

# Weber Dam 2023 Flooding

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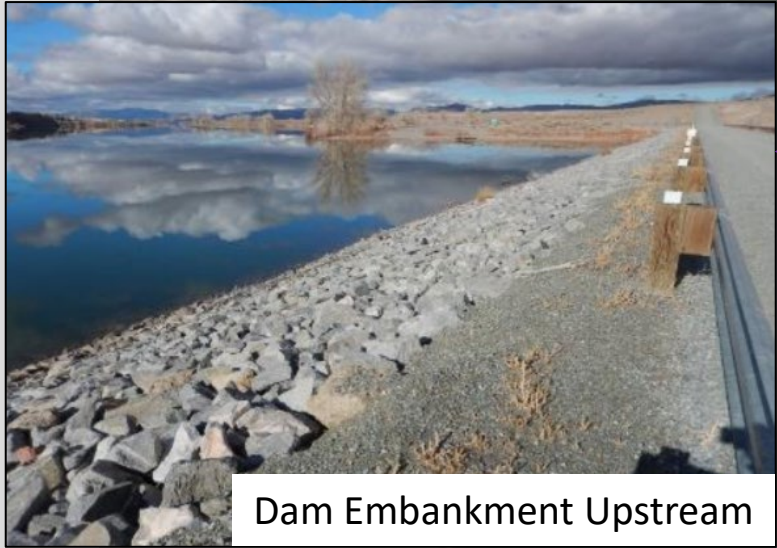


Wednesday, June 14, 2023  
Addressing Community Questions & Concerns

**Weber  
Reservoir**



Dam  
Embankment



Dam Embankment Upstream



Dam Embankment  
Downstream





Outlet Works  
(aka Tunnel)



