

Hydrologic impacts of proposed fallowing conservation (SVGWD sites, 10/11/2021)

Preliminary results presented to Technical Working Group

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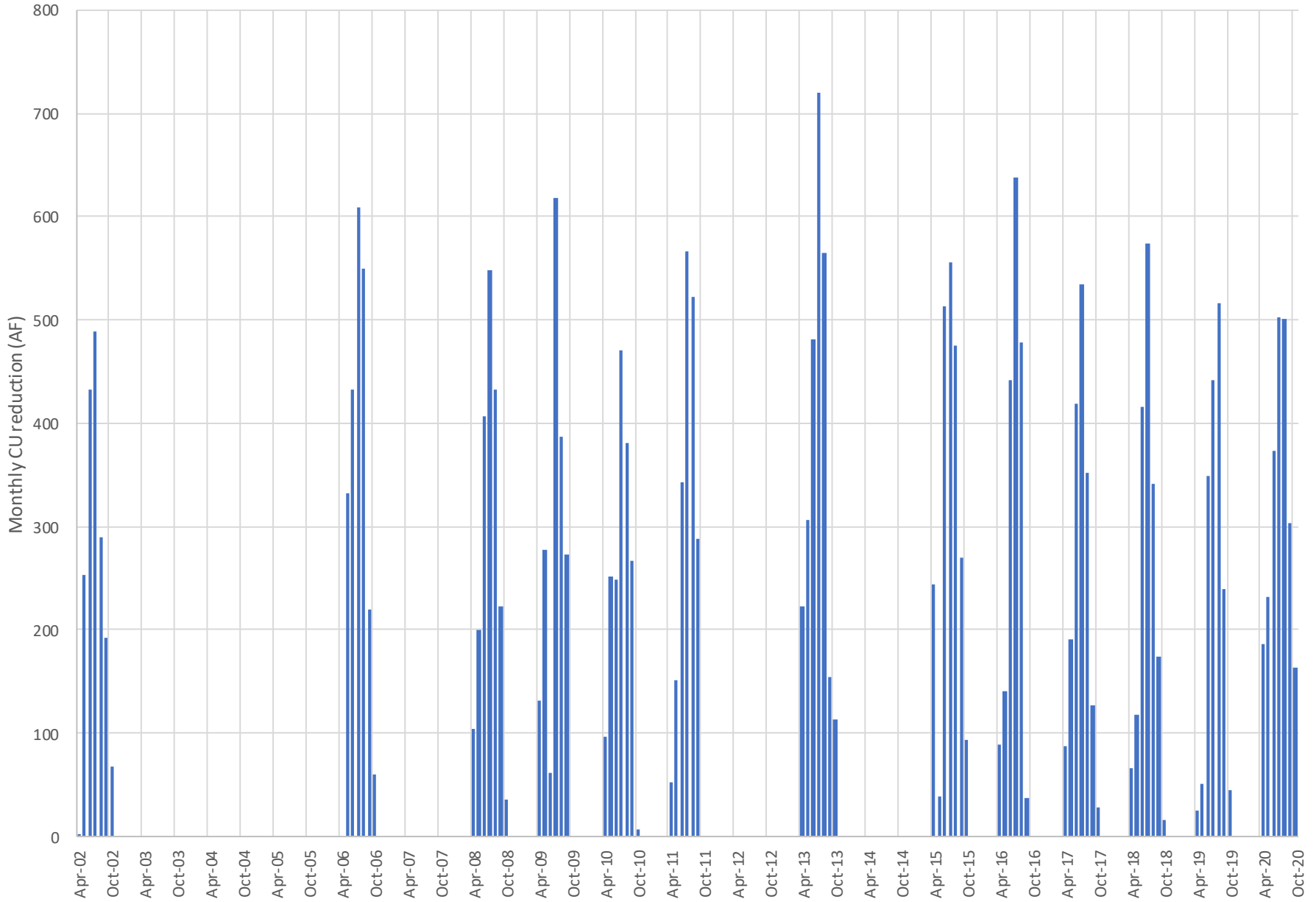
Summary of analysis

- Evaluated impacts of proposed fallowing of 1,092 acres in SVGWD
 - Modeled reduced consumptive use of groundwater and surface water
 - Modeled reduced incidental recharge on fallowed lands
 - Modeled application of saved surface water (consumptive use + on-site incidental recharge) to recharge pits
 - Quantified reduction of diversions from Silver Creek

