3, it says it is the public policy of this state to balance the rights to use property with the policy of preventing and controlling pollution. Two of those key components for implementing this in a balanced manner are consideration of intake credits and consideration of mixing and dilution. At the last meeting Ms. Marquis reminded the council that she spoke about both of those and has talked with DEQ about both of those and neither of those to my knowledge are reflected in this new proposal or in the technical documents, and it is important to consider those. For example, on an intake credit just to give you a context for some numbers now these were these calculations that CHS did based on the previous seasonal standard at 10, but CHS in their permit there is data from 2017 that shows that they intake 2.8 kilograms of arsenic a month from the Yellowstone River. They also have some groundwater wells that intake .55 milligrams of arsenic per month from water that comes from the Yellowstone River. CHS itself only adds about 2.6 kilograms a month of arsenic, but had a standard been at 10, they would have been required to remove 4 to 5 kilograms per month and that is at a cost of about $5M for them to remove more arsenic than what they are putting into the system. That is an example of the impact that an intake credit can have. The second reason an intake credit is good is because it requires the discharger to treat the arsenic that originates from their facility and it doesn't require them to take entry naturally-occurring pollutants and intake credits have been recognized by the EPA as something that can be done from as far back as 1995. So, intake credits to be considered somewhere that would be our hope in this rule. The second provision that is a key component for flexibility is some consideration of dilution and mixing. The federal rules provide that where appropriate, DEQ can consider dilution of the effluent within the receiving water body and a mixing zone pursuant to the Montana rules at 17-30-506, subparagraph 1, say that a mixing zone may be considered so long as the beneficial uses are not impacted. So, within those guidelines, it would be reasonable for DEQ to consider a mixing

zone for dischargers that say have an average flow of less than 1% of the river flow and an annual load of less than 1% of the rivers natural load. Those are the dischargers where their flow and their loading is going to be so minimal that chances are you are not going to be able to measure what they are adding to the river with any certainty. So, in those cases where there is a deminimis addition to the river, there should be (*someone coughed)* and or mixing and that second provision of the draft rule could be interpreted to take that consideration out of the mix which CHS doesn't feel is appropriate. So, CHS does appreciate the extra time to dig into this some more and appreciate the analysis. CHS thinks it is a good start in terms of a draft rule. CHS would like to see something that allows intake credits and considering the mixing and dilution where appropriate. Ms. Marquis thanked the council for their time.

Dr. Suplee responded to Ms. Marquis' comment. First, the Department has been clear from the beginning of this rule process and that hasn't changed, because the nonanthropogenic condition is basically being set at the condition of the river, there would be no mixing zone. The rule that we distributed reflects that the other part is this idea about intake credits. That argument basically does not compute. When you run through the numbers, the data that Ms. Marquis refers to, and run the concentration values against what is actually there, and calculate what if you were to actually only remove the part that they claim is their load, and then run it back into the river, they would be discharging something on the order of 20 micrograms per liter of arsenic. That is higher than what is in the river. So, it is really very simple – intake credits do not make sense in a water quality based effluent system. You are doing one of three things – you are either returning water to the river at the concentration that the river is, in which case that is a zero-net gain change. You are adding arsenic at a higher concentration, so the concentration goes up or you are adding – like Billings does – water at lower concentrations so there is dilution effect. It is only one of those three. The credit concept doesn't work. DEQ doesn't support it, and we are not going to be proposing that as a rule going forward. DEQ would be happy to share any analysis on this subject as well with Ms. Marquis or others if they want to see it.

Ms. Marquis asked if the analysis considers that the ambient water quality that the facility will be drawing in is not always equal to the nonanthropogenic standard? There are times when the river is naturally running at a higher level and so that is the concentration that they are intaking, but yet the concentration that they have to discharge at the lower level.

Dr. Suplee responded, yes, and then the reverse is also true – there will be times when the river is running at a lower concentration because of higher annual flow. Some years there is a better snowpack in Yellowstone Park and then there will be a net benefit. That averages out over the long haul and that is the way this works because this is a long-term human health standard that you know it is assumed that drinking water from the system and the cancer risk we looked at are based on a 70-year lifespan. So, there is really no merits of that. You can't just get the benefit from one side and then not on the other.

