BEFORE THE BOARD OF ENVIRONMENTAL REVIEW
OF THE STATE OF MONTANA

IN THE MATTER OF: THE NOTICE OF APPEAL AND REQUEST FOR HEARING BY SIGNAL PEAK, LLC REGARDING NOVEMBER 13, 2019 NOTICE OF VIOLATION AND ADMINSTRATIVE COMPLIANCE AND PENALTY ORDER	**CASE NO. BER 2019-22 SM**

ORDER

On July 23, 2020, Signal Peak Energy, LLC (SPE) filed a "Joint Stipulation of Dismissal and Order" pursuant to Mont. R. Civ. Pro. 41. The parties have stipulated to dismiss this appeal.

Therefore, IT IS ORDERED that this appeal is dismissed with prejudice.

DATED this 29th day of July, 2020.

/s/ Sarah Clerget
SARAH CLERGET
Hearing Examiner
Agency Legal Services Bureau
1712 Ninth Avenue
P.O. Box 201440
Helena, MT 59620-1440

CERTIFICATE OF SERVICE

I hereby certify that I caused a true and accurate copy of the foregoing to be mailed to:

Deb Sutliff
Secretary, Board of Environmental Review
Department of Environmental Quality
1520 East Sixth Avenue
P.O. Box 200901
Helena, MT 59620-0901
dsutliff@mt.gov

Mark Lucas
Sarah Christopherson
Legal Counsel
Department of Environmental Quality
P.O. Box 200901
Helena, MT 59620-0901
mark.lucas@mt.gov
Sarah.Christopherson@mt.gov

Victoria A. Marquis
Matthew H. Dolphay
Holland & Hart LLP
401 North 31st Street, Ste. 1500
P.O. Box 639
Billings, MT 59103-0639
vamarquis@hollandhart.com
mhdolphay@hollandhart.com
aforney@hollandhart.com

John C. Martin
Holland & Hart LLP
P.O. Box 68
Jackson, WY 83001
jcmartin@hollandhart.com

DATED: 7/29/20 */s/ Aleisha Solem*

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW
OF THE STATE OF MONTANA

IN THE MATTER OF: APPEAL AMENDMENT APPLICATION AM3, SIGNAL PEAK ENERGY LLC'S BULL MOUNTAIN MINE NO. 1, PERMIT NO. C1993017	**CASE NO. BER 2016-07 SM**

ORDER ON MOTIONS IN LIMINE

Three Motions *in Limine* are fully briefed and ripe for decision, one from each party. The Department of Environmental Quality (DEQ or the Department) requests "an Order Restricting and limiting Petitioner the Montana Environmental Information Center ('MEIC') from offering into evidence MEIC Exh-17, App. 314-6 ('2013 Groundwater Model')." DEQ Mtn. at 1-2. Signal Peak Energy (SPE) moves to:

> (1) preclude [MEIC] from eliciting expert testimony at hearing on topics upon which their sole expert witness, Mark Hutson, stated under oath he is not qualified to opine, and
> (2) admit testimony and evidence at the hearing concerning data and analysis performed to evaluate subsidence impacts occurring after [DEQ's] July 2016 decision to approve the AM3 Amendment.

SPE Mtn. at 1-2. Finally, MEIC "moves in limine to exclude SPE Exhibits 19, 20, 22, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41 and 42, and to limit Signal Peak's witness testimony to the testimony it timely disclosed and produced in response to MEIC's discovery requests." MEIC Mtn at 1-2. All parties have filed appropriate Response

and Reply briefs to the respective Motions.[1] For the reasons set forth below, DEQ's Motion is denied, SPE's Motion is denied for everything except Exhibits 21 and 36 and the legal conclusions of Dr. Huston, and MEIC's Motion is granted.

I. DEQ's Motion: Exhibit 17

DEQ moves to exclude MEIC's Exhibit 17, the 2013 Groundwater Model Report, based on Mont. R. Ev. 401 and 403. DEQ Mot. at 1, 4-5. DEQ argues that the 2013 Groundwater Model Report was part of the permitting record for the previous, pre-remand permit, which was the subject of *In re Bull Mountain Mine Part I*, No. BER 2013-07 SM,[2] but is not part of the permitting record for the post-remand permit at issue in this case. DEQ Mot. at 2. For support, DEQ cites to *In re Western Energy Co., Rosebud Strip Mine, Amendment AM4* BER 2016-03 SM, "Order on Motions in Limine," March 15, 2018, at p. 4-5 (*citing In re Bull Mountain Mine Part I* at ¶70).[3] That Order held that a "party may not make arguments or present evidence" that it cannot "tie back to the administrative record before DEQ at the time of the permitting decision." DEQ Mot. at 2.

1 Due to the Coronavirus pandemic, and the resulting rescheduling of trial, these Motions have been fully briefed without decision since March 12, 2020.

2 Note that case No. BER 2013-07 SM is referred to herein (to match the citations in the parties' Motions) as *In re Bull Mountain Mine Part I.* However, in the Order on Motions in Limine in this case, it was referred to as *Signal Peak*, (with the same Case No.). Pinpoint citations herein are to the "Findings of Fact, Conclusions of Law, and Order," (FOFCOL) January 14, 2016. The "Consent Decree and Order," referenced in the FOFCOL and discussed *infra*, was attached to that FOFCOL as Exhibit A.

3 *See also* "Board Oder," June 6, 2019, ¶¶ 14-17. The Order on Motions in Limine and those paragraphs of the Board Order in *Western Energy* are collectively referred to herein as "*Western Energy* MIL Orders." *See also supra*, Sec. III, for the full relevant quotations from these Orders.

DEQ also cites to the Consent Decree in *In re Bull Mountain Mine Part I*. DEQ Mot. at 2-3. The Consent Decree states that "Any DEQ decision on the revised CHIA and permit amendment will be subject to a new challenge and review under MSUMRA and normal Montana Administrative Procedures Act (MAPA) process." *In re Bull Mountain Mine Part I* at ¶5. The Consent Decree further states that:

> The Parties agree that no provision of this Consent Decree and Order, and the Final Order of the Board in this matter, or any other order of the Board addressing the merits of this matter, shall constitute or be construed as grounds for precluding or barring a person or Party from raising any issue or offering any evidence in any administrative review proceeding before the Board or before any reviewing court in any other matter, including any review of DEQ's determination on Amendment No. 3 on remand.

Id. at ¶8. DEQ argues that this language in the Consent Decree means that the present case is a new challenge, based on the new permit created during the remand process, and the case should therefore be confined to the four corners of the new, post-remand Written Findings and Cumulative Hydrologic Impact Assessment (CHIA). DEQ Mot. at 5. DEQ updated the 2013 Groundwater Model Report in January of 2016 (appearing at DEQ Ex. 10) during the remand review. DEQ Mot. at 4. DEQ argues that only the new January 2016 Groundwater Model Report is contained in the permitting record for the present case (which is based on the post-remand permit) and therefore the previous 2013 Groundwater Model

Report should be excluded as irrelevant, confusing, and prejudicial, pursuant to Mont. R. Evid. 401 and 403.

MEIC responds that the 2013 Groundwater Model, particularly Attachment 3M (MEIC Ex. 17 at 85), is a memorandum prepared by SPE's expert Dr. Nicklin. MEIC Resp. to DEQ at 2. MEIC argues that in that memorandum, Dr. Nicklin expresses doubts about the quality and quantity of replacement water from the deep underburden aquafer. *Id.* at 2-3; *see also* MEIC Ex. 17 at 85. MEIC also argues that Dr. Nicklin proposed a computerized groundwater model that was never done. MEIC Resp. to DEQ at 4. In essence, MEIC posits that it is impossible to judge the sufficiency of the present, post-remand permit, without assessing the extent to which it did or did not address the questions and concerns raised regarding the first permit and the first 2013 Groundwater Model Report—if the problems with the first permit were not solved by the second permit during remand, then the permit at issue here is deficient. MEIC Resp. to DEQ at 4. Further, MEIC notes that, unlike the evidence excluded in the *Western Energy* MIL Orders, the 2013 Groundwater model is not post-decisional but pre-decisional and, because of the nature of a remand, must necessarily have been included in and considered during the permitting process for the present permit, which was the product of that remand. MEIC Resp. to DEQ at 5-6.

MEIC's arguments regarding the potential relevance of the 2013 Groundwater Model are persuasive. It is possible that, for example, during a cross-examination of Dr. Nicklin the 2013 Groundwater Model would be relevant to assessing his credibility regarding whether and to what extent replacement water may be available. *See* "Order on Cross Motions for Summary Judgement," November 13, 2019, at 22-23. Further, DEQ's citation to the *Western Energy* MIL Orders is misplaced, as the 2013 groundwater is certainly pre-decisional and not post-decisional. It also is common sense that, although the present, post-remand permit is entitled to its own consideration in this new challenge (per the Consent Decree), the purpose of the remand was to ensure that the deficiencies with the pre-remand permit were adequately considered and addressed during the remand process. It is impossible to say that the prior permit was not considered at all as part of the permitting process for the present permit. DEQ did not start from scratch here. The Groundwater Model may therefore also be relevant to MEIC's argument that DEQ has violated the law with the present permit, by failing to cure the same deficiencies that existed in the first permit. Presumably, DEQ and SPE will present contrasting evidence that the 2016 Groundwater Model is sufficient to show that there will be no adverse impact on groundwater, and therefore it will be a question of weighing the evidence. MEIC has provided sufficient explanation for the potential relevance of Exhibit 17 to overcome DEQ's Motion *in Limine*.

Finally, while it is possible that confusion may arise without precision, it is also possible for counsel to adequately distinguish during a hearing between the 2013 and 2016 Groundwater Model Reports (MEIC Ex. 17 versus DEQ Ex. 10). The risk of confusion can therefore be mitigated through the vigilance and accuracy of counsel for all three parties, in their citations to exhibits and questions to witnesses. Confusing or vague references—e.g. to "the groundwater model"—will not be tolerated.

II. SPE's Motion, Issue 1: Hutson's Expert Testimony

The first issue in SPE's Motion in Limine relates to the expert testimony of Mr. Huston, MEIC's sole disclosed expert. SPE Mot. at 4-7. SPE argues that "Mr. Huston's opinions on modeling, the legal availability of replacement water, and mining law, including mitigation and reclamation standards are not admissible under either Rule 701 or 702…" *Id.* at 7.

Regarding Mr. Huston's legal opinions, MEIC responds that no expert should be permitted to offer testimony that states legal conclusions, but that if other experts are allowed to so testify, theirs should be too. MEIC Resp. to SPE at 3-4 (*citing Citizens for a Better Flathead v. Bd. of Cty. Comm'rs of Flathead Cty.*, 2016 MT 256, ¶ 17; *Wicklund v. Sundheim*, 2016 MT 62, ¶ 15). As both MEIC and SPE seem to agree that Mr. Huston (or any other expert) should not be permitted to testify as to legal conclusions, SPE's Motion is well-taken with respect to Mr.

Huston's legal opinions. Further, the parties are reminded that the clarifications of law contained in the "Order on Cross Motions for Summary Judgment" will control at the hearing, including those related to the "legal availability of water." *See* "Order on Cross Motions for Summary Judgement," November 13, 2019, at 22-23.

Regarding Mr. Huston's opinions on modeling, SPE points to his deposition, wherein he stated that he was not planning on offering an opinion on modeling. SPE Mot. at 5 (*citing* Tr. 25:22-24[4]). MEIC's expert disclosure states that "Mr. Huston may offer expert testimony to support Petitioner's claim that… mitigation water is legally and physically available to reclaim impacts from mining." SPE Resp. to MEIC, Ex. A at 1. Setting aside the legal availability issue (as it was addressed above and in the summary judgment order), MEIC has given notice that Mr. Huston will opine regarding the physical availability of water that may be used for reclamation. *Id.* As an experienced hydrogeologist (*Id.* at 4-8), Mr. Huston can certainly testify about the physical availability of water.

MEIC also argues that, based on Mr. Huston's experience as a hydrogeologist, he has had the opportunity to take classes on, review, use, and evaluate the sufficiency of water modeling in his professional experience. SPE

4 Neither party provided a deposition transcript as an exhibit, so these citations are reproduced from SPE's Motion citations without verification.

Mtn. at 5 (*citing* Tr. 18:23-24 "I'm not a modeler, I'm the person who hires the modelers."); MEIC Resp. SPE at 2-3. MEIC also clarifies that "[w]hile Mr. Huston will not provide testimony on the narrow issue of developing groundwater models" he is expected to testify "about the purposes of modeling and the areas where Dr. Nicklin's groundwater model failed to 'correspond' to the real-world geology of the Bull Mountains." *Id.* It appears that MEIC thus intends to elicit testimony that is both within Mr. Huston's expertise and his disclosed opinion, namely the physical availability of water (vis-à-vis Dr. Nicklin's assessment of the physical availability of water).

The fact that the physical availability of water may or may not be accurately reflected in a model does not necessarily depend on modeling expertise but may, as MEIC argues, be based on a more general knowledge and comparison of the end-result of the modeling compared with the hydrogeology of the area. This testimony, in addition to Mr. Huston's credentials, can be weighed against those of Dr. Nicklin and the other experts in the case, becoming an issue of weight rather than admissibility.

To the extent that MEIC attempts, with specific questions, to range beyond Mr. Huston's disclosed opinion or expertise—e.g. a detailed question about how the groundwater models were created—those can be dealt with on contemporaneous objections based on the specific question asked and on any

expert *voir dire*, as necessary. As it is possible that Mr. Huston can provide some testimony relating to the groundwater models that is not outside his disclosed opinion or area of expertise, granting SPE's blanket motion would be premature.

III. MEIC's Motion and SPE's Motion, Issue 2: SPE Exhibits 19-20, 22, 31-35, 37-42 and Related Testimony

SPE Exhibits 19-20, 22, 31-35, 37-42 contain "monitoring, analysis, and data" of "subsidence impacts from mining in AM3" that SPE and its consultants have compiled "since July of 2016" (which is the date DEQ approved the permit at issue). SPE Mot. at 7. MEIC moved to exclude the exhibits, arguing that they are post-decisional, undisclosed, and constitute hearsay. MEIC Mot. at 2. In the second half of its Motion, SPE moved to admit the exhibits, which it admits are post-decisional. SPE Mot. at 10. DEQ took no position on these motions, either in the briefing or at oral argument.

As a preliminary matter, MEIC moved to exclude SPE Exhibits 19-20, 22, 31-35, 37-42 (not Exhibits 21 and 36) (MEIC Mtn. at 1-2) while SPE moved to admit SPE Exhibits 19-22 and 31-40 (not Exhibits 41 and 42). MEIC confirmed at the oral argument that it did not respond or object to SPE's Motion with respect to SPE Exhibits 21 and 36, therefore, SPE's Motion is well taken regarding those two exhibits. Exhibits 19-20, 22, 31-35, and 37-42 therefore remain at issue in these two motions.

Both Motions discuss the rulings of the *Western Energy* MIL Orders[5], and the discussion at the oral arguments focused on this issue, as did SPE's "Notice of Clarification…" filed after the oral argument. *See, e.g.* MEIC Mot. at 3; SPE Resp. at 3; SPE Notice at 1-5. The relevant portions of those *Western Energy* MIL Orders held as follows (internal citations to *In re Bull Mountain Mine Part I* at ¶56, 66, 70, 124, omitted):

1) "Order on Motion in Limine," March 15, 2018, at p. 4-5:

> …it is the administrative process that determines the relevance of all the evidence offered at the hearing. If evidence can be tied to the administrative process, as either offered to explain the permit decision or the objections to it, then it is relevant and admissible. If it cannot be tied to the administrative record, then it is probably not admissible. … This hearing must therefore fall somewhere between a records review and a freewheeling attack on, or defense of, the permit. All parties are limited by the permitting process itself… No party may bring entirely new evidence, but all parties can "explain and demonstrate that the evidence before the agency at the time of its permitting decision and the analysis within the CHIA satisfy," or…do not satisfy "the applicable legal standards." …Neither party, however, may make arguments or present evidence that is entirely new, or which it cannot tie back to the administrative record before DEQ at the time of the permitting decision.

2) "Board Oder," June 6, 2019, ¶¶ 14-17:

> The relevant analysis and the agency action at issue is that contained within the four corners of the Written Findings and CHIA. The only relevant facts are those concluded by the agency in the permitting process before the agency makes its permitting decision. For the reasons stated in the Order on Motions in Limine…relevant evidence is limited to those issues contained in the administrative record…

5 *In re Western Energy Co., Rosebud Strip Mine, Amendment AM4*, BER 2016-03 SM, "Order on Motions in Limine," March 15, 2018, at p. 4-5 and "Board Oder," June 6, 2019, ¶¶ 14-17

Both *Western Energy* MIL Orders thus contemplate a hearing which is based on and limited by the administrative record—a.k.a. the permitting record or pre-decisional record—that was compiled before DEQ at the time of its permitting decision.