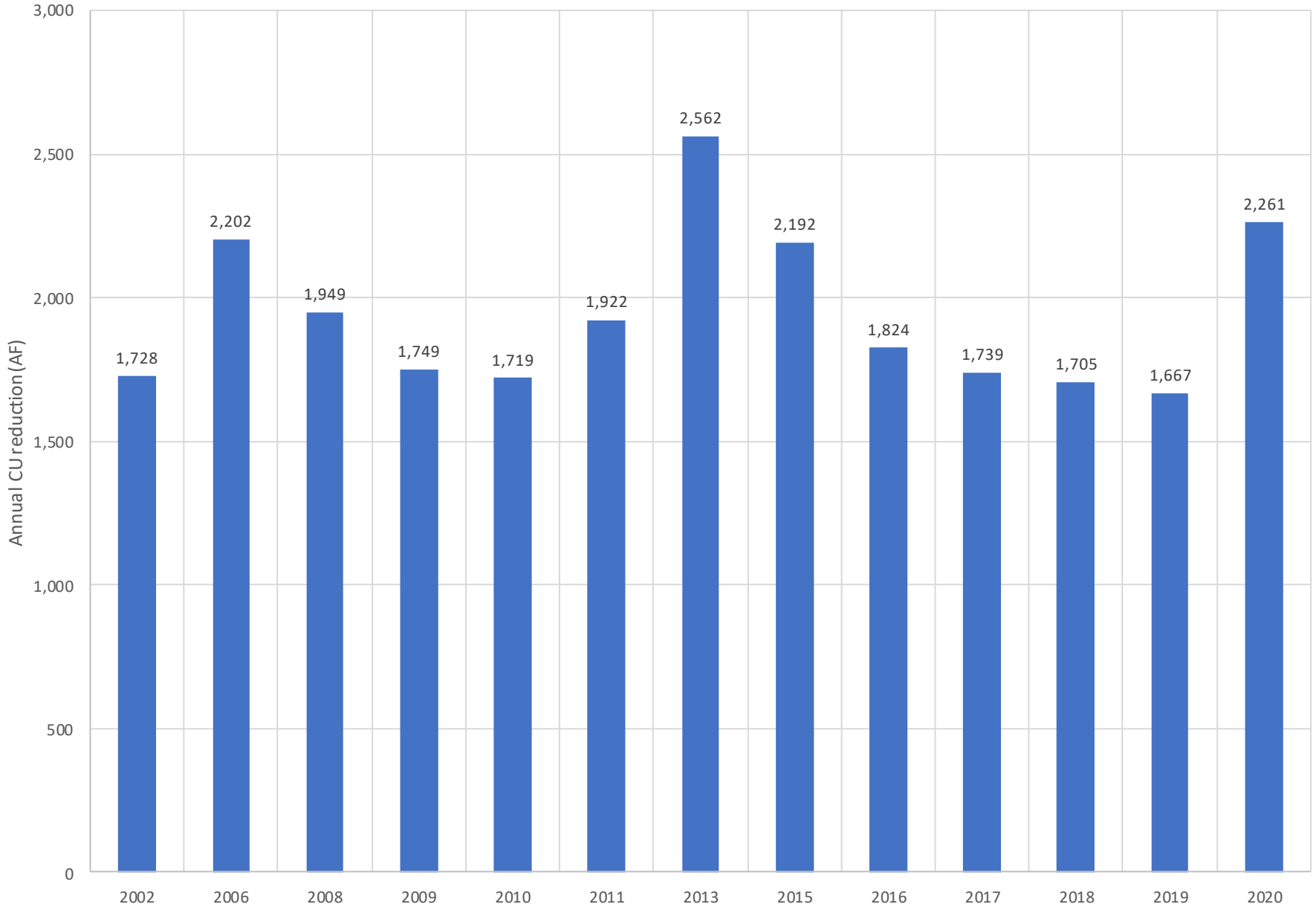
Assumptions

- Monthly consumptive use was calculated using METRIC ET and PRISM precipitation rasters.
- Consumptive use from 2013, 2015, 2016, and 2017 was used to represent the range of consumptive use variation and were applied to years with similar irrigation demand in the 1995-2014 model simulation period.
 - Similar years were selected based on ET Idaho precipitation deficit at Picabo
- Consumptive use reductions were attributed to surface water when in priority.
- Consumptive use reductions were attributed to groundwater when surface water not in priority.
- Percentage of surface water in priority was calculated for 1995-2014 using WRV1.1 priority cut file and surface water right diversion rates.

