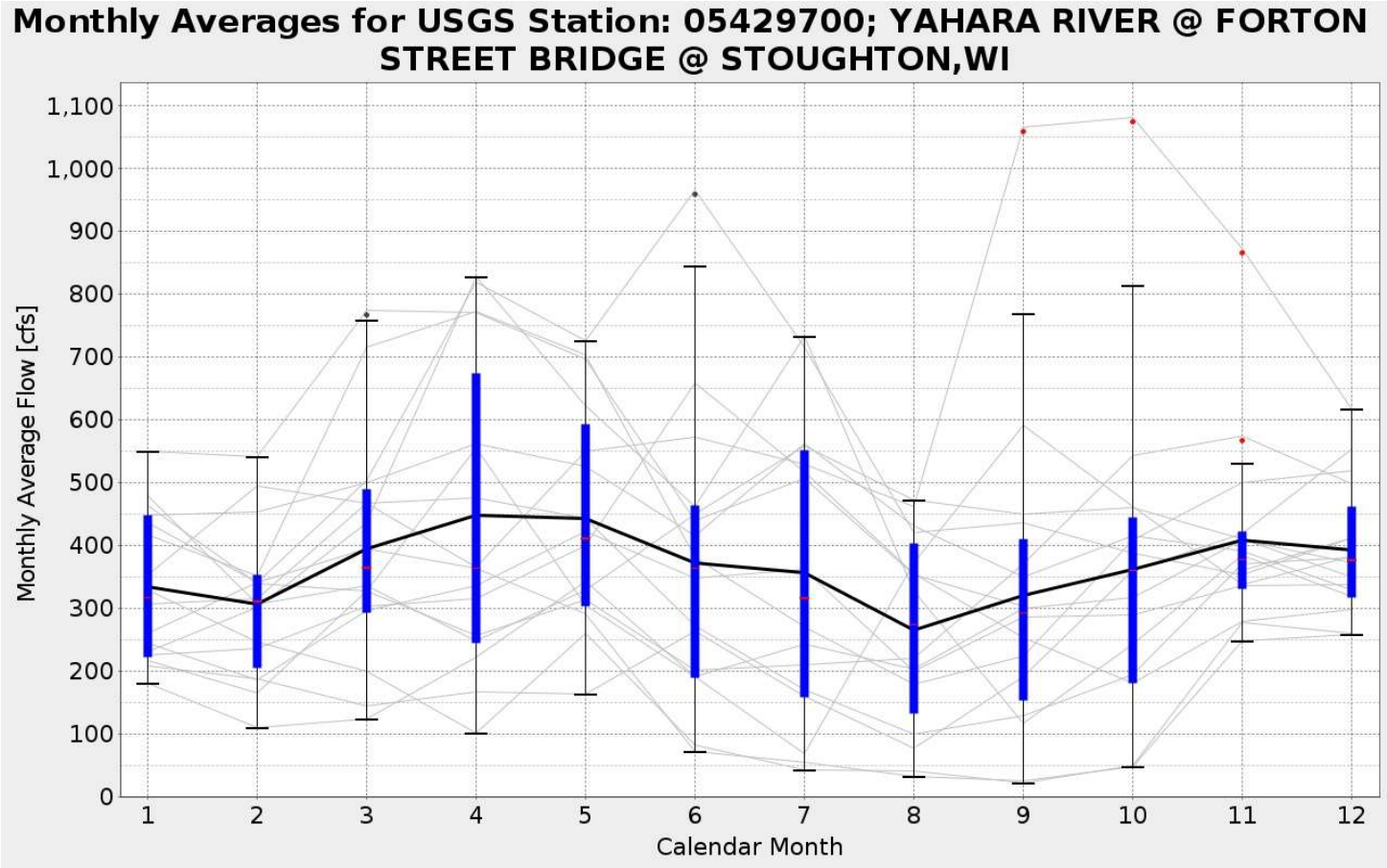
Preliminary Hydraulic Analysis Results

Yahara River

Stoughton, WI