SPE argues that the post-decisional information "can be tied to the administrative process" because it serves to "explain and demonstrate that the evidence before the agency at the time of its permitting decision and the analysis within the CHIA satisfy… the applicable legal standards." SPE Resp. to MEIC at 6 (*citing Western Energy* "Order on Motion in Limine," March 15, 2018, at p. 4-5 (*quoting In re Bull Mountain Mine I* at ¶ 70)). However, there is an important difference between using pre-decisional and post-decisional information to evaluate the "evidence before [DEQ] *at the time of its permitting decision*." The issue in this hearing is whether or not "the Department's decision violated the law." *MEIC v. DEQ*, 2005 MT 96, ¶16. Implicit in this analysis is the fact that DEQ made a decision on a certain date—here July of 2016—based on the information available at the time, and not information that came after the decision was made. To evaluate DEQ's already-made decision on post-decisional monitoring, data, and analysis opens up every permit to a *post-hoc* challenge based on new information. This is particularly troublesome where The Montana Strip and Underground Mine

Reclamation Act (MSUMRA) requires a decision based on predictions about what is "probable" in the future (*see, e.g.* Mont. Code Ann. §82-4-227(3)(a)) but the available data and technology are rapidly changing. In other words, what may appear "probable" at the time that DEQ makes a decision may be very different that what is "probable" even a few years later. Using post-decisional information therefore falls more on the side of a "freewheeling attack on, or defense of, the permit," which the Board has repeatedly disallowed. *Western Energy* MIL Orders (*quoting In re Bull Mountain Mine I* at ¶ 70).

SPE further cites to federal Administrative Procedure Act (APA) cases, arguing that in such cases, "parties may supplement the standard administrative record where evidence demonstrates the correctness of the agency's decision. SPE Resp. to MEIC at 7 (*citing Custer Cnty. Action Ass'n v. Garvey*, 256 F.3d 1024, 1028 n.1 (10th Cir. 2001) (citing *American Mining Congress v. Thomas*, 772 F.2d 617, 626 (10th Cir. 1985); *Esch v. Yeutter*, 876 F.2d 976, 991 (D.C. Cir. 1989)). First, these cases have no precedential value on the present MAPA and MSUMRA proceeding. Second, they are not persuasive as guides.

Of those cited cases, *American Mining Congress* is the main decision listing (and extensively citing) the five possible exceptions to the "general rule against the use of extra-record materials must be extremely limited." 772 F.2d at 626. None of the five exceptions from *American Mining Congress* are met in this case. *Id.*

Additionally, the ultimate decision in *American Mining Congress* was to "deny all motions to supplement the record…." *Id.*; *see also Amoco Oil Co. v. EPA*, 163 U.S. App. D.C. 162 n.10, 501 F.2d 722, 729 (1974) ("A reviewing court must tread cautiously in considering events occurring subsequent to promulgation of a rule. Obviously, such events did not inform the agency decision-making which is the subject of review. Furthermore, information on such events reaches a reviewing court untested by any procedures, such as an administrative hearing, designed to assure its accuracy and completeness…As the Regulations could not have been formulated on the basis of this study, we will not allow it into the record on review.") Even if federal APA case law were applicable to the present case, the general rule of excluding pre-decisional information when reviewing the agencies decision supports the Board's decisions in the *Western Energy* MIL Orders and the reasoning here, rather than undermining it.

SPE's arguments would essentially require the Board to either torture or reverse its decision in the *Western Energy* MIL Orders and *In re Bull Motion Mine I*. SPE's has not provided sufficient reasons to do this. MEIC properly relies on those prior decisions to exclude the post-decisional evidence and testimony about it. Exhibits 19-20, 22, 31-35, and 37-42, containing the "monitoring, analysis, and data" of "subsidence impacts from mining in AM3" that SPE and its consultants have compiled "since July of 2016" (SPE Mot. at 7), and testimony relating to

those exhibits, will be refused and excluded from the hearing. The hearing will focus on the pre-decisional information on which DEQ based its permitting decision.

For the reasons set forth above, IT IS HEREBY ORDERED that:

1. DEQ's Motion *in Limine* is DENIED;

2. SPE's Motion *in Limine* is GRANTED with respect to Exhibits 21 and 36 and the legal conclusions of Dr. Huston, but the remainder of the Motion is DENIED;

3. MEIC's Motion *in Limine* is GRANTED.

4. The parties are directed to contact the Hearing Assistant to schedule a brief telephonic conference regarding whether or not the hearing will be held remotely.

DATED this 29th day of July, 2020.

/s/ Sarah Clerget
SARAH CLERGET
Hearing Examiner
Agency Legal Services Bureau
1712 Ninth Avenue
P.O. Box 201440
Helena, MT 59620-1440

CERTIFICATE OF SERVICE

I hereby certify that I caused a true and accurate copy of the foregoing to be mailed to:

Deb Sutliff
Secretary, Board of Environmental Review
Department of Environmental Quality
1520 East Sixth Avenue
P.O. Box 200901
Helena, MT 59620-0901
Dsutliff@mt.gov

Mark Lucas
Legal Counsel
Department of Environmental Quality
P.O. Box 200901
Helena, MT 59620-0901
mark.lucas@mt.gov
Sarah.Christopherson@mt.gov

Shiloh Hernandez
Western environmental Information Center
103 Reeder's Alley
Helena, MT 59601
hernandez@westernlaw.org

Derf Johnson
Montana Environmental Information Center
P.O. Box 1184
Helena, MT 59624
djohnson@meic.org

Steven Wade
John Tietz
Browning, Kalecyzc, Berry, & Hoven, P.C.
800 N. Last Chance Gulch, Ste. 101
Helena, MT 59624
stevew@bkbh.com
john@bkbh.com

Victoria A. Marquis
Holland & Hart LLP
401 North 31st Street, Ste. 1500
P.O. Box 639
Billings, MT 59103-0639
vamarquis@hollandhart.com

John C. Martin
Holland & Hart LLP
P.O. Box 68
25 S. Willow Street, Ste. 200
Jackson, WY 83001
jcmartin@hollandhart.com

Samuel R. Yemington
Holland & Hart LLP
2515 Warren Avenue, Suite 450
P.O. Box 1347
Cheyenne, WY 82003-1347
sryemington@hollandhart.com

Sarah Bordelon
Holland & Hart LLP
5441 Kietzke Lane, Second Floor
Reno, NV 89511
scbordelon@hollandhart.com

DATED: 7/29/20 */s/ Aleisha Solem*
Aleisha Solem, Paralegal

BOARD OF ENVIRONMENTAL REVIEW
AGENDA ITEM
EXECUTIVE SUMMARY FOR PROPOSED ADOPTION OF NEW RULE I
Pertaining to Natural and Nonanthropogenic Water Quality Standards

Agenda Item #

Agenda Item Summary – The Department requests that the Board adopt New Rule I in accordance with the Notice of Adoption, adopting New Rule I (ARM 17.30.618) exactly as proposed.

List of Affected Board Rules – New Rule I will supersede surface water arsenic standards found in Department Circular DEQ-7 for the specified segments of the Yellowstone River.

Affected Parties Summary – New Rule I may affect parties applying for discharge permits to state waters, specifically the Yellowstone River. New Rule I may also affect parties subject to plan review for public water supply, wastewater treatment systems, or subdivisions along the Yellowstone River.

Background – The board initiated rulemaking for New Rule I at its April 17, 2020 regular meeting. Proposed New Rule I was published on April 30, 2020, MAR Notice 17-412, at pages 765-68 of the 2020 Montana Administrative Register, Issue Number 8. Because of COVID-19 concerns and the Governor's directives, an Amended Notice to Hold Virtual Public Hearing on Proposed Adoption was published on May 29, 2020, MAR Notice 17-412, at pages 944-45 of the 2020 Montana Administrative Register, Issue No. 10.

Hearing Information – The Board conducted a public hearing on the proposed New Rule I on June 17, 2020. Sarah Clerget served as the presiding officer for the hearing. The Board received oral testimony and written comments from the public and has responded to the same.

Board Options – The Board may:

1. Adopt New Rule I as set forth in the Notice of Adoption, and the HB 521/311 analysis;
2. Adopt New Rule I with modifications that the Board finds are appropriate and consistent with the scope of the Notice of Public Hearing and the record in this proceeding; or
3. Take no action on New Rule I.

DEQ Recommendation – The Department recommends that the Board adopt New Rule I as set forth in the Notice of Adoption, and the HB521/311 analysis.

Enclosures –

1. Notice of Public Hearing on Proposed New Rule I
2. Presiding Officer Report on Public Hearing for Proposed New Rule I
3. Notice of Adoption on Proposed New Rule I
4. House Bill 521/311 analysis
5. Comments received

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW
OF THE STATE OF MONTANA

In the matter of the adoption of New Rule I pertaining to natural and nonanthropogenic water quality standards	))))	NOTICE OF PUBLIC HEARING ON PROPOSED ADOPTION (WATER QUALITY)

TO: All Concerned Persons

1. On June 17, 2020, at 10:00 a.m., the Board of Environmental Review (board) will hold a public hearing in Room 111 of the Metcalf Building, 1520 E. Sixth Avenue, Helena, Montana, to consider the proposed adoption of the above-stated rule.

2. The board will make reasonable accommodations for persons with disabilities who wish to participate in this rulemaking process or need an alternative accessible format of this notice. If you require an accommodation, contact Sandy Scherer no later than 5:00 p.m., June 10, 2020, to advise us of the nature of the accommodation that you need. Please contact Sandy Scherer at the Department of Environmental Quality, P.O. Box 200901, Helena, Montana 59620-0901; phone (406) 444-2630; fax (406) 444-4386; or e-mail sscherer@mt.gov.

3. The rule proposed to be adopted provides as follows:

NEW RULE I NATURAL AND NONANTHROPOGENIC WATER QUALITY STANDARDS (1) Named waterbodies, waterbody segments, or waterbodies within geographic regions listed below have natural or nonanthropogenic concentrations for one or more parameters that exceed the applicable standards. For these waterbodies, the standards specified in (2) supersede the otherwise applicable water quality standards found elsewhere in state law.

(2) No person may violate the numeric water quality standards identified below:

(a) Mainstem Yellowstone River Nonanthropogenic Standards. Water quality standards for human health for total recoverable arsenic (CASRN number 7440-38-2). Average arsenic concentrations during a calendar year may not exceed the standards, and downstream water quality and applicable beneficial uses shall continue to be maintained. The standards, specified by segment, are as follows:

(i) From the Montana/Wyoming border (44.9925, -110.5172) to the mouth of Mill Creek (45.4165, -110.6548): 28 µg/L;

(ii) From the mouth of Mill Creek (45.4165, -110.6548) to the mouth of the Boulder River (45.8530, -109.9247): 22 µg/L;

(iii) From the mouth of the Boulder River (45.8530, -109.9247) to the mouth of the Stillwater River (45.6399, -109.2829): 16 µg/L; and

(iv) From the mouth of the Stillwater River (45.6399, -109.2829) to the mouth of the Clarks Fork of the Yellowstone River (45.6510, -108.7145): 13 µg/L.

(3) Named waterbodies, waterbody segments, or waterbodies within

geographic regions specified in (2) have no assimilative capacity for the applicable natural or nonanthropogenic standards. Therefore, the department may not grant a mixing zone under ARM Title 17, chapter 30, subchapter 5 for these waterbodies and the specified standards.

AUTH: 75-5-201, 75-5-301, MCA
IMP: 75-5-222, 75-5-306, MCA

REASON: State law grants the board authority to adopt nonanthropogenic water quality standards when the otherwise applicable standards are more stringent than the nonanthropogenic condition of the waterbody. Correspondingly, the department may not apply a water quality standard to a water body that is more stringent that the nonanthropogenic condition of the waterbody (75-5-222, MCA). In such cases, the nonanthropogenic condition is the standard. Further, it is not necessary to treat wastes to a condition purer than the natural condition (75-5-306, MCA).

NEW RULE I establishes a framework for adopting water quality standards which are based on natural or nonanthropogenic conditions, and establishes nonanthropogenic-based arsenic standards for certain segments of the Yellowstone River. Natural or nonanthropogenic water quality standards are established because natural or nonanthropogenic effects on the landscape have resulted in arsenic concentrations in state surface waters that naturally exceed the otherwise applicable state water quality standards. NEW RULE I has been drafted so that standards for other named waterbodies, waterbody segments, or groups of waterbodies within specific geographic regions can all be incorporated into the rule at a later time.

The first standards being set under NEW RULE I are for arsenic concentrations in segments of the Yellowstone River. At present, there is a single human-health based arsenic standard of 10 µg/L for state waters across Montana (Department Circular DEQ-7). Arsenic concentrations are elevated above 10 µg/L in the upper and middle Yellowstone River, and this is due to natural causes—from geothermal sources in Yellowstone National Park. Geothermal sources of arsenic from the park can reasonably be considered nonanthropogenic.

In 2015, the department began a project to determine how much of the Yellowstone River's arsenic is nonanthropogenic, and to update arsenic standards for the river, if appropriate. The project included field data collection, quantification of all human-caused arsenic sources, in-house computer modeling, derivation of the new standards, and identification of methods to implement the new standards; the work is described in three reports on the department's website (DEQ. 2019a; 2019b; DEQ. 2020). From this work, the department has identified four Yellowstone River segments for which site-specific nonanthropogenic arsenic standards can be established at concentrations above the current 10 µg/L human-health based standard. The new standards are being expressed as the annual median nonanthropogenic concentration, as specified in NEW RULE I(2).

The standards are necessary because they reflect existing, nonanthropogenic water quality in one of the state's main waterways. From the human health perspective, they are the most protective expression of the nonanthropogenic

arsenic standards from among several options considered by the department (DEQ. 2020). Because the nonanthropogenic standards are more accurate, they preclude application of unnecessarily stringent water quality standards for dischargers along the Yellowstone River who have an MPDES permit limit for arsenic.

Waterbodies identified in this rule have no assimilative capacity because the standards are being established at the existing, nonanthropogenic concentration. As a result, the waterbodies cannot assimilate discharges having concentrations higher than the standard because that would result in instream concentrations elevated above the nonanthropogenic condition. Therefore, mixing zones are not allowed. Establishing the standards at the nonanthropogenic concentration and disallowing mixing zones will prevent concentrations in the waterbodies from trending up due to human causes, and will maintain the nonanthropogenic condition characterized at the time the standards were established.

The technical reports referenced above are as follows:

DEQ (Montana Department of Environmental Quality). 2019a. *Demonstration of Nonanthropogenic Arsenic Levels: Yellowstone River, Montana*. Helena, MT: Montana Dept. of Environmental Quality.

DEQ (Montana Department of Environmental Quality). 2019b. *Derivation of Nonanthropogenic Arsenic Standards for Segments of the Upper and Middle Yellowstone River*. Helena, MT: Montana Dept. of Environmental Quality.

DEQ (Montana Department of Environmental Quality). 2020. *Addendum to Derivation of Nonanthropogenic Arsenic Standards for Segments of the Upper and Middle Yellowstone River*. Helena, MT: Montana Dept. of Environmental Quality.

4. Concerned persons may submit their data, views, or arguments, either orally or in writing, at the hearing. Written data, views, or arguments may also be submitted to Sandy Scherer, Paralegal, Department of Environmental Quality, 1520 E. Sixth Avenue, P.O. Box 200901, Helena, Montana 59620-0901; faxed to (406) 444-4386; or e-mailed to sscherer@mt.gov, no later than 5:00 p.m., June 19, 2020. To be guaranteed consideration, mailed comments must be postmarked on or before that date.

The technical support documents referenced above may be viewed at this department website: https://deq.mt.gov/water/Surfacewater/standards. Copies of any of these documents may also be obtained by contacting Dr. Michael Suplee at (406) 444-0831 or msuplee@mt.gov.

5. The board maintains a list of interested persons who wish to receive notices of rulemaking actions proposed by this agency. Persons who wish to have their name added to the list shall make a written request that includes the name, e-mail, and mailing address of the person to receive notices and specifies that the person wishes to receive notices regarding: air quality; hazardous waste/waste oil; asbestos control; water/wastewater treatment plant operator certification; solid waste; junk vehicles; infectious waste; public water supply; public sewage systems

regulation; hard rock (metal) mine reclamation; major facility siting; opencut mine reclamation; strip mine reclamation; subdivisions; renewable energy grants/loans; solar and wind energy bonding, wastewater treatment or safe drinking water revolving grants and loans; water quality; CECRA; underground/above ground storage tanks; MEPA; or general procedural rules other than MEPA. Notices will be sent by e-mail unless a mailing preference is noted in the request. Such written request may be mailed or delivered to Sandy Scherer, Paralegal, Department of Environmental Quality, 1520 E. Sixth Ave., P.O. Box 200901, Helena, Montana 59620-0901, faxed to the office at (406) 444-4386, e-mailed to Sandy Scherer at sscherer@mt.gov, or may be made by completing a request form at any rules hearing held by the board.