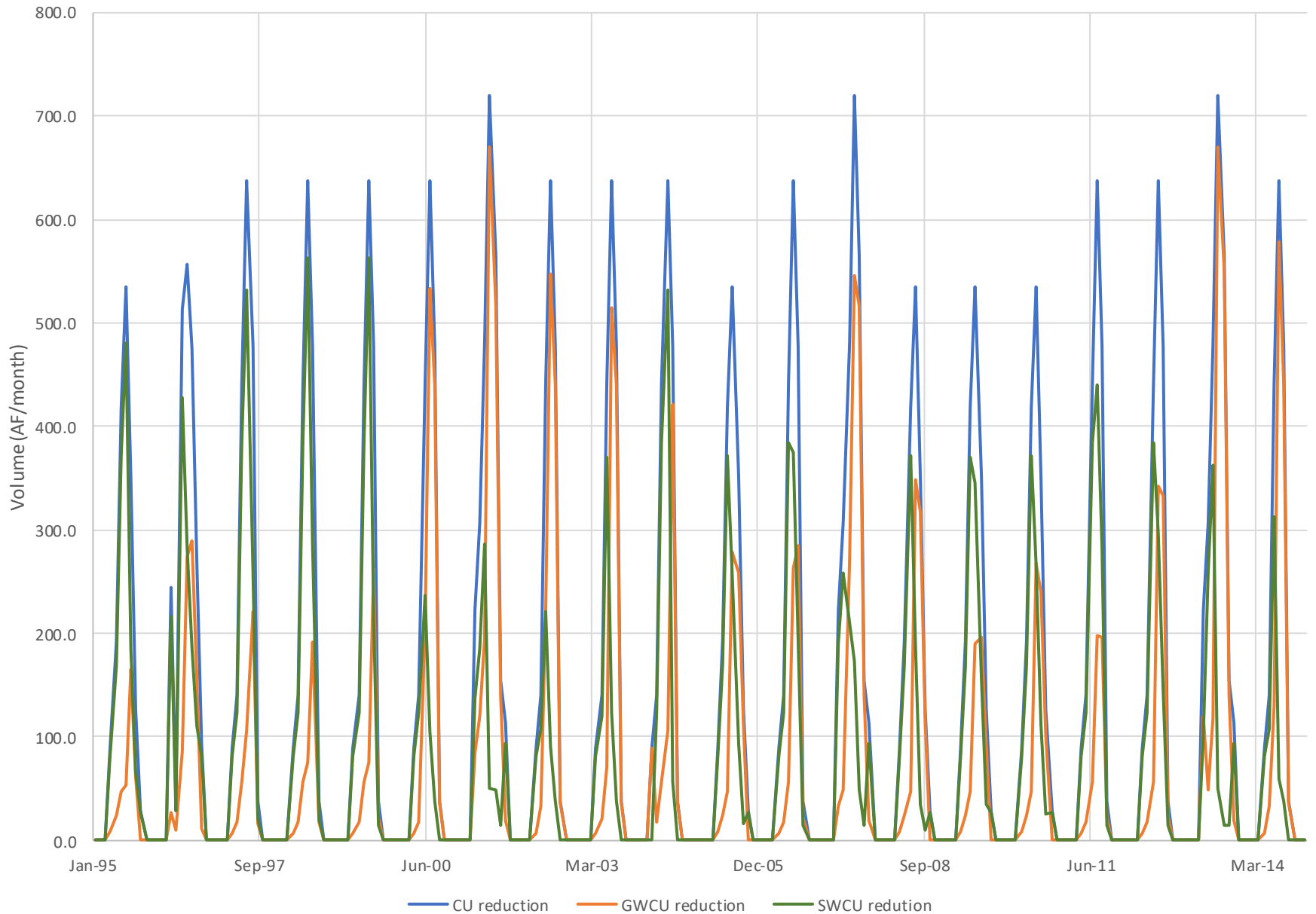
Monthly consumptive use reduction on proposed fallow acres



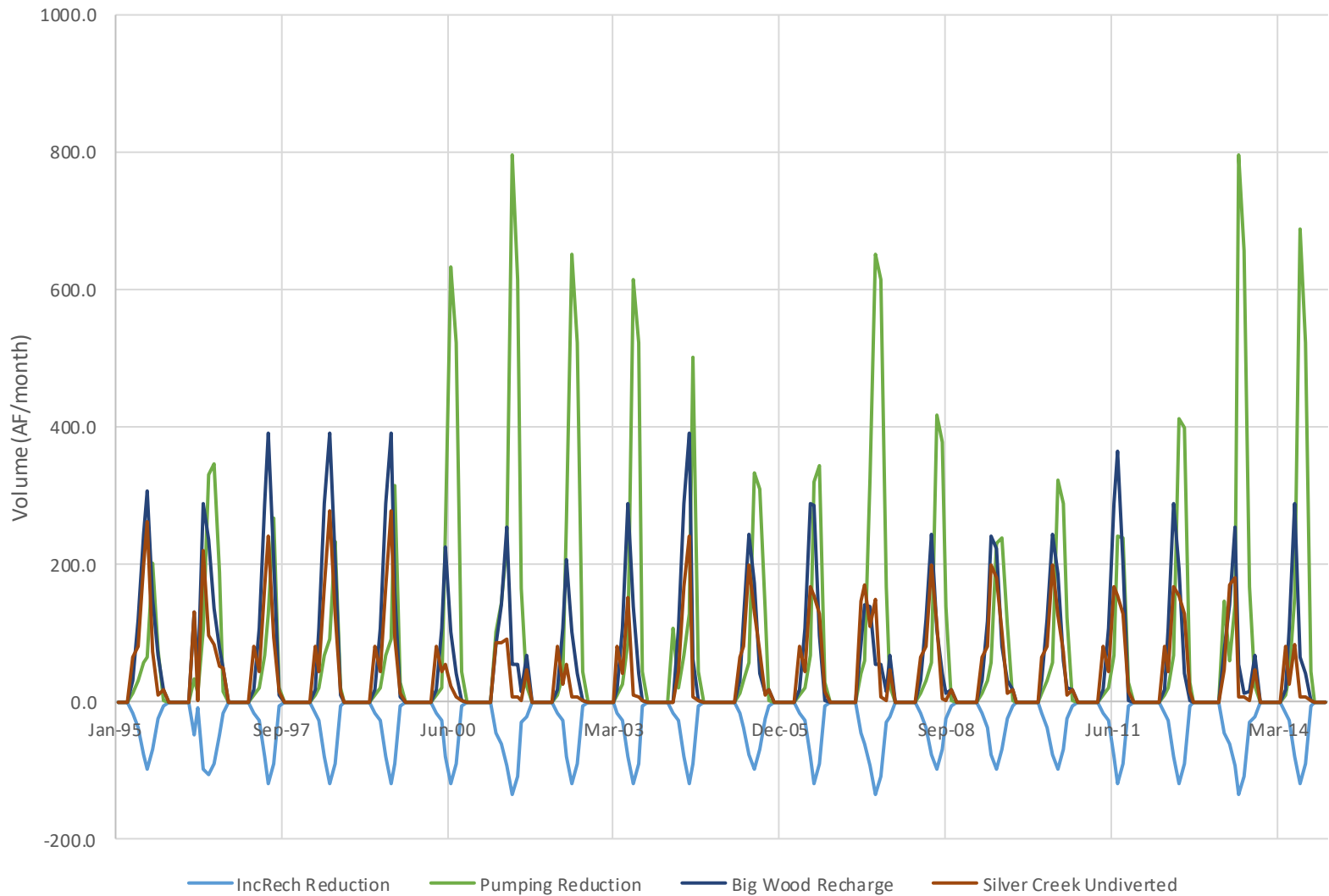
Irrigation season consumptive use reduction on proposed fallow acres



