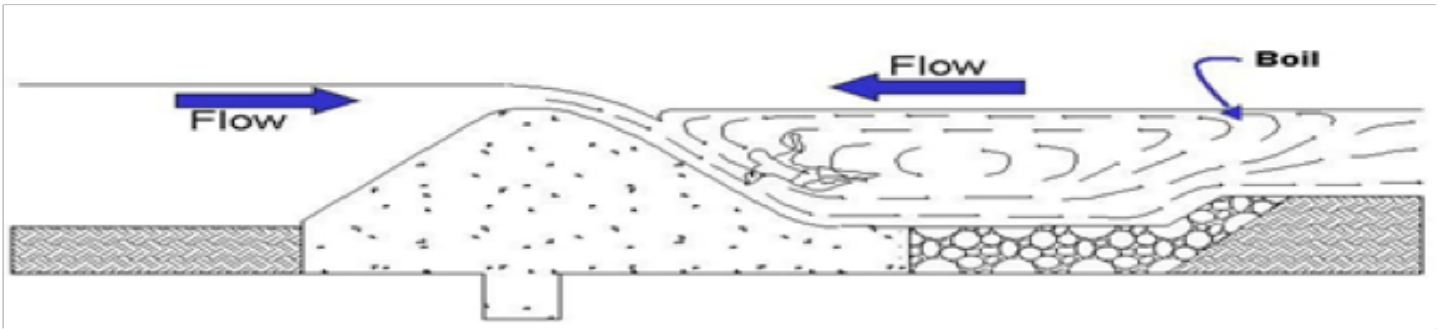
WRIGHT WATER ENGINEERS, INC.

Jim Beam Low Head Dam

A Kentucky attorney called WWE with a water safety problem with his client's 65-year-old dam. There had been a recent drowning, so the dam owner wanted to take action to eliminate future drownings. The first step was to install a series of red, black, and white warning signs were designed by a WWE AutoCAD specialist.

A more important issue was to cure the root problem of drownings at the dam. WWE surveyed the dam, did soundings upstream and downstream of the dam, and analyzed the hydraulics of the overflow and plunge pool. The boil was calculated to have a water surface rise of about 0.5 foot that created a hydraulic grade back to the foot of the dam. Indeed, this was a drowning machine.

The velocities of the reverse flow back to the dam were field estimated. During the survey on the water above, below, and on the dam, measurements were made from a rowboat and from the crest of the dam. The field survey data were used to create alternative plans and profiles and three potential cures for the dam were developed by WWE for use by the client.



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