# KICKING HORSE DAM:
# HOW THE PROJECT IMPROVES SAFETY

*Modernizing Kicking Horse Dam for Future Generations*

***The Kicking Horse Dam Modification Project includes a series of improvements designed to reduce seepage, replace aging infrastructure, improve reservoir operations, and support long-term water management. Together, these improvements address identified dam safety concerns while helping maintain irrigation deliveries and restoring reservoir functionality.***

## Cutoff Wall

*Reducing Water Movement Through the Dam*

**What is it?**

A cutoff wall will be constructed through the center of the dam and Dike No. 2.

**Why is it needed?**

Water currently moves through portions of the dam and foundation. Over time, this seepage can carry way soil and weaken the structure.

**How does it help?**

The cutoff creates a barrier that significantly reduces seepage and helps protect the dam foundation.

## Toe Drain

*Managing Groundwater Safely*

**What is it?**

A drainage system installed along the downstream side of the dam.

**Why is it needed?**

Some groundwater movement may still occur beneath dam.

**How does it help?**

The toe drain safely collects groundwater and seepage and directs it away from the dam.

## Dike Improvements

*Strengthening Reservoir Embankments*

**What is it?**

The reservoir's dikes will be raised and improved.

**Why is it needed?**

Some sections are lower than desired and may be vulnerable during high-water conditions.

**How does it help?**

Additional height and improved materials increase reliability and provide additional protection.

## Improve Aging Infrastructure

*Outlet Works Replacement*

**What is it?**

The project includes replacement of the reservoir outlet works and improvements to Ninepipe Feeder Canal and G Canal downstream of the reservoir.

**Why is it needed?**

Much of this infrastructure is aging and has experienced wear over time. In addition, portions of the canal system have lost capacity due to erosion and changes to their original shape.

**How does it help?**

These improvements will increase reliability, improve operations, restore canal capacity, and support long-term water management throughout the irrigation system.


**CSKT Natural Resources Department**

**Division of Engineering & Water Resources (DEWR)**