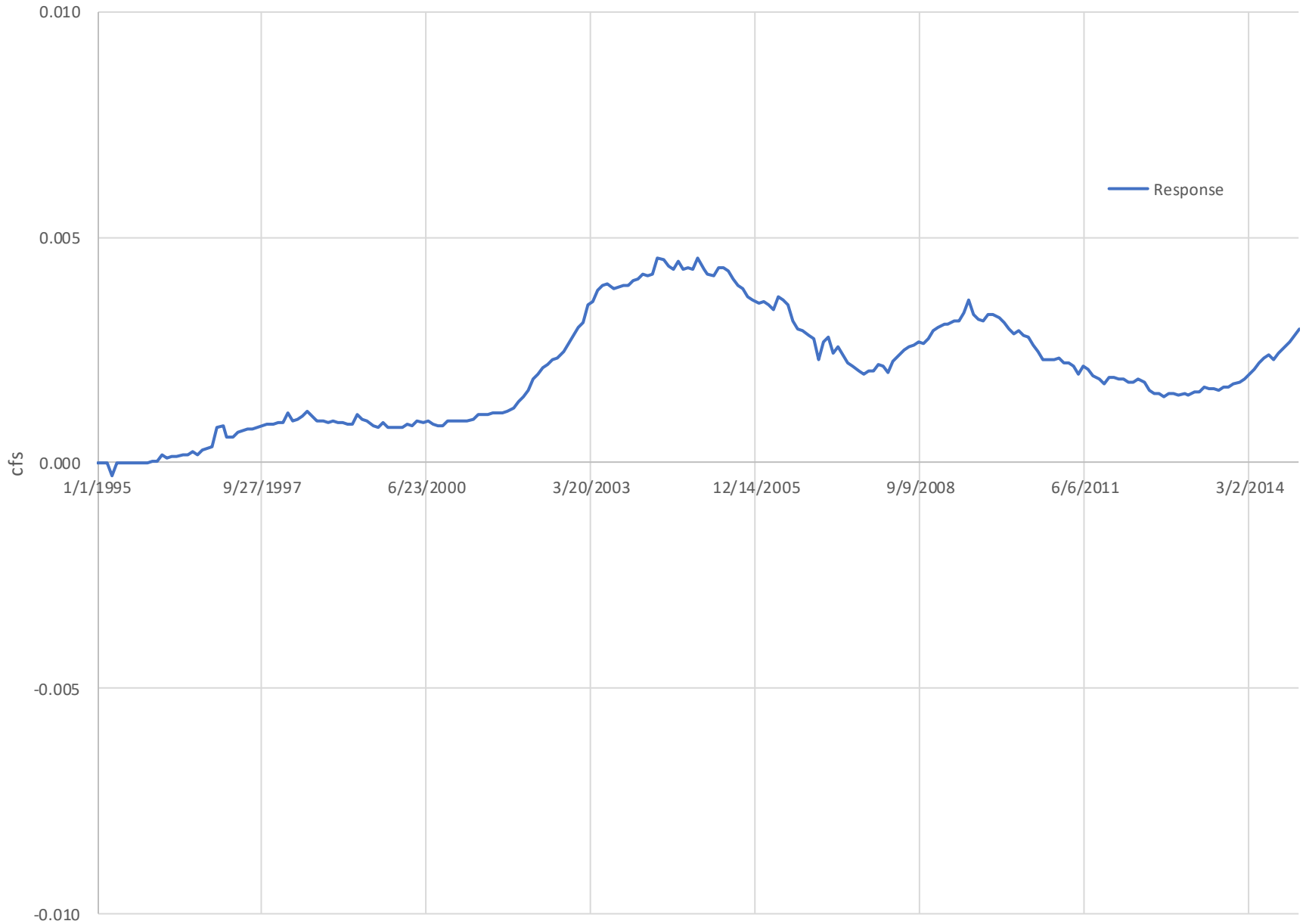
Modeled consumptive use reduction for fallowed acres (10/11/2021 proposal)



