

“The Volume Based Audit”

Project or Residence Name: _____

To conduct the “Volume Based Audit”, you need to know the flow rate per minute when each of your irrigation system’s valves is open. Once you know the flow rate, you simply need to find out how many minutes and the number of days per week the timer is scheduled to open each valve. From this you can estimate how much water is used to irrigate each month.

Setting Up:

1. Make sure there are no other uses of water occurring at the project site during this time.
2. Locate your irrigation system’s time clock and determine how to manually turn one valve/zone on at a time.
3. Locate your project’s water meter and determine if it is measured in gallons or cubic feet. (This worksheet is assuming cubic feet).
4. Make sure the meter is not turning. If the meter is turning, this indicates there is a leak somewhere or something is using water, like the evaporative cooler and this will skew the results.

Taking Measurements:

5. Write down the volume observed on the meter in Row A on the following worksheet. For this test, you will want to focus on the smallest units measured. This will typically be the last two numbers on the “odometer” and the position of sweep hand. (See “How to Read Your Meter”).
6. At this point you are ready to run the irrigation system. If it is a drip system you will want to run it for at least 15 minutes. If it is a spray system, where the flow rate is higher, 5 minutes will be fine. Write down how long you ran the irrigation system in row B. (Note: The math will be easier if you do this in whole minutes). While the system is running you should take the time to check the irrigation system for any problems
7. Once you have finished running the irrigation system. Return to the meter and write down the volume in Row C. This value will also be the starting volume for the next valve if you do not run any water between readings.
8. Return to the irrigation time clock and determine how many minutes you have set the irrigation clock to run this valve or zone and write this in Row D. Write the number of days per week this valve is scheduled to open in Row E.
9. Once you have finished measuring the flow rates and determined the clock settings you can then finish the calculation on the worksheet.
10. **Repeat steps 5 through 9** until all of the valves/zones have been run. (There is only space for four valves). Additional copies of the worksheet should be made if the system has more than four valves.