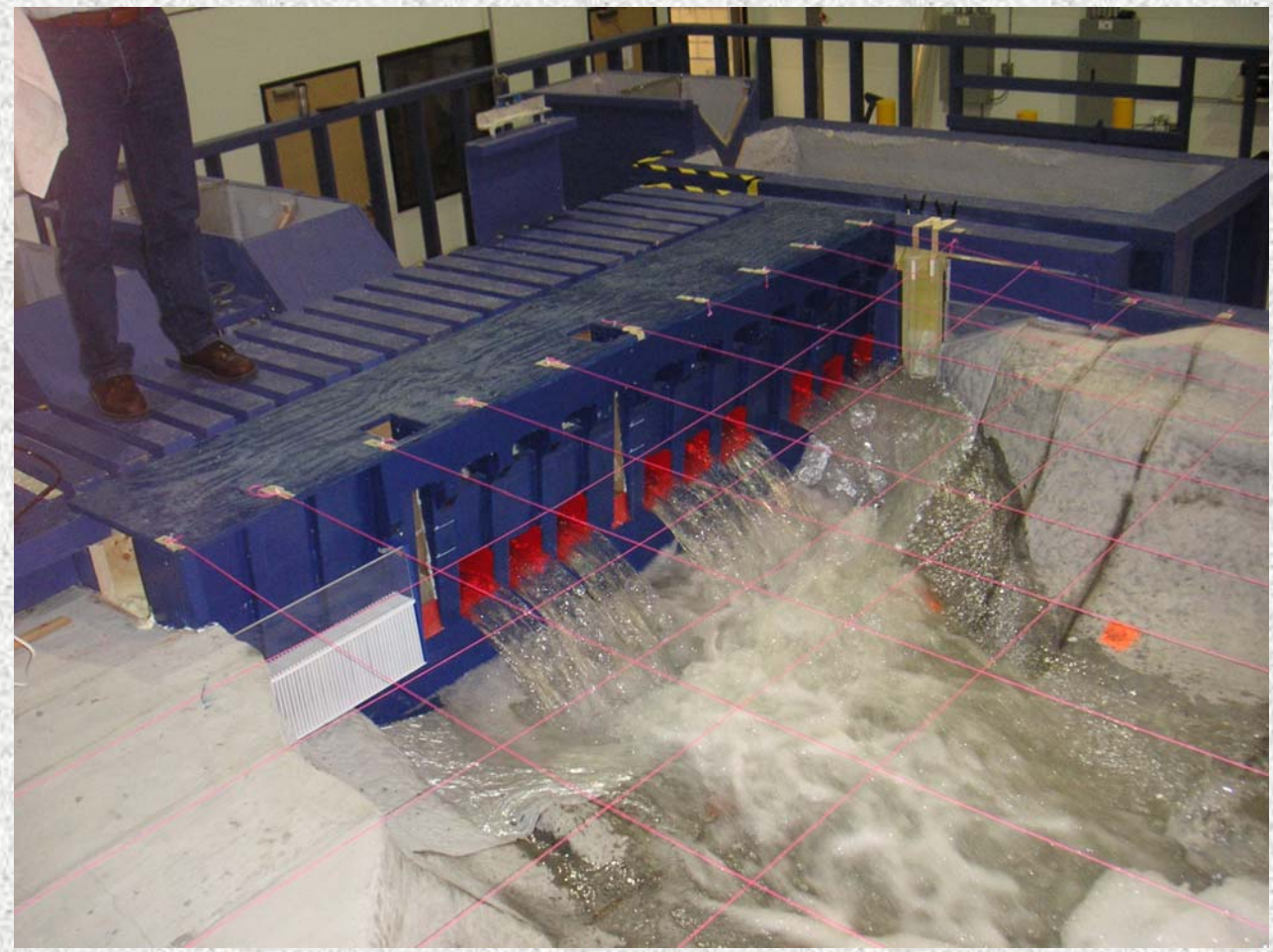
Merwin Physical Model

Purpose and Description

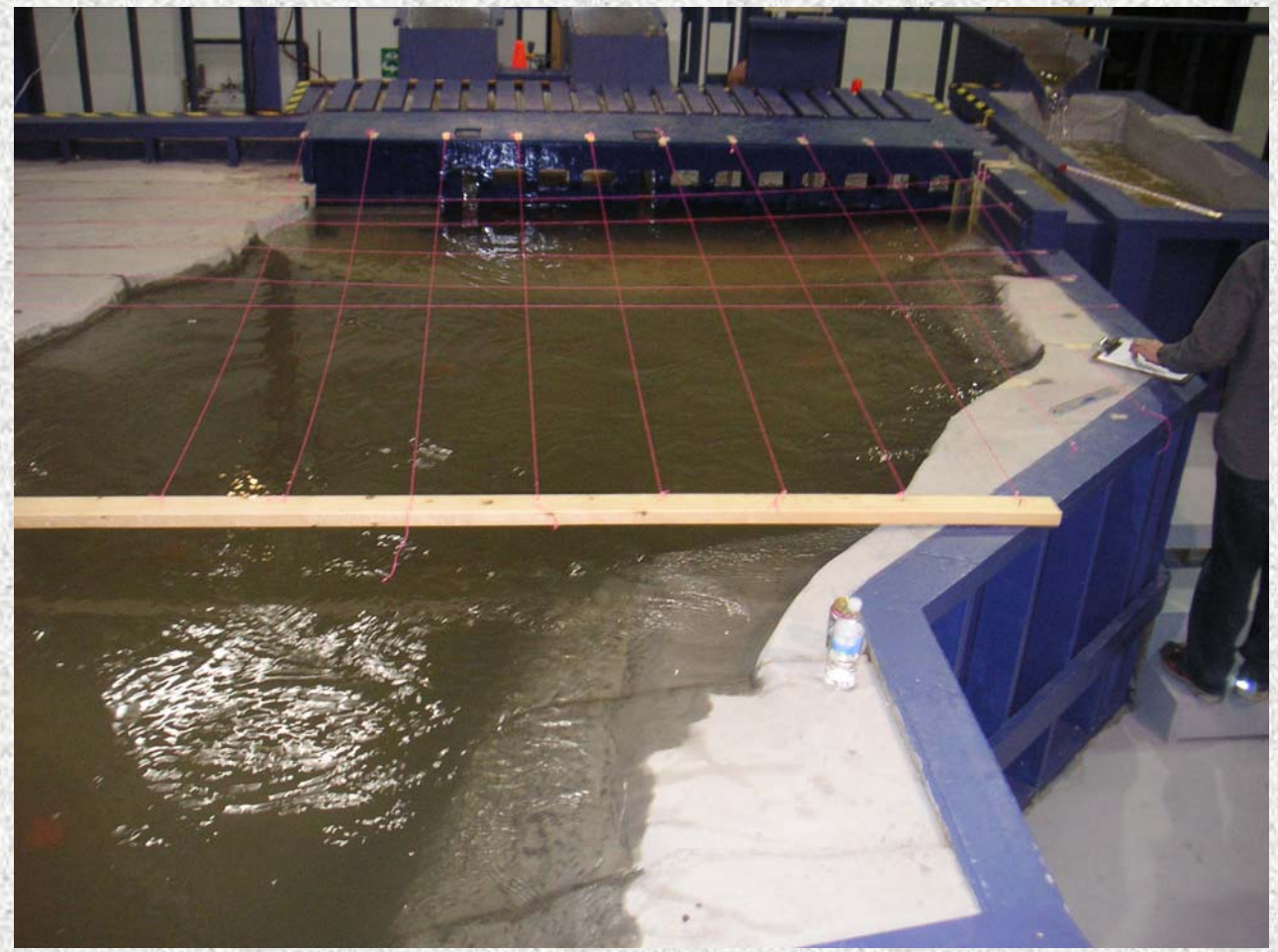
- Help with development of phased approach for trap attraction flows and entrance configuration
- Purpose
  - Test trap placement and angle with differing turbine operations and different attraction flows
  - Test applicability of 2nd trap entrance on front of powerhouse
  - Hydraulic information and flow patterns that will help with future work including radio-telemetry and fish behavior.

