City of Raleigh
Public Utilities Department

Water Checkup
Procedure Manual

Community Volunteer Edition
A City of Raleigh Public Utilities & AmeriCorps VISTA Project

WORKING TEAM:

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**Materials Needed**

**Forms**
- **Waiver Form.** Get legal advice on the wording of waivers that volunteers must sign before training and that residents must sign before performing water audits.
- **Field Procedures Worksheet.** This is where you record data and calculations before transferring to the Final Report.
- **Final Report.** This should include resident’s address. This sheet will contain information the resident can use to make modifications to the fixtures.

**Safety Equipment**
- Bug spray
- Pepper spray
- Work gloves
- First aid kit

**Supplies**
- Dye or food coloring
- Displacement devices
- Aerators for faucets and showers
- Resident feedback/comment cards
- Shoe Covers

**Tools**
- Flashlight
- Crowbar to lift meter covers
- Multiple head screwdrivers
- Cloth rags (3) and towel (1)
- Calculator
- Adjustable wrench
- Stepstool
- Grease pencil or other waterproof tool
- Timer/stopwatch
- Bucket with gallon measures
- Container with quart or cup measures

**Procedures:**

Upon arrival at residence, immediately find the resident, introduce yourself and explain the purpose of the visit. Let them know that about 20-30 minutes into your visit, you will need them to refrain from using water fixtures for 30 minutes so you can look for water leaks. Also, ask if they would like you to remove your shoes before entering their home. If you have waiver forms have them sign the Waiver Form.

**Water Meter**
First, locate the water meter. This should be near the street on the front of the property. Put on work gloves and pry the lid off the meter with the crowbar. It is a good idea to come prepared with bug repellant and to spray yourself before opening the meter well. Please be very careful of creatures in the meter encasement; mosquitoes, spiders and snakes can all be found in meter wells. Also, new meter readers have a lid that is connected to the water system so be careful not to damage the connection.

Read the meter and record the number on the Field Procedure Worksheet (FPW). There are three important parts of the meter as shown on the diagram below: the odometer, the dial, and the low flow indicator (which can also be displayed as a small red triangle.) The two numbers to record are the odometer and the dial.
numbers. The odometer indicates cubic feet of water used and the dial indicates a portion of a cubic foot. The dial number is recorded as a decimal. For example, the picture below would be recorded as 0.14. If the low flow indicator is making any movement a leak may be present, but the indicator is not always sensitive enough to show small leaks. Leave the lid off as you will read the meter two more times during your visit.

Enter the house. Some people will ask that you remove your shoes. If you do not feel comfortable doing this, then shoe covers will need to be used.

**Toilets**

First, collect data from the toilets. All toilets should be checked close to the same time for the dye to have time to dissolve and drain into the bowl if there is a flapper leak.

When you check the toilets, put a towel down on the closed lid then remove the tank top. Many times there is water clinging to the lid so try to get as much of it on the towel as possible to avoid making a mess. Visually inspect the tank for corrosion and listen for any sounds, such as running water or gurgling. *Any sounds may indicate a leak.*

Measure gallons per flush by first turning off the water supply valve at the bottom of the tank near the wall. Mark the waterline in the tank with a grease pencil and flush. Fill the bucket in one or two gallon increments. For example, if you think it is a newer toilet that uses 1.6 gallons, then fill the bucket to the 2 gallons mark. The number of gallons it takes to fill the tank to the grease mark is the gallons per flush.

You can also measure the inside of the tank, in inches: A. Depth of the Water Level = amount of water used from one flush. If all the water is emptied from the tank in one flush then measure from the bottom of the tank to the water line. If not, then calculate the initial water level and minus the water that remains after one flush to determine your flush volume. B. Length (inside the tank, left to right) C. Width (inside the tank, front to back), you may determine your toilet’s gallons per flush (GPF) with the following equation:

\[
\text{GPF} = \frac{\text{Length} \times \text{Width} \times \text{Water depth}}{231}
\]

After you have made this calculation write your measurements on the Field Procedure Worksheet (FPW). *Turn the water back on and drop the dye into the tank (the water should be very dark) being careful to drop it in near the water line as to avoid water and dye splashing onto the walls.*
Faucets
After you have checked all the toilets, it is time to measure the faucets and showerheads. You can start with the room you are in. There are two ways to do this depending on what equipment you have. If you have a shower flow meter bag, then take the bag and place it over the faucet so that it catches all of the water. Use the stopwatch to count 5 seconds as you turn the water on to full flow and off again. If you feel uncomfortable with your reading, then try again. The bag is marked with gallons per minute (GPM) so there is no need for calculations. Just record the flow on the FPW.

