



COLORADO
Division of Water Resources
Department of Natural Resources
Dam Safety

October 10, 2023

Mr. Eric Tracy, P.E.
Larimer County
Engineering Department
200 W Oak St, 3rd Floor
Fort Collins, 80522 | 3rd Floor

When replying, please refer to:
FLOODWATER RET. DAM B-4
DAMID 030414
Water Division 1, Water District 3

Via email: etracy@larimer.org

Subject: Risk Informed Hydrologic Adequacy Acknowledgement
Boxelder Watershed Dam B-4

Dear Mr. Tracy,

The stakeholders and your Engineer, SEH, recently performed issue-specific potential failure mode and risk analyses for hydrologic dam overtopping in general accordance with the *Guidelines for Comprehensive Dam Safety Evaluation Risk Assessments and Risk informed decision Making, State of Colorado March 8, 2021*. The intent of this analyses was to resolve outstanding concerns about hydrologic adequacy of the dam and spillways. The submitted reports summarize the outcome of the Potential Failure Modes Analysis (PFMA) Risk Assessment workshops held in 2020. The details of the study can be found in Spillway Adequacy and Hydrologic Hazard Analysis Memorandum dated September 21, 2020. Boxelder Floodwater Retention Dams B-4 is a typical normally dry high hazard dam located in Larimer County.

Through this hydrologic risk analysis effort, all parties have gained a better understanding of the dam and spillways. Detailed hydrologic modeling developed by your Engineer supports a risk informed decision that the best estimate of the likelihood of hydrologic dam failure and resulting consequences puts the overall risk in an acceptably low category.

Based on your Engineer's hydrologic risk analyses and our involvement, in accordance with State Dam Safety Rule 5.2.2, we consider the hydrologic risk for Boxelder Dam B-4 in its existing configuration to be acceptably low and satisfactory at this time. Please be aware that the risk could change in the future if conditions at the dam or downstream development change.

The following actions were identified through the course of this study as reasonable measures that you can take in order to further reduce risk, and therefore, are **Required Actions** consistent with Colorado Dam Safety's risk guidelines and statutory authority:



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- Install and maintain early warning systems at the dam, connected to Larimer County's Emergency Flood Warning System. Provide formal notification to this office when installation and system operation is complete.
- Finalize and maintain Operations and Maintenance Agreement for Boxelder dams that clearly designate ownership, responsibility, and decision-making authority for these dams. Provide final, signed copy to this office.
- Update and distribute the Emergency Action Plans annually. Include inundation maps for both extreme spillway releases in addition to those associated with dam failures.

We appreciate your efforts in completing this rigorous hydrologic risk assessment to better assess the risks associated with these dams. Please contact Dam Safety Engineer, Kallie Bauer (970)420-4539 if you have any further dam safety related questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "J.E. Hunyadi". The signature is stylized with a large, looped initial "J" and a long horizontal stroke extending to the right.

John E. Hunyadi, P.E.
Chief, Colorado Dam Safety Program

cc: Corey DeAngelis, Division Engineer, WD #1
Mark Simpson, WD 3 Water Commissioner
Jackie Blumberg, Dam Safety Engineer
Kallie Bauer, Colorado Dam Safety Engineer