6. Sarah Clerget, attorney for the board, or another attorney for the Agency Legal Services Bureau, has been designated to preside over and conduct the hearing.

7. The bill sponsor contact requirements of 2-4-302, MCA, do not apply.

8. With regard to the requirements of 2-4-111, MCA, the board has determined that the adoption of the above-referenced rule will not significantly and directly impact small businesses.

Reviewed by: BOARD OF ENVIRONMENTAL REVIEW

/s/ Edward Hayes
EDWARD HAYES
Rule Reviewer

BY: */s/ Christine Deveny*
CHRISTINE DEVENY
Chair

Certified to the Secretary of State, April 21, 2020.

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW
OF THE STATE OF MONTANA

In the matter of the adoption of New Rule I pertaining to natural and nonanthropogenic water quality standards	)))))	SCRIPT

1. This hearing is called to order. Let the record show that it is June 17, 2020 at 10 a.m. This hearing is taking place via zoom due to Covid-19. This is the time and place set for the public hearing in the matter of the adoption of New Rule I pertaining to nonanthropogenic water quality standards.

2. This public hearing is being recorded by Laurie Crutcher.

3. My name is Sarah Clerget. I am an assistant Attorney General for the State of Montana, assigned to the Agency Legal Services Bureau. The Board of Environmental Review has designated an attorney from Agency Legal Services Bureau to preside over and conduct this public hearing, and I am therefore acting as the presiding officer for this hearing.

4. Copies of the notice of public hearing on the proposed rulemaking are available on the BER's website as well as the Secretary of State's website and can be emailed to interested person. If you do not have a copy and wish to have a copy emailed to you, please type your email in the chat box via zoom or email sscherer@mt.gov.. Anyone who wishes to make a statement or submit written materials at this hearing should type their name in the comment box on zoom or email sscherer@mt.gov.

5. Mont. Code Ann. § 2-4-302(7)(a) requires presiding officers at rule hearings to read the Notice of Function of Administrative Rule Review Committee. The notice that I am required to read is as follows:

Notice of functions of Administrative Rule Review Committee

Administrative rule review is a function of interim committees and the Environmental Quality Council (EQC). These interim committees and the EQC have administrative rule review, program evaluation, and monitoring functions for executive branch agencies and the entities attached to agencies for administrative purposes. In this case, the EQC has those functions for the Department of Environmental Quality and for the Board of Environmental Review.

These interim committees and the EQC have the authority to make recommendations to an agency regarding the adoption, amendment, or repeal of a rule or to request that the agency prepare a statement of the estimated economic impact of a proposal. They also may poll the members of the Legislature to determine if a proposed rule is consistent with the intent of the Legislature or, during a legislative session, introduce a bill repealing a rule, or directing an agency to adopt or amend a rule, or a Joint Resolution recommending that an agency adopt, amend, or repeal a rule.

The interim committees and the EQC welcome comments and invite members of the public to appear before them or to send written statements in order to bring to their attention any difficulties with the existing or proposed rules. The mailing address is P.O. Box 201706, Helena MT 59620-1706.

That completes the reading of the Notice of Function of Administrative Rule Review Committee.

6. Mont. Code Ann. § 2-4-302(2)(a) requires each agency, which includes boards, to create and maintain a list of interested persons and the rulemaking subject or subjects in which each person on the list is interested. A person who submits a written comment or attends a hearing regarding proposed agency rulemaking must be informed of the list by the agency. The Department of Environmental Quality maintains lists of persons interested in various areas of rulemaking conducted by the Department and by the Board of Environmental Review so that the Department can provide these persons with notice of proposed rulemaking actions.

If you would like to be placed on a rulemaking interested persons list, please email Sandy Scherer at sscherer@mt.gov or call Ms. Scherer at 406-444-2630.

Notice of this hearing was contained in the Montana Administrative Register, Notice Number 17-412, published on April 30, 2020, in Issue No. 8, at pages 765 through 768. Under Model Rule of the Attorney General's Model Rules for the Montana Administrative Procedure Act, which have been adopted by the Department of Environmental Quality, I'm required to summarize the major provisions of the notice of public hearing.

Paragraph 1 of the notice gives notice of this hearing.

Paragraph 2 states the Board and the Department will make reasonable accommodations for persons with disabilities who wish to participate in this public hearing and gives details and contact information for requesting an accommodation.

Paragraph 3 of the notice provides the text of the proposed new rule and the reasons given by the Board for the amendment.

Paragraph 4 outlines the procedure for concerned persons to submit their comments regarding the proposed rule.

Paragraph 5 gives notice that the Department maintains a rulemaking interested persons list and indicates how a person may have his or her name placed on the list to receive notification from the Department or from the Board of rulemaking matters.

Paragraph 6 of the notice states that I, Sarah Clerget, or another attorney for the Agency Legal Services Bureau have been designated to preside over this hearing.

Paragraph 7 states the requirements of Mont. Code Ann. § 2-4-302 regarding bill sponsor notification does not apply.

Paragraph 8 of the notice states that the requirements of Mont. Code Ann. ¶ 2-4-111 regarding significant impacts to small businesses has been applied and the Board has determined that the adoption of the above-referenced rule will not significantly and directly impact small businesses.

7. As stated in paragraph 4 of the Notice, written comments submitted after this hearing should be addressed to the Board and delivered to Sandy Scherer, Legal Secretary at the Metcalf Building, 1520 East Sixth Avenue, in Helena, Montana, or mailed to the Board at P.O. Box 200901, Helena, Montana 59620-0901, of faxed to (406) 444-4386, or emailed to sscherer@mt.gov. To guarantee consideration by the Board, comments must have been received in person or postmarked no later than 5 p.m. on June 19, 2020.

A complete copy of the notice of public hearing will be included in the official record of this hearing.

The authority of the Board of Environmental Review and the Department to undertake this rulemaking is contained in Montana Code Annotated Section 75-5-201, 75-5-301.

A presiding officer may ask questions of persons making statements at a hearing and may allow others to ask questions upon request. Persons making statements do not have an automatic right to provide rebuttal or other additional information after they have completed their statements. However, a presiding officer may request further information and may allow further statements for good cause, if requested.

The order of presentation by persons making statements will be as follows:

First, the Department will have the opportunity to summarize or otherwise explain the proposed rulemaking and its reasons for proposing the rules, and to offer any supporting information;

Second, the statements of proponents—that is, persons in favor of the rulemaking.

Third, the statements of opponents—that is, persons opposed to the rulemaking.

Fourth, the statements of anyone else wishing to be heard.

I shall call on persons to make their statements based on the following order, Proponents, opponents, and then anyone wishing to be heard.

Because we are recording this hearing, please speak clearly, make sure you are unmuted and .prior to making your statement, please identify yourself by name, address, and affiliation, and whether you are a proponent, opponent, or otherwise. If you intend to offer a document for consideration, please make sure that the document can be identified by reference to your name.

Given the time we have available, and based on the number of people who have indicated they wish to speak, I will allow each person ____[ten] minutes to make oral statements. If you have more to say than your given time allows, you should submit written comments to the Board by the June 19th deadline.

ORAL STATEMENTS

DEQ statement re: proposed rulemaking

Proponents

Opponents

Others

CONCLUDE HEARING

Thank you for your attendance and statements. The public comment portion of this hearing is hereby concluded.

The I will report to the Board of Environmental Review about this hearing and give the Board a summary of comments that are received within the time allowed. The Board will consider the matter at a public meeting. A schedule of Board meetings, agendas, and Board materials can be found on the Board's website at: deq.mt.gov/DEQAdmin/ber. You should check the website to determine when this matter will be considered by the Board.

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW
OF THE STATE OF MONTANA

In the matter of the adoption of New Rule I pertaining to natural and nonanthropogenic water quality standards	))))	NOTICE OF ADOPTION (WATER QUALITY)

TO: All Concerned Persons

1. On April 30, 2020, the Board of Environmental Review (board) published MAR Notice No. 17-412, pertaining to the public hearing on the proposed amendment of the above-stated rule at page 765 of the 2020 Montana Administrative Register, Issue No. 8.

2. The board has adopted NEW RULE I (ARM 17.30.618) exactly as proposed.

3. The board has thoroughly considered the comments received. A summary of the comments received and the board's responses are as follows:

COMMENT NO. 1: We appreciate and thank the department for its extensive work gathering data, modeling, carrying out research, meeting with stakeholders, and drafting complicated technical documents that have led to this rulemaking.
RESPONSE: The board and department thank you for the comment.

COMMENT NO. 2: Since this is the first nonanthropogenic based standard rulemaking, it is important to get the rule correct so that it protects beneficial uses and provides for reasonable and effective implementation.
RESPONSE: The board agrees with the comment.

COMMENT NO. 3: I do not understand why it is in the public interest to allow polluters to add arsenic to the Yellowstone River at above 10 µg/L even if 75-5-222(1), MCA, says it is allowable.
RESPONSE: The board, as well as the department, must follow the requirements of 75-5-222(1), MCA. The department has collected considerable data to establish the nonanthropogenic condition of total recoverable arsenic within the identified segments of the Yellowstone River. When formulating and adopting standards of water quality, the board must also consider the economics of waste treatment and prevention under 75-5-301(2), MCA. Requiring water that will be discharged to the river to be treated to 10 µg/L arsenic when the river's nonanthropogenic condition has been established at higher concentrations incurs an unnecessary economic burden on dischargers. The legislature directed the board and the department to ensure that water quality standards are applied at the nonanthropogenic condition of a water body.

COMMENT NO. 4: The most protective arsenic standards for human health

and the environment for each segment of the Yellowstone River should be adopted, regardless of economic investment by MPDES permittees to meet such standards.

RESPONSE: See response NO. 3.

COMMENT NO. 5: We support the explicit prohibition of mixing zones and intake credits as there is no assimilative capacity for nonanthropogenic standards and we support permittees being required to meet end-of-pipe nonanthropogenic standards.

RESPONSE: The board agrees with the comment. See response NOS. 6 and 7.

COMMENT NO. 6: Given the unique issues that arise from naturally occurring pollutants, it would be appropriate to include a provision that allows for consideration of intake credits when implementing the standard. Recognizing that there may not be a practical way to ensure the standard and the natural condition are equal all the time, and that sometimes the standard will be more stringent than the natural condition, including a provision for intake credits provides another tool that may be used to ensure compliance with the Montana Water Quality Act.

RESPONSE: The board disagrees with the comment. With NEW RULE I, the board is directly addressing the naturally-occurring pollutant (arsenic) in the Yellowstone River by establishing new standards at concentrations greater than the current standard. By using annual median nonanthropogenic arsenic levels in the Yellowstone River, the proposed standards already give dischargers credit for naturally occurring concentrations which are above the current standard. As a result, any need for a water quality standards-based intake credit is precluded by the nonanthropogenic standard itself. Even if the board were to adopt a water quality standards-based intake credit rule, as other states have done, such a tool could not be used to provide intake credit where nonanthropogenic standards already apply.

The board also recognizes the river's concentrations will vary from year to year. However, variability is already accounted for within the new standards. While approximately half the years will have somewhat higher arsenic concentrations than the new standards, the other half will have somewhat lower concentrations. Allowing intake credits only for the "high arsenic years" while not also requiring treatment to better than the standard during the "low arsenic years" will lead to increase in the river's arsenic concentration over the long-term.

COMMENT NO. 7: The board should consider adding provisions to the rule that provide access to current and appropriate regulatory tools that specifically provide for consideration of dilution and mixing zones, or at a minimum ensure the rule is silent on those provisions so the more appropriate governing portions of the federal Clean Water Act and the Montana Water Quality Act may continue to govern without conflict. Including reference to mixing zones in this new rule is unnecessary and may lead to unforeseen consequences and conflicts.

RESPONSE: The board considered the request and concludes that the rule should address mixing zones as currently proposed in (3) of NEW RULE I. Mixing zones are only appropriate when the background condition of the receiving water is below the applicable water quality standard. Here, the nonanthropogenic standards

are established right at the long-term median nonanthropogenic condition of a waterbody; that is, at the central tendency of the naturally occurring pollutant. The board believes that a measure of central tendency (in this case the median nonanthropogenic concentration) is the best representation of the nonanthropogenic condition. Any anthropogenic increase in the concentration of such a waterbody would move the nonanthropogenic condition away from its central tendency and away from the nonanthropogenic condition. As a result, there is no assimilative capacity with nonanthropogenic standards and mixing zones are not appropriate.

COMMENT NO. 8: The board should consider adding provisions to the rule that provide access to current and appropriate regulatory tools that allow implementation of the standards either as a load or as a concentration.

RESPONSE: The board disagrees with the comment. The standards have been developed as concentrations and any MPDES permit limits will be expressed as concentrations to ensure the discharge is meeting the standard. This is consistent with the large number of concentration-based water quality standards that have been adopted by the board.

COMMENT NO. 9: If the arsenic standard becomes artificially low during a "high arsenic concentration" year, a permittee is at risk of permit violations, enforcement actions, and perhaps a citizen suit under the federal Clean Water Act. The rule and/or technical support documents should clarify that such a situation is not a violation of the permit limits.

RESPONSE: Permittees will be required, under NEW RULE I, to treat their discharge effluent to the nonanthropogenic standard concentration, unless a permittee's discharge will not cause or contribute to an exceedance of the standard. Adoption of the proposed arsenic standards increases allowable concentrations to levels above the currently-applicable standard of 10 µg/l, thereby lessening the burden of compliance. While variability is already accounted for within the new standards, the standards may be revised should median nonanthropogenic concentrations change significantly.

COMMENT NO. 10: If the nonanthropogenic condition of the river trends upward over time and results in a higher standard, it should be clear in the rule or the supporting technical documents that the permit limit may be increased in accordance with the higher nonanthropogenic level without risking an anti-backsliding claim.

RESPONSE: The anti-backsliding provisions of state and federal law prohibit the renewal, reissuance, or modification of an existing permit to contain effluent limitations less stringent than those established in a previous permit, unless an exception applies. In general, revised standards do not justify the application of a less stringent effluent limitation. *See* 40 C.F.R. § 122.44(l). Anti-backsliding requirements are applied on a case-by-case basis through the MPDES permitting process and are outside the scope of this rulemaking.

COMMENT NO. 11: The department should, in the proposed rule, provide a categorical exemption stating that "point source dischargers who discharge water

utilized for non-contact cooling purposes only into the same segment of the river from where the water was withdrawn are exempt from the proposed water quality standards limitations."

RESPONSE: The purpose of this rule is to adopt water quality standards based upon natural and nonanthropogenic conditions and, specifically, the establishment of total recoverable arsenic standards for four segments of the Yellowstone River. The board disagrees this is the appropriate rule for such an exemption and finds the request to be outside the scope of this rulemaking.

COMMENT NO. 12: The board should consider removing or modifying footnote 16 of Department Circular DEQ-7. Currently, the footnote indicates no sample shall exceed the human health standard.

RESPONSE: Thank you for your comment, however, it is outside the scope of this rulemaking.

COMMENT NO. 13: Are there any Public Water Systems in the segments of the Yellowstone River with proposed site-specific arsenic criteria that have data demonstrating that the river source water with arsenic of 60 µg/L can be treated to below 10 µg arsenic per liter?

RESPONSE: The comment refers to the highest anticipated instream arsenic concentration (60 µg/L arsenic) which was estimated using the department's modeling for the Yellowstone River from the Montana/Wyoming border (44.9925, -110.5172) to the mouth of Mill Creek (45.4165, -110.6548). The standard being proposed for the segment is 28 µg/L. Currently, there are no public water supply systems on that segment of the river; the town of Gardiner, which is located on the segment, stopped using the river as a water source over ten years ago and now only uses water sourced from wells. The other public water supply on a segment with proposed new arsenic standards is in the city of Laurel, which draws water from the Yellowstone River in the segment from the mouth of the Stillwater River (45.6399, -109.2829) to the mouth of the Clarks Fork of the Yellowstone River (45.6510, -108.7145). The proposed arsenic standard in this segment is 13 µg/L. The department examined the arsenic concentrations in Laurel's finished drinking water and the corresponding concentrations in the river when the water was withdrawn, using methods identical to those used for Billings and described in Section 2.1 of its 2020 technical document *Addendum to Derivation of the Nonanthropogenic Standards for Segments of the Upper and Middle Yellowstone River*. Over the time period data was available (2009-2018), the department found that the Yellowstone River's arsenic ranged from 10 to 19 µg/L, and Laurel's drinking water complied with the arsenic standard (10 µg/L) on all but one occasion—when it measured 11 µg/L. Importantly, the exceedance did not occur when the river's arsenic was particularly high (it was 13 µg/L at the time) and is unrelated to the time periods when the river's arsenic ran highest. These findings indicate that the Laurel public water supply—the only system actively drawing water from the Yellowstone River in the segments addressed by NEW RULE I—can treat arsenic to ≤ 10 µg arsenic per liter when the river's arsenic concentration is as high as 19 µg/L.