If you do not have a metered bag then, turn the fixture on to its highest flow position, place a container under the fixture and collect the water for 10 seconds. The container can measure either cups or quarts. Measure the quantity of water in the container and convert the measurement to gallons.

Conversion chart: cups and quarts to gallons

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 cups</td>
<td>1 quart</td>
<td>.25 gallons</td>
</tr>
<tr>
<td>6 cups</td>
<td>1.5 quarts</td>
<td>.375 gallons</td>
</tr>
<tr>
<td>8 cups</td>
<td>2 quarts</td>
<td>.5 gallons</td>
</tr>
<tr>
<td>10 cups</td>
<td>2.5 quarts</td>
<td>.625 gallons</td>
</tr>
<tr>
<td>12 cups</td>
<td>3 quarts</td>
<td>.75 gallons</td>
</tr>
<tr>
<td>14 cups</td>
<td>3.5 quarts</td>
<td>.875 gallons</td>
</tr>
<tr>
<td>16 cups</td>
<td>4 quarts</td>
<td>1 gallon</td>
</tr>
</tbody>
</table>

Multiply the measured quantity of water by 6 to calculate the flow rate in gallons per minute (0.25 gal x 6 = 1.5 GPM). Ask the resident if they have a container to collect the water so it may be used for plants or pets instead of putting it down the drain.

Showerheads
Showerhead data collection is very similar to faucets. *Note: Before measuring the water, make sure you know how to operate the shower head.* There are many types of showerheads and mechanisms to turn them on. Some flow out of a lower faucet and need a second mechanism pulled to get water to flow out of the shower head. Finding this out before you test can prevent using more water than necessary and keep you dry. Getting this measurement can be tricky, so it is recommended to use a step stool. If possible, try to get the measurement without stepping into the shower. If it is necessary to put the stepstool in the shower, ask permission first and always be careful to not leave a mess. Record the flow on the FPW. Continue to all the bathrooms to get readings.

Kitchen Faucet
Collect water from the kitchen faucet in the same manner as the others and record that on the FPW.

No Water Use Period
After you have collected all this information, check the water meter outside again and record the number. This will tell you how much water you have used during the checkup. Remind resident(s) not to use any water in the house for the next 30 minutes. Try to complete water calculation during this 30 minutes of no water use.
**Water Heater**

Next, ask to see the water heater. Record the type and capacity of the machine. Show them how to turn down the heat if it is set high. This saves electricity. Ask to see the washing machine. Front load washers only use 20-30 gallons of water. If they do not have one, suggest they consider a front loading washing machine when they are in the market for a new washer.

**Landscaping**

Next, move outside to discuss the water needs of the property. Grass requires much more water than most native and adapted perennial plants, trees, and wildflowers. Discuss mulch to retain soil moisture and drip irrigation for perennials and trees. Warm season grasses recommended for Raleigh are centipede, zoysia and Bermuda grass, which require less watering than other varieties. For efficient watering, use irrigation timers and soil moisture probes. The average homeowner might water more than necessary. The yard only needs to be watered when the grass does not bounce back when it is walked upon.

**Last Water Meter Check**

At the end of the 30 minutes check the meter again, if the dial has not moved, the house is less likely to have leaks. If it has moved, there may be a leak somewhere on the property. Remember it can be a leak you cannot see, possibly under the house or in the yard.

**Calculations**

Refer to the worksheet to figure the average number of gallons per flush for toilets and per minute for flow fixtures.

Add the gallons per flush for each toilet and divide by the number of toilets to get an average. If they all measure the same, you can skip this step and use the rating for one toilet. Multiply by the number of people in the household and then by 5, for the average number of times each individual uses the toilet in one day. For example: a residence has one toilet that uses 4 gpf and one that uses 1.6 per flush and there are 3 people in the home.

