

Two-dimensional processed model results in Reach 1A from Friant Dam to HW 99

Geodatabase Summary

The data within this geodatabase are processed model results from SRH2D runs ranging between 270 cfs and 7650 cfs that were used in model calibration. The data include polygons that meet the suitability criteria for depth and velocity for Chinook salmon. The relevance of the data at the higher flows (1150 cfs-7650 cfs) is limited since no spawning is likely to occur at these discharges.

Description

Depth and velocity data were processed for each model run to determine areas meeting spawning hydraulic criteria. The criteria were provided by the FMWG and represent the depth and velocity ranges considered suitable on the Stanislaus River. Polygons with a grid code of 1 meet the criteria for depths ranging between 0.7 and 3.7 feet and velocities ranging between 0.8 and 3.4 ft/s. Figure 1 and Figure 2 illustrate the area within the entire model boundary meeting the depth and velocity criteria at each simulated discharge for Reach 1A_01 (Friant Dam to HW 41) and Reach 1A_02 (HW 41 to HW 99). Therefore, areas outside of the low flow channel (within the floodplain) are included in these estimates of area meeting the depth and velocity criteria. Figure 3 through Figure 7 provide examples of the area meeting the criteria across the range of discharges within Reach 1A_01 near MP 263.0.

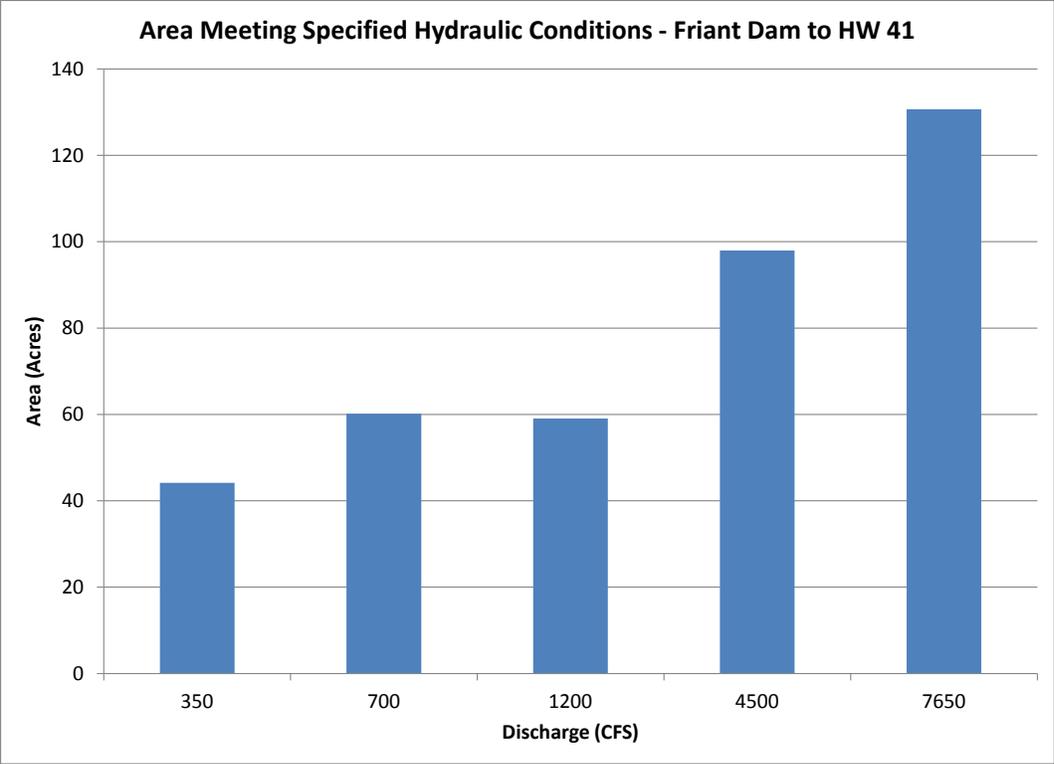


Figure 1. Total area meeting hydraulic criteria at each simulated discharge for Reach 1A_01 between Friant Dam and HW 41.

