



# Irrigation Steward

The main responsibility of the Irrigation Steward is to monitor the irrigation system and troubleshoot issues as they arise. This includes helping prepare the system in the spring; performing twice-per-month tests of the system; responding to gardener inquiries; and making light repairs. If you are unable to complete your responsibilities, please contact the WCG Garden Manager for assistance.

## How Drip Irrigation Works

Drip irrigation efficiently applies water where you want it – the deep root zone of your vegetables – instead of watering soil surfaces that readily evaporate, encourage shallow root systems, and germinate more weed seeds. As the drip system slowly saturates the soil, the moisture fans out beneath the surface. While the surface may appear dry, the subsurface receives most of the moisture.

## Preparing the System in the Spring

The main water line is turned on in the spring – usually late April – and the automatic drip system is expected to be operational by mid-May. Your WCG Garden Manager will show you the valve boxes and which “zones” of the garden they control, and will train you on drip irrigation basics and how to make light repairs. The system operates under low pressure through a pressure reducer and filter, and the fittings are conveniently hand-fitted with a few simple tools and without any adhesives.

To prepare the system, the filters should be cleaned and all drip lines should be flushed by running the system for a few minutes with the end caps removed. Then all fittings should be tightened and the system should be tested. Leaks are then marked with a blue flag for repair using parts from the shed.

## Responding to Gardner Inquiries and Regularly Testing the System

You are responsible for responding to gardener inquiries about the irrigation system, and making light repairs with the parts from the shed. The WCG Garden Manager will verify your work and also handle any major repairs that require significant time, labor, or expertise.

Please be aware that many gardeners often assume there must be a problem with the irrigation system if their plants look stressed. However, plant stress caused by pests and diseases can appear similar to inadequate water. To rule out irrigation as a cause, you should check the subsurface moisture a few inches down in garden plots within your irrigation zone.

If the subsurface is moist, irrigation is not likely the problem. However, if you find dry subsurfaces, you should manually turn on the system and look (and listen) for water leaks elsewhere in the irrigation zone. Signs of leaks include muddy soil, soggy pathways, “bathtub” mineral deposit rings on plots, moss growth, etc. Additional causes of dry soils may include loose fittings, shut-off valves that are not fully ‘on,’ clogged filters, malfunctioning timers or dead batteries. In addition to responding to gardener inquiries, you should visit the garden twice per month and check for issues in the same fashion.

## Seasonal Watering Schedules

The WCG Garden Manager will establish watering schedules and set each automatic timer, usually to provide 2-4” of water per week. Each irrigation zone is then watered automatically, with the schedule depending on the soil composition, climactic conditions, and seasonal needs of your garden. In early spring, cool temperatures and abundant spring rains provide most watering needs, with hand watering occasionally necessary. In May, the automatic system usually operates twice per day, 5-10 minutes per cycle. As seedlings establish themselves in June, the frequency is reduced to once per day, while the duration is increased to 10-20 minutes. During the heat of the summer, the duration is increased to 20-40 minutes. And finally, near the end of the season in September and October, duration is reduced or turned off completely.