



월 10**1** M

Introduction-Low head dam dangers Supercritical/Subcritical Froude Number-Hydraulic jumps **Previous Work HEC-RAS Energy Equation** Historical/Recent data Results

Conclusion

Introduction

Low head dam : small overflow dam used to alter the flow characteristics of a river or stream

Dangers:
Drowning
Alter
Ecosystem



SE OLY

Froude Number

U = Velocity of flow g = Acceleration of gravity h = Depth of flow relative to the channelbottom

Froude Number

Fr

∫gh

12 I O I M

 $\sqrt{gh} =$ Wave velocity









NIO ST

Hydrologic Engineering Center's River Analysis System

Steady/Unsteady flow hydraulics







12 I O I M

• $Z_{1,}Z_{2}$ = Elevation of the main channel bottom • Y_{1}, Y_{2} = Depth of water at cross sections























Compare actual flow rates upstream vs. stage values to check future data collected by the Geology Department Use this curve to demonstrate Buck Creek's flow conditions online for recreational users.