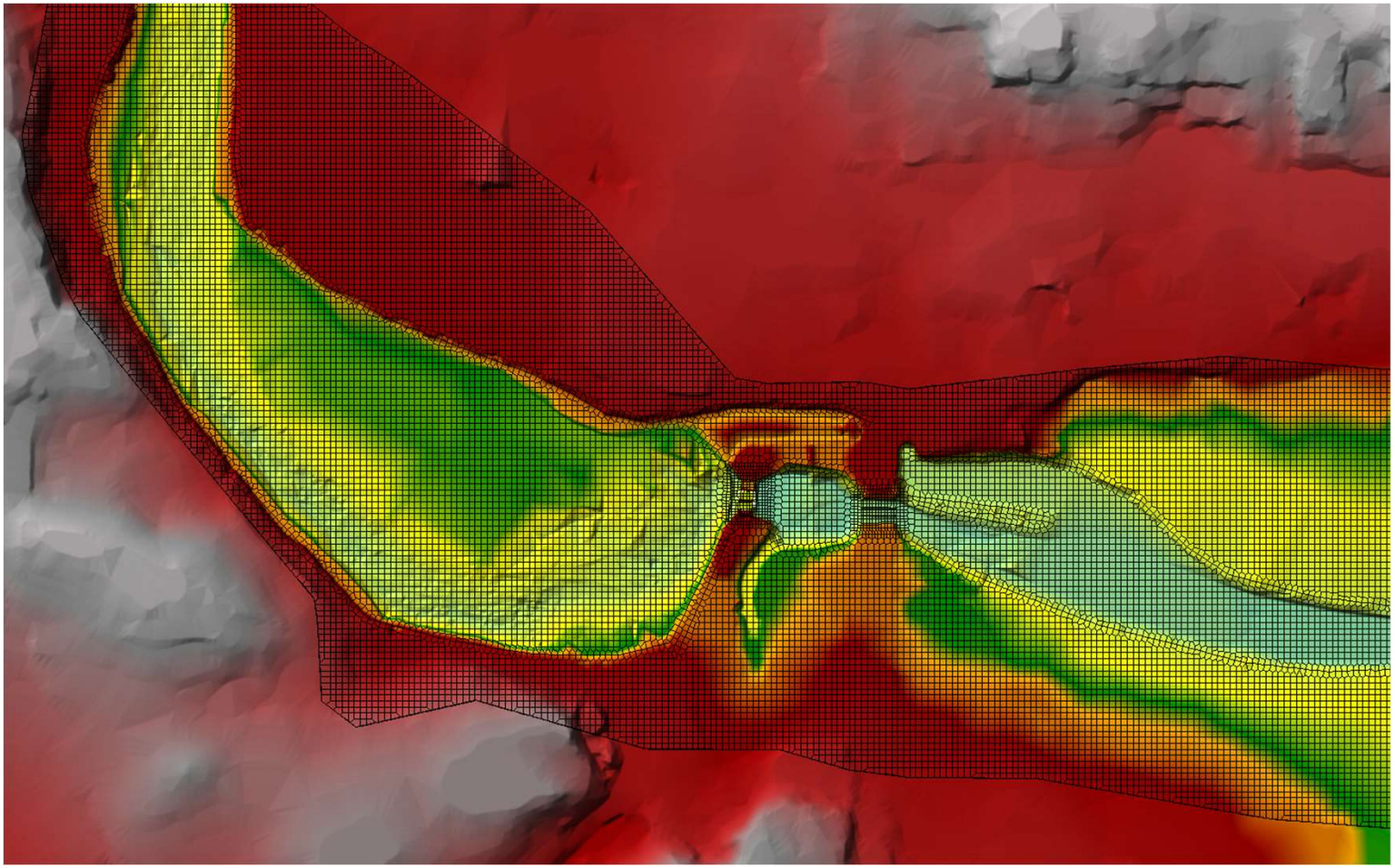
Developed for discussion at Sept 16, 2019 steering committee meeting

