EO 2020-01 RECOMMENDATION MEMO

To: **Idaho Water Resource Board; Gary Spackman, Director IDWR**

From: **Mat Weaver, RRO; John Falk, Dam Safety Program Manager; Corey Skinner, SRO Manager**

Date: **July 20, 2022,**
Rev. July 27, 2022

RE: **Mine Tailings Impoundment Structure Rule (IDAPA 37.03.05) and Safety of Dams Rule (IDAPA 37.03.06) with Retrospective Analysis and Recommendation**

Executive Order 2020-01

Executive Order No. 2020-01 (the "EO"), also referred to as Governor Little's Zero-Base Rulemaking Initiative, requires the Idaho Water Resource Board ("IWRB") and Idaho Department of Water Resource ("IDWR") to review all rule chapters under the agency's purview by 2026. The review must be critical and comprehensive.

Under the schedule already determined by the Division of Financial Management ("DFM"), the IWRB, and the IDWR, the Mine Tailings Impoundment Structures ("MTIS") Rule (IDAPA 37.03.05) and the Safety of Dams ("DS") Rule (IDAPA 37.03.06) (collectively the "Rules") must be analyzed by the second year of the review process.

As a result, the EO requires the IWRB and IDWR to review the Rules to determine whether they should be repealed or repromulgated. If the IWRB and IDWR desire to repromulgate the Rules, they must retrospectively analyze the rules and determine whether the rules need to be repromulgated and, if so, under what specified approach.

After initial analysis of the rules, the DS and MTIS rulemaking team[1] ("Team") tasked with rule review concluded there was strategic opportunity to combine the MTIS Rule and DS Rule into a single revised and condensed rule chapter.

This Recommendation Memorandum ("Memo") provides analysis and recommendations for the Director and Board.

Enabling Statutes

Idaho's Dam Safety Program has joint oversight by the IWRB and IDWR, with the IDWR having charge of staffing and carrying out the program. The IWRB and IDWR have the authority to issue procedural and operative rules as may be necessary to conduct their respective and combined businesses. Refer to Idaho Code ("I.C."), § 42-1734(1) and I.C. § 42-1805(8), respectively. I.C., §§ 42-1709 through 1721 governs the regulation of qualifying dams and mine tailing impoundment structures in Idaho. I.C., § 42-1714 expressly directs the IWRB to "adopt and revise from time to time such rules as may be necessary for carrying out the provisions of sections 42-1710 through 42-1721, Idaho Code." Therefore, the

[1] Rulemaking Team is comprised of Mathew Weaver (PE), Deputy Director; John Falk (PE), Dam Safety Program Manager; Corey Skinner (PE), Southern Regional Office Manager and former Safety of Dams Engineer; and Sarah Tschohl, Paralegal.

legislature has expressly authorized the IWRB, with support from IDWR, to promulgate rules to establish processes and procedures to regulate qualifying dams and mine tailing impoundment structures.

Retrospective Analysis

In 2016, the Idaho Legislature revised portions of Idaho Code §42-1709 – 42-1721, generally known and commonly referred to as the "dam safety statutes." The changes were signed into law by Governor Otter. Due to inconsistencies between the newly adopted statutes and the existing Rules, IDWR staff began evaluating its existing MTIS and DS rules. Upon close examination by IDWR, it determined changes to the existing Rules were necessary to ensure consistency between them and recent changes made to the statutes in 2016.

IDWR initiated rulemaking procedures shortly thereafter. However, the effort was interrupted by Idaho lawmakers' decision not to reauthorize the state's existing administrative rules for the next fiscal year as required by law, which in essence, repealed all executive agency administrative rules. Governor Little subsequently directed each state agency to submit its rules to DFM for temporary adopting pending legislative reauthorization. Following the events in 2018 and 2019, EO 2020-01 directed state agencies to begin a comprehensive review of all their respective rules and to implement a binding schedule for review, such that each executive branch agency with authority to promulgate rules reexamines all rules within its IDAPA chapter every five years, with subsequent repeal, renewal, or revision as deemed appropriate.

Accordingly, the IWRB and IDWR postponed the review of their Rules until 2022 to meet their internal schedule; a schedule this year that also includes an evaluation of existing rules that address the Water Supply Bank, Driller Licensing, and Drilling for Geothermal Resources. To comply with their adopted schedule and the Governor's other directives aimed at eliminating obsolete, duplicate, or otherwise redundant language, the IWRB and IDWR proceeded this year to achieve the following objectives:

- Post all notices and schedules for public hearings during the rulemaking process on one website;
- Provide citizens information via the state-sponsored newsletter regarding rulemaking schedule(s) and listing times to allow the opportunity for comment;
- Include a cover sheet with each rule explaining the purpose for the rule, who or what topics the rule impacts, and a point of contact for additional information or questions; and
- Consolidate rule chapters for clarity and to use language that improves reader comprehension.

