

APPENDICES H

BEST PRACTICE FOR DAM OWNERS

From: Nicely, Gareth <Gareth.Nicely@austintexas.gov>
Sent: Friday, April 17, 2020 3:44 PM
To: Landry, Genest; Phillips, Atha; Johnston, Liz; McArthur, Karl; Williams, DAnne; Poppitt, Ed; Moreno, Patricia
Cc: Wettick, Katie; Wilkes, Nathan; Tuttle, Emily; Walker, Willie; Pruneda, Jaime
Subject: RE: 11580.017 -Longhorn Dam Draft PER Review

Genest,

Please review the image below (I think Nathan generated this) for an AW comment concerning the ability to operate/maintain LHD to be included in the PER. Additionally, I would also like to recommend that, once the new pedestrian bridge is in service, all pedestrian traffic on the west side of the LHD bridge structure be prohibited. This would involve fencing/gating the sidewalk at both ends of the dam and dedicating this area strictly to operations and maintenance of the dam. This would allow AW to secure the dam site and eliminate potential litigation related to pedestrian injuries.

The following is from the Association of State Dam Safety Officials (<https://damsafety.org/public-safety>) who's mission is to "Improve the condition and safety of dams through education, support for state dam safety programs and fostering a unified dam safety community".

"Best Practices for Dam Owners and Professionals

Are Dam Owners Legally Liable for Incidents, Accidents, and Failures?

According to the Federal Guidelines for Dam Safety published by FEMA in April of 2004, public safety around dams is a top priority for dam owners and regulators. The guidelines read "[p]ublic safety is of paramount importance at all dams and reservoirs. Specifically, public safety on the reservoir, in areas adjacent to the reservoir, and below the dam should be considered, particularly in recreational areas. Safety measures should include identification of high watermarks to indicate past or probable reservoir levels and streamflows, posting of safety instructions at highly visible and key locations, and providing audible safety warnings upstream of and below outlets as appropriate."

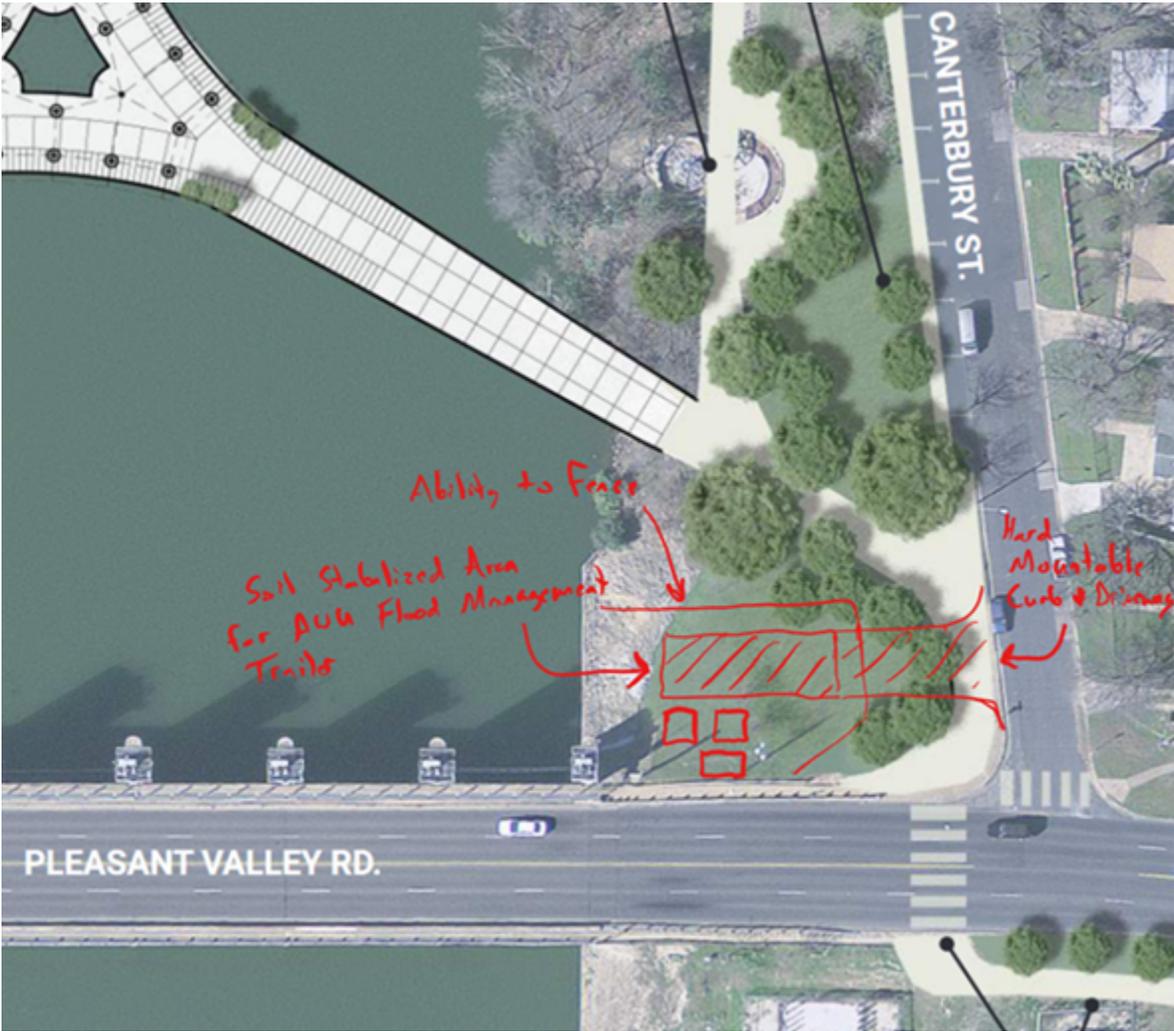
Because dam owners bear the responsibility of upkeep, they are also primarily responsible when dams fail and cause environmental, economic, and personal damage. Furthermore, when a non-failure incident (such as a drowning or injury) occurs at a dam, victims and families have increasingly turned to the courts to sue dam owners for negligence. Recent developments in case law and litigation have underscored the need for dam owners, operators, and other professionals to be vigilant and proactive in efforts to secure the safety of the area around their properties. Cases such as Marston v. General Electric (2014), Suchy v. City of Geneva (2014), and Volpe v. City of Lexington (2011) have set precedent for determining liability due to negligence or inactivity regarding the establishment and maintenance of enhanced safety precautions at and around dams. Even in cases that were dismissed or determined in favor of the dam operator, the legal action can be time consuming and expensive. Because of the risks and legal liabilities involved with dam management, it is of absolute importance that owners and operators appropriately address risk and potential hazards at and around their dams.