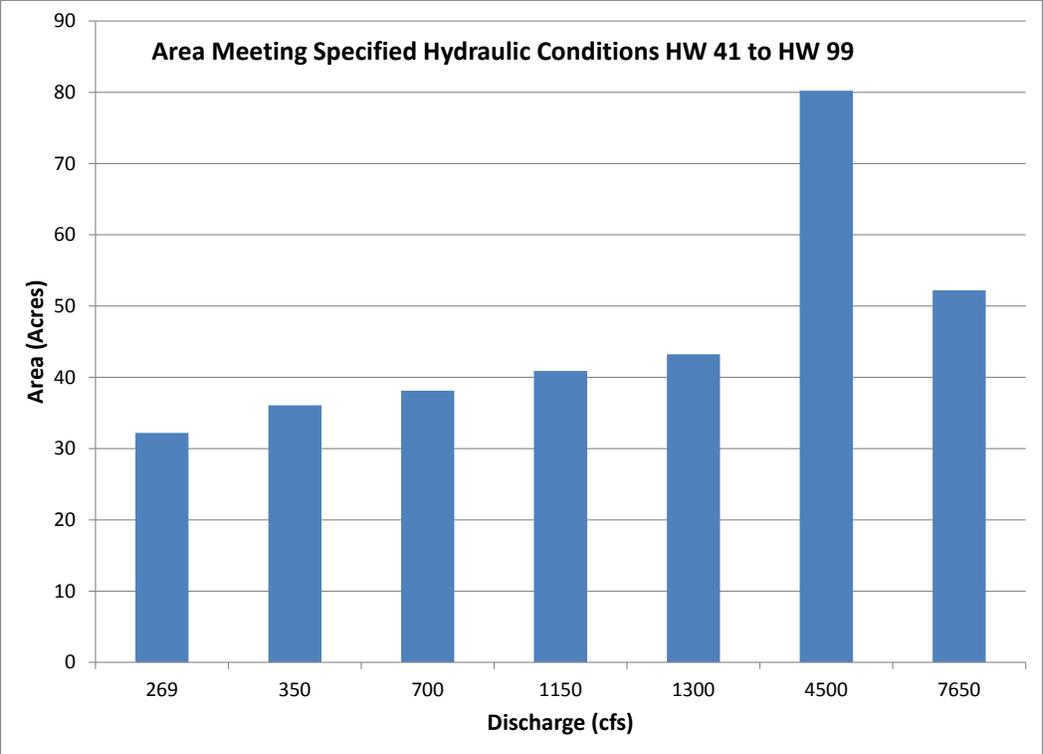


Figure 2. Total area meeting hydraulic criteria at each simulated discharge for Reach 1A_02 between HW 41 and HW 99.