Merwin Model in the dry

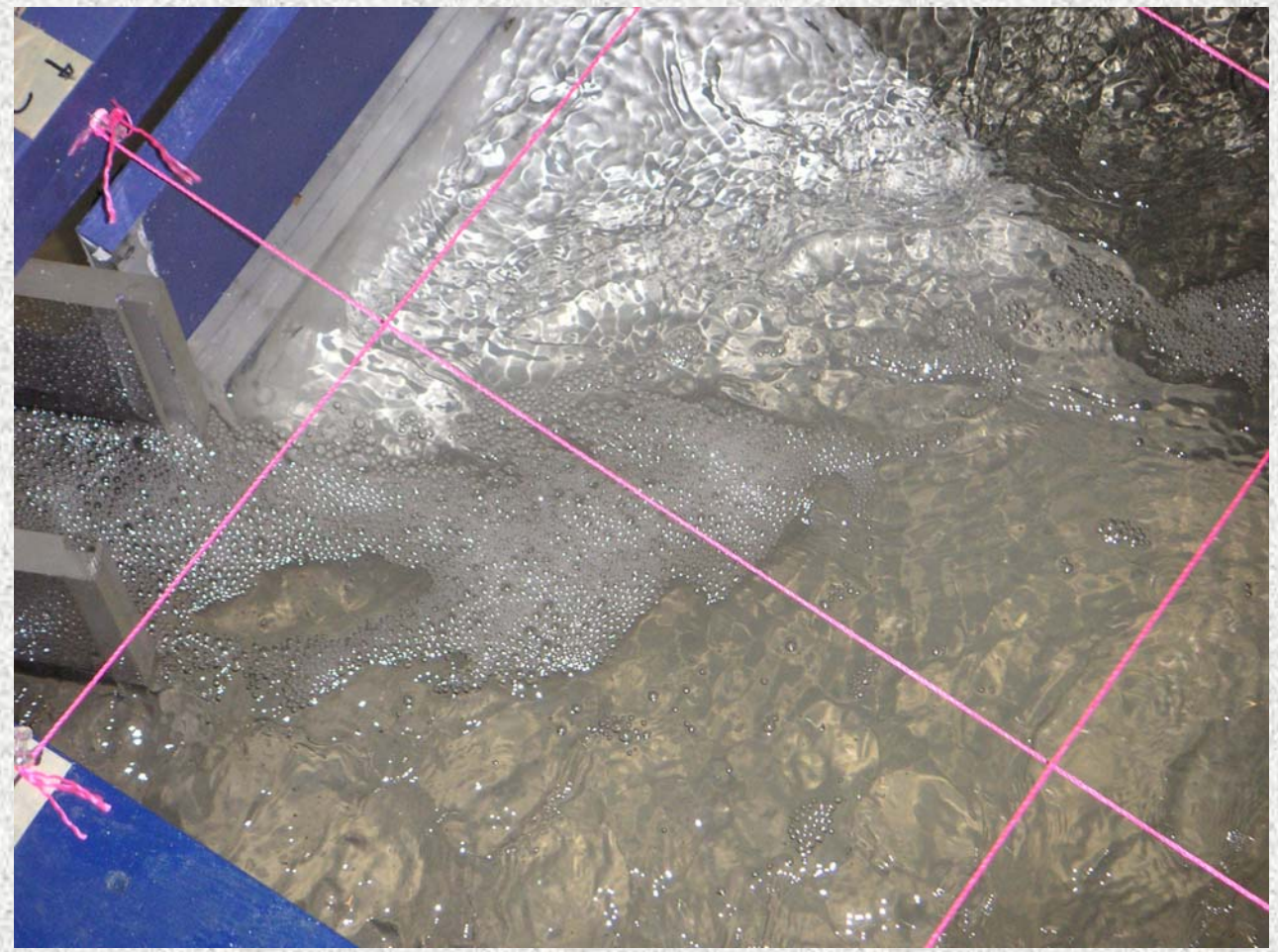
Model filling