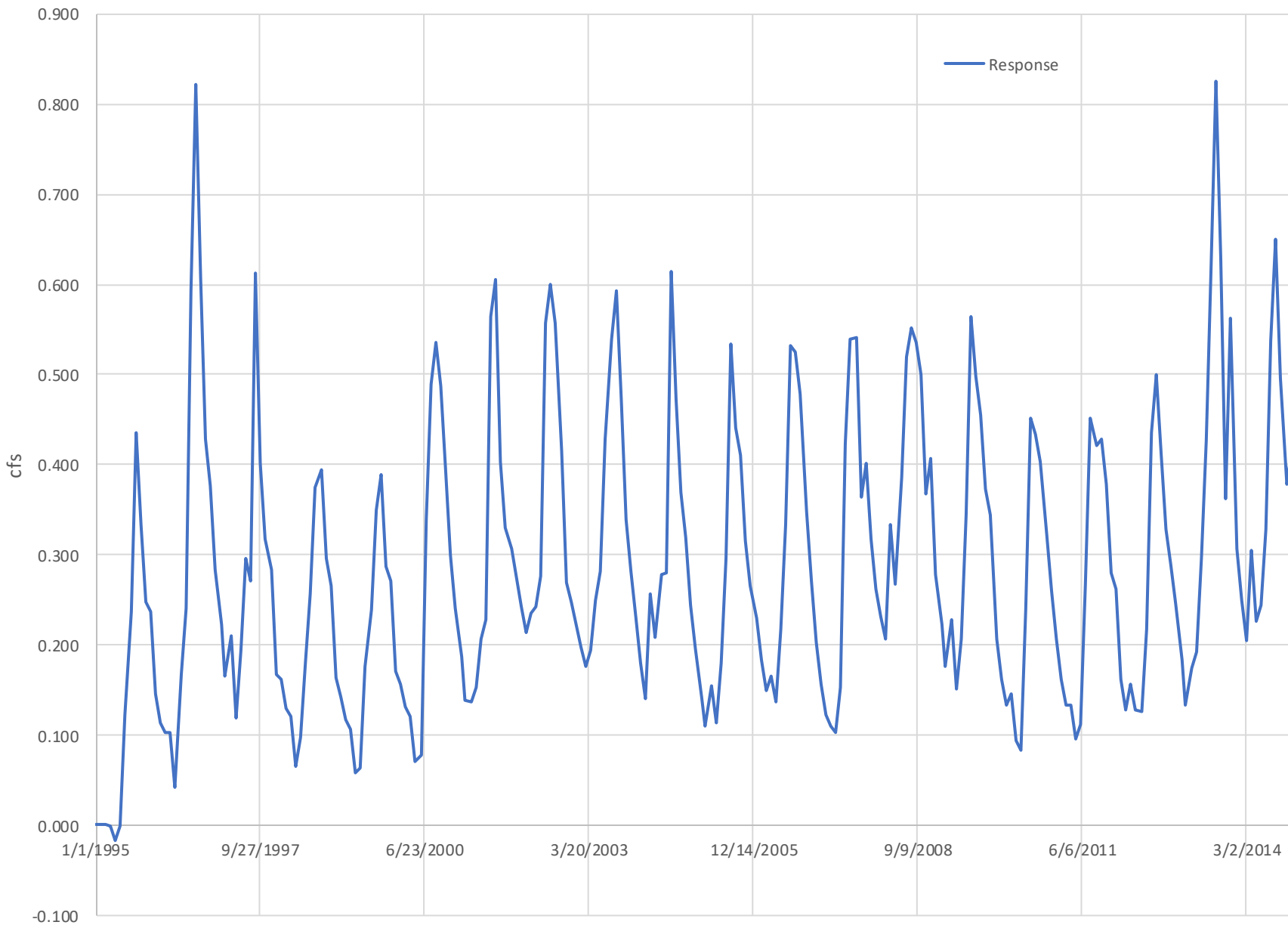
Change in aquifer stresses and Silver Creek diversions for fallowed acres (10/11/2021 proposal)