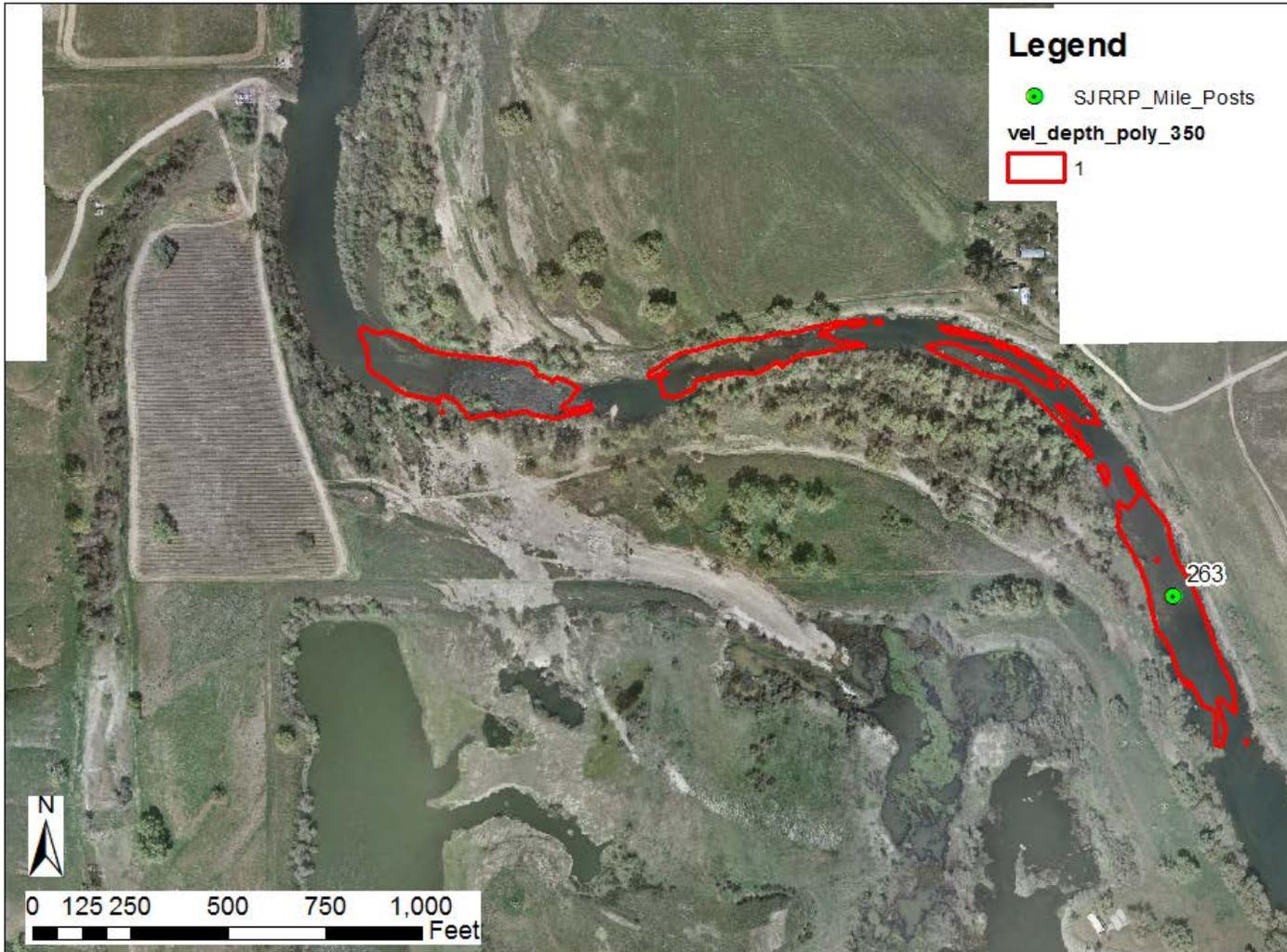


Figure 3. Example results of area meeting hydraulic criteria at 350 cfs.