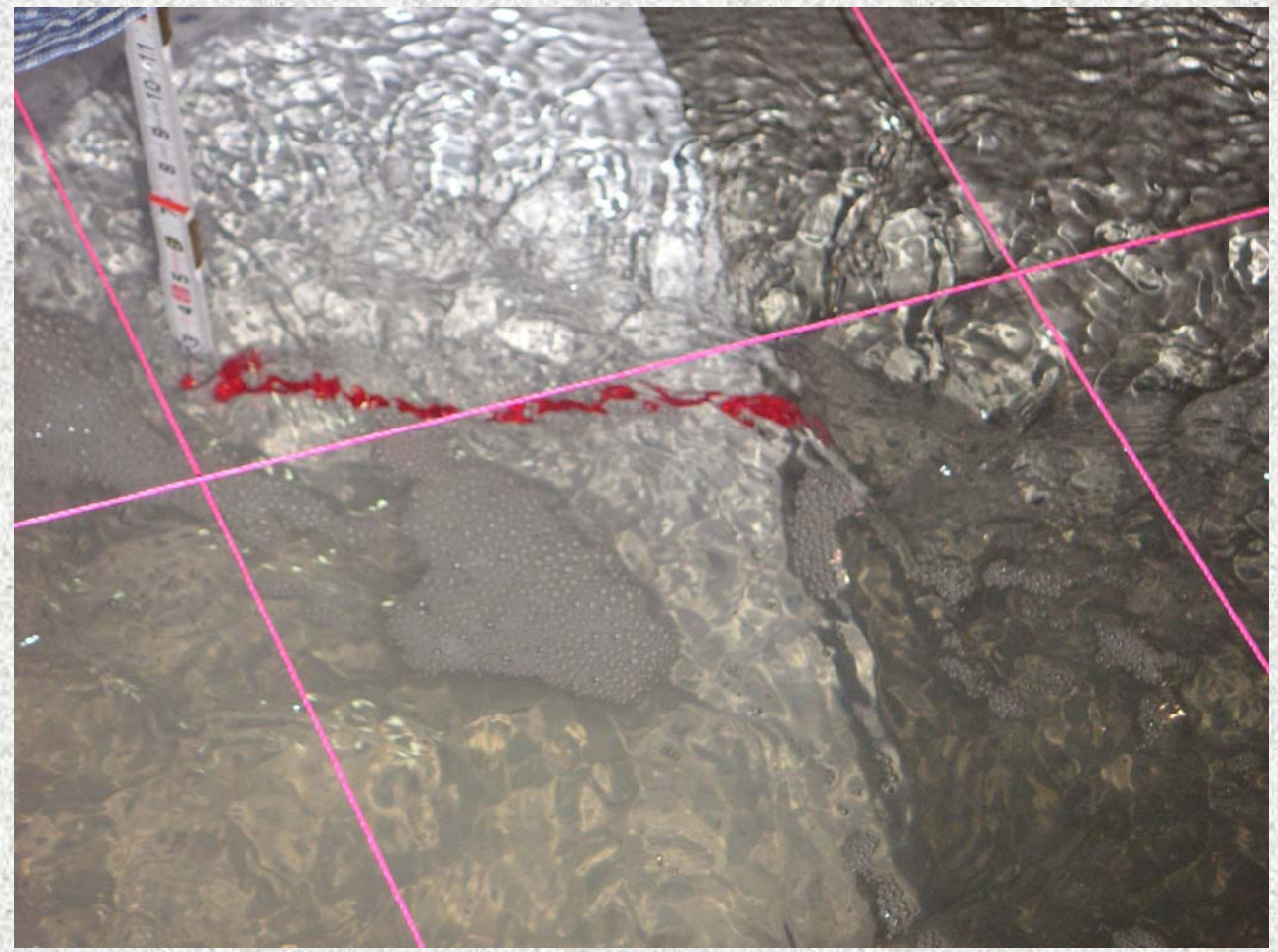
Model at 11,400 cfs and corner trap at 400 cfs



