Here are some things people can do to reduce their water footprint and make their irrigation system work more efficiently. Most homeowners massively over water their plants, double, triple or even quadruple the amount of water their plants actually need.

1. Lawns: Make sure your valves have a pressure regulator on each line. Lawn sprinklers cannot handle more than 30 psi. If your water pressure is too high, then the water will mist out of the sprinklers and the majority of the water will not reach your lawn but will mist into the air and be carried away by the wind.

2. Lawns: Switch out the old sprinkler nozzles on your lawn sprinklers with water efficient nozzles. I like MP Rotators personally. The water comes out much more slowly and in heavier water droplets which fall to the grass. You do have to the increase the time you run the MP rotators as much less water comes out per minute but the water is more effective so you end up using much less water. For clay soils, it's much better to run slower and longer so the water has a chance to be absorbed and not run off. Cal Water is running a free voucher program that allows you to get water efficient Toro Spray precision nozzles which use 20-30% less water than regular nozzles. You need to know the arc and distance for each sprinkler head in your system before you take your voucher into the irrigation store. You can find out more information about their program on their website calwater.com.

3. Lawns: Water your lawn between the hours of midnight and 4 am.

4. Lawns: Reduce the length of time your sprinklers run. Stick a screwdriver in the soil. If you can easily push it in 3", your lawn does not need watering. Wait a few days. The Urban Farmer Store has created a monthly watering schedule for Portola Valley. It is posted on the website. The schedule says that for example, during May in clay soil, sprinklers should run every 2 days, for three 6-minute cycles. MP rotators should run every 2 days for three 21-minute cycles. Rotors should run every 2 days for three 21-minute cycles. You can also always run the time for less than these times…

5. Lawns: Decide if you really need a lawn. If you only walk on it to mow it, consider removing it. Calwater/Bawsca offers $1/sf of lawn to remove it in the Lawn Be Gone program (bawsca.org/conservation/lawn-be-gone/) Yellow is the new green!

6. DRIP: be sure you have a filter and a pressure regulator for each valve.

7. DRIP: never combine drip with microsprays on the same line.

8. Drip: avoid the use of microsprays in general, particularly in clay soils. The water comes out at a very high rate, that is not efficient and is too high for clay soils to absorb. The result is the water just runs off and never reaches your plants.

9. DRIP: run a grid on all side of your plants to cover 100% of the soil around densely planted areas OR use point source individual emitters for each plant. For individual emitters, run a drip line on either side of the plants and provide an emitter on each side. Use 0.5 gph (gallons per hour) emitters for clay and clay/loam soil. Check resources online for amount of water needed by the type of plant and the hydrozone.

10. DRIP: As the plants grow, move the point source emitters out to ¾ of the distance of the drip line (drip line is the outside edge of the branches). Do not leave the emitters right next to the stem or trunk after the first month or so. Otherwise, you will just get crown rot. Plants absorb water at their micro-root edge at their drip line (where the branches spread out to), not at trunk/stem. You will need to adjust the emitter locations every few years as your plants grow bigger.

11. DRIP: reduce timer by 10%, observe plants for a couple of weeks. If doing fine, reduce water another 10% and observe, repeat until the plants show water stress. E.g. if you water 10 minutes, reduce to 8 minutes.

12. DRIP: if you have clay soil, cycle and soak. For trees and shrubs, for example from the Urban Farmer Store Watering Schedule for PV: in clay soil, in May; for regular to high water use ornamental plants, water every 6 days for four cycles of 29 minutes each. Check online resources to determine the best timing and type of emitters for your particular plant and hydrozone.

13. DRIP: don't put too many emitters on each valve. Know the capacity of the valve and the water pressure on the line to determine how many emitters you can control with each valve. Typical might be no more than 480 emitters (0.5 gph) for a 240 gph capacity valve.

14. DRIP: make sure each line services only one type of irrigation hydrozone (e.g. all moderate water plants in sun or all low water plants in shade, etc.).

15. DRIP: don't mix trees and shrubs on the same drip line because trees need very deep infrequent watering while shrubs tend to need a more frequent watering. Check the specific type of plant, though.

16. MULCH: spread 2-3" of mulch everywhere on your property on top of the drip system. Do not place the mulch directly against the plant stem. Leave about 6" open around each plant. Mulch helps retain moisture in the soil. Leave a few spots bare around your property so ground nesting bees can get to the soil.

17. Get help from a Certified Water Manager to do a water audit and/or to adjust your irrigation system. Try the CLCA.org – California Landscape Contractors' Association – for referrals for certified water managers.

18. Find out how many gallons you are currently using monthly by going to Calwater.com and creating an online account to check your monthly usage. Under account services, you can find your 3 year usage history. Remember 1 CCF – 748 gallons. Compare winter to summer values to figure out how much water is landscape water vs. indoor water (assuming you turn off your irrigation during the winter…)

19. Purchase a smart water controller. Cal water offers a rebate program for a new smart controller OR for the additional water sensor accessories to outfit an older controller.

20. Use drought tolerant California native plants. Once established, they need little to no summer water.