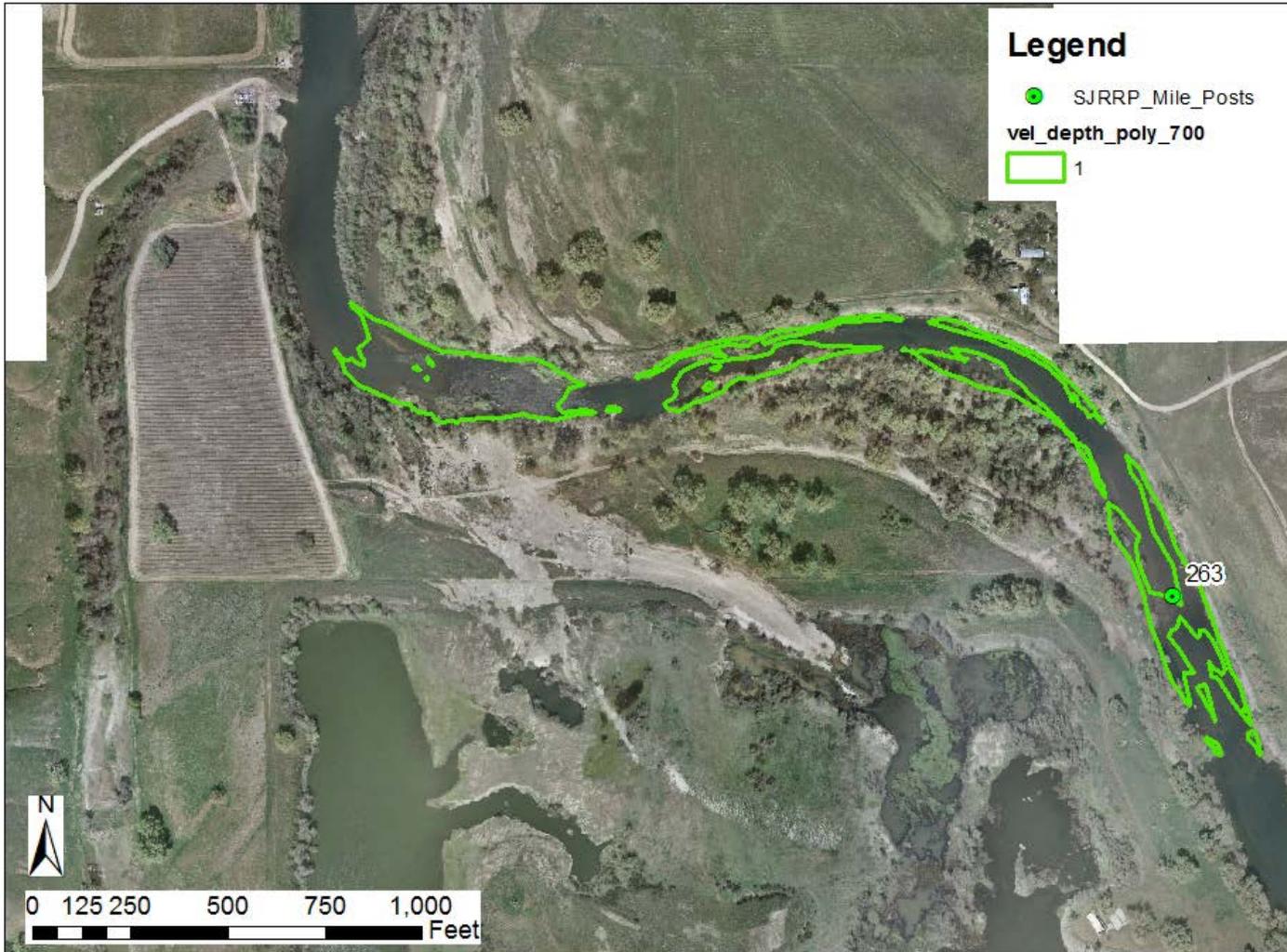


Figure 4. Example results of area meeting hydraulic criteria at 700 cfs.