Hydrology



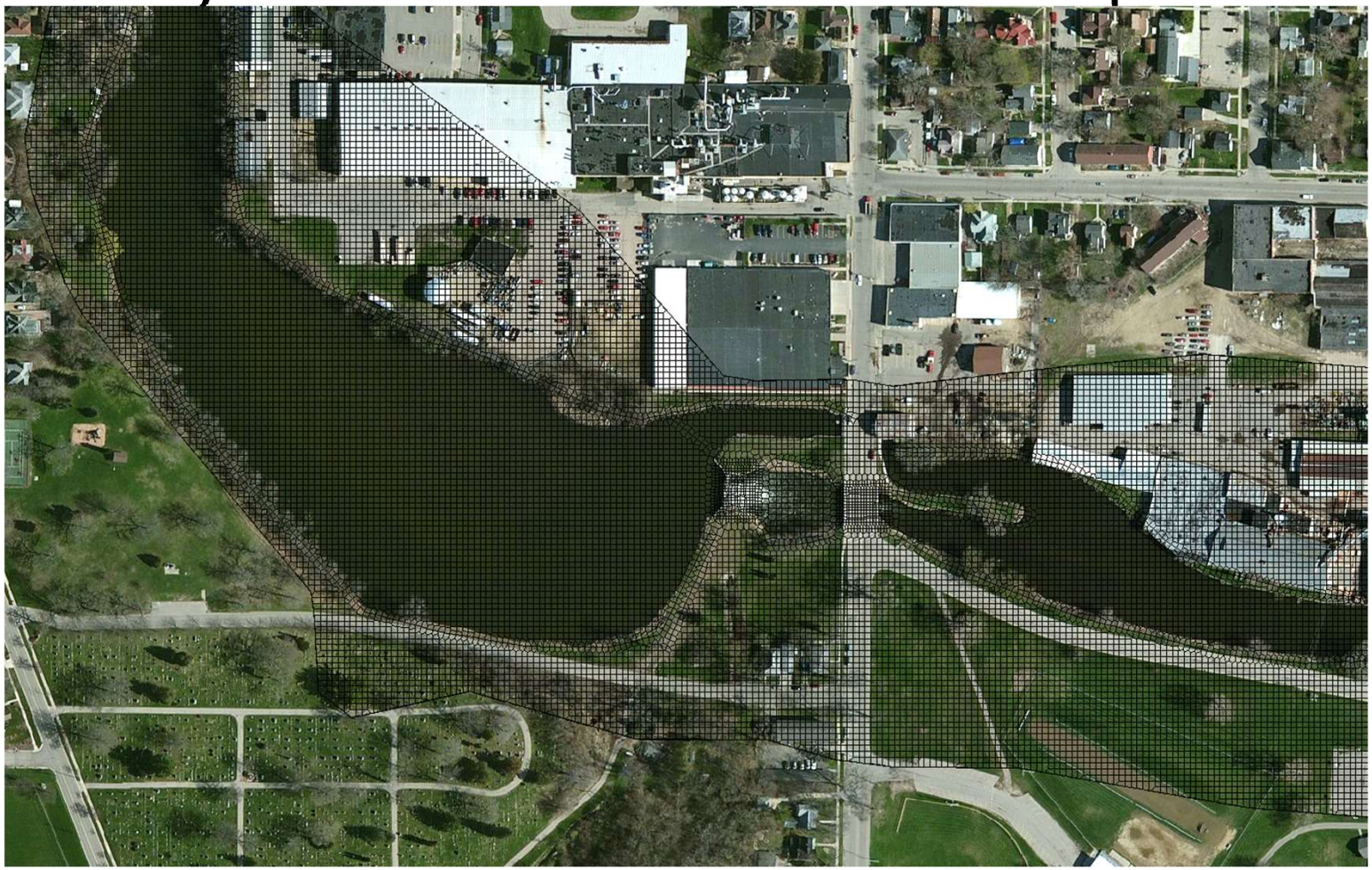
- Mean annual flow: 380cfs
- 1% annual exceedance probability flow (100-yr): 1,304cfs