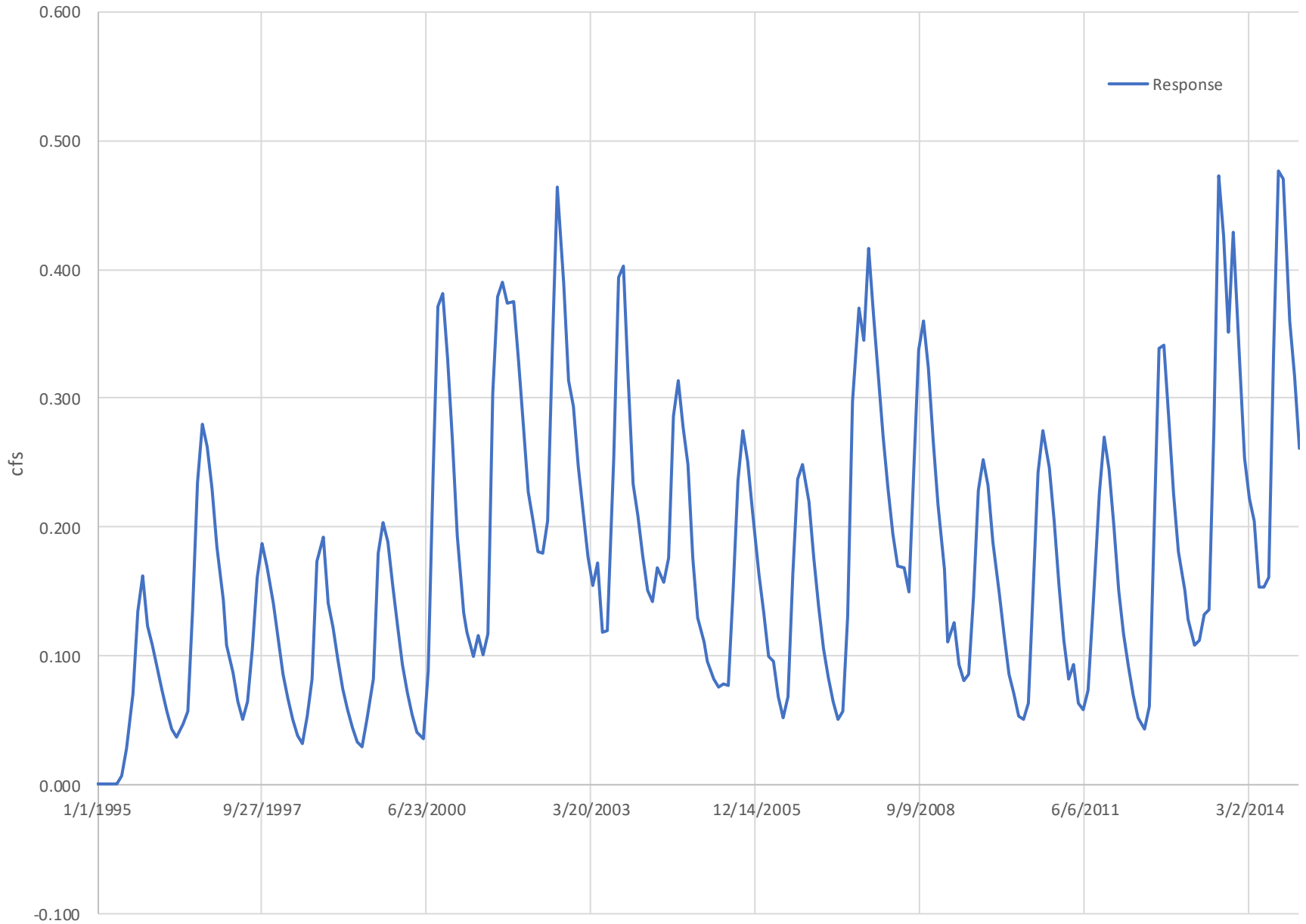
Change in near Ketchum to Hailey reach gain