COMMENT NO. 14: NEW RULE I states that the site-specific arsenic criteria

are "Water quality standards for human health." Please provide information to explain how the criteria will protect human health from exposure to arsenic through fish consumption.

RESPONSE: The United States Environmental Protection Agency (EPA) provides two equations to calculate an arsenic concentration standard protective of human health; one equation assumes the waterbody is used for drinking and that a drinking water treatment process will not further lower the contaminant concentration, and also that fish are eaten from the same waterbody. The other equation assumes that the only route of exposure is via consumption of fish from the waterbody. The latter equation (referred to as "organism-only") can be used to determine a protective arsenic concentration for fish consumption, and that result can then be compared to the nonanthropogenic arsenic standards being proposed for the Yellowstone River. Key assumptions adopted in Department Circular DEQ-7 (June 2019 version) are as follows: an average human body weight of 80 kg, fish consumption of 0.022 kg/day, and an arsenic bioconcentration factor of 44. Using these assumptions, the organism-only equation indicates 47 µg arsenic per liter would be protective for fish consumption (at Montana's arsenic carcinogen risk factor of 10^{-3}, per 75-5-301(2)(a), MCA). The highest nonanthropogenic arsenic standard being proposed on the Yellowstone River is 28 µg arsenic per liter, lower than 47 µg arsenic per liter. The board notes that river water is used for drinking within the affected Yellowstone River segments (Laurel has a public water supply), but arsenic in the river's water is first treated to ≤ 10 µg/L before distribution. Thus, the board concludes the proposed Yellowstone River nonanthropogenic standards will protect human health from exposure to arsenic through fish consumption.

COMMENT NO. 15: If an anthropogenic source introduces water with a concentration at or below 28 µg/L, the concentration in the river does not increase, but the total mass of arsenic in the river does increase.

RESPONSE: The board agrees with the comment. Any additional mass of arsenic added to the river from a water source which did not originate from the river itself will increase the river's total load.

COMMENT NO. 16: Under the proposed rule, simple water evaporation (of Yellowstone River water) due to ambient temperatures would increase the non-impacted arsenic load to an arsenic concentration higher than what was diverted from the river. The user of the water would then be forced to treat the water to remove nonanthropogenic arsenic before discharge.

RESPONSE: In the scenario provided, the user is not simply using and then returning Yellowstone River water in its original state; the user's actions have resulted in the return water having a higher concentration than when it was initially diverted. When returned to the river, the higher arsenic concentration of the returned water will increase the river's arsenic concentration. The standards are written to concentration, therefore the end result of the commenter's scenario is no different than if the user had mixed water with elevated anthropogenic arsenic from some other source with the withdrawn Yellowstone River water, and then returned all the water to the river. Either way, the river's concentration has increased due to anthropogenic actions. Therefore, treatment to the non-anthropogenic standard is

appropriate.

COMMENT NO. 17: The department should allow an option to implement procedures/criteria utilizing a 12-month rolling average, calculated monthly, in order to comply with the nonanthropogenic condition present in the waterbody at all times of the year.

RESPONSE: The board disagrees with the comment. The board understands that the request represents a potential way for a permittee to remain in compliance with a nonanthropogenic standard by accounting for near-term natural variability which temporarily increases the river's concentration above the nonanthropogenic standard. However, the department analyzed this approach using its modeled arsenic data and permittee arsenic discharge data, and found that it does not resolve the compliance concern at hand. For arsenic in the Yellowstone River, the department found that a rolling 12-month median is basically the same as other retrospective data compilations; it uses historic data to predict the present. The department found that the median or average arsenic concentration of the preceding 12 months may have little or no predictive relationship with the current month. And since permit compliance is based on meeting the current month's limits, if the current month happens to be high (i.e., is naturally elevated above the nonanthropogenic standard) comparing the current month to the previous 12-month rolling value may still indicate the permittee's discharge is above the standard.

COMMENT NO. 18: The language in the reason section of the MAR notice (MAR Notice No. 17-412) sets the tone for future rulemaking and should clarify what reasons apply to the Yellowstone River for arsenic but may not apply elsewhere or for other parameters. Therefore, revisions should be made to the MAR notice. The last sentence on page 766, which carried to page 767, should be revised for the final notice, as follows: "The proposed nonanthropogenic arsenic standards for the Yellowstone River are protective of human health, which is the beneficial use in the Yellowstone River that is most sensitive to arsenic levels."

RESPONSE: The board disagrees with the comment. Future rulemakings must contain reasonable necessity statements supporting related rules. Here, the proposed nonanthropogenic arsenic standards for the Yellowstone River are protective of human health when the river's water is conventionally treated for drinking water purposes. The human health drinking water use in the Yellowstone River is the most sensitive to nonanthropogenic arsenic levels.

COMMENT NO. 19: Revisions should be made to the MAR notice (MAR Notice No. 17-412). The first full sentence on page 767 should be revised for the final notice, as follows: "Because the proposed standards reflect the nonanthropogenic condition of the Yellowstone River, they protect beneficial uses, comply with Water Quality Act, and enable regulation of point source discharges."

RESPONSE: The board disagrees any revisions to the MAR notice are necessary. The proposed standards do not enable regulation of point source dischargers, such authority is provided by the Water Quality Act, Title 75, Chapter 5, MCA, and the related permitting rules. See also response NO. 18.

COMMENT NO. 20: Subparagraph (3) of the rule, as well as the last paragraph in the reason section of the MAR notice (MAR Notice No. 17-412) precludes the possibility of assimilative capacity for the applicable nonanthropogenic or natural standards, and denies mixing zones. Subparagraph (3) of the proposed rule should be removed.

RESPONSE: The board disagrees that (3) of the proposed rule should be removed. See also response NO. 7.

COMMENT NO. 21: If (3) is not removed, it should be modified to have appropriate sideboards placed on it. More appropriate language would be as follows: "In accordance with 40 CFR 122.44(d)(1)(iii) and Title 17, chapter 30, subchapter 5 of these regulations, dilution and mixing zones may be considered for discharges to the waterbodies and for the parameters listed in this rule; however, for toxic and carcinogenic parameters, dilution and mixing zones may only be considered for discharges with an average flow of less than 1 percent of the 7Q10 low flow of the waterbody and an annual load of less than 1 percent of the annual average of the load of the parameter."

RESPONSE: The board disagrees with the comment. See also response NOS. 7 and 20.

COMMENT NO. 22: Including the term "assimilative capacity" in (3) of the rule injects a new term into the rules, is unnecessary, and may lead to unforeseen consequences. Based on current regulatory and statutory language, the department already has the ability to determine when loading (or assimilative) capacity exists, which makes (3) of the rule unnecessary and confusing.

RESPONSE: The board disagrees with the comment. In (3) of the proposed rule, the term "assimilative capacity" provides context as to why mixing zones are not allowed for nonanthropogenic standards. Assimilative capacity is a fundamental requirement for the implementation of water quality standards and any related mixing zone or dilution consideration. See also response NO. 7.

COMMENT NO. 23: Discussion of permitting should be deleted from the technical support document, specifically Section 4.2 of the document *Derivation of the Nonanthropogenic Arsenic Standards for Segments of the Upper and Middle Yellowstone River*.

RESPONSE: The board disagrees with the comment. The guidance document was developed cooperatively between the department's Standards & Modeling and Permitting sections, and released as final in late 2019. As a final technical document, it provides the department's non-binding recommendations for how to implement nonanthropogenic standards.

COMMENT NO. 24: We would like to have the inclusion of intake credits to prevent the need for further investment and operation costs where in the end we're really not going to have any kind of measurable impact on the river.

RESPONSE: The board disagrees with the comment. Please see response NO. 6.

COMMENT NO. 25: To enable an intake credit provision, the following text should be added either to proposed NEW RULE I or to the supporting technical documents: "The standards provided herein may be implemented as annual average standards, either in terms of load or concentration; intake credits may be considered for permittees that take surface water directly from, and/or groundwater that originates or is influenced by, the same waterbody to which the effluent discharges."

RESPONSE: The board disagrees with the comment. Please see also responses NOS. 6 and 8. The board is aware that interactions between surface waterbodies and adjacent groundwater occur, however they are not the same waterbodies and it is common for them to have drastically different water quality. The nonanthropogenic standards in NEW RULE I apply to the Yellowstone River and groundwater standards are outside the scope of this rulemaking.

Reviewed by: BOARD OF ENVIRONMENTAL REVIEW

/s/ Edward Hayes
EDWARD HAYES
Rule Reviewer

BY: */s/*
CHRISTINE DEVENY
Chair

Certified to the Secretary of State August 18, 2020.

DEQ
Montana Department
of Environmental Quality

MEMORANDUM

To: Board of Environmental Review

From: Kurt R. Moser
DEQ Legal Counsel

Date: June 15, 2020

Re: HB 521 Analysis and Taking or Damaging Impact Assessment/Checklist

MAR Notice No. 17-412 - In the matter of the adoption of New Rule I pertaining to natural and nonanthropogenic water quality standards

HB 521 Analysis

(Comparing Stringency of State Rules to Any Comparable Federal Regulations or Guidelines)

Pursuant to House Bill 521, the Board, under § 75-5-203, MCA, may not adopt a rule that is more stringent than comparable federal regulations or guidelines that address the same circumstances, unless the Board and Department make certain written findings concerning the proposed rule after public hearing and comment.

New Rule I will implement state law found at §75-5-222, MCA. The statute, §75-5-222(1), MCA, grants the board authority to adopt nonanthropogenic water quality standards when the otherwise applicable standards are more stringent than the nonanthropogenic condition of the waterbody. Natural or nonanthropogenic water quality standards are established when natural or non-anthropogenic effects on the landscape result in pollutant concentrations in state surface waters that exceed the otherwise applicable water quality standards. New Rule I establishes a framework for adopting water quality standards based on natural or nonanthropogenic conditions, and establishes nonanthropogenic-based arsenic standards for four segments of the Yellowstone River.

At present there is a single human-health based arsenic standard of 10 µg/L for state waters across Montana (Department Circular DEQ-7). The 10 µg/L arsenic standard was adopted in Circular DEQ-7 and is based upon the federal Maximum Contaminant Level (MCL), per §75-5-301(2)(a), MCA. The proposed arsenic standards in New Rule 1 are less stringent in comparison to the generally applicable MCL-based arsenic standard in DEQ-7.

Because the proposed criteria would result in arsenic standards for four segments of the Yellowstone River that are less stringent than comparable federal regulations or guidelines, no additional action is required per §75-5-203, MCA.

Private Property Assessment Act – HB 311

The Montana Private Property Assessment Act, §§ 2-10-101 through 2-10-112, MCA, requires that, prior to adopting a proposed rule that has taking or damaging implications for private real property, an agency must prepare a taking or damaging impact statement. An "action with taking or damaging implications" means:

> [A] proposed state agency administrative rule, policy, or permit condition or denial pertaining to land or water management or to some other environmental matter that if adopted and enforced would constitute a deprivation of private property in violation of the United States or Montana Constitution.

§ 2-10-103(1), MCA.

Section 2-10-104, MCA, requires the Montana Attorney General to develop guidelines, including a checklist, to assist agencies in determining whether an agency action has taking or damaging implications. A completed Attorney General checklist for the proposed rules is attached. Based on the guidelines provided by the Attorney General, proposed New Rule I does not constitute an "action with taking or damaging implications" in violation of the United States or Montana Constitutions.

Attachment A: Attorney General HB 311 Checklist

DEQ
Montana Department
of Environmental Quality

Water Quality Standards Amendments Small Business Impact Analysis (February 28, 2020)

In the matter of the proposed NEW RULE 1 pertaining to nonanthropogenic water quality standards:

NEW RULE 1 will be presented to the board to initiate rulemaking on 4/17/2020. NEW RULE 1 will implement state law found at §75-5-222, MCA. This statute (specifically §75-5-222(1), MCA) requires the adoption of nonanthropogenic water quality standards when the otherwise applicable standards are more stringent than the nonanthropogenic condition of the waterbody. Correspondingly, the department may not apply a water quality standard to a water body that has a nonanthropogenic concentration greater than the standard (§75-5-222(1), MCA). In such cases, the nonanthropogenic condition is the standard. Further, it is not necessary to treat wastes to a condition purer than the natural condition (§75-5-306, MCA).

NEW RULE 1 establishes a framework for adopting water quality standards which are based on natural or nonanthropogenic conditions, and establishes nonanthropogenic-based arsenic standards for four segments of the mainstem Yellowstone River. Natural or nonanthropogenic water quality standards are established because natural or nonanthropogenic effects on the landscape have resulted in pollutant concentrations in state surface waters that naturally exceed the otherwise applicable state water quality standards. NEW RULE 1 has been crafted so that named waterbodies, waterbody segments, or groups of waterbodies within specific geographic regions can all be incorporated under this rule. The Yellowstone River arsenic standards are the first nonanthropogenic standards to be proposed for adoption under §75-5-222(1), MCA.

Prior to the adoption of a proposed rule, an agency must determine if the rule will have significant and direct impacts on small businesses. *See* §2-4-111, MCA. Should an agency determine a proposed rule will have a significant and direct impact on small businesses, its analysis, at minimum must include the following:

> (a) Identify by class or group the small businesses probably affected by the proposed rule.
> (b) Include a statement of the probable significant and direct effects of the proposed rule on the small businesses identified in subsection (a).
> (c) Include a description of any alternative methods that may be reasonably implemented to minimize or eliminate any potential adverse effects of adopting the proposed rule, while still achieving the purpose of the proposed rule.

A small business is defined, at §2-4-102(13), MCA, as a business entity, including its affiliates, that is independently owned and operated and that employs fewer than 50 full-time employees.

The department has concluded that the proposed rulemaking will not significantly and directly impact small businesses.

The department's analysis follows:

(a) Identify by class or group the small businesses probably affected by the proposed rule.

NEW RULE 1 will directly affect communities, municipalities, and private entities holding wastewater discharge permits that discharge arsenic into the mainstem Yellowstone River, between the Montana/Wyoming border and the confluence with the Clarks Fork of the Yellowstone. Specifically, NEW RULE 1 may affect small businesses located in urban areas who are subject to the wastewater rates charged by the affected communities and municipalities. Private entities along the specified reach of the Yellowstone River are also affected, but to the department's knowledge there are no small businesses there that have an arsenic discharge permit limit.

(b) Include a statement of the probable significant and direct effects of the proposed rule on the small businesses identified in subsection (a).

If there were to be any effects on small businesses, they would be beneficial. NEW RULE 1 lowers the level of treatment required for discharging arsenic-containing effluent into the Yellowstone River; for example, near Gardiner, MT, NEW RULE 1 relaxes the treatment requirement from 10 µg/L to 28 µg/L. This is because the water quality standard under NEW RULE 1 reflects the natural background arsenic concentration in the Yellowstone River, rather than the more stringent 10 µg/L human health standard. It is unknown if the relaxation of arsenic treatment requirements will result in *lower* wastewater rates for the affected communities/municipalities, but the department is confident that it will not result in higher rates. Either way, the effect on small businesses will be either neutral or potentially beneficial.

(c) Include a description of any alternative methods that may be reasonably implemented to minimize or eliminate any potential adverse effects of adopting the proposed rule, while still achieving the purpose of the proposed rule.

There is no need for alternative methods that can be reasonably implemented to minimize or eliminate the potential adverse effects of adopting the proposed rule because the rule is not expected to result in any significant and direct small business impacts.

MAR Notice No. 17-412 **ATTACHMENT A**

PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PRIVATE PROPERTY ASSESSMENT ACT?

YES	NO		
☒	☐	1.	Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
☐	☒	2.	Does the action result in either a permanent or indefinite physical occupation of private property?
☐	☒	3.	Does the action deprive the owner of all economically viable uses of the property?
☐	☒	4.	Does the action deny a fundamental attribute of ownership?
☐	☒	5.	Does the action require a property owner to dedicate a portion of property or to grant an easement? [If the answer is NO, skip questions 5a. and 5b. and continue with question 6.]
☐	☐	5a.	Is there a reasonable, specific connection between the government requirement and legitimate state interests?
☐	☐	5b.	Is the government requirement roughly proportional to the impact of the proposed use of the property?
☐	☒	6.	Does the action have a severe impact on the value of the property?
☐	☒	7.	Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? [If the answer is NO, do not answer questions 7a. – 7c.]
☐	☐	7a.	Is the impact of government action direct, peculiar, and significant?
☐	☐	7b.	Has government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?
☐	☐	7c.	Has government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?

Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b.

If taking or damaging implications exist, the agency must comply with § 5 of the Private Property assessment Act, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.