**SAMPLE TOILET CALCULATION**

\[
\text{4 gpf toilet} + 1.6 \text{ gpf toilet} = 5.6 \text{ gpf}, \frac{5.6 \text{ gpf}}{2 \text{ toilets}} = 2.8 \text{ gpf average for two toilets}, 2.8 \text{ average} \times 3 \text{ people} = 9 \text{ gallons per person}, 9 \text{ gpp} \times 5 \text{ flushes per day} = 45 \text{ gallons used per day.}
\]

The constants and variables are listed on the Field Procedures Worksheet. These same steps are used for the faucets and showers, except they use 3 minutes total *per person* for hand washing at bathroom faucets, 7 minutes *per person* for showerheads and 5 minutes *per household* at kitchen faucet to get total gallons per day for all flow fixtures.
Final Report

When transferring this information to the Final Report:
1. List individual toilets, faucets and showers by name and number in the far left column.
2. List existing GPF and GPM in the next column in corresponding rows.
3. List the recommended rate in the column beside the existing rate. The recommended rates are listed in a chart on the next page.
4. Write the subtotal for existing and recommended rates in the white row under each category (i.e. toilets, faucets, etc.).
5. Add these numbers and record them in the existing/recommended total line at the bottom of the page.
6. Add existing from GPM and GPF together and recommended from GPM and GPF together and record in the following format E/R.
7. Take recommended water use and divide by existing water use and subtract from 1 to find percent savings.
8. Subtract recommended from existing for potential water savings in gallons per day.
9. Multiply by 365 for saving per year.
10. Write any notes for the home owners, such as a recommendation to switch to WaterSense toilets, low flow showerheads, .5 gpm aerators, leaks detected, etc.

Explain your findings to the resident and discuss water-saving measures. Let the resident know it is possible to switch out the aerators in the bathrooms from the existing one to a .5 gpm, which can save a significant amount of water. Discuss getting any leaks you found fixed.

<table>
<thead>
<tr>
<th>Homes built before 1950</th>
<th>Homes built before 1993</th>
<th>Homes built after 1993</th>
<th>Recommended rates for water flow devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toilet 7 gpf</td>
<td>Toilet 3.5-4.5 gpf</td>
<td>Toilet 1.6 gpf</td>
<td>Toilet 1.28 gpf</td>
</tr>
<tr>
<td>Bathroom faucet 2.5-7 gpm</td>
<td>Bathroom faucet 2.5-7 gpm</td>
<td>Bathroom faucet 2.2 gpm</td>
<td>Bathroom faucet aerator .5 gpm</td>
</tr>
<tr>
<td>Showerhead 3-8 gpm</td>
<td>Showerhead 3-8 gpm</td>
<td>Showerhead 2.5 gpm</td>
<td>Showerhead 1.5 gpm</td>
</tr>
<tr>
<td>Kitchen faucet 2.5-7 gpm</td>
<td>Kitchen faucet 2.5-7 gpm</td>
<td>Kitchen faucet 2.2 gpm</td>
<td>Kitchen faucet aerator 1.5 gpm</td>
</tr>
</tbody>
</table>

Explain that the results are based on national use averages for fixtures and specific daily savings can be greater or less than what was found depending on personal habits. Leave a sheet of water saving tips found in the back of this manual.