2D hydraulic model development



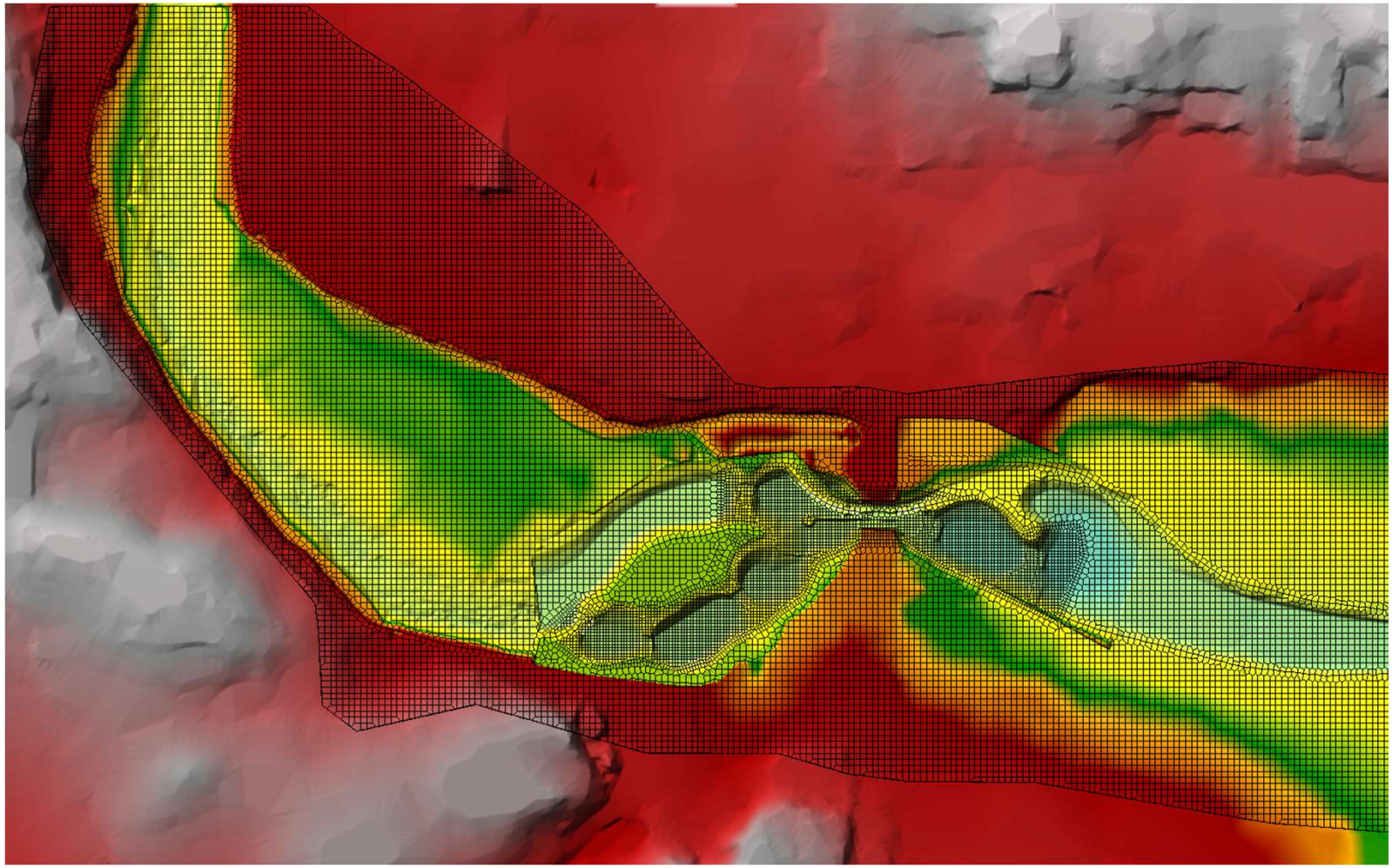
- Addition of 2D flow area to existing DNR hydraulic model