HOLLAND&HART LLP

Victoria A. Marquis
Associate
Phone 406.896.4612
vamarquis@hollandhart.com

June 19, 2020

Sent via Email to sscherer@mt.gov

Sandy Scherer
Paralegal
Montana Department of Environmental Quality
1520 E. Sixth Avenue
P.O. box 200901
Helena, MT 59620-0901

Re: In the matter of the adoption of New Rule I pertaining to natural and nonanthropogenic water quality standards, MAR Notice No. 17-412.

Dear Ms. Scherer:

Please accept these written comments on behalf of CHS, Inc. regarding the above-referenced rulemaking. For at least six years, CHS has been discussing the issue of arsenic regulation in the Yellowstone River with the Department. We are pleased that the Department's work on the issue has now culminated in proposed rulemaking. We appreciate the Department's extensive work, which has included data gathering and analysis, modeling, research, meetings with stakeholders, and drafting of complicated technical documents. We know that it takes a lot of Department resources to get to this point, and we sincerely thank the Department for that work. CHS especially appreciates the Departments' consideration and incorporation of an annual standard that is protective of beneficial uses and can be effectively and efficiently implemented. Our comments on the draft rule focus on the tools for implementing the new proposed standard for arsenic.

At both the April Board meeting and the June public hearing, the Board did not appear receptive to information about CHS's facility. However, the following brief explanation of CHS's facility, including its extensive water treatment improvements, provides important context when considering the "economics of waste treatment and prevention" as well as whether the standards are "cost-effective and economically, environmentally, and technologically feasible" as required by the Montana Water Quality Act. §§ 75-5-301(2); 75-5-304(2), MCA.

The CHS Facility

The CHS Refinery is located along highway 212, just south of Laurel, in Yellowstone County. The refinery produces up to 700 million gallons of fuel annually. It directly employs

over 300 people with good-paying jobs, as well as hundreds of contractors, and is the largest taxpayer in the county. Additionally, the CHS Refinery is a vital part the surrounding communities, providing essential financial and volunteer support for various educational, youth-oriented, and service groups and events.

CHS continues to invest heavily in all of its environmental protection programs, especially its wastewater treatment facility. The refinery holds Montana Pollutant Discharge Elimination System ("MPDES") permit no. MT0000264 to discharge treated wastewater into the Yellowstone River in compliance with the Montana Water Quality Act. One of the regulated parameters in CHS's MPDES permit is arsenic, which occurs naturally in the Yellowstone River. CHS's operation requires intake water from the river and from groundwater influenced by the river. That intake water brings naturally-occurring arsenic into the CHS facility, and at times that amount is significant.

Unlike many other refineries throughout the nation, CHS does not have access to a municipal or Publicly Owned Treatment Works (POTW) system that could provide dilution and treatment at costs spread out over many users. Additionally, unlike removal of arsenic from raw water for drinking water suppliers, removal of arsenic from industrial waste streams, such as CHS's, is far more complicated and costly. In fact, CHS has installed three brand-new large components at the front end of their treatment system in hopes of enabling more effective arsenic treatment. *See* slides 12 and 13, attached.

As you can see from the slides attached to this letter, CHS's efforts are large-scale, significant projects. CHS added 3,000 feet of new pipeline to transport the wastewater under the highway, across multiple easements, and over an irrigation ditch to the two new diffuser valves that serve as outfalls, or discharge points. *See* slides 3-5, attached. Not only was pipeline construction a major permitting and construction project, but CHS also had to obtain permits and complete complex in-stream construction requiring sheet pile and extensive pumping just to install the two diffuser valves that will deliver the discharge to the Yellowstone River in a more environmentally-friendly manner. *See* slides 4 and 5, attached.

CHS also installed new high capacity pumps, flow meters, a composite sampler, and a new building near the two new basins for the system. *See* slide 6, attached. Not only does this portion of the project provide necessary support functions for the new diffusers and the new arsenic multimedia filters, it also provides a new facility to complete sample collection and monitoring required by CHS's MPDES permit.

Just east of the new basins and sampling building is another new building, but this one is massive – 30-feet by 70-feet by 200-feet. This giant project necessarily included earthwork, extensive concrete work, framing, piping, and electrical work – all necessary to protect and house the new multimedia filters, which themselves are state-of-the-art technology. *See* slides 7-11, attached. This type of treatment is unprecedented in the refining industry and comes at significant cost. CHS estimates that by the end of 2020, it will have invested **more than $39.2**

million in wastewater system improvements. That's just the capital investment and does not include the extensive time and personnel resources that CHS has invested.

The big question though, is will all of these efforts, expenses and resources work to meet the proposed new arsenic standard? Because this type of treatment is, as far as CHS can tell, the first of its kind in the nation, and because of CHS's unique setting – disconnected from larger water treatment facilities and dependent on the Yellowstone River (which is naturally high in arsenic) for necessary intake water – the results of this nearly $40 million investment are not guaranteed.

The Natural Condition of the Yellowstone River

Part of the Department's extensive work preceding this rulemaking was an investigation of the conditions in the Yellowstone River. *See* Determination of Nonanthropogenic Arsenic Levels (October 2019). The Department concluded that "the total nonanthropogenic arsenic represents at least 94.3 percent of the total arsenic load." Determination of Nonanthropogenic Arsenic Levels, p. 43. Further, the Department found that the total of all "permitted discharges account for less than 1% of the total arsenic load in the Yellowstone River" and "in total the permitted sources do not contribute any arsenic load." Determination of Nonanthropogenic Arsenic Levels, p. 33.

At Appendix C-3, the Department provides the nonanthropogenic arsenic load in segment 4 of the Yellowstone River, where the CHS discharge occurs, as ranging from nearly 2,000 kg/month to almost 15,000 kg/month. By comparison, CHS's discharge is estimated to add just 4 to 5 kg/month, which is less than 0.3% of the river's lowest nonanthropogenic arsenic load. Additionally, while the River's 7Q10 low flow is 1,026 cfs, the CHS Refinery's discharge, on average, only adds about 3 cfs, which is less than 0.3.% of the river's natural low flow. So CHS has a discharge that adds very little to the Yellowstone River - very low amounts of arsenic and very low flow – less than 0.3% of the natural load and less than 0.3% of the natural flow as the worst case.

As shown in slide 5 attached, the discharge occurs through a newly installed diffuser which provides immediate and thorough mixing within a short section of the river. When you consider the very low amount of arsenic, the very low flow of the discharge and the accuracy with which arsenic can be measured, any change to the river just beyond the diffuser most likely cannot be measured with any degree of certainty.

The Rulemaking

Since this is the first nonanthropogenic-based standard rulemaking, we understand the importance of getting the rule right so that it protects beneficial uses and provides for reasonable and effective implementation. To ensure that the new rule works for this situation and for others, we request the Board ensure that the reasons for the new standard are appropriately stated and consider adding provisions that provide access to current and appropriate regulatory tools that 1) allow implementation of the standard either as a load or as a concentration, 2) provide credit for intake water that naturally exceeds the standard and 3) specifically provide for consideration of

dilution and mixing zones, or at a minimum ensure the rule is silent on those provisions so that the more appropriate governing portions of the federal Clean Water Act and the Montana Water Quality Act may continue to govern without conflict.

The new rule can provide a good example of how beneficial uses may be protected while balancing the regulatory program with the right to develop and use property, which are fundamental requirements of the Montana Water Quality Act. Mont. Code Ann. §§ 75-5-101(1), (2) and (3). Additionally, the new rule provides an opportunity for the Board and the Department to protect beneficial uses while considering the economics of waste treatment and ensuring that effluent standards are "cost-effective and economically, environmentally, and technologically feasible," which are also requirements of the Montana Water Quality Act. Mont. Code Ann. §§ 75-5-301(2); 75-5-304(2).

Revisions to the Reasons for the Rulemaking

Two slight revisions should be made to the reasons given for the new standard, which are provided on pages 766 and 767 of the MAR Notice. First, the last sentence on page 766, which carries over to page 767, describes the standards as "From the human health perspective, they are the most protective expression of the nonanthropogenic arsenic standards." While we agree that is the case here, including this language, without limiting it to this particular case, may create an expectation that the most protective standard for human health will always govern. But what if, for example, the "most protective expression" for human health is NOT the most protective expression for aquatic life, which might be the most sensitive use at issue in a future rulemaking? The current language in the reason section would cause confusion and would be wrong in that instance. Because the language in the reason section sets the tone for future rulemaking, it should clarify what reasons apply to the Yellowstone River for arsenic but may not apply elsewhere or for other parameters. We suggest editing that sentence in the final rule notice to read:

> *The proposed nonanthropogenic arsenic standards for the Yellowstone River are protective of human health, which is the beneficial use in the Yellowstone River that is most sensitive to arsenic levels.*

Second, the very next sentence, on page 767 of the MAR Notice, should be revised. The sentence currently reads "Because the nonanthropogenic standards are more accurate, they preclude application of unnecessarily stringent water quality standards for dischargers along the Yellowstone River who have an MPDES permit limit for arsenic." But it is actually the Water Quality Act, not the new rule, that precludes application of unnecessarily stringent water quality standards. Without nonanthropogenic standards, it is not known what standard could legally be imposed because the Water Quality Act prohibits applying a standard that is more stringent than the nonanthropogenic condition and prohibits requiring treatment to a condition purer than the natural condition. Mont. Code Ann. §§ 75-5-222; 75-5-306. We suggest revising the sentence in the final rule notice to read:

Because the proposed standards reflect the nonanthropogenic condition of the Yellowstone River, they protect beneficial uses, comply with the Water Quality Act, and enable regulation of point source discharges.

Revisions to the Rule

The last paragraph of the "Reason" section as well as subparagraph (3) of the proposed new rule should be deleted. Both of those address assimilative capacity and mixing zones, which are permitting decisions and are therefore not appropriate for inclusion in a water quality standard. Discussion of permitting should also be deleted from the technical support documents, specifically the Derivation of the Nonanthropogenic Arsenic Standards document, section 4.2. This is really important because this proposed rule as written, will apply subparagraph (3) to **all** newly proposed nonanthropogenic standards, not just this one for arsenic on the Yellowstone River. So, while we are discussing arsenic now, this same rule would apply to future standards for parameters in other water bodies, including salinity, iron, suspended solids, or other parameters. Including subparagraph (3) provides unnecessary limitations, complicates an already complicated regulatory system, and creates the potential for conflict and unforeseen consequences.

For example, the term "assimilative capacity" is not used in the Montana Water Quality Act. Instead, the Montana Water Quality Act refers to "loading capacity," which matters, not in the context of developing water quality standards, but rather in the context of developing Total Maximum Daily Loads for impaired streams and in developing permit limits. Mont. Code Ann. §§ 75-5-103(17), (18), (39); 75-5-703. When determining permit limits, the Department must consider the existing water quality of the receiving water. Admin. R. Mont. 17.30.635(1)(c). Permit limits based on water quality standards are then derived from the "loading [or assimilative] capacity" of the receiving water, which is, in its simplest terms, the difference between the existing water quality and the water quality standard. Mont. Code Ann. §§ 75-5-103(18); 75-5-103(39). "Assimilative capacity" as it is called in this proposed new rule is the "loading capacity," used in permitting decisions, which are already governed by a robust set of and rules. *See* Title 17, chapter 30, subchapters 12 and 13. Including "assimilative capacity" here not only injects a new term into the rules, it is also unnecessary and may lead to unforeseen consequences and conflicts. Based on the current regulatory and statutory language, the Department already has the ability to determine when no loading (or assimilative) capacity exists, which makes subparagraph (3) of the rule unnecessary and confusing, given its terminology.

The same is true of mixing zones. As noted in the proposed rule itself, there is an entire subchapter in the rules that provides great detail about when and how a mixing zone may be requested and granted. Consideration of a mixing zone requires presentation of a detailed water quality assessment and a mixing zone may only be considered if the beneficial uses are not impacted. Admin. R. Mont. 17.30.506(1). Again, those are permitting decisions, best left to the permitting regulations, which are sufficiently robust and stringent enough to allow the

Department to deny a mixing zone when appropriate. Including reference to mixing zones in this new rule is unnecessary and may lead to unforeseen consequences and conflicts.

For example, CHS has installed two new diffusers in the river that have had a mixing zone included in their MPDES permit. This mixing zone has been shown to provide nearly complete mixing within a short distance from the discharge point. Impacts on river arsenic concentrations downstream of this mixing zone from the refinery discharge would not be measurable. We believe the technical justification for including or not including a mixing zone should be left in the permitting decisions.

If the permitting language is included in the rule and/or supporting technical documents based on a concern related to toxic or carcinogenic parameters, the language should be tailored appropriately. Blanket prohibitions on mixings zones and consideration of dilution are not necessary or appropriate. Because this rule (as drafted) will apply to nonanthropogenic standards in all waterbodies, blanket prohibitions will likely cause conflict with the existing permitting rules and other unforeseen consequences. Further, to properly address toxic and carcinogenic parameters, the rule could acknowledge situations where the discharge does not measurably impact the receiving water body, thus providing all dischargers (regardless of access to larger treatment systems) the ability to economically and feasibly discharge without impacting the nonanthropogenic condition. Subparagraph (3) of the rule should be removed, or at least have appropriate sideboards placed on it. More appropriate language would be:

> *In accordance with 40 CFR 122.44(d)(1)(iii) and Title 17, chapter 30, subchapter 5 of these regulations, dilution and mixing zones may be considered for discharges to the waterbodies and for the parameters listed in this rule; however, for toxic and carcinogenic parameters, dilution and mixing zones may only be considered for discharges with an average flow of less than 1% of the 7Q10 low flow of the waterbody and an annual load of less than 1% of the annual average load of the parameter.*

Additions to the Rule

Given the unique issues that arise from naturally occurring pollutants, it would be appropriate to include a provision that allows for consideration of intake credits when implementing the standard. An intake credit would ensure that permittees treats the parameter (such as arsenic) that they add to the discharge, while not requiring them to go beyond that and treat naturally-occurring arsenic taken in from the river or from groundwater that originates from the river. Allowing the standard to be expressed in terms of a load could more easily enable an intake credit.

This is important because, as noted by the Board's attorney during the April Board meeting, the nonanthropogenic standard won't always match the natural condition, so sometimes the standard will be more stringent than the natural condition, creating risk that the standard and any regulation based upon it will be in violation of the Montana Water Quality Act. Mont. Code

Ann. §§ 75-5-306; 75-5-222. Recognizing that there may not be a practical way to ensure the standard and the natural condition are equal at every moment in time, including a provision for intake credits provides another tool that may be used to ensure compliance with the Montana Water Quality Act. Intake credits do not have to be mandatory, but they would be a useful regulatory tool.

To illustrate the importance of this principle, please consider the following information, specific to CHS:

Based on 2017 data, which was included in CHS's 2018 permit modification application, CHS took in an estimated average of 2.8 kg/month of arsenic from the Yellowstone River and 0.55 kg/month of arsenic from groundwater that originated from the river and/or required RCRA Corrective Actions. CHS added approximately 2.6 kg/month. Assuming a limit of 13 µg/L, this scenario would require CHS to treat on average 3.9 kg/month – which is at least 1.3 kg/month more than what they add to the discharge. The cost for treating that additional arsenic is estimated to require at least another $3 to 5 million for arsenic polishing filters, with additional operational costs of $1-2 million per year. Providing CHS a credit for this arsenic load would leave CHS responsible for treating and removing only the arsenic that it adds to the effluent, which averages 2.6 kg/month.

More recent data shows an even greater disparity. CHS calculated the average arsenic loading for the months of July and September of 2019. In July of 2019, the average arsenic load for the Yellowstone River was 2.4 kg/month and groundwater was 0.4 kg/month, for a total of 2.8 kg/month of naturally occurring arsenic taken in by CHS. Yet, CHS's contribution that month was only 0.7 kg/month. There was three times the mass of arsenic in the Yellowstone River intake than the arsenic contributed by CHS's refinery operations. In September, the values were 2.3 kg/month for the river and 0.4 kg/month for groundwater, for a total of 2.7 kg/month of arsenic that CHS took in from natural sources. Yet, CHS's contribution was only 1.8 kg/month. Once again, the arsenic taken in from the Yellowstone River exceeded the arsenic contributed by refinery operations.

An intake credit provision would ensure that permittees appropriately treat the arsenic originating from their facilities, while providing regulation that respects the statutes that eliminate the need to treat the natural, nonanthropogenic and ambient arsenic received by, but not caused by, the permittee. Mont. Code Ann. §§ 75-5-103(34), 75-5-306, and 75-5-222. Additionally, authority to provide intake credits for Water Quality Based Effluents was recognized as early as 1995 by the EPA and may include intake credits based on load. *See* Great Lakes Water Quality Guidance and CWA-compliant regulations for Washington, Oregon, Colorado, Minnesota, Ohio, Indiana, Michigan, Wisconsin, Illinois, Pennsylvania, New York, California and Wyoming. To enable an intake credit provision, the following text should be added, either to the proposed rule or to the supporting technical documents:

The standards provided herein may be implemented as annual average standards, either in terms of load or concentration;

Intake credit may be considered for permittees that take in surface water directly from, and/or groundwater that originates or is influenced by, the same waterbody to which the effluent discharges.