Councilmember Zimmer commented that it seems to defeat the annual mean standard to try and look at daily intake qualities and concentrations.

Chair Selch asked if there was any other discussion or comments.

Derf Johnson with Montana Environmental Information Center. Mr. Johnson thanked Dr. Suplee for the presentation. He also commented that there is no such thing as a deminimis contribution for arsenic. Arsenic is not safe in any level, and so he encouraged the Department to stay strong and to come up with standards that are strong for the public and remind DEQ that he disputes the biggest claims about legal standards – that is for another day, but in Montana we certainly have a right to a clean and healthful environment and that is a fundamental right. Mr. Johnson said he wants his statement in the record and that is an additional standard beyond what we would see. So, again, this is arsenic which is unsafe at any level. Mr. Johnson wants the Department to come up with the best possible formulation that protects the public.

Chair Selch asked if anyone else had a comment.

Larry Bean of the Yellowstone Valley Citizens Council – an organization that advocates for a clean, healthy and sustainable environment for Billings and the Yellowstone Valley. Mr. Bean introduced Caroline Canarios of the Northern Plains Resource Council who was attending the meeting with him. Mr. Bean said he represents about 900 members in the Billings area. Mr. Bean said one of his goals of being in attendance was to put a face on all the people who reside along that Section 4 of the river, who have very strong feelings about the quality of the river in that area. A couple of points he wanted to touch on are, first, this has been worked on for about a year since they first saw the permit variance from CHS on this issue, and they started looking into it. Mr. Bean wanted to compliment DEQ. DEQ staff made at least two trips to Billings to talk with them individually. The organization is very thankful for the good work DEQ has done and strongly supports what is going on and the studies DEQ has done. The members have been a little disturbed in that they have been trying to keep up with the process – attending and learning from attending WPCAC and BER meetings. They have gotten a sense sometimes that there have been opportunities that they missed when the permittee, CHS, has had a voice and the average citizens have not. Mr. Bean said he couldn't talk specifically about the nuances of coming up with the data, but he could easily understand that 13 milligrams per liter target and that is one of their main issues. Can an average person buy into this and feel confident about what is going on? Mr. Bean believes that is a simple number that is easy to follow and people who are concerned about the health of the river can follow. Mr. Bean thinks that is a great idea. As they look at this issue, the member group absolutely does not want to see the use of mixing zones to be able to add more arsenic to the river. They know, for example, a little more arsenic in the river may save a dollar or two at the discharge point, but we also know we will pay a little bit more to get to the city's target of zero. A penny saved on one end is paid out of their pockets on the other end. Mr. Bean thinks that must be the equation. The next point for the members is that they believe this is a realistic standard and it can be met. Mr. Bean commented that there are three refineries in our valley – ExxonMobil, Conoco Phillips, and Cenex. Two of these don't discharge. In fact, Mr. Bean reports that ConocoPhillips treats their water through the City of Billings, and Dr. Suplee mentioned in his report what the discharge is there. Mr. Bean is confused when it is said how many more millions of dollars it is going to cost to reduce the amount of arsenic going into the river, when there are two other petroleum plants that aren't discharging anything at all. So, they are just absorbing that cost whatever it is. The third point Mr. Bean touched on is that once the standard is set, how do you convince his group that the discharge is being monitored in a way that they can be really confident that what is supposed to be happening is actually happening. Mr. Bean's background is in construction. When looking at a state agency like MDOT, when they are buying huge quantities of anything, whether it is concrete or putting roads together, the way they are assured that they are getting the quality that we are paying for is through enough inspections, and either you have an inspector on-site or put an inspector in the plant who lives there until you get the product produced, or just as a suggestion, is some sort of randomized testing with some prorated formula for success or failure on those tests. Mr. Bean would like to see those tests performed by a third-party that the State of Montana chooses and paid for by the permittees. Mr. Bean understands that the test could happen 3:00 a.m. or the next day, or there won't be a beginning for six months, but randomized testing so that the incentive is to always be performed in this manner. Mr. Bean believes when all is said and done with this they are confident in the work DEQ has done, but the piece they want to be confident in is that the permittees are meeting their requirements. Mr. Bean indicated that was his final comment and the members have a keen interest on how it comes out.

