Wednesday Water Workshops

Irrigation Systems, Controllers and Watering Schedules

SaveDavisWater.org
Irrigation Systems

• Drought & City Water Supply
• Mandatory Water Waste Restrictions
• City of Davis Parks Department Irrigation
• Questions
• UC Davis Irrigation
• Questions
California Drought

- September 2: City Council calls Stage 3 water shortage, enacts water restrictions
- Water Board Emergency regulations: 28% reduction
  - June 2015—February 2016 compared to 2013
- Jan-Feb 2015: SF residential reduced water use 23%
Mandatory Water Waste Restrictions

• Outdoor watering only 3 days a week:
  – Odd numbered addresses: Tuesday, Thursday and Saturday
  – Even numbered addresses: Wednesday, Friday and Sunday
  – No outdoor watering on Monday

• No watering between 9am – 6pm
  – Hose with a shut off nozzle OK
  – Handheld container OK

• No watering in the rain
Mandatory Water Waste Restrictions

• No excessive water flow or runoff onto pavement, gutters or ditches from irrigation

• No washing off paved surfaces unless necessary for sanitation or safety
  – Hand held bucket
  – Hose with shut-off nozzle
  – Cleaning machine that recycles water
  – Low volume/high pressure water broom

• Property owners must fix leaks immediately or within 72 hours of notification by the City.

• Fountains and water features must have recirculating water
When it comes to water conservation, let's work together to SAVE DAVIS WATER.

DAVIS WATER CONSERVATION
We are in a continued state of severe drought and no one can predict how long it will last. The City of Davis is asking everyone to work together to save for our future. While Davis is in better shape than many other cities and water providers, we still need to do our part. Check out our conservation tips and events to find out how small changes can make a big difference in our community.

WATER ALERT
Click here for more information

E-Letter Sign-up
Stay up to date on the latest Davis community news and events. Let's stay informed together.

Yes, please sign me up for the free Davis E-letter!

Easily reduce your water use.
Get savings tips specific to your household.
Find out how with WATER INSIGHT

Free Yard Signs!

Report leaks and water waste:

WaterSmart@CityofDavis.org
(530) 757-5620
Mike Winger
City of Davis
Irrigation Supervisor
City of Davis Irrigation Controllers

- Total number of controllers – 285
- Smart controllers (w/comm.) – 171 or 60%
- Stand alone (w/o comm.) – 114 or 40%
- With rain sensor – 171 or 60%
- With flow sensor & master valve – 86 or 30%
Flow sensor and master valve assembly
Rain sensor
Rainbird controller
Evolution controller
Calsense controller
Weather station
Controller with communication antenna
Coaches switch on controller
Assorted irrigation nozzles used throughout the city
Overhead watering on island
Once drip system is installed - island watering
Parking lot
Apartment complex
Report water leaks!

Report WATER leaks!

530-757-5620

SaveDavisWater.org
Ways to report water wasting...

Call 530-757-5620 or email

- WaterSmart@cityofdavis.org
- Parksmakelifebetter@cityofdavis.org
- SAVEWATER.ORG
Thank you,

Mike Winger  City of Davis
How to become your own Irrigation Manager

By
Matt Forrest
UC Davis
Grounds and Landscape Services
Irrigation Supervisor
The down and muddy guide to making your irrigation system more efficient

- Getting to know your system
- Tweaking and Tuning
- Programming
- Upgrades
- Conservation
- Conversions
Watching the sprinklers run
Getting what you need to know and know what you have

- Make a list for station numbers that you have
- Run each station for 2-5 min, and observe
- Write down the type and what it is watering
- Write down problems ex: overspray, broken clogged etc.
- Look for leaks- heads or valves or pipes
- Look for pressure issues
- Make a map so you can visually understand it
Springtime Sprinkler Tune-Up Checklist

A checklist to get your automatic sprinkler system up and running again following its winter hibernation.

