

Biz Ed Educational Series

Conserve in the Landscape



March 20, 2014
Front Range Village

PRESENTERS

- Andy Vogel – Water Conservation Technician,
Fort Collins Utilities
- Eric Olson – Water Conservation Coordinator,
Fort Collins Utilities
- Kelly Scholl – Horticulturist, Gardens on Spring Creek /
Fort Collins Utilities

TOPICS

- Controller Settings
 - Small changes can equal big savings
- Nozzle Efficiency Improvement
 - Qualify for a rebate
- Xeriscape



CONTROLLER SETTINGS

- Time and date settings
- Run days
- Start times - early a.m., cycle and soak options
- Run times
- Multiple programs
- Seasonal adjust



CYCLE and SOAK

- A cycle is when the controller waters each zone
- Cycle soak watering is the method of splitting up the water and applying it in two or three applications
- Apply $\frac{1}{4}$ inch of water, complete the cycle, apply the second $\frac{1}{4}$ inch of water
- Cycle soak watering can increase efficiency up to 20% on turf areas

PROGRAMMING



- 1 day a week spring and fall
- 2 days per week most summer
- 2 start times for each watering day
- Program each zone for half of the total run time (cycle and soak)

POTENTIAL SAVINGS

- ClimateWise partner
- Project Goal: To reduce the use of irrigation water
 - Approximately 1 acre of turf
 - Investment = \$0.00
 - 2012 used 2 million gallons
 - 2013 used 600,000 gallons



*local weather patterns drive irrigation demands

NOZZLE EFFICIENCY



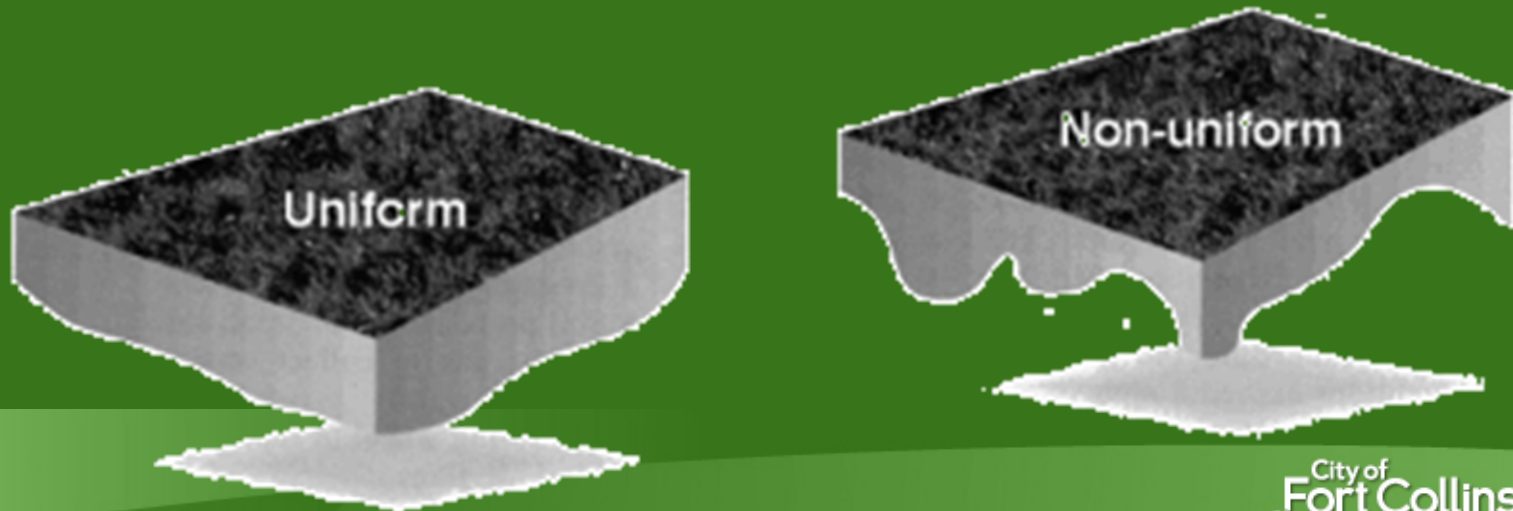
FRONT RANGE SOILS

- Clay soil
- Typically has an infiltration rate of $\frac{1}{4}$ inch per hour
- Sprinkler heads apply water faster than the soil can absorb



PRECIPITATION RATE and DISTRIBUTION UNIFORMITY

- Commonly used terms in water management
- Precipitation Rate (PR) or the rate at which the water is applied, expressed in inches per hour
- Distribution Uniformity (DU) is how evenly the water is being applied to the area



SPRINKLER HEADS

- Rotor heads
 - ½ inch / hour
 - Max. run time = 20 min
- Spray heads
 - 1 ½ inch / hour
 - Max. run time = 8 min



WATER TECHNOLOGY

- New spray nozzles
 - Lower precipitation rates (slower)
 - Higher distribution uniformity
 - Toro Precision, Rainbird HE-VANS
- Rotors
 - Low angle nozzles
 - Multi-jet nozzles
 - MP rotators, K-Rain, Rainbird, Orbit



NOZZLE REBATES

- Multi-jet nozzles
 - Rotor heads
- High-efficiency spray nozzles



MORE REBATES

- Smart controllers
- Pressure reduction
- Soil moisture sensors
- Rain sensors



WHAT IS XERISCAPE?



WHY XERISCAPE?



TAKE HOME

- Check and adjust controller settings
- Upgrade to efficient nozzles
- Xeriscape



QUESTIONS?

Rebates and Controllers

Eric Olson – eolson@fcgov.com, 970-221-6704

Xeriscape

Kelly Scholl – kscholl@fcgov.com, 970-416-2877

Controllers and Residential Audits

Andy Vogel – avogel@fcgov.com, 970-416-2668

Thank you for coming!

RESOURCE INFORMATION

- Additional water conservation resources can be found at fcgov.com/water-efficiency
- Employee engagement challenges are available to view and download at fcgov.com/biz-ed



UPCOMING BIZ ED PROGRAMS

fcgov.com/biz-ed

- **MAX out on Alternative Transportation**
 - June 19, location TBD
 - Are you MAXimizing your transportation opportunities?
Explore alternative transportation and learn about MAX.
- **Create the Optimal Environment**
 - September 18, Powerhouse Energy Campus
 - Explore the leading edge for energy performance of new buildings, technology retrofits and solar PV systems