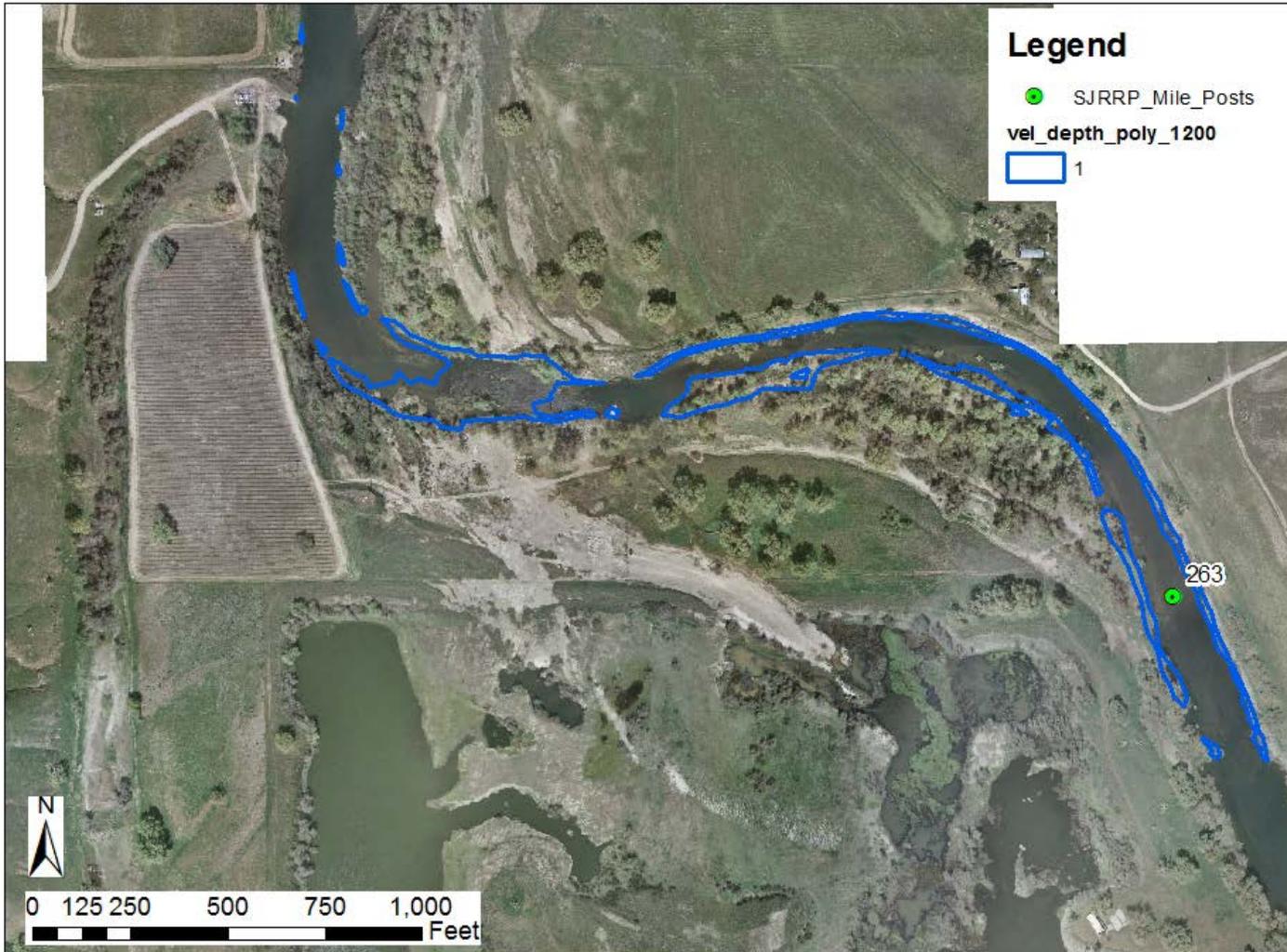


Figure 5. Example results of area meeting hydraulic criteria at 1200 cfs.

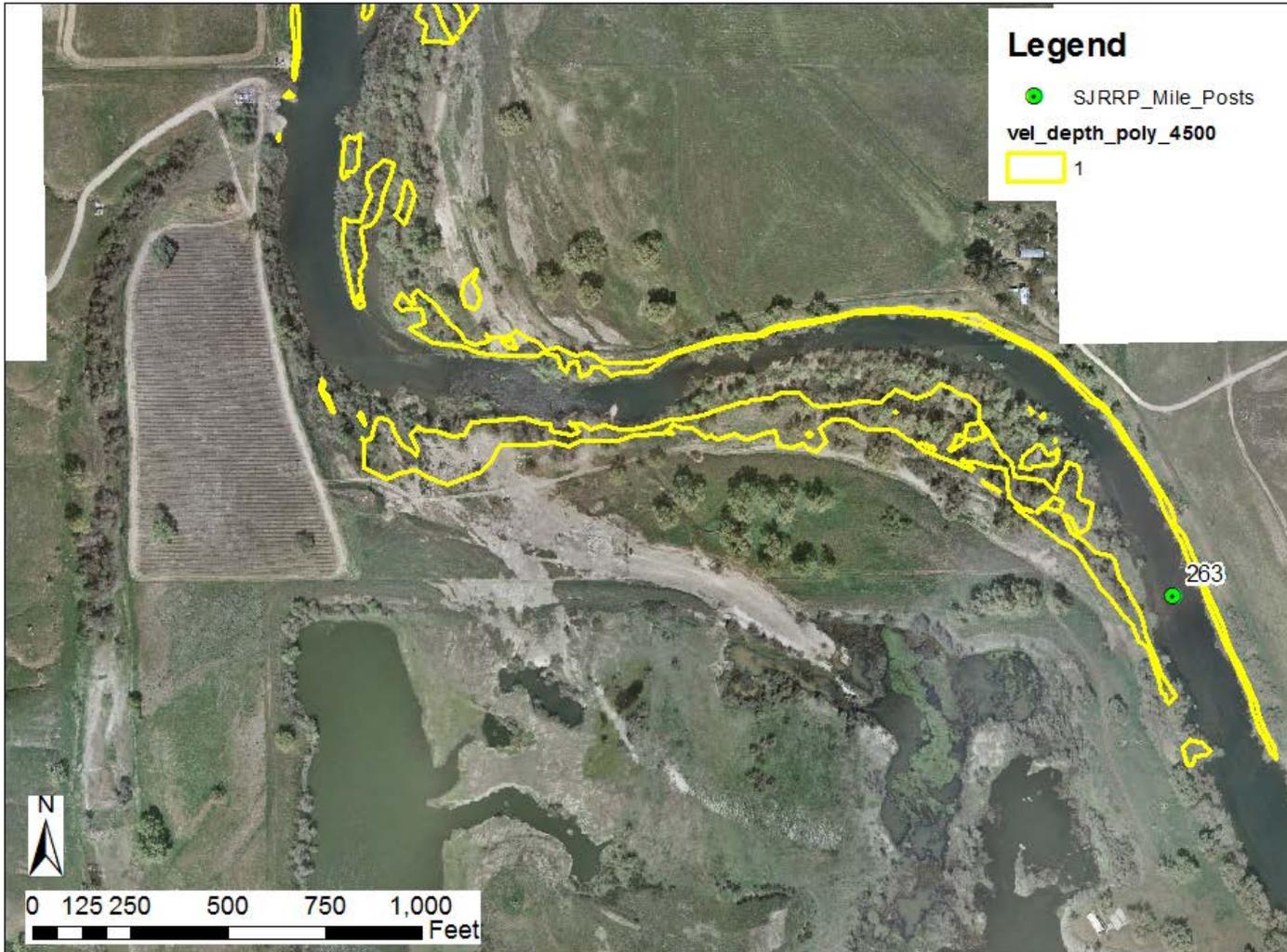


Figure 6. Example results of area meeting hydraulic criteria at 4500 cfs.