Dr. Suplee commented that the permitting staff would like to address Mr. Bean's concerns.

Christine Weaver introduced herself as one of the permit writers and wanted to assure Mr. Bean that the Department doesn't just decide on a number and then let things go. Any discharger that has a pollutant of concern, in this case arsenic, DEQ would have them monitor certain frequency and if their levels are high enough, DEQ gives them a permit limit. It is based on self-monitoring – that is how the entire NPDES permit regime is done. There is at least monthly monitoring. They would do what is called composite. They have an automatic sampler and once a month only that we have them sample over a 24-hour period take several samples, mix it together and they analyze for arsenic. Through a

40 CFR 136 method just laboratory test to meet high quality. Then they report to DEQ on discharge monitoring reports which can be accessed through ECHO.

Mr. Bean said he was curious if the test schedules are on a consistent basis.

Jon Kenning, Water Protection Bureau Chief, responded that he oversees the inspection side of the program and that there are random inspections of the facilities. If Mr. Bean is concerned about permittees doctoring results, inspectors show up unexpectedly to take a sample and take to a lab. DEQ is constantly doing these kinds of random visits. Mr. Kenning said Montana is a big state to cover, but CHS is one of the main facilities and DEQ inspects it frequently.

Mr. Bean said because of his construction experience he has concerns regarding discharges at 3:00 a.m. for example and does the department assure that doesn't happen. Mr. Bean believes DEQ needs to make the penalties high enough that it would cost more to do the wrong thing.

Mr. Kenning responded that the department can't ensure 100% that there wouldn't be a situation, but the drinking water technology has been there for a long time, so this is a mature technology – there is sampling and monitoring, and it isn't easy to doctor. DEQ staff offered to meet with Mr. Bean after the meeting to explain in more detail and show him some files.

Derf Johnson commented that DEQ should consider continuous monitoring devices for dischargers which are becoming increasingly cost effective and readily automatically upload data to websites. Mr. Johnson reported they are used across the country increasingly and more and more accepted.

Chair Selch asked if there were any final comments. Being none, he brought forward Councilmember Zimmer's motion to adopt the arsenic standards for parts of the Yellowstone River that Dr. Suplee proposed today. Those in favor of the motion say "aye". Anyone opposed say "nay". There were no nays and the motion carried. Chair Selch thanked Dr. Suplee for his work.

Proposed Changes to MPDES Administrative Rules – Joanna McLaughlin, Surface Water Permit Writer

Darryl Barton emailed the presentation to everyone as Skype was not working. Ms. McLaughlin introduced herself and let the council know that both she and Rainie DeVaney, Section Supervisor, are available for questions. Ms. McLaughlin gave background on the proposed rule amendment. EPA notified Montana DEQ that updates to the MPDES rules is a program priority to maintain consistency with the federal program. This rulemaking change will modernize MPDES regulations, promote submission of complete applications, and clarify regulatory requirements to allow development of MPDES permits. Additional editorial changes will provide clarity and reduce redundancy. These rules were last updated in 1999. EPA has given Montana DEQ a deadline of June 2020 to make these changes. DEQ has held stakeholder meetings. There will also be a public comment period and a public hearing after the BER adopts. The Montana DEQ recommends that WPCAC vote to recommend the proposed rule amendments to proceed to the BER for initiation.

Councilmember Sigler asked if DEQ was going to maintain the newspaper publishing.

Rainie DeVaney responded that the rule states the department may only use the website, but it gives DEQ the flexibility to use both the website and newspapers – especially in rural Montana where internet access is minimal.

Derf Johnson asked if there was a redline version on the DEQ website.

Ms. McLaughlin responded that her Power Point presentation is on the website but not the reasonable necessity piece. Rainie DeVaney said the redline version would be on the website when everything is completed after this meeting.

Councilmember Sigler asked if there was a place where he could look at the two new program definitions regarding the pesticide discharges application and pesticide residue. What is the nature of the changes with regard to pesticide from 5-23?

Ms. McLaughlin responded that DEQ has been implementing a general permit for pesticides.