Toward that end, the IWRB and IDWR elected to combine the existing MTIS and DS Rules. Table 1 summarizes the overlap between both Rules. The Rules IDWR is considering for revision were last updated nearly 30 years ago. The existing Rules, in addition to containing language contrary to current statute, presently include examples of prescriptive design requirements that the engineering community no longer accepts as appropriate for design, construction, and risk mitigation. Some of the most apparent changes to the existing rule pertain to the definitions of terms, some of which have been expanded and some new ones included in the draft rules. Also, references to ambiguous terms or terms that invite argument due to potentially varied interpretations have been revised or eliminated.

Another reason the IWRB and IDWR propose combining the Rules is that mine tailings impoundment structures are a subset of engineering design and construction requirements that routinely apply also to water storage embankment dams. The primary difference is the type of stored contents, the requirement for surety (bonding), and the extended period that construction of the facility often occupies, for example, 30 years or more. In contrast, standard requirements for professional design addressing adequate foundation support, material properties, slope stability, seismic and hydrologic parameters, failure consequences (hazard classification), monitoring, and enforcement procedures are

nearly identical for both types of embankments in the existing rules. Engineers also incorporate many of the same standards in designs for waste-water treatment lagoons, concrete or timber crib dams, hydroelectric generating facilities or other similarly designated structures that are regulated by IDWR for public safety.

The existing Rules offer a detailed prescription on how to design a dam that, if followed exactly, can limit comment by IDWR during design review for consideration of alternates that may result in the improved safety or reduced maintenance. IDWR's current practice, in keeping with Idaho Code, is to require all owners to engage a professional engineer licensed in Idaho for the design and construction of new dams or new mine tailings impoundment structures. Any modification to existing dams or existing mine tailings impoundment structures also requires the services of a similarly licensed professional engineer, as would any repair or rehabilitation that is undertaken per the direction of IDWR to improve the safety of the dam or mine tailings impoundment structure. In some instances, the prescription in the existing rule simply does not apply to the situation encountered; therefore, it is the IWRB's and IDWR's position that a revised and combined DS and MTIS rule should avoid embracing absolute prescription and instead authorize a range of options that still provide for public safety. Idaho Code identifies the *Engineer in Responsible Charge* (i.e., design engineer) as the individual who is ultimately responsible and potentially liable for designing a safe dam or mine tailings impoundment structure. Idaho Code also provides instruction for preparing designs that employ industry standards of care to include recent knowledge and education and the application of newly developed technology as appropriate. In contrast, the engineering staff employed by IDWR are prohibited from designing dams and mine tailings impoundment structures.

Lastly, the intent of the legislature, as stated in I.C., § 42-1710, is to "provide for the regulation of all dams, reservoir, and mine tailings impoundment structures….to the extent required for the protection of public safety". Circumstances are likely to arise that, based on an incremental damage assessment for new or existing hydraulic structures, may provide evidence that supports a legitimate reason not to design a particular structure to the most stringent standards but to instead, recognize the statutorily authorized discretion of the Director of IDWR to accept a professional engineer's design recommendations. Like the design of water treatment plants, locks, bridges, or other similarly engineered structures, each water storage dam or mine tailings impoundment structure is unique given the huge variability imparted due to site location, size, borrow/construction material, climate, topography, downstream failure consequences, age, operating instructions, seasonal fill/release schedules, and other potentially important design considerations. The adage "one size fits all" does not apply to most regulated dams and mine tailings impoundment structures. It follows that some discretion must be allowed by the Director during the design review and approval process.

Initial Recommendation

For the reasons described above, the Team initially recommended combining former IDAPA 37.03.05 Mine Tailings Impoundment Structure Rule and IDAPA 37.03.06 Safety of Dams Rule into a single rule IDAPA 37.03.05 Safety of Dams and Mine Tailings Impoundment Structures Rule that incorporates the described changes.

2022 Rulemaking

In 2022, IDWR initiated a negotiated rulemaking to combine its DS and MTIS Rules. IDWR published a combined draft rule on May 23, 2022, and held two public meetings on May 27 and July 7, 2022.

Following the first public meeting, IDWR received several comments asking it to reconsider combining the existing DS and MTIS Rules. Reasons put forth for not combining the rules included: (1) technical differences between mine tailings impoundment structures (MTIS) and other dams, (2) difficulty in finding consensus with a diverse combined stakeholder group, and (3) merging the rules creates

uncertainty in the mining community. These comments were verbalized during the second public meeting.

IDWR gave considerable thought to combining the rule both at the outset of the rulemaking and after receiving related written and oral comments regarding the first draft rule. Although IDWR understands some of the concerns raised in comments opposing the combination of the rules, IDWR is not convinced that the raised concerns are sufficient to *ultimately* abandon a combined rulemaking for the following reasons.

Combining the rule achieves the objectives of the Governor's Zero-Based Rulemaking Initiative. It reduces redundancy, it eliminates inconsistencies with Idaho Code (e.g., risk categorization), and it reduces regulatory burden by simplifying individual rule complexity and reducing the overall number of rules.

