

The hoop houses are currently equipped with a standard hydroponic/fertigation water system that draws on two shallow wells for its water supply. The system includes three-phase prefiltering to remove sediment and particulates, a 1:100 ratio mixer, and three large storage drums for fertilizer concentrates and pH amendments in each zone. Each zone is also controlled by a dedicated CropKing Growers Choice controller. The shallow wells have a tested pH of exactly 7.0, an EC <1 dS/m, 23ppm nitrate, and an alkalinity of 20ppm. The current flow rate from each well is 200 gallons per hour, which is more than sufficient to supply the entire greenhouse facility. The shallow well water is of high quality for fertigation use and will require little to no pH adjustment. Our goal is to completely eliminate runoff water from overwatering our hydroponic system, but any excess water is collected and recirculated, as detailed in our Wastewater and Water Use Plans section.

Wastewater disposal:

Hoop houses 1-3 have cement paths and heated growing rows filled with rock and drainage pipe, which currently allows for irrigation water to drain into the soil but will be retrofitted to pump to our capture and recirculation tank. Hoop houses 4 and 5 feature a robust drainage system that captures and reuses all fertigation waste and runoff water utilizing the same tank. As mentioned in Environmental Plan Example 1, we will be growing cannabis in coconut coir with a 45% WHC (Water Holding Capacity) and plan to minimize—and even eliminate—overwatering, which results in nutrient runoff from pots. In the event of runoff, however, this recapture tank will allow us to ensure no nutrient waste escapes from our facility and is, instead, recirculated to be used by plants either indoors or in the field during the growing season.

This water has been used by the existing owners for 30 years for similar purposes with no adverse effects.

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