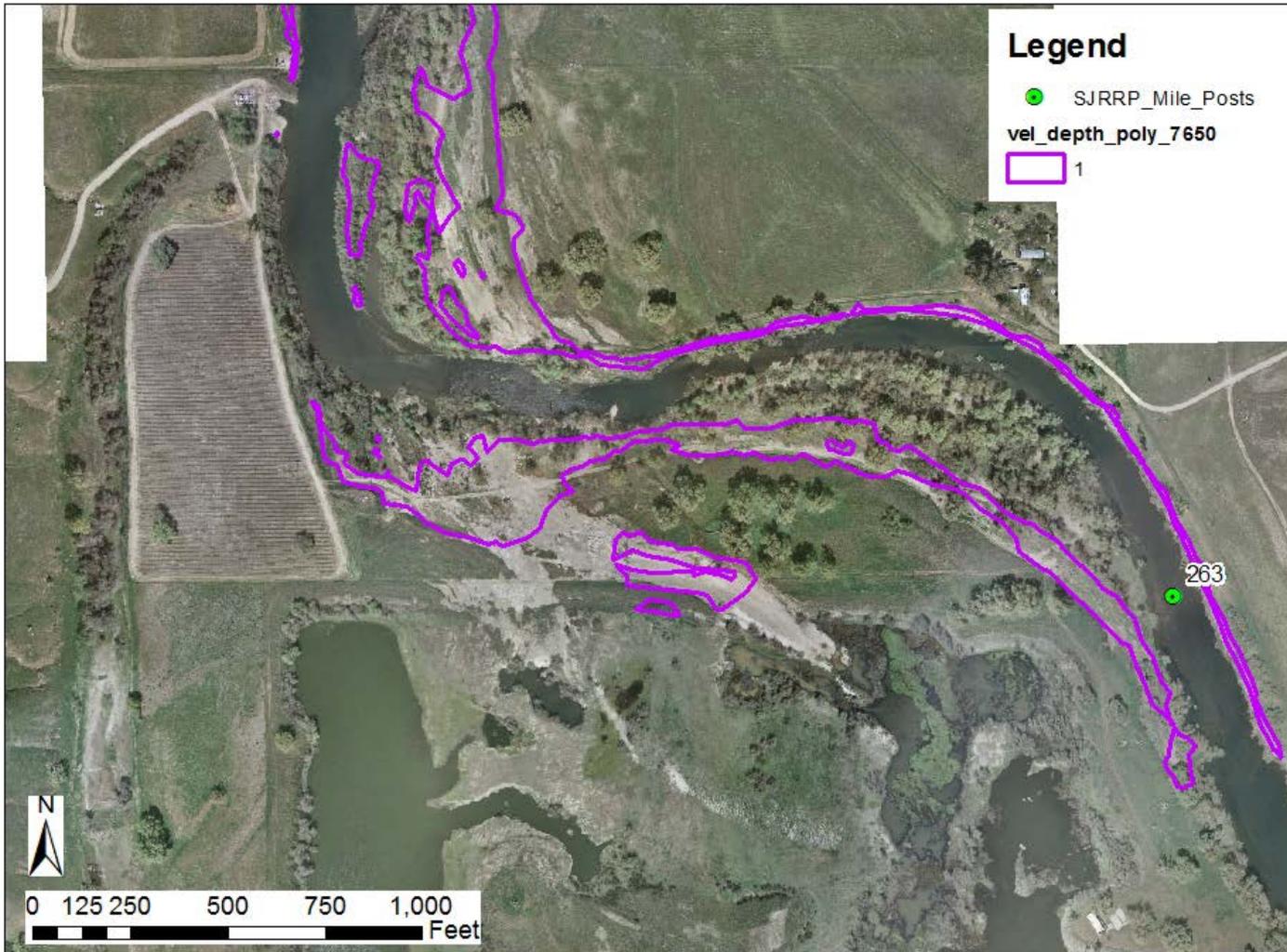


Figure 7. Example results of area meeting hydraulic criteria at 7650 cfs.