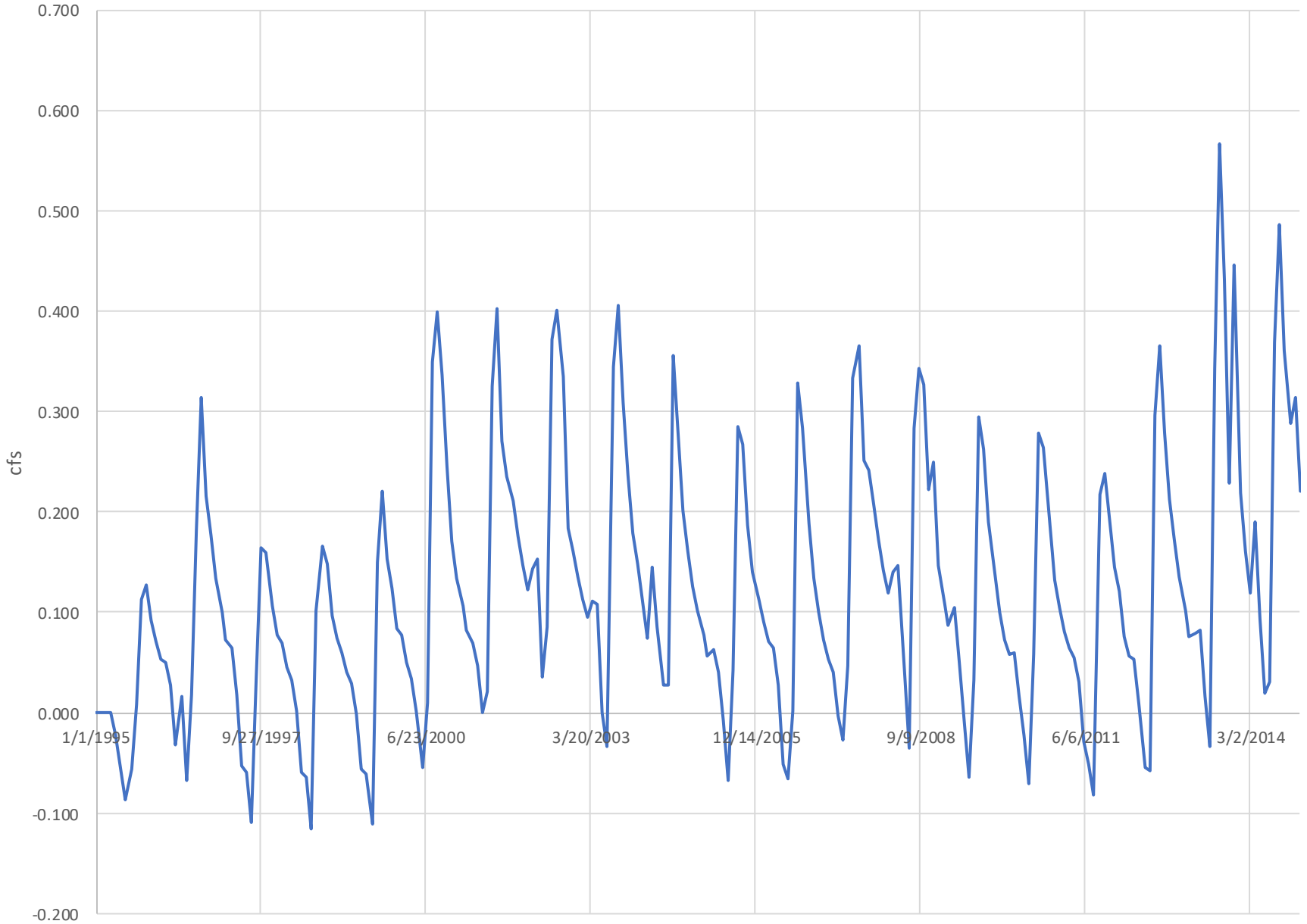
Change in Hailey to Stanton Crossing reach gain