2D hydraulic model development

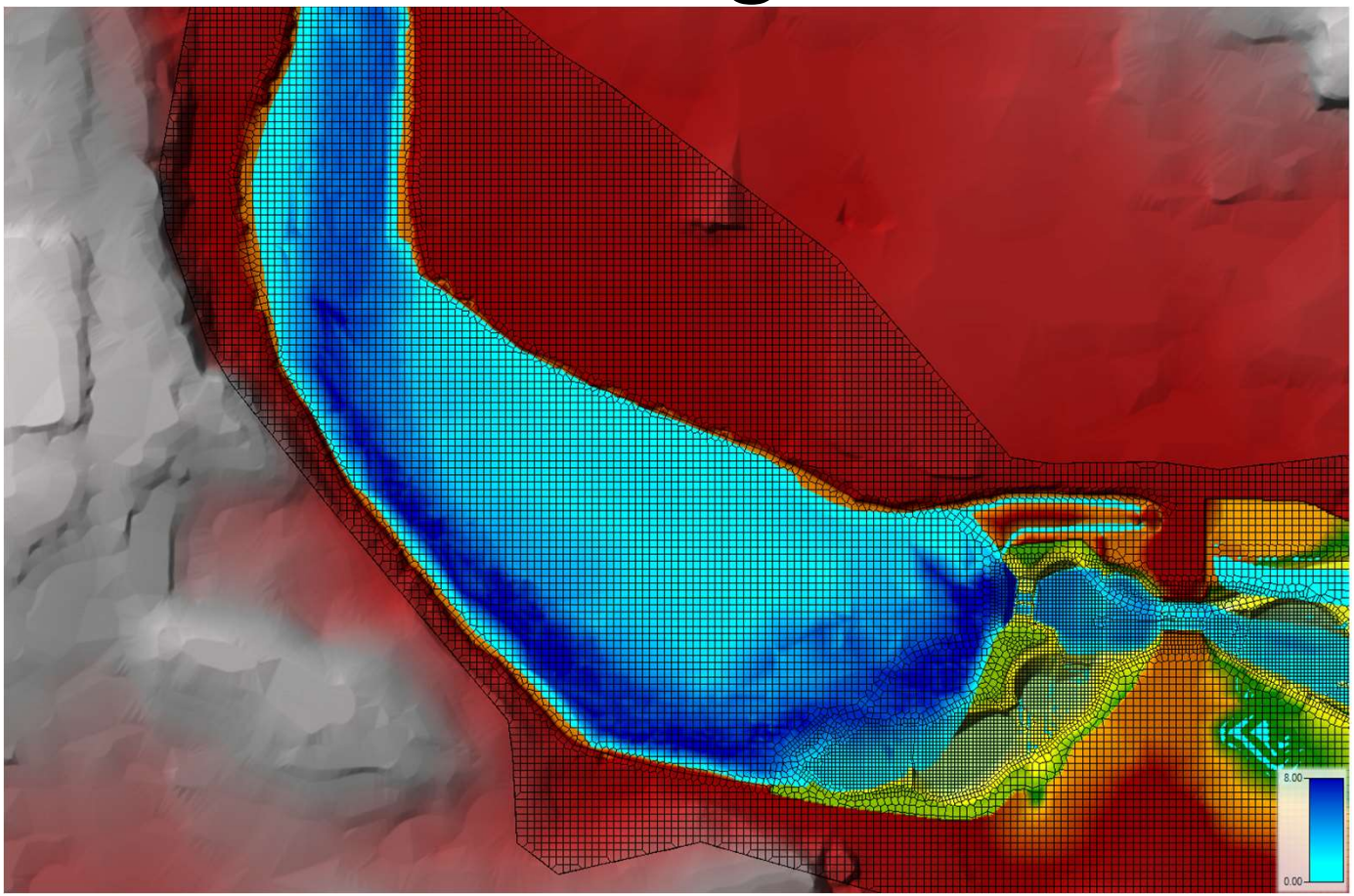


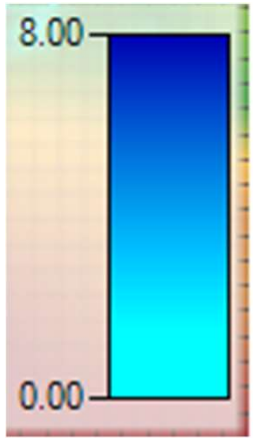
- Addition of 2D flow area to existing DNR hydraulic model