Finally, the rule and/or the supporting technical documents should provide a clear description of what happens in the event that the nonanthropogenic concentration of a parameter increases. While the nonanthropogenic level may fluctuate to lower or higher numbers, if it fluctuates to a higher number, that could impact a permittee's ability to achieve the stringent treatment levels and remain in compliance with its permit. This is especially true if the permittee, like CHS, necessarily takes in high volumes of river water with nonanthropogenic arsenic. If the permittee cannot reach the standard, which becomes artificially low in a "high arsenic" year, the permittee is at risk of permit violations, enforcement actions, and perhaps even a citizens suit under the federal Clean Water Act. The rule and/or technical support documents should clarify that such a situation is not a violation of the permit limits. Additionally, if the nonanthropogenic condition of the river trends upward over time and results in a higher standard, it should be clear in the rule or the supporting technical documents that the permit limit may be increased in accordance with the higher nonanthropogenic level without risking an anti-backsliding claim.

Conclusion

CHS is sensitive to concerns about arsenic and takes its compliance with the Montana Water Quality Act very seriously – as evident by its significant and unprecedented investments in wastewater treatment upgrades. We appreciate the work the Department and the Board have invested in this important topic. The annual standard, based on the nonanthropogenic level of arsenic in the Yellowstone River, is a move in the right direction. However, the new rule would benefit from revisions and additions that do not limit regulatory tools and that provide additional regulatory tools and clarifications to ensure compliance with the Montana Water Quality Act. Please contact me at 406-896-4612 if you have questions or concerns with these public comments or would like additional information on the comments or CHS's facility.

Sincerely,

Victoria A. Marquis
Associate
for Holland & Hart LLP

VAM:asf
Enc. (slides 1-14)

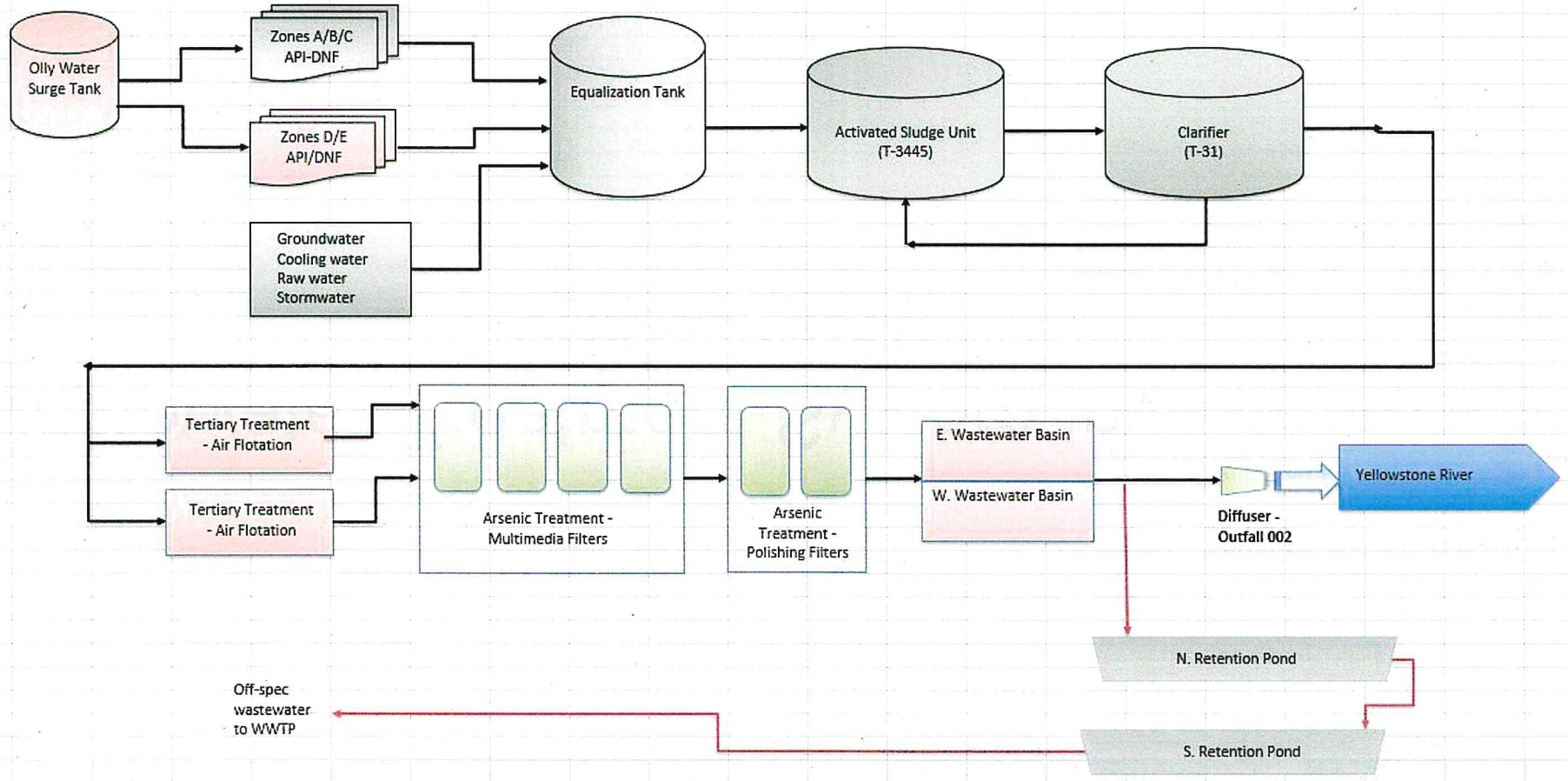
14857246_v1

Wastewater Treatment System Investments 2015 - 2019

CHS REFINERY – WASTEWATER TREATMENT SYSTEM FLOW DIAGRAM

Future CHS Refinery Wastewater Treatment System Simplified Flow Diagram (2019)

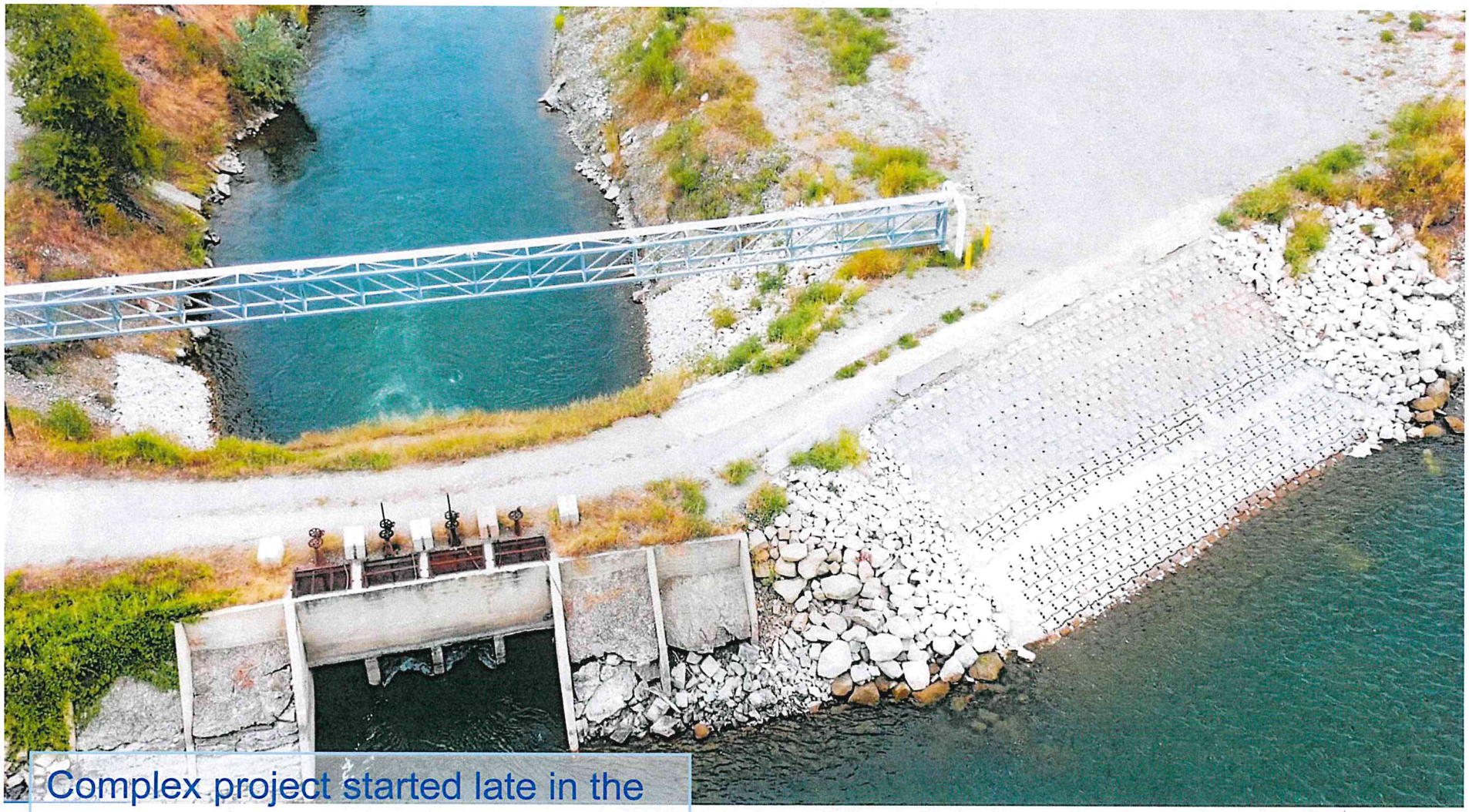
New equipment shown in orange.



Primary goals: Improve effluent mixing, treat arsenic and minimize oil & grease impacts.

CHS

DIFFUSER STRUCTURE – START-UP JUNE 1, 2019



Complex project started late in the summer of 2018 to take advantage of the river's low flow season.

CHS

DIFFUSER – OUTFALLS 002/003

Sheet pile and multiple pumps used to allow the diffuser to be safely and securely installed on the river bottom.

DIFFUSER – OUTFALLS 002/003

Two Tidal Flex diffuser valves were installed. A new pipe bridge had to be installed over the BBWA ditch to reach the diffuser location.

CHS

NEW WASTEWATER EAST & WEST BASINS

Includes new high capacity pumps, flow meters, composite sampler and building. Water is pumped through over 3,000 feet of new piping that was installed from the wastewater treatment system to the diffusers.

The new basins were needed for the new diffusers and will provide the backwash water for the new arsenic multimedia filters.

CHS

NEW ARSENIC TREATMENT SYSTEM STRUCTURES

Extensive design work was required for the supporting foundation, supports and building that will house the arsenic treatment system.

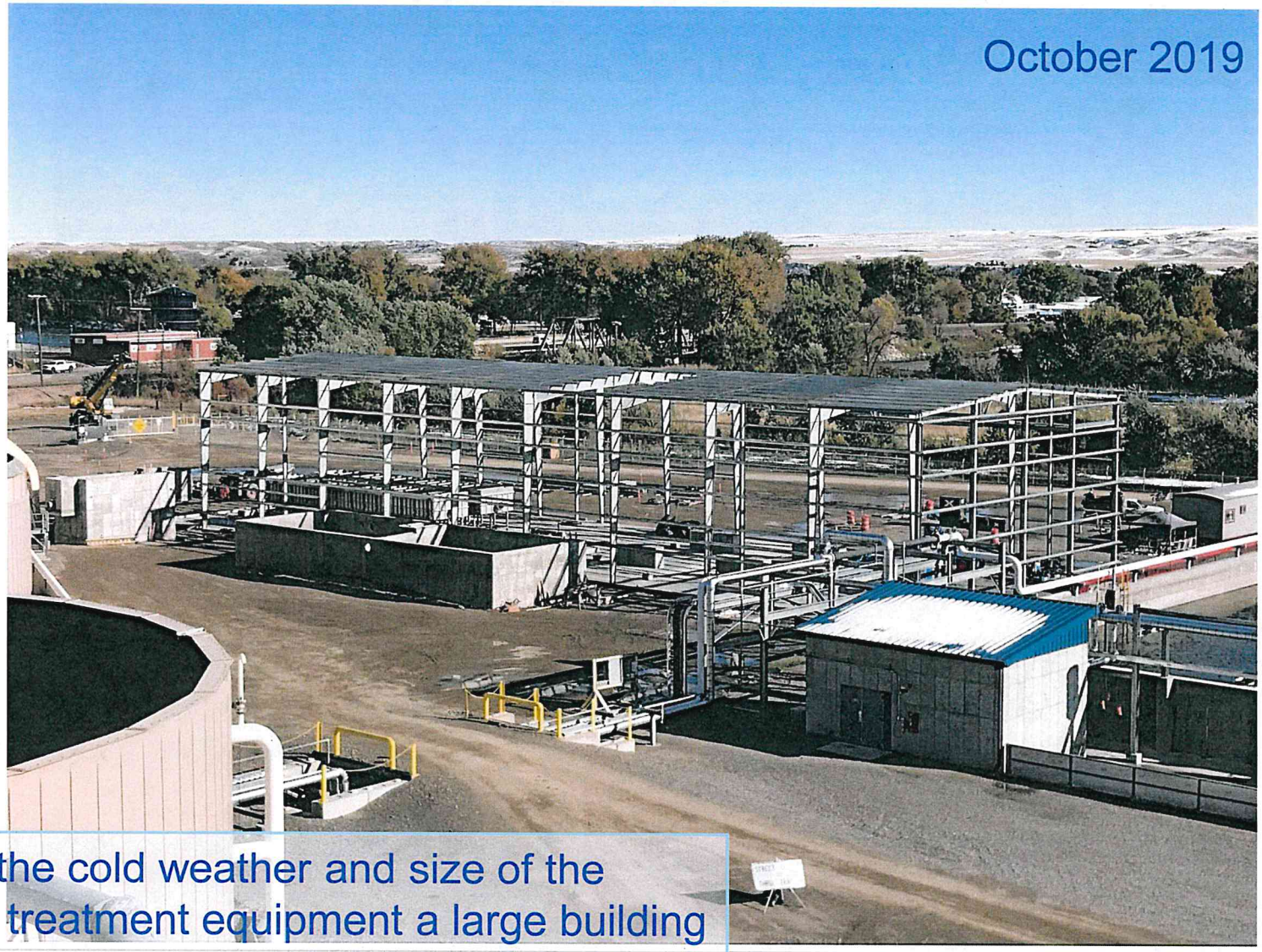
CHS

NEW ARSENIC TREATMENT SYSTEM STRUCTURES

Concrete basins for backwash water tank on the left and supports for filter vessels right.

CHS

NEW ARSENIC TREATMENT SYSTEM STRUCTURES



Due to the cold weather and size of the arsenic treatment equipment a large building is being constructed (30ft x 70ft x 200 ft).

CHS

NEW ARSENIC TREATMENT SYSTEM STRUCTURES

The two recycle air flotation units (RAFs) were set before the building framework was installed.

CHS

NEW ARSENIC TREATMENT SYSTEM STRUCTURES

November 2019

The two new multimedia filters will require and extensive system of piping and controls to enable efficient and effective backwashing.

CHS

NEW OILY WATER SURGE TANK

A new oily water surge tank (T-3436) was designed, constructed and is now in operation. Primary purpose is to improve oil & grease removal on the front end of the treatment system.

CHS

SECOND API/DNF TRAIN

A second API/DNF train is also being installed to improve oil & grease removal, as well as removal sludges/solids, on the front end of the treatment system.

CHS

WASTEWATER IMPROVEMENTS SUMMARY

- CHS will have invested over $39.2 million in wastewater system improvements by the end of the year.
- Pilot tests and design of the arsenic treatment system has taken thousands of hours of effort.
- The arsenic treatment system will be the first of it's kind in a petroleum refinery operating environment and as such is unproven to meet such a low arsenic limit.
- Note that the new arsenic treatment system will not have a measurable positive impact on the arsenic concentration in the Yellowstone River. It can be calculated but not measured.
- CHS expects to remove 4 to 5 kg/month from the wastewater discharge into the Yellowstone River. The river has a non-anthropogenic arsenic load of 1,915 to 14,928 kg/month.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
www.epa.gov/region8

June 18, 2020

Ref: 8WD-CWQ

SENT VIA EMAIL
DIGITAL READ RECEIPT REQUESTED

Sandy Scherer
Montana Department of Environmental Quality
1520 E. Sixth Avenue
P.O. Box 200901
Helena, Montana 59620-0901

Dear Ms. Scherer:

This letter provides comments of the U.S. Environmental Protection Agency for the public comment period on proposed NEW RULE I that includes site-specific arsenic standards for segments of the Yellowstone River.