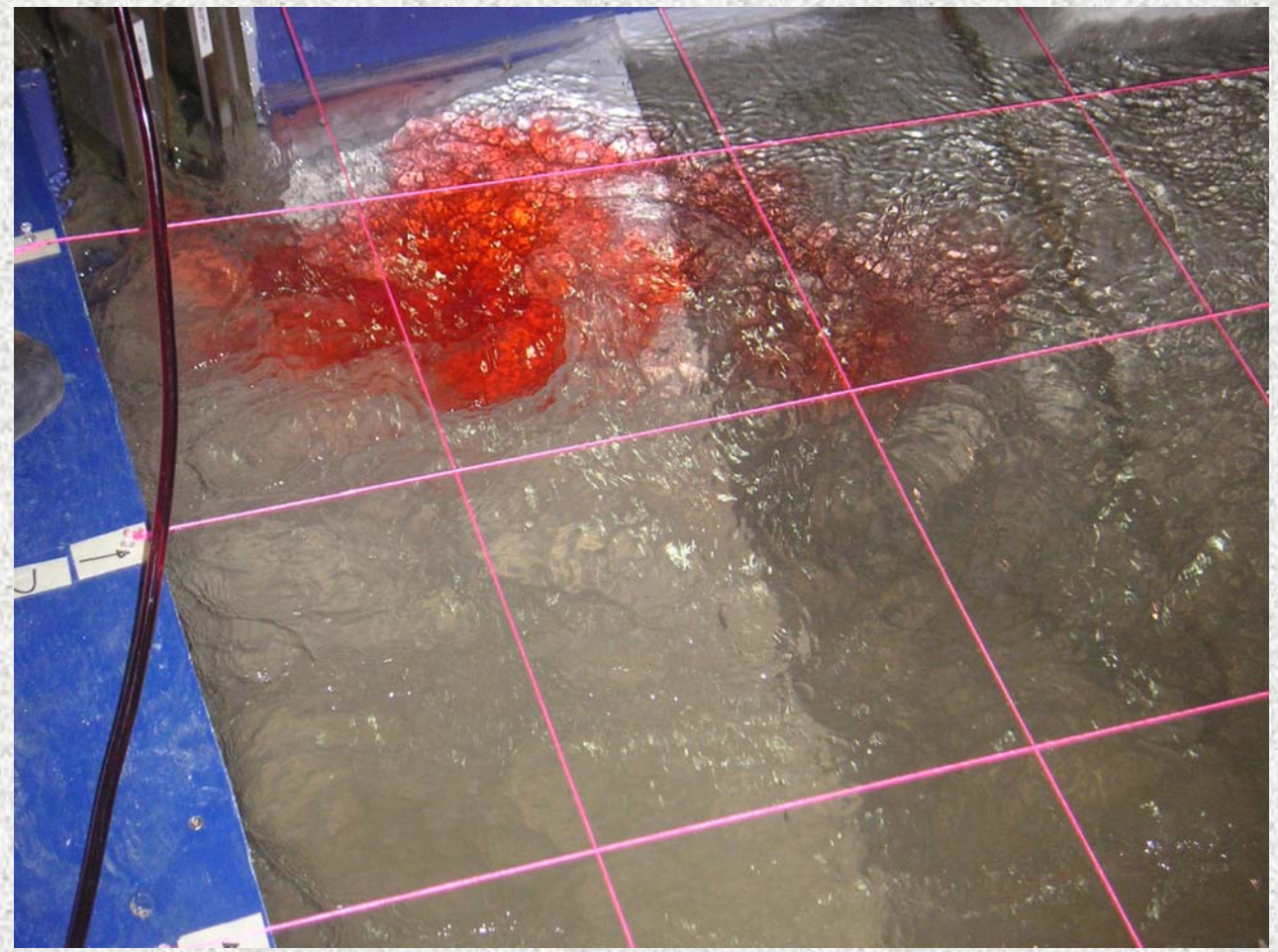
Corner trap flow at 400 cfs



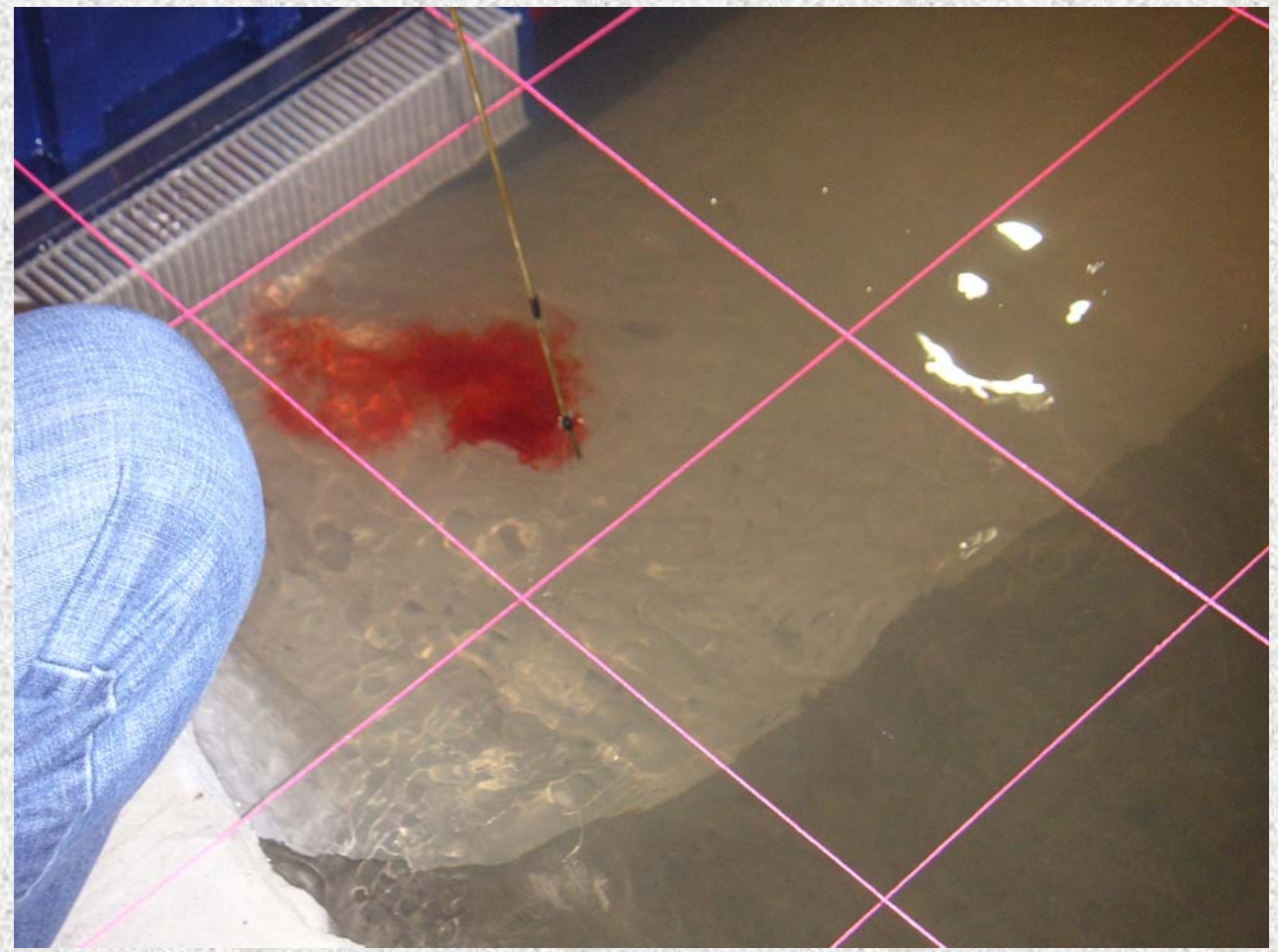
Yarn demonstrates corner trap flow vector



Dye showing corner trap influence in 11,400 turbine flow



Dye in front of pump intakes



Test	Tailrace WSEL (ft)	Powerhouse Discharge (cfs)	Corner Trap Weir El (ft)	Corner Trap Weir Width (ft)	Corner Trap Discharge (cfs)
1 (a)	53.2	11,400	38	4	400
2 (a)*	53.2	11,400	38	6	600
3 Baseline	53.2	11,400	No weir	No weir	No discharge
4	Repeat 1 at 5’&12’ depth	11,400	38	4	400
5	Repeat 2 at 5’ & 12’ depth	11,400	38	6	600

Questions/Discussion