Proposed geometry



Results – Existing 380cfs

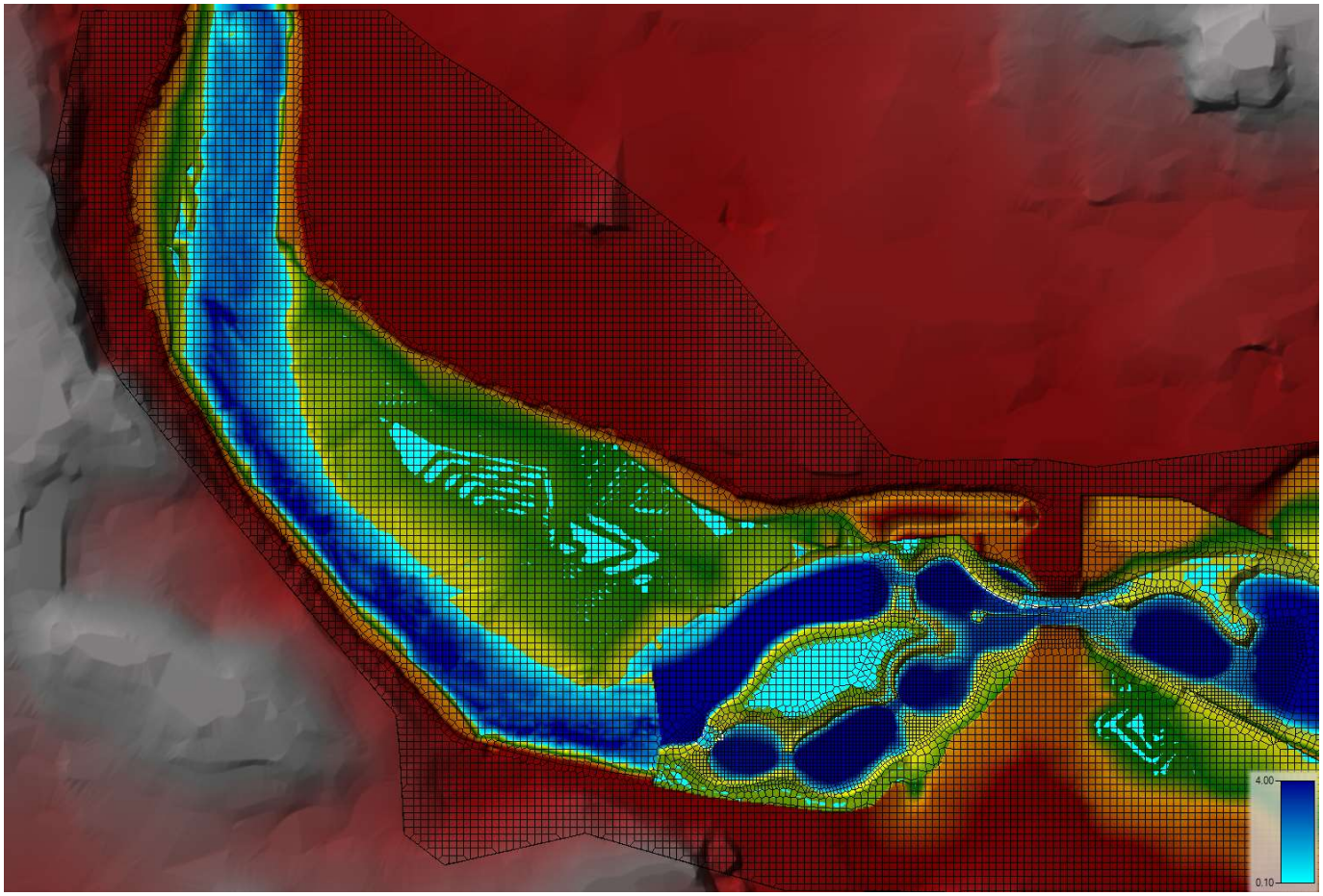


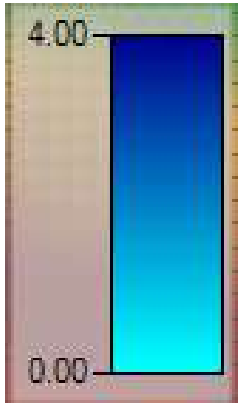


- Shaded by depth (ft). WSE upstream of dam: 841.4

PRELIMINARY RESULTS – FOR DISCUSSION ONLY

Results – Proposed 380cfs

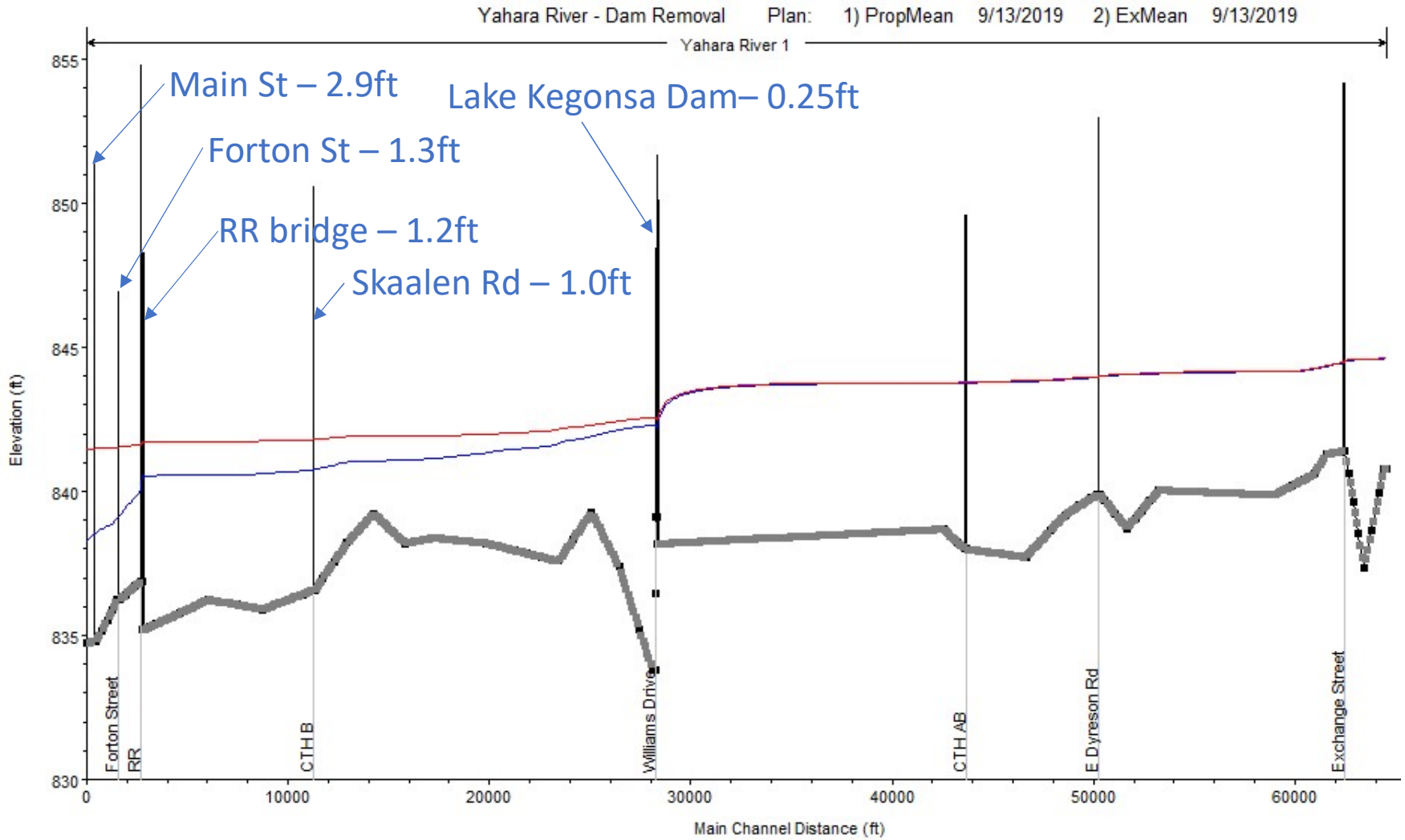




- Shaded by depth (ft). WSE upstream of dam: 837.2

PRELIMINARY RESULTS – FOR DISCUSSION ONLY

Upstream Water Surface – 380cfs



- Red is existing water surface, Blue is proposed
- Blue text is approximate lowering from exist to proposed

PRELIMINARY RESULTS – FOR DISCUSSION ONLY