*** Before you leave: 1) If you have a release form make sure the resident signs the bottom of the form saying no damage was done to the property; 2) Leave everything as you found it; 3) When leaving rooms, turn off lights; 4) Clean up any spilled water; 5) Make sure water supplies to all toilets’ are turned back on. ***
<table>
<thead>
<tr>
<th>Water Fixture</th>
<th>Procedure</th>
<th>Notes</th>
</tr>
</thead>
</table>
| METER        | CHECK READING – check for red spinner at meter and to see if dial is moving. | READING: ___________  
                          TIME: ___________|
| TOILET       | CHECK FLAPPER AND FLUSH  
                          LOOK FOR ANY LARGE LEAKS OR SOUNDS  
                          GPF- 1. TURN OFF THE WATER INLET VALVE TO THE TOILET.  
                          2. REMOVE THE TOP AND MARK THE WATER HEIGHT 3. FLUSH THE TOILET.  
                          4. REFILL THE TANK (TO YOUR MARK) WITH A GALLON JUG.  
                          PUT DYE DROPS IN TANK (BE CAREFUL), REPLACE TOP. TURN WATER BACK ON!  
                          | GPF: ________  
                          GPF: ________  
                          GPF: ________  
                          Total GPF from above: ________/  
                          Number of toilets: ________ =  
                          Average: Average GPF X Number of People X 5 = Total number of gallons / day |
| BATH LAVATORY| GPM- CALCULATE GALLONS PER MIN BY MEASURING WATER IN CONTAINER AFTER 5 SECONDS  
                          DOES THE PLUG HOLD WATER?  
                          UNDERSINK LEAKS OR CRACKS? | GPM: ________  
                          GPM: ________  
                          GPM: ________  
                          Total GPM from above: ________/  
                          Number of Sinks: ________ =  
                          Average: Sink GPM X Number of People X 3 minutes = Total number of gallons / day |
| SHOWER       | Test shower to see how faucets works before measuring GPM  
                          GPM- CALCULATE GALLONS PER MIN BY MEASURING WATER IN CONTAINER AFTER 5 SECONDS  
                          LEAKS? | GPM: ________  
                          GPM: ________  
                          GPM: ________  
                          Total GPM from above: ________/  
                          Number: ________ =  
                          Average: Shower GPM X Number of People X 7 minutes = Total number of gallons per day |
| KITCHEN SINK | GPM- CALCULATE GALLONS PER MIN BY MEASURING WATER IN CONTAINER AFTER 5 SECONDS  
                          FAUCET, UNDERSINK LEAKS/ CRACKS? | GPM: ________  
                          Sink GPM X 5 minutes = Total number of gallons per day |
| METER        | CHECK READING—no water use for next 30 minutes  
                          ASK OCCUPANTS IF IT IS POSSIBLE FOR THEM TO WAIT TO USE SINKS, WASHING MACHINES, ETC FOR 30 MINUTES.  
                          AFTER PERFORMING LANDSCAPE WATER AUDIT, CHECK WATER METER AGAIN | READING: ___________  
                          TIME: ___________|
| HOT WATER HEATER | CAPACITY AND TYPE  
                          Show them how they can change the temp of the heater. | Capacity:  
                          Type:  
                          Date: Replacement – |
| WASHER       | WASHER Front loading, ENERGY STAR?  
                          YES uses 20-33 gal  
                          NO uses an average of 33 gal, but up to 55 gal | Notes ________ |
| TOILET       | CHECK TO SEE IF THERE IS DYE IN TOILET BOWL |  
| PIPE LEAKS   | CHECK FOR LEAKS IN OTHER AREAS |  
| LANDSCAPE    | CALCULATE WATER NEEDS OF PLANTS AND NOTE ANY IRRIGATION METHODS INSTALLED |  
| METER        | CHECK READING | READING: ___________  
                          TIME: ___________ |
# Water Checkup

## Final Report

![Water Use Pie Chart](Image)

**How Much Water Do We Use?**

| Source: American Water Works Association Research Foundation, Residential Detergents of March 2001 |

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### Name/ Address:  

**Date of Audit:**

---

**Number of people in household**

<table>
<thead>
<tr>
<th>Plumbing Fixtures</th>
<th>Gal per min (GPM)</th>
<th>Gal per flush (GPF)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E</td>
<td>R</td>
<td>E</td>
</tr>
</tbody>
</table>

---

**Totals**

<table>
<thead>
<tr>
<th>Average per flush</th>
<th>Total gpd used E</th>
<th>R</th>
</tr>
</thead>
</table>

---

**Totals**

<table>
<thead>
<tr>
<th>Average per minute flow</th>
<th>Total gpd used E</th>
<th>R</th>
</tr>
</thead>
</table>

---

**Totals**

<table>
<thead>
<tr>
<th>Average per minute flow</th>
<th>Total gpd used E</th>
<th>R</th>
</tr>
</thead>
</table>

---

**Existing/Recommended TOTALS**

<table>
<thead>
<tr>
<th>Percent Savings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day</td>
</tr>
</tbody>
</table>

---

**Projected Water Savings**

E= Existing  R= Recommended

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**Additional Notes:**

*This estimate is based on a daily usage of 5 flushes/ person, 3 minutes total sink/ per person, (1)-7 minute shower/ person and 5 minutes kitchen sink use/ home. Savings are based on recommendations. Electricity usage tend to decrease with the installation of WaterSense fixtures such as aerators and low-flow shower-heads as less hot water is used. Pay careful attention to your power bill for incremental savings.*
How much water does toilet use:
Pre-1950 7.0 gallons per flush (gpf)
1950–1980 5.0 gpf
1980–1994 3.5–4.5 gpf
After 1994 1.6 gpf