Outlet Works  
Discharge Structure



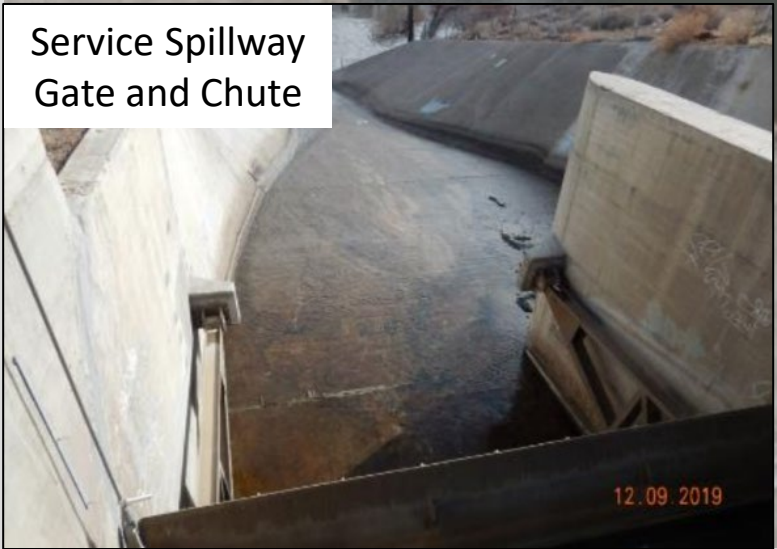
Outlet Works Tower



**Service Spillway  
(aka Spillway)**

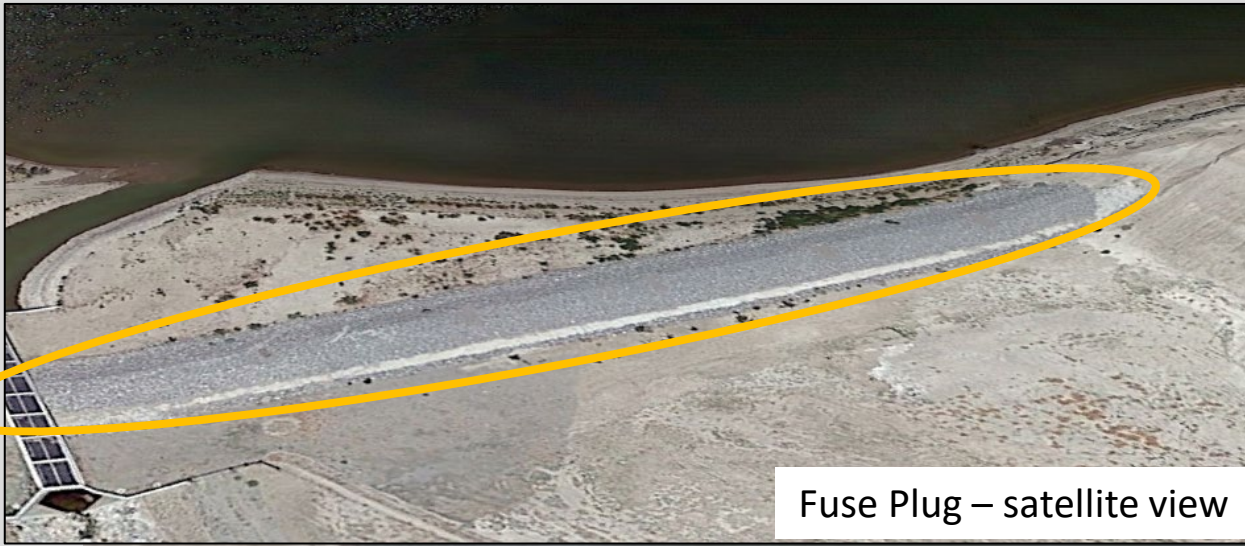


**Service Spillway Chute**



**Service Spillway  
Gate and Chute**

12.09.2019



Fuse Plug – satellite view



Fuse Plug – upstream side



Fuse plug  
(aka Rock wall)



Emergency Spillway  
Approach Channel



Emergency Spillway Downstream  
– also shows fuse plug



Emergency Spillway



Fishway Structure



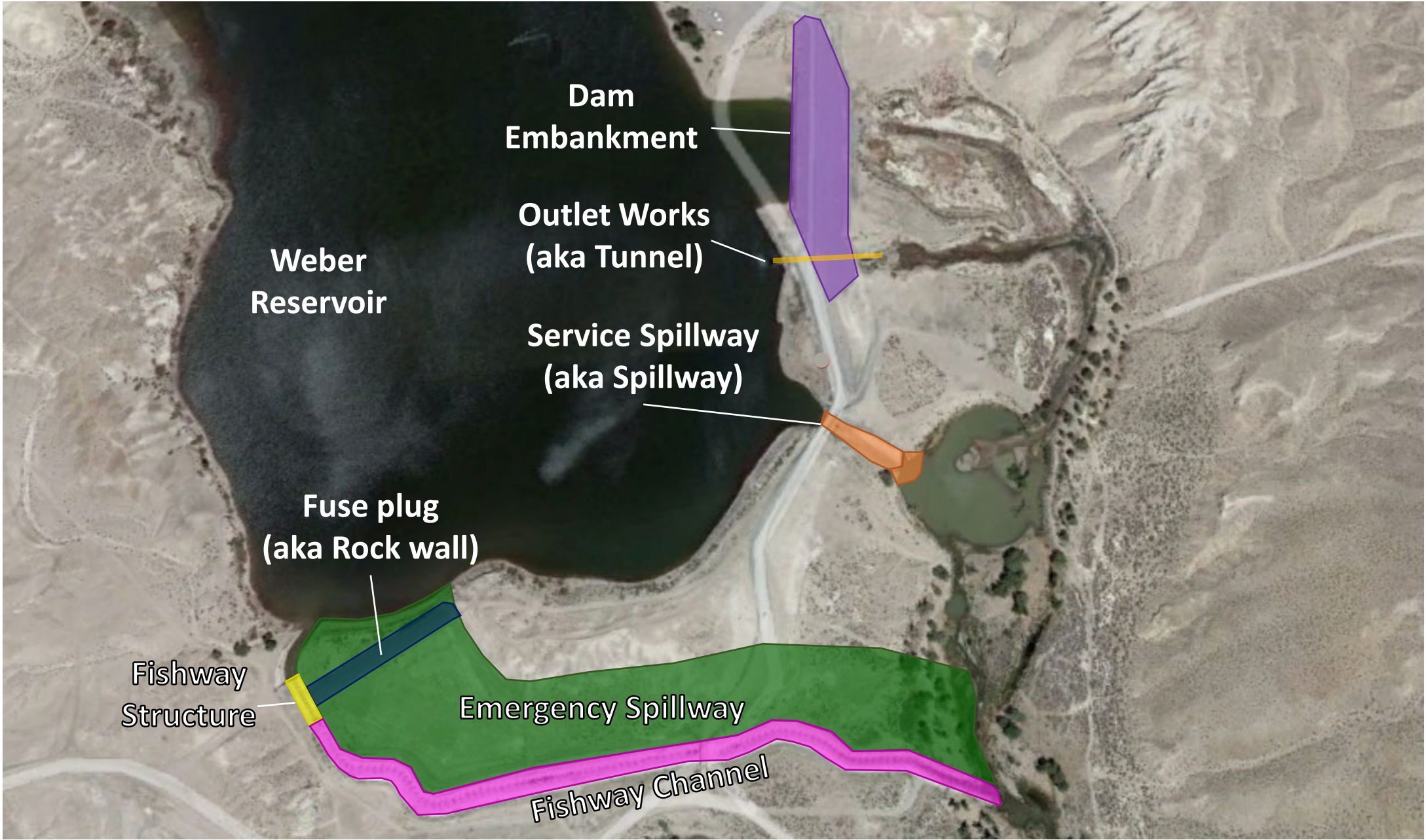
Fishway Channel



Fishway Structure

Fishway Channel





Weber Reservoir

Dam Embankment

Outlet Works (aka Tunnel)