Rainie DeVaney responded that DEQ is adding two already existing definitions into the administrative rules because DEQ has been using those definitions to implement and regulate discharges of pesticides.

Councilmember Sigler asked if it is simply taking the federal rule and putting it in the state rule.

Ms. DeVaney responded that was correct.

Ms. McLaughlin let the council know that DEQ legal was also looking at the rule change.

Chair Trevor Selch asked for final comments. No further comments, Ms. McLaughlin is looking for a motion to adopt the proposed changes to the MPDES administrative rules and move them to the BER in February.

Councilmember Bob Zimmer made the motion to ask the BER to initiate rulemaking, and Councilmember Michael Wendland seconded the motion.

Chair Selch asked for discussion and public comment. Being none – Chair Selch asked for those in favor to say "aye" and "nay" if opposing. The motion carried.

Triennial Review of Water Quality Standards – Myla Kelly and William George

Chair Selch introduced Myla Kelly who was on the phone and let council members and others know there is no Power Point presentation.

Myla Kelly introduced herself as the Water Quality Standards and Modeling Manager, Water Quality Planning Bureau. Ms. Kelly first thanked the council for being so appreciative of DEQ's work on the arsenic criteria and their engagement and insightful comments on the process.

The standards are to be reviewed and, if appropriate, revised every three years. The last review ended in May 2017. These rules are regarding mixing zones, water use classifications, water quality standards, Nondegradation of water quality, and ground water standards. Montana's numeric water quality standards are referred to throughout the water quality standards rules and are housed in DEQ Circular-7.

Ms. Kelly reported that DEQ will be asking the BER for a 60-day public comment period and an associated public hearing after which all public comments will be considered and feedback from those public comments and then come back to the WPCAC members and share those proposed updates or changes. DEQ would expect that to occur in the summer of 2020.

Ms. Kelly asked that the council move to forward a request to the BER to open Montana's Water Quality Standards for public comment as part of a required triennial review or DEQ's Water Quality Standards. Ms. Kelly asked if anyone had questions.

Councilmember Zimmer asked a question regarding the Nondegradation standard – does DEQ have anything in mind in terms of aids to shift that or is there any program that is looking at changing changes to the Nondegradation standards at all. Is that something that is in the works?

Myla Kelly responded that DEQ does have some work underway regarding Nondegradation revisions on groundwater, there are no proposed changes at this point that are being considered for our surface water quality standards.

Chair Selch asked if there were any other questions or public comment. Being none, he called for the motion to take the Triennial Review of Water Quality Standards to the BER.

Councilmember Wendland made the motion and Councilmember Zimmer seconded. The motion carried.

Briefing Items – Water Quality Assessment Methods for MT 2020 Integrated Report – Darrin Kron

Darrin briefed the council about the water quality assessment program. DEQ updates the Integrated Water Quality Report every two years, submits it to EPA, and has a public comment period. A major part of that is called the Impaired Waters List. DEQ has methods that are used to update those impaired waters. DEQ is updating a few of them this cycle. He had a handout for anyone who wants it. He also gave it to Darryl Barton to email. It is a review of the program and how it is done.

Chair Selch asked if anyone had questions or comments for Darrin.

Chair Selch opened for public comment – hearing none moved to next agenda item.

Vote for Chair and Vice Chair

Chair Selch asked for nominations. Councilmember Zimmer nominated Trevor Selch for chair. Trevor Selch nominated Earl Salley for vice chair. Councilmember Wendland moved to close nominations and accept the nominations of Trevor Selch for chair and Earl Salley for vice chair. Councilmember Zimmer seconded the motion. The motion carried.

Approval of 2020 Calendar

Chair Selch asked for a motion to approve the calendar. Councilmember Mary Ahmann Hibbard made a motion to accept the 2020 calendar meetings dates. Councilmember Craig Workman seconded. The motion carried.

Agenda Items for upcoming meetings

1. Joint STAG and WPCAC Meeting – Darrin will coordinate with STAG.
2. Chair Selch asked council members to send Darrin agenda items.

Chair Selch asked for a motion to adjourn. Councilmember Zimmer made a motion to adjourn and Councilmember Michael Wendland seconded the motion. The motion carried.

Transcribed by Sandy Matule
DEQ Program Support Specialist