The *Derivation of the Nonanthropogenic Arsenic Standards for Segments of the Upper and Middle Yellowstone River* (Section 3.3) cites a personal communication with a DEQ drinking water engineer as the basis for concluding that arsenic at an intake concentration of 60 µg/L or less can be treated to below the arsenic human health standard of 10 µg/L. The EPA suggests supplementing the state's record with literature citations, reports, and/or relevant facility data to support this conclusion. Are there any Public Water Systems in the segments with proposed site-specific arsenic criteria that have data demonstrating source water of 60 µg/L can be treated to below 10 µg/L?

NEW RULE I states that the site-specific arsenic criteria are "Water quality standards for human health." Please provide information to explain how the criteria will protect human health from exposure to arsenic through fish consumption.

We thank DEQ for its efforts to maintain and improve water quality in Montana. Please note that our positions are preliminary in nature and should not be interpreted as final EPA decisions under CWA § 303(c). If you have any questions, please contact Tonya Fish on my staff at (303) 312-6832 or fish.tonya@epa.gov.

Sincerely,

ANDREW TODD

Digitally signed by ANDREW TODD
Date: 2020.06.18 08:39:07 -06'00'

Dr. Andrew Todd, Chief
Water Quality Section

PO Box 1186
Helena, MT 59601
(406) 442-7582
mpa@montanapetroleum.org
www.montanapetroleum.org

PO Box 1700
Helena, MT 59624
(406) 443-5541
ptrenk@tsria.net
www.treasurestateresources.net

June 19th, 2020

Montana Department of Environmental Quality
1520 E. Sixth Avenue,
P.O. Box 200901
Helena, Montana 59620-0901

Submitted Electronically to Sandy Scherer via email at sscherer@mt.gov

Re: Comments on proposed rule – Natural and non-anthropogenic water quality standards. MAR Notice No. 17-412

Dear Ms. Scherer,

The Montana Petroleum Association (MPA) and Treasure State Resources Association (TSRA) respectfully submit the following comments on the Board of Environmental Review's (BER) proposed rule titled "Natural and non-anthropogenic water quality standards."[1] As a general matter, the associations support the Board and Montana Department of Environmental Quality's (MTDEQ)efforts to develop water quality standards and rulemaking that addresses non-anthropogenic arsenic concentration and set "attainable/realistic" limits for each segment of the Yellowstone River as the water quality standards. We appreciate the work undertaken by MTDEQ to work with stakeholders over several years to develop a process to determine the nonanthropogenic condition. While these comments are addressed to this particular rulemaking, they are offered with an eye to considering the application of this process to other parameters.

INTRODUCTION

The MPA represents over 150-member companies involved in all aspects of the oil and natural gas industry. MPA's members include producers, refiners, suppliers, pipeline operators, and transporters, as well as service and supply companies that support all segments of the industry and employ a great number of people in our great state. MPA works with elected officials, business groups, regulatory boards and agencies to promote policies which incentivize revenue generating resource production and opposes rules and regulations which hamper opportunities for future oil and gas opportunities in Montana.

The TSRA represents a broad coalition of business and industry, members of organized labor, as well as over twenty other membership organizations who support the responsible use and development of our natural resources.

[1] Montana State Law – 75-5-222, MCA

GENERAL COMMENTS

The proposed rule has been issued by BER to address background concentrations of non-anthropogenic arsenic that are higher than the applicable human health standards in certain segments of the Yellowstone River. The standards that MTDEQ developed are based upon a median concentration for each segment. This standard results in un-impacted river water from each segment exceeding the standard during portions of the year due to seasonal variations. Any user that diverts water from the river during these "high concentrations" periods and returns it without adding any additional arsenic, may not be able to comply with the proposed regulation. For example, simple water evaporation due to ambient temperatures would increase the non-impacted arsenic load to an arsenic concentration higher that was diverted from the river. The user would then be forced to treat the water to remove non-anthropogenic arsenic before discharge. Treatment in this situation could require the installation of large capital funded projects while having no measurable impact on the quality of the receiving water. State law[2] requires the agency may not "apply a water standard to a water body that is more stringent than the non-anthropogenic condition of the waterbody" which dictates that the agency take into consideration seasonal variations in arsenic concentration that are higher than the annual median concentration. Under those conditions when concentrations are higher than the median, the annual median standard would be more stringent than the current non-anthropogenic condition of the waterbody under consideration. In order to comply with the state law at all times, the agency cannot set the annual median average to be the water quality standard as proposed without also providing implementation tools that ensure compliance with state law. For compliance purposes, MPA and TSRA believe that the agency should allow an option to implement procedures/criteria utilizing a 12-month rolling average (calculated monthly)[3] in order to comply with the non-anthropogenic condition present in the waterbody at all times of the year.

We believe MDEQ should maintain as many options as possible in their permitting "toolkit" and should not restrict itself in being able to apply them to implement these or other nonanthropogenic standards that may be set in the future. That includes other options detailed in the EPA's permit writers manual such as implementation in terms of either load or concentration and intake credits that can be utilized to satisfy the conditions of the state law at all times.[4] For that reason, we also request the Board delete the last paragraph of the "Reason" section as well as subparagraph (3) of the proposed new rule as has been suggested by other commenters. Both of those sections arbitrarily deny the use of assimilative capacity and mixing zones, which are already addressed in other existing rules that give the MTDEQ clear direction as to how and when they should be allowed.

The associations would also like the Board to take into consideration the explicit statement in the state law 75-5-306, which states that "It is not necessary to treat wastes to a condition purer than the natural condition"[5] Point source dischargers who discharge water that was drawn from the same segment of the water body under consideration for non-contact cooling purposes do not alter the natural condition of the contaminant of concern in any form or fashion. Closed-loop systems do not come in physical contact with any industrial processes, and it is well documented that they neither contribute to baseline concentrations nor transform any wastes that maybe present in the incoming

---

[2] Montana State Law – 75-5-222, MCA

[3] Illinois EPA issued NPDES permits with 12 month rolling average calculated monthly (Examples: Permit Id: IL0021598, IL0024813)

[4] US EPA NPDES permit writers manual (https://www.epa.gov/sites/production/files/2015-09/documents/pwm_2010.pdf)

[5] Montana State Law – 75-5-306

water. Given that fact, the agency in this proposed rule should provide a categorical exemption that states "point source dischargers who discharge water utilized for non-contact cooling purposes only into the same segment of the river from where the water was withdrawn are exempt from the proposed water quality standard limitations".

In addition, we request that the Board also consider the removal or modification of footnote 16 in DEQ-7. "(16) Surface or groundwater concentrations may not exceed these values." The footnote indicates that no sample should exceed the human health standard; as discussed in the above letter this is infeasible. The guidance document should be updated to reflect the changes.

The associations thank the Board and the MTDEQ for their kind consideration of our above comments. Please feel free to contact Alan Olson of MPA at 406-442-7582 or Peggy Trenk of TRSA at 406-461-9945 if you have any further questions or need more information.

Sincerely:

Alan Olson
Executive Director
Montana Petroleum Association

Peggy Trenk, CAE
Executive Director
Treasure State Resources Association

8 July 2020

To: Sandy Scherer, Paralegal
Department of Environmental Quality
1520 E. Sixth Avenue
P.O. Box 200901
Helena, MT
59620-0901

Fr: Stephan Custer, Ph.D., Hydrogeologist
39 Swift Water Drive
Bozeman, MT

RE: Proposed adoption of Rule 1 at Page 765 of the 2020 Montana Administrative Register, Issue Number 8, MAR Notice No 17-412

My comments below represent my opinion and do **not** represent the opinion of any board or committee to which I have been appointed.

I understand that the Montana Code Annotated 75-5-22(1) states that "The department may not apply a standard to a water body for water quality that is more stringent than the nonanthropogenic condition of the water body." I further understand the concept that addition of human generated arsenic at the natural concentration will not raise the arsenic concentration. **Despite these facts I remain concerned.** The proposed rule raises the standard from 10 micrograms per liter to as much as 28 micrograms per liter in the Yellowstone River. If an anthropogenic source introduces water with an concentration at or below 28 micrograms per liter, the concentration in the river does not increase, **but the total mass of arsenic in the river does increase.** It is my belief that water from the Yellowstone River is widely used for irrigation. Part of that irrigation water is lost to the ground water below the irrigated land. Another part of that irrigation water is lost to the atmosphere via evapotranspiration which is expected to further increase the concentration of arsenic entering the groundwater. I am confident that there are people who use the groundwater for drinking purposes adjacent to the Yellowstone River. I anticipate that the drinking water in those wells will experience an increase in arsenic concentration. I doubt very much that private well owners treat their water supply to remove arsenic. I am very concerned about the possible arsenic in the ground water, and unaware of any studies of arsenic in groundwater along the Yellowstone River.

I was impressed with the USGS study that documented the natural arsenic levels in the Yellowstone River by segment on the DEQ website. However, I am not aware of any studies of Arsenic in ground water adjacent to the river. If arsenic above 10 micrograms per liter is found in groundw adjacent to the River, a valuable study would be an epidemiological examination of common diseases related to arsenic poisoning in this area. (See Shankar et al. 2014 and Figure 2 therein for an example list). Another appropriate action would be to alert domestic supply users **in writing** about treatment options (https://deq.mt.gov/Portals/112/Water/WPB/SWP/Guidance/Factsheet_115_Arsenic_in_drinking_water.pdf). I presume, that communities that obtain their drinking water from the Yellowstone River have routine testing for arsenic, that the data is reviewed, and that arsenic is removed if present above the standard. If not they should be. Frankly, I am at a loss as to why it is in the public interest to allow polluters to add Arsenic to the river at above 10 micrograms per liter but MCA 75-5-22(1) says it is.

Shankar, S., Shanker, U, and Shikha, 2014, Arsenic Contamination of Groundwater: A review of Sources, Prevalence, Health Risks, and Strategies for Mitigation: https://doi.org/10.1155/2014/304524

June 19th, 2020

Sandy Scherer
Department of Environmental Quality
1520 E. Sixth Ave.
P.O. Box 200901
Helena, MT 59620

To the Montana Board of Environmental Review:

Thank you for requesting comment on proposed New Rule I on natural and non-anthropogenic water quality standards for arsenic in the Yellowstone River.

The comments detailed in this document are representative of Yellowstone Valley Citizens Council, affiliate of Northern Plains Resource Council. Yellowstone Valley Citizens Council is a grassroots organizing group representing over 500 members in Yellowstone County.

As background, Northern Plains Resource Council opposed SB 325 at the Montana legislature for a simple reason: to protect agriculture. One of the explicit purposes of water quality standards under the Clean Water Act is to protect designated uses of water bodies. By definition, water quality standards cannot be written in a way that does not protect use- this, to us, is the be-all-end-all of standards, and any rule or statute that prevents standards from protecting use violates the intent of the Clean Water Act and is unfair to existing water users. And, depending on how terms like natural get defined, implementing SB 325 could do just that.

That being said, we have communicated with DEQ staff and participated in the SB 325 working group to ensure those standards proposed for arsenic in the Yellowstone River are the most protective for human health and the environment. Additionally, our primary concern is in ensuring public trust in the environmental protections set and implemented by the DEQ and Montana BER.

We are requesting the following:

1. Arsenic is a known carcinogen that accumulates over the life course. There is no safe level of arsenic, with any amount over 0 mcg/L acting as a carcinogen. While our water treatment facilities treat it out and strive for 0 mcg/L, the Billings facility is not yet able to do so and has communicated that the higher amount of arsenic in the river, the more coagulant needed to treat. Additionally, we learned from the DEQ that the higher the arsenic concentration in the river, the higher the concentration in our drinking water after treatment. Given this information, we request the most protective standards for human health and the environment for each segment of the Yellowstone, regardless of economic investment to MPDES permitees to meet such standards.

2. We do support the explicit prohibition of mixing zones and intake credits as there is no assimilative capacity for non-anthropogenic standards and we support permitees being required to meet end-of-pipe standards. We believe mixing zones and intake credits are otherwise meant to circumvent the pollutant standards determined by the DEQ and because they have no assimilative capacity, should be explicitly prohibited.

Finally, we recognize that self-monitoring protocol for MPDES permits is not addressed in this rulemaking but would like to state for the record that we believe self-monitoring for permitees dismantles public trust in monitoring and reporting of pollutants. Implementation of standards and the monitoring protocols involved are crucially important to ensuring members of the public can trust the environmental protections set by Montana DEQ and BER.

Sincerely,

Larry Bean

Vice Chair of Yellowstone Valley Citizens Council

2905 Harrow Dr.

Billings Mt 59102

Cell: 406-696-4639

BOARD OF ENVIRONMENTAL REVIEW
AGENDA ITEM

EXECUTIVE SUMMARY FOR ACTION ON RULE INITIATION

Agenda #____

Agenda Item Summary: The department requests that the board initiate rulemaking to establish a fee structure for certain types of registered facilities, including crushing and screening plants, concrete batch plants, asphalt plants, and associated engines that are registered for operation under the requirements in Administrative Rules of Montana (ARM) Title 17, chapter 8, subchapter 18.

List of Affected Rules: This rulemaking would amend ARM 17.8.501, 17.8.504, 17.8.505 and 17.8.510.

Affected Parties Summary: The proposed rule amendments would affect facilities that are subject to the registration requirements in ARM Title 17, chapter 8, subchapter 18.

Scope of Proposed Proceeding: The department requests that the board initiate rulemaking and designate a hearing officer to hold a public hearing to consider the proposed amendment and adoption of the above-stated rules.

Background: Under 75-2-220, MCA, the department assesses air quality permit application fees, registration fees, and annual air quality operation fees that are sufficient to cover the reasonable costs, direct and indirect, of developing and administering the permitting and registration requirements of the Clean Air Act of Montana. Under ARM 17.8.510, the department is required to report to the board annually concerning the structure and amount of air quality fees. The amount of revenue the department needs to generate through the collection of air quality fees depends primarily on the amount of the legislative appropriation, projected expenditures, and projected revenue.

On April 12, 2019, the Board of Environmental Review (board) adopted a new subchapter of rules in ARM Title 17, chapter 8, subchapter 18. These rules require the Air Quality Bureau to implement a registration program for sand and gravel, asphalt, and concrete plants. Previously, the Clean Air Act of Montana required the owner or operator of a source of air pollution that met certain criteria to obtain a permit prior to construction or operation. Section 75-2-234, MCA, authorizes the board to adopt a registration system in lieu of permitting. This registration program reduced the administrative burden on these facilities while still appropriately protecting air quality, thus allowing for a more efficient and effective program implementation by the department.

The transition from a permitting program to a registration program requires a new fee structure. Under the previous permitting program, facilities paid the annual operating fee of $800 per year per permit and an application fee of $500 when a permit application was submitted. Without this new rule, there would be no fees as permits are no longer issued for these affected facilities. The proposed new fee rule is designed to be revenue neutral, to generate about the same amount of funding from the new registration program as from the previous permitting program, with the cost of administering the program being about $275,000/year. The Air Quality Bureau will annually assess whether the fee rates are adequate to fund the required work and will return to the board when needed to request adjustments to the fees to cover the costs of the program.

The last time the BER raised air quality operation fees for sand and gravel, asphalt, and concrete facilities was in 2009. The annual operation fee for each permitted facility increased from $600 to $800.

This new fee structure would also result in a more equitable system for the fee payers. Under the previous fee structure, the small operators paid more than their fair share while the larger operators paid less. Under the proposed fee structure, the majority of the facilities will pay the same or less fees to the department, while a smaller number of facilities may be paying more fees to the department (depending upon their production levels).

In anticipation of this rulemaking, Air Quality staff engaged in discussions with owners and operators of registration eligible facilities, the Montana Contractors' Association, the Open Cut Mining Stakeholders, and the Clean Air Act Advisory Council (CAAAC). The CAAAC is made up of members of the regulated community, trade groups, and environmental groups.

Hearing Information: The department recommends that the board appoint a hearing officer and conduct a public hearing to take comment on the proposed rule amendments.

Board Options: The board may:

1. Initiate rulemaking and issue the attached Notice of Public Hearing on Proposed Amendment;
2. Modify the Notice and initiate rulemaking; or
3. Determine that the amendment of the rules is not appropriate and deny the department's request to initiate rulemaking.

DEQ Recommendation: The department recommends that the board initiate rulemaking and appoint a hearing officer to conduct a public hearing, as described in the attached proposed MAR notice.

Enclosures:

1. Draft Notice of Public Hearing on Proposed Amendment

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW
OF THE STATE OF MONTANA

In the matter of the amendment of ARM 17.8.501, 17.8.504, 17.8.505, and 17.5.510 pertaining to air quality operation fees	NOTICE TO HOLD VIRTUAL PUBLIC HEARING ON PROPOSED AMENDMENT (AIR QUALITY)

TO: All Concerned Persons

1. On September 25, 2020, at 10:00 a.m., the Board of Environmental Review (board) will hold a virtual public hearing via Zoom, to consider the proposed amendment of the above-stated rules.