Service Spillway (aka Spillway)

Fuse plug (aka Rock wall)

Fishway Structure

Emergency Spillway

Fishway Channel

# What are the spillway structural issues that you're concerned about?

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- BIA is concerned about the service spillway (spillway) because an inspection done by Bureau of Reclamation engineers in May 2023 revealed early indications that the soil under the service spillway chute may be experiencing erosion.
- The record spring runoff flows, which could last for several more weeks, may cause additional erosion of the soil under the service spillway chute.
- If this erosion becomes severe, the service spillway chute is at risk of breaking apart and becoming unusable.



# Photos from Reclamation's May 17, 2023 Inspection



Joint between  
concrete slabs

Weber Dam Service Spillway (spillway) with the  
gates closed



An open joint  
between the  
concrete slabs.



# Photos from Reclamation's May 17, 2023 Inspection



Soil coming out of a drain under the service spillway.



# At what point will the spillway gates be closed?

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- BIA plans to keep the service spillway (spillway) gates open.
- BIA ***might*** temporarily close the service spillway gates to perform a detailed inspection of the service spillway chute.
- ***If*** the service spillway chute becomes unusable, BIA will close the service spillway gates.



# Provide an update on what the equipment and materials will be used for.

The materials and equipment will be used to:

1. Remove the fuse plug (rock wall) from the emergency spillway



# Provide an update on what the equipment and materials will be used for.

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The materials and equipment may be used to:

2. Slow erosion in the service spillway (spillway) and/or the emergency spillway, *if* necessary.



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The materials and equipment may be used to:

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Response Level	Activity at Dam to Trigger Response Level Activation	BIA Response Activities	Community Action
<p><b>Level 2 (Set)</b> Indicates a developing situation where immediate or inevitable adverse impacts to a dam, or the integrity of the dam cannot be verified.</p>	<ul style="list-style-type: none"> <li>• Prolonged erosion of the service spillway chute foundation results in visible movement of a service spillway slab.</li> <li>• Or another rapidly developing situation.</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct 24/7 monitoring services of the facility.</li> <li>• Place rock riprap, gravel and other materials on the service spillway chute in an attempt to stop the erosion.</li> </ul>	<ul style="list-style-type: none"> <li>• Make a plan – <a href="http://www.ready.gov/plan">www.ready.gov/plan</a></li> <li>• Build an <a href="#">emergency kit</a> to have if you need to evacuate quickly.</li> <li>• Ensure you receive emergency alerts through your local emergency notification system.</li> </ul>





# What is a fuse plug (rock wall)?

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Fuse plugs are embankments that are intended to wash out in a predictable manner once a certain reservoir level is reached to keep water from flowing over the dam.



# What is the plan for the fuse plug (rock wall)?

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- BIA decided to remove the fuse plug after consulting with the Bureau of Reclamation and others.
- The fuse plug (rock wall) will be removed it as soon as equipment is available onsite.
- ***If*** the service spillway (spillway) becomes unusable, the best option to reduce downstream flooding is to remove the fuse plug.
  - If the service spillway becomes unusable **and we leave the fuse plug in the emergency spillway**, the water level will increase for 2-3 days and then be released quickly, resulting in more severe flooding.
  - If the service spillway becomes unusable **and the fuse plug has been removed from the emergency spillway**, the flood waters will be released more slowly, resulting in less severe flooding.



# What is the estimate on how much water will be released from the fuse plug?

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- Removing the fuse plug (aka rock wall) will **not** change the amount of water being released from the reservoir.
  - Water will continue to flow through the service spillway.
- **If** the service spillway becomes unusable, the amount of water being released from the reservoir would not change **initially**.
  - Water would now flow through the emergency spillway.



# How much time will our community have to evacuate?

***If* the service spillway (spillway) becomes unusable, BIA will recommend immediate evacuation of the downstream community.**

Response Level	Activity at Dam to Trigger Response Level Activation	BIA Response Activities	Community Action
<b>Level 3 (Go)</b> Indicates a dam failure is imminent, is occurring, or has occurred.	Service spillway chute breaks apart and is unusable. Or another imminent situation.	Closure of the service spillway gates, causing water to flow through the emergency spillway.	<b><u>Evacuate Immediately!</u></b>  Implement all preparedness plans.