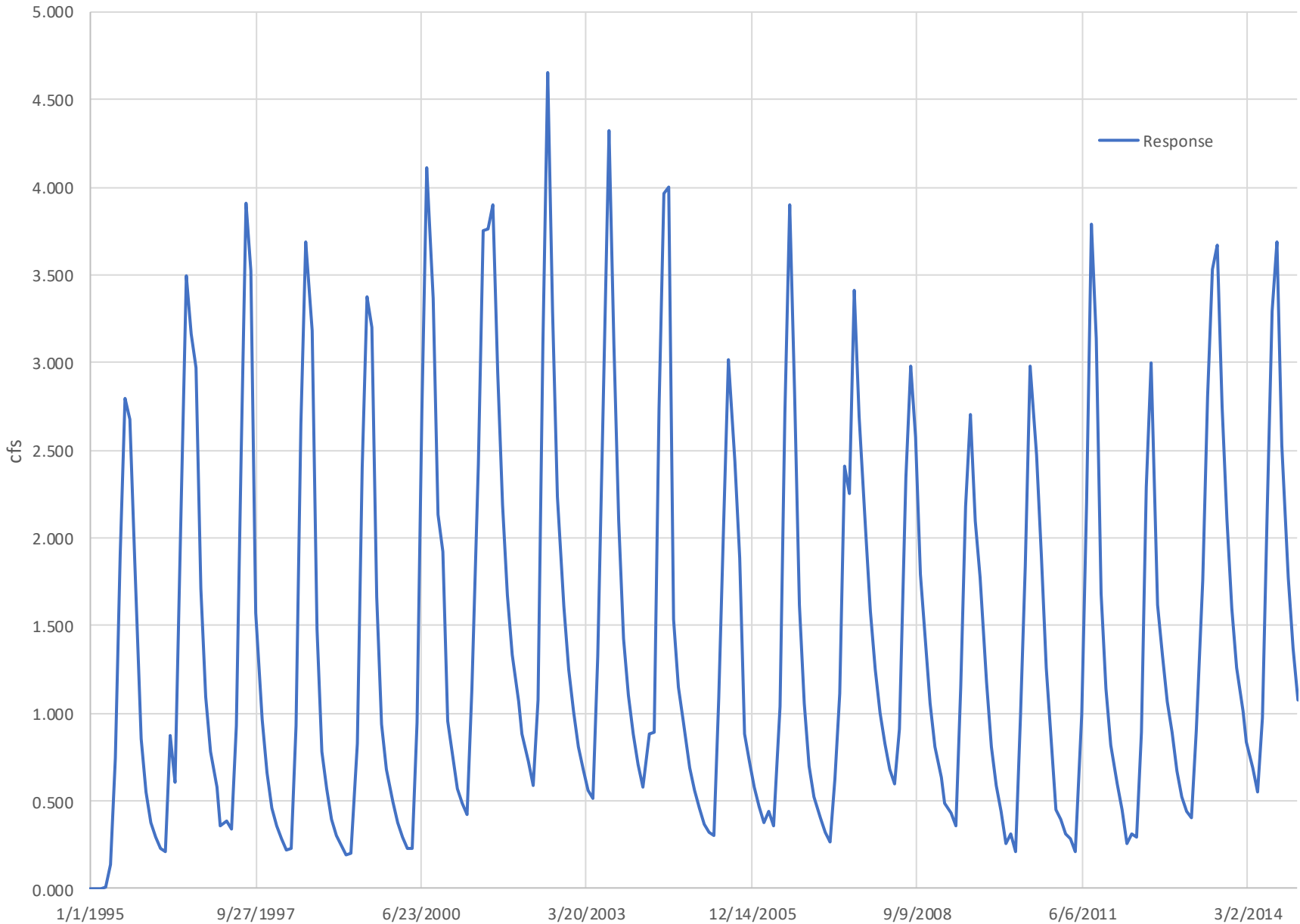
Change in Willow Creek reach gain



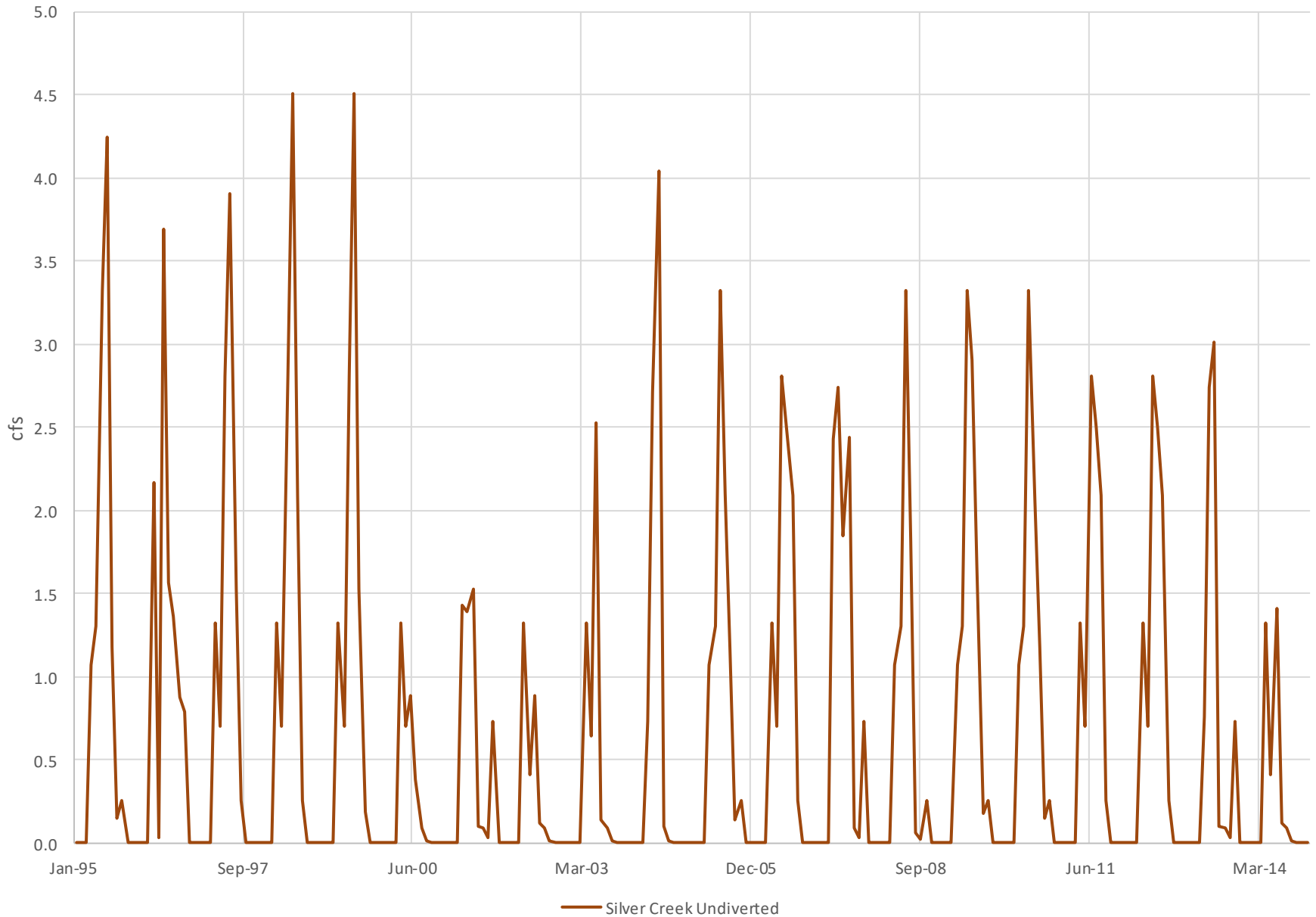
Change in Heart Rock Ranch to Stanton Crossing reach gain



Change in Silver Creek above Sportsman Access reach gain



Direct reduction in Silver Creek diversions for fallowed acres (10/11/2021 proposal)



Cumulative change in aquifer storage