Risk Management for Dam Owners

Dam owners are liable for failures **and incidents** at their structures. It is important for owners, engineers, and regulators to work together to manage risks and **avoid or eliminate** hazards at dam structures. There are a number of ways dam professionals can effectively manage risk at their dams. The guidelines developed by the Interagency Committee on Dam Safety and published by FEMA provide a strong framework within which to develop procedures that can successfully minimize risk. Fundamentally, risk management efforts should focus on the following areas.

1. *Maintenance: Make sure that all structures are inspected at least annually. Vandalism, animal activity, plant growth, and natural erosion all have the capacity to damage or destroy dam structures and signage, creating potential hazards on site.*
2. *Installation of Safety Measures: Installing appropriate signage, safety buoys and booms, and portage paths are all important ways to keep recreators and the general public away from hazard zones near dams.*
3. *Public Education: Communicate with local first responders, recreation outfits, schools, and other relevant bodies to inform them of the location of dams and other hazards, encourage safe practices on waterways, and to develop standard operating procedures to follow in the event of an incident.*
4. *Public Safety Reporting: Record incidents that occur at your dams in order to identify gaps, failures, and flaws in existing safety protocols and procedures. Past reports sourced from news archives or dam safety archives can also provide opportunities for corrections that can minimize unnecessary risks to the public.*
5. *Social Media Monitoring: Periodically checking internet sources and social media such as Google, Facebook, Instagram, and TripAdvisor (to name a few) for location tagged posts can allow dam owners and regulators to identify how the public uses dam structures and find solutions to effectively prevent misuse and unsafe practices.*

ASDSO recommends that dam owners and first responders take the time to evaluate the safety and rescue needs of their area, the efficacy of the various types of rescue products, and determine according to their risk analysis if those products are relevant and useful for them. There are a number of options available for rescue needs. First responders near dams and dam owners themselves may be interested in maintaining shore-based rescue devices, such as throw ring buoys and rope, near low-head dam sites for use in emergency situations. Recently, a company called Creature Craft has developed a low-head dam rescue system called the Waterwog Rescue System that uses an inflatable roll-cage raft to protect first responders from hydraulic currents. These products should be evaluated on a case by case basis.”



Thanks,

Gareth Nicely, PE
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From: Landry, Genest <Genest.Landry@austintexas.gov>
Sent: Thursday, April 16, 2020 10:29 PM
To: Phillips, Atha <Atha.Phillips@austintexas.gov>; Johnston, Liz <Liz.Johnston@austintexas.gov>; McArthur, Karl <Karl.McArthur@austintexas.gov>; Williams, DAnne <DAnne.Williams@austintexas.gov>; Nicely, Gareth

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Cc: Wettick, Katie <Katie.Wettick@austintexas.gov>; Wilkes, Nathan <Nathan.Wilkes@austintexas.gov>; Tuttle, Emily <Emily.Tuttle@austintexas.gov>

Subject: RE: 11580.017 -Longhorn Dam Draft PER Review

Hi All,

This is a friendly reminder to please send all comments on the PER to me by COB April 24th.

Thank you,

Genest Landry, PE, PMP

From: Landry, Genest

Sent: Thursday, April 2, 2020 2:19 PM

To: Phillips, Atha <Atha.Phillips@austintexas.gov>; Johnston, Liz <Liz.Johnston@austintexas.gov>; McArthur, Karl <Karl.McArthur@austintexas.gov>; Williams, DAnne <DAnne.Williams@austintexas.gov>; Nicely, Gareth <Gareth.Nicely@austintexas.gov>; Poppitt, Ed <Ed.Poppitt@austintexas.gov>; Moreno, Patricia <Patricia.Moreno@austintexas.gov>

Cc: Wettick, Katie <Katie.Wettick@austintexas.gov>; Wilkes, Nathan <Nathan.Wilkes@austintexas.gov>

Subject: 11580.017 -Longhorn Dam Draft PER Review

Hi All,

You are receiving this email because you are listed as a department representative for the subject project.

The consultant has submitted the draft PER for review. Please download the PER here:

https://cityofaustin.sharepoint.com/:b:/r/sites/LonghornDamMultimodalImprovements/Draft%20PER/COA_Pleasant_Valley_PER_20200312_CD_DRAFT%20-%20Appendix%20A.pdf?csf=1&e=JlJ3gc

Please submit all comments to me by Friday, April 24th. If I do not receive a response from you, I will assume that your group has no comments on the PER.

Thank you and feel free to call or email with questions.

Genest Landry, PE, PMP

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