1. Check the Soil
   Use a shovel to make sure the soil is thawed to a depth of at least 12".

2. Check the Controller
   Clean; check settings and replace the battery back-up.

3. Check for Obstructions
   Remove dirt and debris from sprinkler heads.

4. Check for Wear & Tear
   Replace broken or worn nozzles, valves, pipes, and other components.

5. Check the Valves
   Inspect valves closely to ensure they are functioning properly and there is no leakage.

6. Check for Surge
   Open valve slowly when restoring water to avoid system damage from a water pressure surge.

7. Check Water Pressure
   Make sure the water pressure is within the suggested operating range, typically 40-65 PSI.
Rainbird Homeowner

EVALUATE YOUR EXISTING SYSTEM »
WATER AT THE RIGHT TIME »
DON'T OVERWATER »
USE THE RIGHT PRODUCTS »
KEEP YOUR WATER IN PLACE »
UPDATE YOUR LANDSCAPE »

EVALUATE YOUR EXISTING SYSTEM

1. CONDUCT A SYSTEM INSPECTION.
Conduct a system inspection. Evaluate your system and yard for potential issues to make sure your automatic sprinkler system is ready for another season. Just a few simple steps will go a long way towards saving water and preventing costly fines.

http://25ways.rainbird.com/
Hunter Homeowners guides
Typical layout for irrigation – As Built
Tuning your system for efficiency

- From your observation list make any repairs- get down and muddy and it will pay off
- Reduce overspray and misting- do not throw money in the air
- Make sure sprinklers are hitting target- do not water things that do not grow
- Look for coverage issues- can be fixed with nozzles
- Adjust and clean nozzles and any filters
- Possibly change nozzles for better coverage and efficiency
Hunter irrigation website for information

http://www.hunterindustries.com/
New high efficiency nozzles
MP Rotator studies and links

Sub surface drip systems
Low Precipitation Nozzles

30% higher DU

Standard nozzles 1.78 gpm

Precision Nozzles .84 gpm

Reduce Run off on Sidewalks

Reduce Misting
(water lost to the atmosphere)

20% to 30% less water

Watch these videos
https://www.youtube.com/watch?v=jlDrA3cApqo
http://www.youtube.com/watch?v=TvgxnNxEOyk
http://www.youtube.com/watch?v=C_FwKj3aNv8&feature=relmfu
http://www.youtube.com/watch?v=rfuvObjLeW

Use less water and have a better looking lawn
Now that you know your system-get to know your controller.

- How many stations are active or available
- How many programs
- How many start times
- Type and brand
- Instructions?
## Irrigation Site

**Controller type**

- Pressure Static: 40
- Pressure Dynamic: 18

### Irrigation Check List and Programming Example

<table>
<thead>
<tr>
<th>#</th>
<th>Discription</th>
<th># of Heads</th>
<th>type</th>
<th>plant</th>
<th>exposure</th>
<th>Program #</th>
<th>Minutes</th>
<th>Days</th>
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<td>Fruit Trees</td>
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**Total Heads:** 74

### Program Summaries

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Many irrigation companies have useful guides that can make conversions simple and easy in many applications.
Hyperlinks for videos from different irrigation manufacturers

https://www.youtube.com/watch?v=jtDrA3cApqo
http://www.youtube.com/watch?v=TvgxnNxEOyk
http://www.youtube.com/watch?v=C_FwKj3aNV8&feature=relmfu
http://www.youtube.com/watch?v=-rfuvObgLew
https://www.youtube.com/watch?v=EiMiMWxF8Uk
https://www.youtube.com/watch?v=GIZpsYaBRIU
https://www.youtube.com/watch?v=Imj7CbsOu4k
https://www.youtube.com/watch?v=7taNNhtBbjA
https://www.youtube.com/watch?v=E3M2lRm45i0
If you can implement some of these ideas and take the reins of your irrigation system. You will be able to make it more efficient and it can save you money.

Even if we are in a drought you need to manage your irrigation water, not just turn it off.

Maintenance and management will make your system more sustainable.

Are you your own Irrigation Manager now?
Matt Forrest
Grounds Supervisor
Grounds and Landscape Services
Arboretum and Public Garden
meforrest@ucdavis.edu