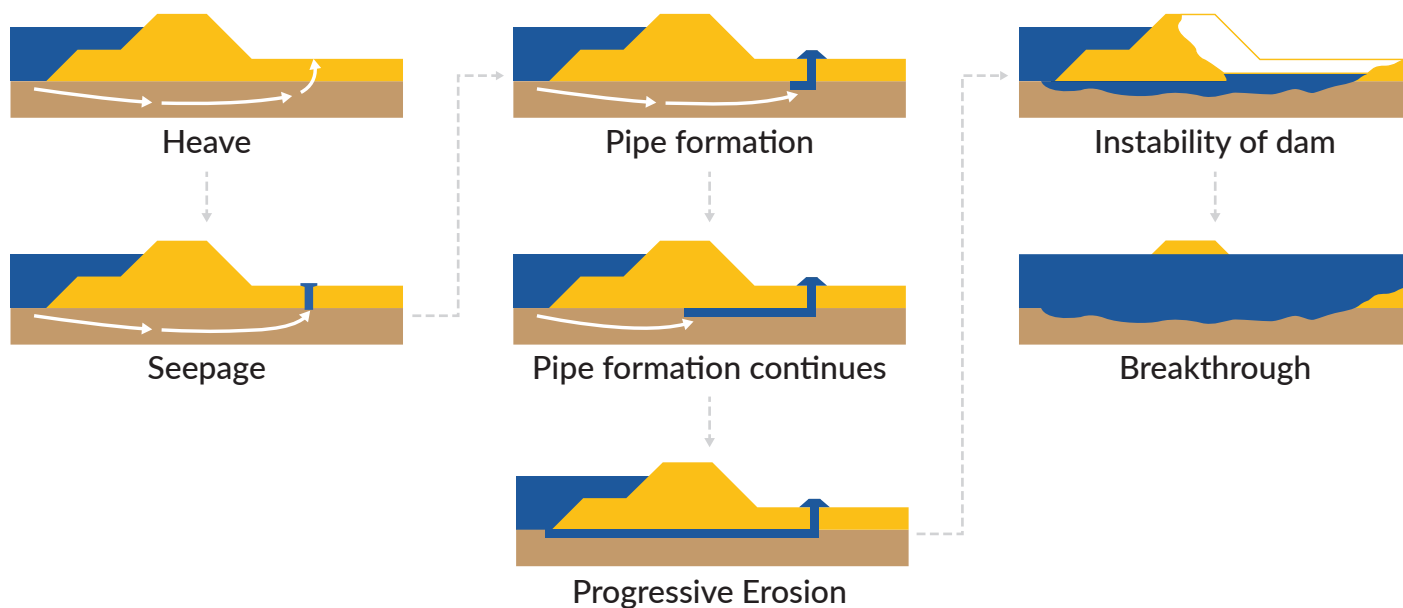


# WHITTIER NARROWS DAM FAILURE SCENARIOS

The Whittier Narrows Dam is currently at risk of failing in the following ways:

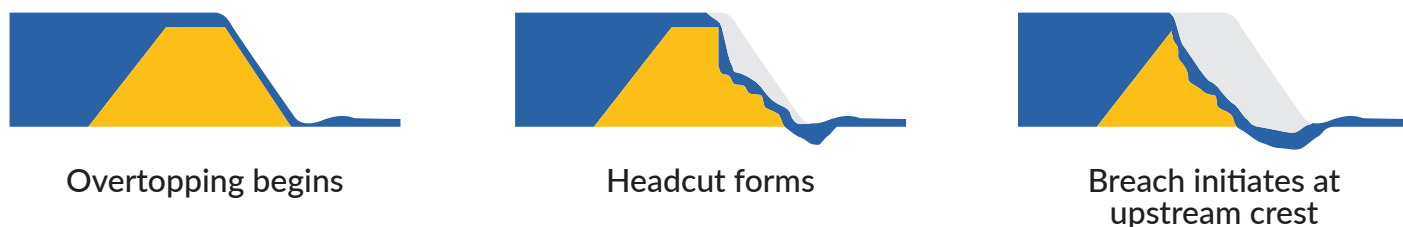
## 1 BACKWARD EROSION OF THE DAM'S FOUNDATION

The Whittier Narrows Dam sits on a previous foundation, meaning that it can be penetrated by water. When water enters the foundation, also known as **seepage**, a **pipe** can begin to form between the reservoir and the other side of the dam. As the pipe continues to form, the dam can become increasingly unstable, eventually leading to a breakthrough in which the water seeping through the pipe entirely destroys the foundation of the dam.



## 2 OVERTOPPING

While the Whittier Narrows Dam has **spillways** to drain excess water, they are currently not designed to weather the most severe storm. In this event, storm water may exceed the capacity of the reservoir **and** the spillways, leading to overtopping—the uncontrolled spilling of water over the dam—and catastrophic flooding in the surrounding region.



## 3 PREMATURE OPENING OF THE SPILLWAY GATES



In the event of a severe storm, spillways are designed to safely drain water that exceeds the capacity of a dam reservoir. Currently, the Whittier Narrows Dam spillways are at risk of opening prematurely. If the spillways were to open prematurely, catastrophic flooding could occur in the surrounding region.

The anticipated repairs include, but are not limited to, addressing the internal erosion of the foundation and building a new compacted concrete filler to prevent overflowing at the top of the dam.

PICO RIVERA  
WHITTIER NARROWS  
DAM PROJECT

A Project of the U.S. Army Corps of Engineers