Residential
Tier 1 0 to 4 CCF $2.28 per CCF
Tier 2 4 to 10 CCF $3.80 per CCF
Tier 3 10 + CCF $5.07 per CCF

Weatherization Assistance Program
Resources for Seniors, # 919-713-1570
Based on income (Family of 4, limit $44,100)
Services: floor, attic, and wall insulation, weather stripping, sealing and insulating air ducts, installing smart thermostats, heating and air conditioning repairs, replacing energy guzzling refrigerators

Average Indoor Water Use in Raleigh Area

<table>
<thead>
<tr>
<th>People in Home</th>
<th>Gal/Day</th>
<th>Gal/Mo.</th>
<th>Gal Bimonthly</th>
<th>CCF/Mo.</th>
<th>CCF Bimonthly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>65</td>
<td>1950</td>
<td>3900</td>
<td>2.6</td>
<td>5.2</td>
</tr>
<tr>
<td>2</td>
<td>130</td>
<td>3900</td>
<td>7800</td>
<td>5.2</td>
<td>10.4</td>
</tr>
<tr>
<td>3</td>
<td>195</td>
<td>5850</td>
<td>11700</td>
<td>7.8</td>
<td>15.6</td>
</tr>
<tr>
<td>4</td>
<td>260</td>
<td>7800</td>
<td>15600</td>
<td>10.4</td>
<td>20.9</td>
</tr>
<tr>
<td>5</td>
<td>325</td>
<td>9750</td>
<td>19500</td>
<td>13.0</td>
<td>26.1</td>
</tr>
<tr>
<td>6</td>
<td>390</td>
<td>11700</td>
<td>23400</td>
<td>15.6</td>
<td>31.3</td>
</tr>
<tr>
<td>7</td>
<td>455</td>
<td>13650</td>
<td>27300</td>
<td>18.3</td>
<td>36.5</td>
</tr>
<tr>
<td>8</td>
<td>520</td>
<td>15600</td>
<td>31200</td>
<td>20.9</td>
<td>41.7</td>
</tr>
</tbody>
</table>

City of Raleigh Public Utilities Department
Meters/ Billing #919-250-2742
Water Conservation Tips

Kitchen

- When washing dishes, don't let the water run while rinsing. Fill one sink with wash water and one with rinse water.
- Run your washing machine and dishwasher only when they are full and you could save 1000 gallons a month.
- Use the garbage disposal sparingly as disposals waste water and create havoc for your plumbing. Compost your food scraps instead and save gallons every time.
- Throw trimmings and peelings from fruits and vegetables into your yard compost to prevent from using the garbage disposal.
- Wash your produce in the sink or a pan that is partially filled with water instead of running water from the tap.
- Designate one glass for your drinking water each day. This will cut down on the number of times you run your dishwasher.
- When you have ice left in your cup or drop it from the freezer, don't throw it in the trash, dump it on a plant.
- Don't use running water to thaw food.
- Cut back on rinsing if your dishwasher is new. Newer models clean more thoroughly than older ones.
- Soak your pots and pans instead of letting the water run while you scrape them clean.
- Cook food in as little water as possible. This will also retain more of the nutrients.
- Select the proper size pans for cooking. Large pans require more cooking water than may be necessary.
- Turn off the faucet while washing your hands and rinsing dishes.
- Keep a pitcher of water in the refrigerator instead of running the tap for cold drinks, so that every drop goes down you not the drain.

Bathroom

- Turn off the faucet while washing your hands, brushing your teeth, and shaving.
- Keep your showers short or only shower every other day. Install a low-flow showerhead and catch the water in a bucket while you wait for the water to warm up- this water may be used later to water your plants.
- Collect the water you use for rinsing produce and reuse it to water houseplants.
- Put food coloring in your toilet tank. If it seeps into the toilet bowl, you have a leak. It's easy to fix, and you can save more than 600 gallons a month.
- Plug the bathtub before turning the water on, then adjust the temperature as the tub fills up.
- When you are washing your hands, don't let the water run while you lather.
- Don't brush your teeth while in the shower; this wastes several gallons per day.
- Bathe your young children together.
- Teach your children to turn the faucets off tightly after each use.
- Make sure your toilet flapper doesn't stick open after flushing.
- Make sure there are aerators on all of your faucets.
- Install low-flow water devices like a WaterSense labeled toilet.
- Turn the water off while you shampoo and condition your hair, or while shaving, and you can save more than 50 gallons a week.
- If your toilet was installed prior to 1980, place a toilet dam or bottle filled with water in your toilet tank to cut down on the amount of water used for each flush. Be sure these devices do not interfere with operating parts.