Due to the guidance issued by the Governor of the State of Montana on March 26, 2020, regarding the COVID-19 public health situation, the public hearing will be held virtually via the Zoom meeting platform and will be recorded. Persons wishing to attend the public hearing need to register in advance with Zoom. Registration with Zoom may be made at the following link: https://mt-gov.zoom.us/j/93922857437?pwd=R1FiWjN6d1htRnIxZ2NMVk9MRi9xdz09. After registering, you will receive a confirmation email containing information about joining the hearing. Please contact Sandy Scherer at the Department of Environmental Quality at (406) 444-2630 or sscherer@mt.gov should you encounter any difficulties.

2. The board will make reasonable accommodations for persons with disabilities who wish to participate in this rulemaking process or need an alternative accessible format of this notice. If you require an accommodation, contact Sandy Scherer no later than 5:00 p.m., September 18, 2020, to advise us of the nature of the accommodation that you need. Please contact Sandy Scherer at the Department of Environmental Quality, P.O. Box 200901, Helena, Montana 59620-0901; phone (406) 444-2630; fax (406) 444-4386; or e-mail sscherer@mt.gov.

3. GENERAL STATEMENT OF REASONABLE NECESSITY: Under 75-2-220, MCA, the Department of Environmental Quality (department) assesses air quality permit application, registration, and annual air quality operation fees that are sufficient to cover the reasonable costs, direct and indirect, of developing and administering the permitting and registration requirements for the Clean Air Act of Montana. Under ARM 17.8.510, the department is required to report to the board annually concerning the structure and amount of air quality fees. The amount of revenue the department needs to generate through the collection of air quality fees depends primarily on the amount of the legislative appropriation, projected expenditures, and projected revenue.

On April 12, 2019, the BER adopted new rules to require the department's Air Quality Bureau to implement a registration program for sand and gravel, asphalt, and concrete facilities. Previously, the Clean Air Act of Montana required the owner or operator of a source of air pollution that met certain criteria to obtain a permit prior to construction or operation. Section 75-2-234, MCA, authorizes the BER to adopt a

registration system in lieu of permitting, for certain classes of sources of air contaminants.

The last time the BER raised air quality operation fees for sand and gravel, asphalt, and concrete facilities was in 2009. The annual operation fee for each permitted facility increased from $600 to $800.

As the Air Quality Bureau transitions from a permitting program to a registration program, a new fee structure is required. The annual operating permit fee was $800 per year per source, and without these proposed rule amendments, there would be no operating fee for registered sand and gravel, asphalt, and concrete facilities. The statute, 75-2-220(1), MCA, requires programs to pay fees to cover the costs of implementation and enforcement, which will be considered under 75-2-111(5), MCA, when the rule is amended. The amended rule is designed to be revenue neutral, to generate about the same amount of funding from the new registration program as from the old permit program. The cost of administering the program is about $275,000/year. The department will annually assess whether the fee rates are adequate to fund the work of the program and plans to request to return to the BER when needed to adjust the fees to cover the costs of the program.

According to 2-4-302, MCA, the department is required to provide information about the number of persons affected by a fee change and the cumulative amount of the change. In 2018, the Air Quality Bureau collected $276,000 in operating fees from approximately 140 companies operating 345 permitted sand and gravel, asphalt, and concrete facilities. These facilities were also required to pay an air quality permit application fee of $500 when obtaining a new or modified permit, but that application fee would no longer apply to such facilities under the proposed rule.

If the rules are amended, there would be a monetary effect on approximately 140 companies that are required to register. A registered facility is no longer required to pay the application fee to obtain a permit. With the amendment of ARM 17.8.504(5), application fees for registered facilities apply only to registered oil and gas well facilities. Based on production information received from companies in 2019, under the proposed fee structure, 115 entities will incur a reduction in fees and 37 will experience an increase. Under the proposed fee structure, the total collected in operating fees from registered sand and gravel, asphalt, and concrete facilities will be $280,000. This amount is intended to replace the amount collected from both permit operation fees and application fees in previous years. Under the proposed amendments, sand and gravel, asphalt, and concrete facilities would no longer pay any application fee, only an annual operation fee.

4. The rules proposed to be amended are as follows, stricken matter interlined, new matter underlined:

17.8.501 DEFINITIONS (1) through (7) remain the same.

(8) "Registered sand and gravel, asphalt, and concrete facility" means any facility registered in accordance with ARM Title 17, chapter 8, subchapter 18.

AUTH: 75-2-111, MCA
IMP: 75-2-211, MCA

REASON: Section (8) is necessary to define "registered sand and gravel, asphalt, and concrete facility". That phrase is used in the proposed rules, and is not defined elsewhere in ARM Title 17, chapter 8, subchapter 5. It would add more specificity to the types of facilities that are required to register in the proposed rule amendments.

17.8.504 AIR QUALITY PERMIT APPLICATION FEES (1) through (4) remain the same.

(5) Concurrent with submittal of a registration form, as specified in ARM 17.8.1701 through 17.8.1705, the owner or operator of an oil and gas facility shall submit a registration fee of $500.

AUTH: 75-2-111, 75-2-220, 75-2-234, MCA
IMP: 75-2-211, 75-2-220, 75-2-234, MCA

REASON: Section (5) provides that each registered oil and gas facility must pay a $500 registration fee when it submits a registration form pursuant to ARM Title 17, chapter 8, subchapter 17. There is no application fee or registration fee for the registration of sand and gravel, asphalt, and concrete facilities under ARM Title 17, chapter 8, subchapter 18.

17.8.505 AIR QUALITY OPERATION FEES (1) An annual air quality operation fee must be submitted to the department by the owner or operator of each facility:

(a) remains the same.

(b) for which an air quality operating permit has been issued by the department and remains in effect; ~~and~~

(c) that is a registered oil and gas facility; or ~~with the department in accordance with ARM 17.8.1701 through 17.8.1705~~.

(d) that is a registered sand and gravel, asphalt, and concrete facility.

(2) remains the same.

(3) Air quality permit fee schedules ~~will~~ must require owners and operators of all facilities required to obtain a Montana air quality permit or an air quality operating permit to contribute to those department activities funded by air quality permit fees. The department shall attempt to identify all facilities subject to the annual air quality operating fee requirement and shall require payment from the owners or operators of all facilities.

(4) through (6) remain the same.

(7) Except as provided in (8), t~~T~~he air quality operation fee for:

(a) a facility~~ies~~ other than a portable facility~~ies~~, registered sand and gravel, asphalt, and concrete facility, or registered oil and gas well facility~~ies~~ is:

~~(a)~~(i) an administrative fee of $900; and

~~(b)~~(ii) a tonnage fee of ~~an amount not to exceed~~ $44.35 per ton of the actual, or the estimated actual, emissions by the facility during the previous calendar year of PM-10, sulfur dioxide, lead, oxides of nitrogen, and volatile organic compounds.

~~(8)~~(b) ~~The air quality operation fee for~~ a portable facility~~ies~~ subject to ARM Title 17, chapter 8, subchapter 7 is $800.

(c) a registered sand and gravel, asphalt, and concrete facility is determined by multiplying total tons produced annually at:

(i) asphalt plants by $0.05;

(ii) crushers/screeners by $0.01; and

(iii) concrete batch plants, by $0.05.

(8) If the amount determined under (7)(c) is:

(a) less than $500, the fee is $500; or

(b) greater than $13,000, the fee is $13,000.

(9) through (13) remain the same.

AUTH: 75-2-111, 75-2-220, 75-2-234, MCA
IMP: 75-2-211, 75-2-220, 75-2-234, MCA

REASON: The proposed amendments to (1)(c) and (1)(d) are necessary to establish an operation fee for two types of registered facilities: (1) oil and gas facilities and (2) sand and gravel, asphalt, and concrete facilities.

The proposed amendments to (7)(a) are necessary to add registered sand and gravel, asphalt, and concrete facilities to the types of registered facilities that are exempt from the $900 administrative fee and the $44.35 per ton fee, which apply to permitted, and not registered, facilities. An amendment is necessary to remove a phrase ("an amount not to exceed") that was inadvertently left in the rule the last time it was amended. The proposed amendment to (7)(b) is necessary to establish that portable facilities required to have a permit in ARM Title 17, chapter 8, subchapter 7, which are all portable facilities other sand and gravel, asphalt, and concrete facilities, must pay an operation fee of $800.

Sections (7)(c) and (8) are necessary to determine the registration fee for registered sand and gravel, asphalt, and concrete facilities as defined in ARM Title 17, chapter 8, subchapter 18. The proposed rule in (8) will establish a minimum and maximum fee to be paid by sand and gravel, asphalt, and concrete facilities. This funding structure is not an effort to increase revenue beyond historic levels, but rather to collect sufficient funds to continue to operate an effective air quality program. The amount a registered facility will pay is commensurate with the extent of work required by the department to register and provide compliance assistance to the facility. The proposed fee structure in ARM 17.8.505 will result in a more equitable system for the fee payers; smaller, lower production facilities will pay less than larger, higher production facilities.

17.8.510 ANNUAL REVIEW (1) No later than September 30 of each year, the department shall report to the board regarding fees associated with air quality permits and facility registrations, which are anticipated for the next calendar year. This report shall include a description of the legislative appropriation to be recovered, the status of the specific appropriation account as of the end of the previous fiscal year, the emissions upon which such fees will be based, the fee structure to be implemented, and the status of any anticipated rulemaking activity necessary to adopt the new fees.

AUTH: 75-2-111, MCA

IMP: 75-2-211, MCA

REASON: The proposed amendment to (1) would add fees for registered facilities to the items about which the department is required to report to the board annually. The rule requires the department report on air quality permit fees only. Under 75-2-111, MCA, the board is authorized to adopt a schedule of fees for permits, permit applications, and registrations. The annual report to the board required in ARM 17.8.510 ensures the department is satisfying the requirement to make the board aware of anticipated air quality permit and registration fee changes in the next calendar year.

5. Concerned persons may submit their data, views, or arguments, either orally or in writing, at the hearing. Written data, views, or arguments may also be submitted to Sandy Scherer, Paralegal, Department of Environmental Quality, 1520 E. Sixth Avenue, P.O. Box 200901, Helena, Montana 59620-0901; faxed to (406) 444-4386; or e-mailed to sscherer@mt.gov, no later than 5:00 p.m., September 25, 2020. To be guaranteed consideration, mailed comments must be postmarked on or before that date.

6. The board maintains a list of interested persons who wish to receive notices of rulemaking actions proposed by this agency. Persons who wish to have their name added to the list shall make a written request that includes the name, e-mail, and mailing address of the person to receive notices and specifies that the person wishes to receive notices regarding: air quality; hazardous waste/waste oil; asbestos control; water/wastewater treatment plant operator certification; solid waste; junk vehicles; infectious waste; public water supply; public sewage systems regulation; hard rock (metal) mine reclamation; major facility siting; opencut mine reclamation; strip mine reclamation; subdivisions; renewable energy grants/loans; solar and wind energy bonding, wastewater treatment or safe drinking water revolving grants and loans; water quality; CECRA; underground/above ground storage tanks; MEPA; or general procedural rules other than MEPA. Notices will be sent by e-mail unless a mailing preference is noted in the request. Such written request may be mailed or delivered to Sandy Scherer, Paralegal, Department of Environmental Quality, 1520 E. Sixth Ave., P.O. Box 200901, Helena, Montana 59620-0901, faxed to the office at (406) 444-4386, e-mailed to Sandy Scherer at sscherer@mt.gov, or may be made by completing a request form at any rules hearing held by the department.

7. Sarah Clerget, attorney for the board, or another attorney for the Agency Legal Services Bureau, has been designated to preside over and conduct the hearing.

8. The bill sponsor contact requirements of 2-4-302, MCA, do not apply.

9. With regard to the requirements of 2-4-111, MCA, the board has determined that the amendment of the above-referenced rule will not significantly and directly impact small businesses.

Reviewed by:

BOARD OF ENVIRONMENTAL REVIEW

/s/ Angela Colamaria
ANGELA COLAMARIA
Rule Reviewer

BY: */s/*
CHRISTINE DEVENY
Chair

Certified to the Secretary of State, August 18, 2020.

DEQ
Montana Department of Environmental Quality

Board of Environmental Review

Memo

TO: Sarah Clerget, Hearing Examiner
Board of Environmental Review

FROM: Lindsay Ford, Board Secretary
P.O. Box 200901
Helena, MT 59620-0901

DATE: November 12, 2019

SUBJECT: Board of Environmental Review Case No. BER 2019-08 OC

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW

OF THE STATE OF MONTANA

IN THE MATTER OF: NOTICE OF APPEAL BY THE RIPPLING WOODS HOMEOWNERS ASSOCIATION REGARDING APPROVAL OF OPENCUT MINING PERMIT NO. 2949, MOUDY PIT SITE, RAVALLI COUNTY, MT	Case No. BER 2019-08 OC

On November 8, 2019 the BER has received the attached request for hearing.

Please serve copies of pleadings and correspondence on me and on the following DEQ representatives in this case.

Mark Lucas
Legal Counsel
Department of Environmental Quality
P.O. Box 200901
Helena, MT 59620-0901

Ed Coleman, Bureau Chief
Opencut Mining Bureau
Department of Environmental Quality
P.O. Box 200901
Helena, MT 59620-0901

Attachments

November 3, 2019

Opencut Mining Section
Coal & Opencut Mining Bureau
Department of Environmental Qaulity
PO Box 200901, Helena, MT 59620-0901

Re: Appeal of Approval of Opencut Mining Permit #2949
Wade Moudy
Moudy Pit Site in Ravalli County, Montana

To Whom It May Concern:

We believe we meet the criteria addressed in your letter dated October 30, 2019 to request an appeal of the Bureau's approval of Permit #2949. As outlined in previous comments made to the bureau, the approval of this permit will adversely affect the water rights and water quality of surrounding residential homeowners---not to mention their property values---in addition to Big Creek itself. We have found several areas of the application that are persistently deficient. Your October 30, 2019 approval letter indicated four subsequent deficiency notices, however, more than four letters were e-mailed from your department. We're wondering why those other letters weren't mentioned. Further, the approval for the Opencut permit #2949 leaves several of the supporting documents blank which leaves us to believe items A, B, P, R, T, U V W, AA, BB, DD, EE, FF, GG & HH and other items were not addressed in the approved application. The application states, as an example, "see B7-2" but B7-2 doesn't seem to be in the approved application. Further, no appendix is provided and there is a lack of references for supporting documents.

We request copies of all evidence and documentation provided to the DEQ that precipitated eliminating deficient items listed on the previous deficiency letters. We are seeking an extension to adequately prepare an appeal; thirty days is not sufficient time. Therefore, we request additional time necessary to review evidence and documentation not yet received with the deficiency letters.

There are a number of concerned citizens from the surrounding area that will be greatly impacted by this operation and have indicated they want to participate in the appeal process. There are three separate, yet adjacent neighborhoods that have covenants for just the purpose of not having something like this impact our quality of life and property values. A final issue is the lack of addressing Jennifer BoatWright Lint's well that is within 1,000 feet of the project site. Ms. Lint presented this information at the public meeting held at the Bitterroot River Inn and Conference Center on Tuesday, December 12, 2017 and on multiple other occasions. The lack of addressing this issue warrants an extension to appeal and to have Mr. Moudy cease work immediately.

We feel we have not received sufficient information and/or documentation to complete an appeal and therefore request a response to these requests as soon as possible in addition to an extension to the appeal deadline.

Sincerely,

The Rippling Woods Homeowners Association

By Nancy Jacobsen

DEQ
Montana Department of Environmental Quality

Board of Environmental Review

Memo

TO: Sarah Clerget, Hearing Examiner
Board of Environmental Review

FROM: Deb Sutliff, Interim Board Secretary
P.O. Box 200901 D.S.
Helena, MT 59620-0901

DATE: July 2, 2020

SUBJECT: Board of Environmental Review Case No. BER 2020-01

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW

OF THE STATE OF MONTANA

IN THE MATTER OF: NOTICE OF APPEAL BY DUANE MURRAY REGARDING APPROVAL OF DOCKET NO. SUB-18-01	Case No. BER 2020-01

On July 2, 2020 the BER has received the attached request for hearing to appeal.

Please serve copies of pleadings and correspondence on me and on the following DEQ representatives in this case.

Attachment

From: Duane Murray
1568 US Highway 191 South
Malta, MT 59538

To: Board of Secretary
Board of Environmental Review
PO Box 200901
Helena MT 59620-0901

Date: July 22, 2020

Re: Appeal
Notice of Violation and Administrative Compliance and Penalty Order
Docket No. SUB-18-01; ES #36-93-L1-78; FID 2568

Dear Board,

I respectfully request a hearing to appeal the above Notice of Violation.

Duane Murray