Re-examining estimates of water storage and use by cannabis cultivation in Northern California

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CALIFORNIA
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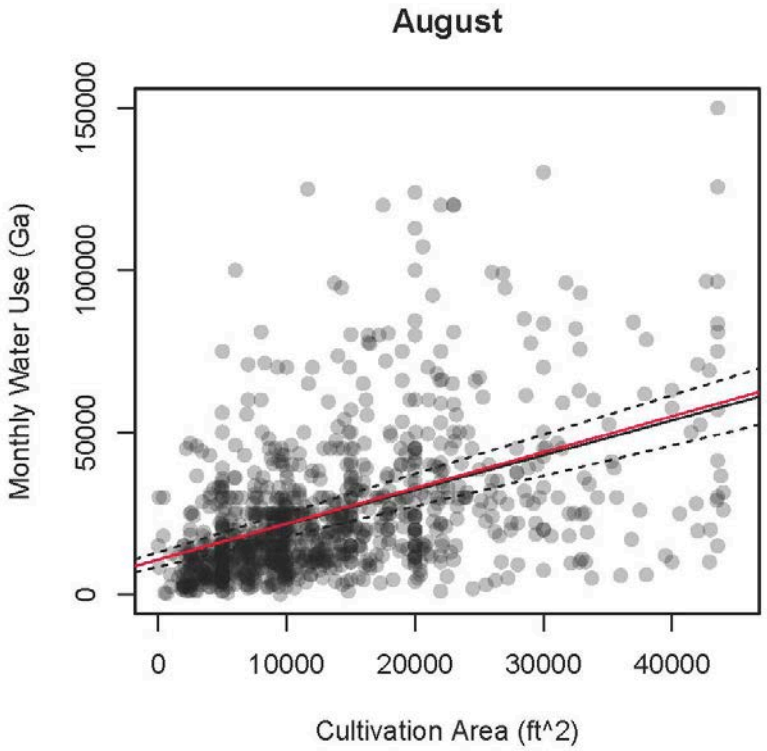
Water Use Rates

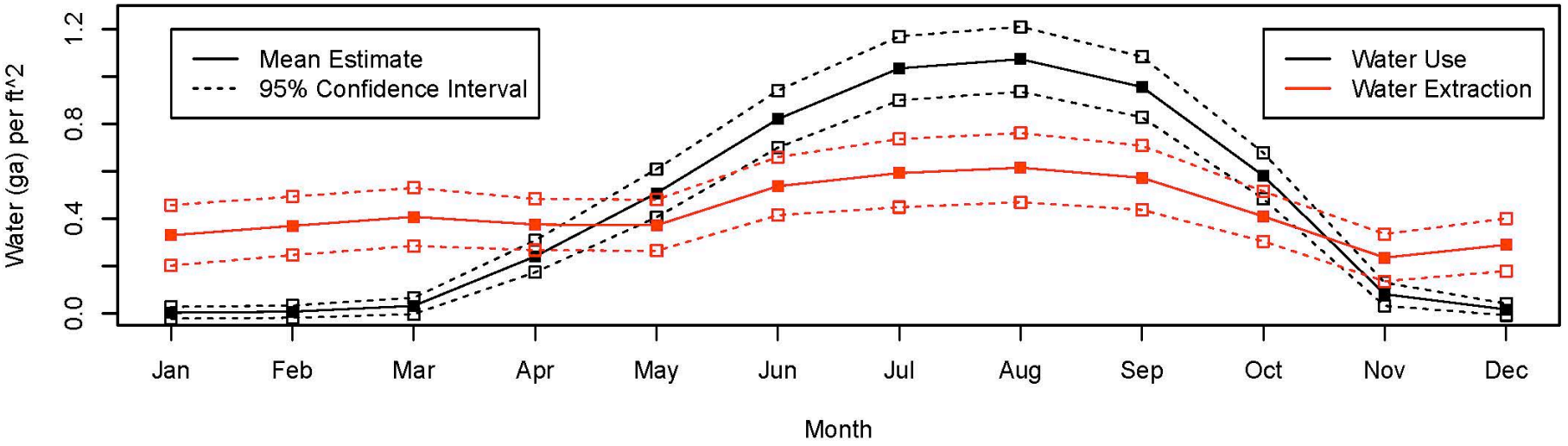
-Variation in amount of water used per month, peaking in August