IDWR views MTIS as a subset of engineering design and construction requirements that routinely apply also to water storage embankment dams. IDWR does not view MTIS as a separate and distinct structure class. Both types are artificial barriers used to store physical contents. It is worth noting that both dams and MTIS are authorized and described by the same statutes, Idaho Code, Sections 42-1710 to 1721.

The most notable differences between regulating dams that impound water and dams that impound tailings and water are the types of stored content, the required surety (bond), and the extended period over which construction of the facility occurs. Despite these examples however, there exists many more similarities between these structures than differences. Similarities include (1) legal authority, (2) key structural features and their definitions, (3) technical design plans, specifications, and report requirements, (4) emergency action planning requirements, (5) most typical design considerations, (6) most typical construction methods, and (7) similar operation and maintenance requirements. In design consideration alone, the need for adequate foundation support, material properties, slope stability, seismic and hydrologic parameters, failure consequences (hazard classification), monitoring, and enforcement procedures are nearly identical for both type of embankments.

In combined DS-MTIS Rules, the following rules applied to both dams and MTIS: Rules 000 Legal Authority (19 words), 001 Title and Scope (211 words), 002 Administrative Appeals (39 words), 010 Definitions (1,613 words), 015 Authority to Represent (39 words), 020 Dam Size Classification (148 words), 025 Hazard Classification (254 words), 030 Forms (19 words), 035 Design Reports, Drawings and Specifications (1,536 words), 045 Emergency Action and Operation Plans (204 words), 060 Existing Dams and Mine Tailings and Impoundment Structures (993 words), and 065 Dams Storing Tailings and Water (123 words). Whereas only Rule 050 New Dams and Reservoirs (2,151 words) applies exclusively to new dams and only Rules 040 Mine Tailings Impoundment Structures Bonding (472 words) and 055 New Mine Tailings Impoundment Structures (1,851 words) apply exclusively to MTIS.

By word count, 54% of the words (i.e., 5,198 words) apply to both dams and MTIS, 22% of the words (i.e., 2,151 words) apply only to dams, and 24% of the words (i.e., 2,323 words) apply only to MTIS.

Revised Recommendation

The Team recognizes the legitimacy of the concerns raised by some rulemaking stakeholders in 2022 with a combined DS MTIS Rule. It acknowledges more time is needed to engage stakeholders to resolve concerns with a combined rule, or not. IDWR also acknowledges the need to complete ZBR rulemaking for IDAPA 37.03.05 and 37.03.06 in 2022. As a result, in 2022 the team recommends moving forward with two separate proposed rule publications (1) a MTIS Rule with minimal changes to the previous rule, and (2) a DS Rule that incorporates proposed changes to the DS Rule from the Team and stakeholders specific to dam safety and excluding mine tailing impoundment structure considerations. Following this

year's ZBR rulemaking efforts, IDWR should reconsider whether to combine the MTIS and DS rules in a future rulemaking effort occurring no sooner than the 2023 ZBR year (i.e., January 1, 2023).

Table 1: Summary Identification of Draft Rule Application and Objective

Draft Rule No.	Description	Application*
Rule 000	Legal Authority	H20 + MTIS
Rule 001	Addresses the object of these Rules, establishes the extent of application of the rule for benefit of public safety, expresses baseline for acceptability relative to public safety, and provides instruction stating the limits of the Director in providing administration of the law (aka Rules)	H20 + MTIS
Rule 002	Provision for dam owner appeal of an Order issued by the Director	H20 + MTIS
Rule 010	List of 43 word or phrase definitions referenced in some or all the listed Rules	H20 + MTIS
Rule 015	Requirement for the licensed professional engineer to establish representative design authority	H20 + MTIS
Rule 020	Application of rules per size classification based on height and reservoir storage capacity	H20 + MTIS
Rule 025	Hazard classification and definition based on potential failure consequences	H20 + MTIS
Rule 030	Department forms required by Director for design evaluation and approval prior to construction	H20 + MTIS
Rule 035	Required design content and procedures required of professional engineer licensed in Idaho who submit to the Director for review and approval prior to commencing construction of new, or modification to, water storage dams or mine tailings impoundment structures	H20 + MTIS
Rule 040	Bonding requirements and procedures addressing conceptual closure/abandonment plan	MTIS
Rule 045	Emergency action plans and/or Operation Plans required for new and existing projects	H20 + MTIS
Rule 050	Design criteria and details inherent for Director evaluation and approval prior to commencing construction of embankments or other barriers intended exclusively for new water storage dams	New H2O
Rule 055	Design criteria and details inherent for Director evaluation and approval prior to commencing construction of new mine tailings impoundment structures	New MTIS
Rule 060	Design criteria and details inherent for Director evaluation of existing water storage dams and mine tailings impoundment structures including operation and maintenance, analysis, and remediation as recommended for benefit of public safety.	Existing H20 + MTIS
Rule 065	Requirements addressing only mine tailings impoundment structures that impound a volume of water fifty acre-feet or more, in addition to the impounded mine tailings contents	MTIS
Rule 066-999	Reserved	N/A