Cleaning

- When you clean your fish tank, use the water you've drained on your plants. The water is rich in nitrogen and phosphorus, providing you with a free and effective fertilizer.
- When mopping use a mild phosphate free detergent, when you're done cleaning dilute the mop water and then empty onto plants outside the house. The key here is to use environmentally safe products!
- When you give your pet fresh water, don't throw the old water down the drain. Use it to water your trees or shrubs.
- Bathe your pets outdoors in an area in need of water.
- Drop that tissue in the trash instead of flushing it and save gallons every time.

Laundry

- When doing laundry, match the water level to the size of the load.
- Wash clothes only when you have a full load and save up to 600 gallons each month.
- Get the most wear out of your clothes by utilizing a fabric refreshing spray and only washing full loads of laundry. Minimize the amount of detergent used so that less water is needed to remove the soap.
Around the House

- When you shop for a new appliance, consider one offering cycle and load size adjustments. They are more water and energy-efficient than older appliances.
- Make sure you know where your master water shut-off valve is located. This could save gallons of water and damage to your home if a pipe were to burst.
- Do one thing each day that will save water. Even if savings are small, every drop counts.
- Choose new water-saving appliances, like washing machines that save up to 20 gallons per load.

Hot Water

- Insulate hot water pipes so you don't have to run as much water to get hot water to the faucet.
- Set your water heater at the minimal heat setting, this will reduce your time to get warm water.

Leaks

- We're more likely to notice leaky faucets indoors, don't forget to check outdoor faucets, pipes, and hoses for leaks.
- Designate a day each month to grab a wrench and fix that leaky faucet. It's simple, inexpensive, and can save 140 gallons a week.
- Get your kids to play detective and listen for dripping faucets and toilets that flush themselves. Fixing a leak can save 500 gallons each month.

Outside

- Check your water meter and bill to track your water usage.
- Use a broom instead of a hose to clean your driveway or sidewalk and save 80 gallons of water every time.
- Direct downsprouts and other runoff towards shrubs and trees, or collect and use for your garden.
- Use a commercial car wash that recycles water.
- Don't buy recreational water toys that require a constant flow of water.
- Wash your car on the grass. This will water your lawn at the same time.
- Winterize outdoor spigots when temps dip to 20 degrees F to prevent pipes from bursting or freezing.

Community

- Encourage your friends and neighbors to be part of a water-conscious community.
- While staying in a hotel or even at home, consider reusing your towels.
- Make suggestions to your employer to save water (and dollars) at work.
- Encourage your school system and local government to help develop and promote a water conservation ethic among children and adults.
- Pick-up the phone and report significant water losses from broken pipes, open hydrants and errant sprinklers to the property owner or your water management district.

Lawns and Garden

- Start a compost pile. Using compost when you plant adds water-holding organic matter to the soil.
- Only water your lawn when needed. Simply walk across your lawn. If you leave footprints, it's time to water.
- Landscape with low water trees, plants and groundcovers. Call your local conservation office for more information about these water thrifty plants.
- Follow the City’s permanent conservation measures on when to water your lawn. Mandatory watering times are in the morning and evening for both in-ground and hose-end sprinkler systems.
- Replace water intensive grasses such as fescue with a drought tolerant variety. Combine this with letting your grass grow 3-5 inches before mowing and watering your lawn for longer periods and less frequently will stimulate the roots to grow deeper- maximizing water retention.
- Plant during the spring or fall when the watering requirements are lower.
- Minimize evaporation by watering during the early morning hours, when temperatures are cooler.
- Use a layer of organic mulch around plants to reduce evaporation and save hundreds of gallons of water a year.
- Divide your watering cycle into shorter periods to reduce runoff and allows better absorption when time you water.
- Use the sprinkler for larger areas of grass. Water small patches by hand to avoid waste.
- Install a rain shut-off device on your automatic sprinklers to eliminate unnecessary watering.
- Reduce the amount of grass in your yard by planting shrubs, and ground cover with rock and granite mulching.
- Water your plants deeply but less frequently to create healthier and stronger landscapes.
- Group plants with the same watering needs together to get the most out of your watering time.
- Remember to weed your lawn and garden regularly. Weeds compete with plants for nutrients, light, and water.