-Estimate in August was 1.07 gallons per ft^2, which equates to 5.8 gallons per day per plant (163 ft^2)

-Roughly equivalent to expected value of 6 ga/day for a mature cannabis plant (approximately 163 ft^2) in peak growing season



Water Use vs Water Extraction



-"Water extraction" is the combination of input to storage and direct application from source to plants (bypassing storage)

-Water extraction much more steady across months, with rates of roughly half those of water use during peak summer growing season

-Difference in summer months reflects water being applied from storage

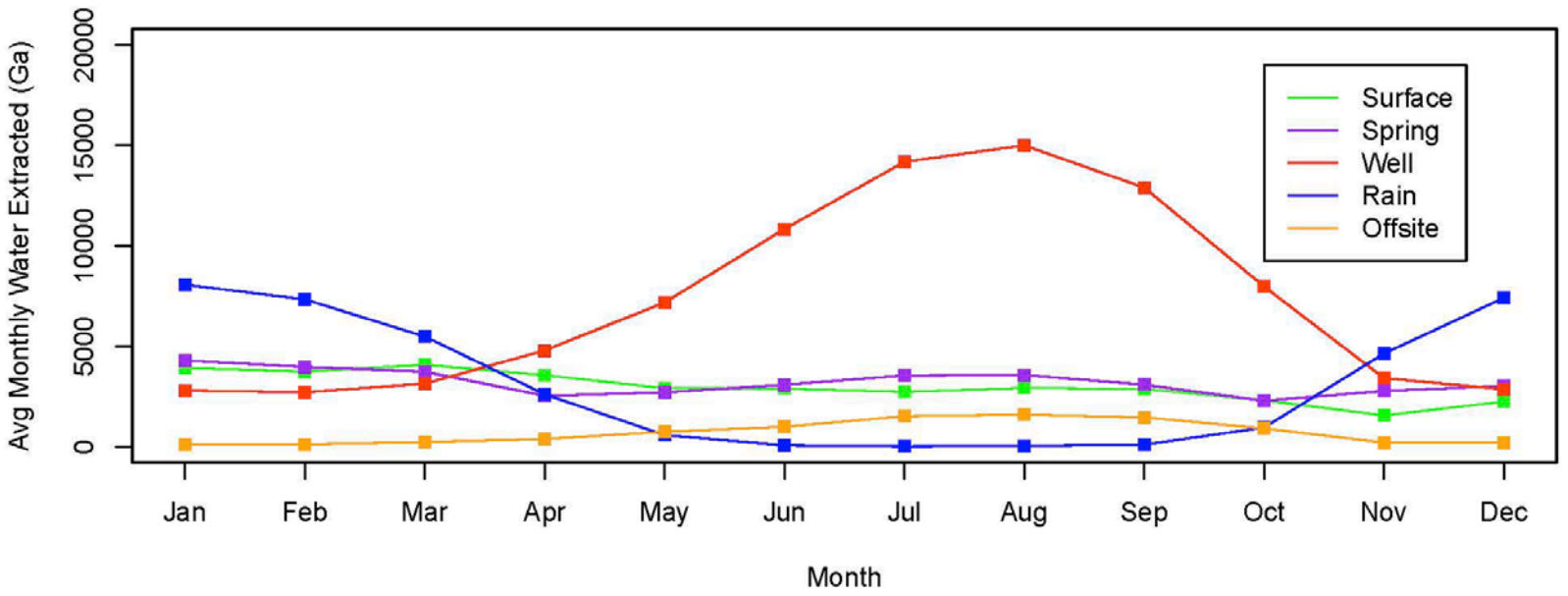
Water Storage Sufficiency

-81% of sites with ponds had enough estimated capacity to store water for use from April through October

-Only 13% of sites without ponds (using tanks and/or water bladders) had sufficient capacity for water use needs during this period

-More than half of sites received at least some proportion of their water from aseasonal sources (wells, delivery, municipal)

Water Sources



-54% of sites used a well, 46% of all water came from wells

-Water input to storage from rain in offseason months

-Substantial increase in well use during summer months

Questions?

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