WaterSmart Landscaping & Water Reuse Guide

PLANTS & IRRIGATION

It is estimated that over 60% of home water use is for outdoor landscaping. Chula Vista residents can reduce their water consumption and utility bills by switching to native or "California-friendly" plants and installing high efficiency irrigation systems. These WaterSmart landscapes can beautify your property, be easier to maintain, and help attract birds and butterflies!

WaterSmart landscaping usually consists of:

- **Native or "California-friendly" plants** such as Toyon, California Coffeeberry, Cleveland Sage, and California Lilac
- **High-efficiency irrigation systems** such as weather-based controllers, rotating spray-nozzles, and drip lines
- **Permeable paths and mulch** to help absorb and retain soil moisture

Keep reading for more great information!

Learn More:

Here are some resources for information about creating a WaterSmart landscape:

1. The **City of Chula Vista Conservation Section** can assist you. Call a Conservation Associate for free information at (619) 409-3893 or email Conservation@chulavistaca.gov.

2. **Local water districts** offer recommended plant lists, rebates, and water-saving tips. Call your water district for more information.
Sweetwater Authority: (619) 409-6779
Otay Water District: (619) 670-2222

DID YOU KNOW?
Local water districts may have incentives available for converting your turf lawn areas into more WaterSmart landscaping and installing high-efficiency irrigation. For more details, visit **www.socalwatersmart.com**.

3. **Landscape architects** are licensed and university-trained to design outdoor environments, planting, irrigation, and hardscape. They can help with your whole project, or with smaller trouble spots.

4. **Landscape contractors** are trained and licensed in construction, irrigation, and planting.

5. **Landscape or garden designers** have varying degrees of education, but are usually not licensed. They can help with concepts for garden design and plant choices, and often work with a contractor.

6. **Irrigation consultants** and **irrigation supply stores** are a good resource for information on water-efficient products.

7. **Local nurseries** offer useful information in choosing plants and irrigation equipment.

CITY OF CHULA VISTA

nature scape

Low-volume irrigation reduces water use by efficiently delivering water right at the root zone of plants.

Weather-based irrigation controllers can help you manage your water use.

A rotating nozzle is easy to install in existing irrigation systems and reduces the amount of water used by about 20-50%.

Photo courtesy of Garden Retreat Design

Rainwater Harvesting with **Rain Barrels**

Many Chula Vista residents are now collecting rainwater to irrigate their gardens or landscaping. Although rainwater can be captured from many types of surfaces, this guide focuses on harvesting rainwater from rooftops by installing rain barrels. Rainwater harvesting can help reduce residents' water bills and the community's reliance on imported water from outside the region.
A simple rainwater harvesting system usually consists of:

- A rain barrel that is placed on a flat solid surface and connected to gutter downspouts.
- A hose to distribute water from the barrel via gravity to the landscaping or garden area.
- An overflow pipe on the rain barrel is directed away from the house to a safe area in case the barrel reaches its capacity.
- A screen to prevent debris and mosquito breeding.
- Secured lid and brackets to prevent someone from drowning or the barrel from tipping over.
- A label on the barrel designating the water as "non-potable."

WHO CAN INSTALL A RAIN BARREL?

Although there is no formal City permit required for a rain barrel, it is highly advised to work through a trained landscape professional or rain gutter contractor to ensure the proper sizing, placement, and use of a simple rainwater harvesting system.

Learn More:

1. Sign-up for a **free NatureScape workshop**, a City program to help residents learn about sustainable landscaping practices. For more information, visit **www.chulavistaca.gov/clean**.
2. Visit the **Living Coast Discovery Center** to see a rain barrel on display. Visit **www.thelivingcoast.org** for garden details.
3. **Make your own rain barrel** out of a 55-gallon plastic drum! Find out how at www.epa.gov/reg3esd1/garden/pdf/make-rainbarrel.pdf.

DID YOU KNOW?
Chula Vista's Environmental Services Section can help you make the ultimate NatureScape by adding composting know-how to the mix! Take composting classes or become a Master Composter.

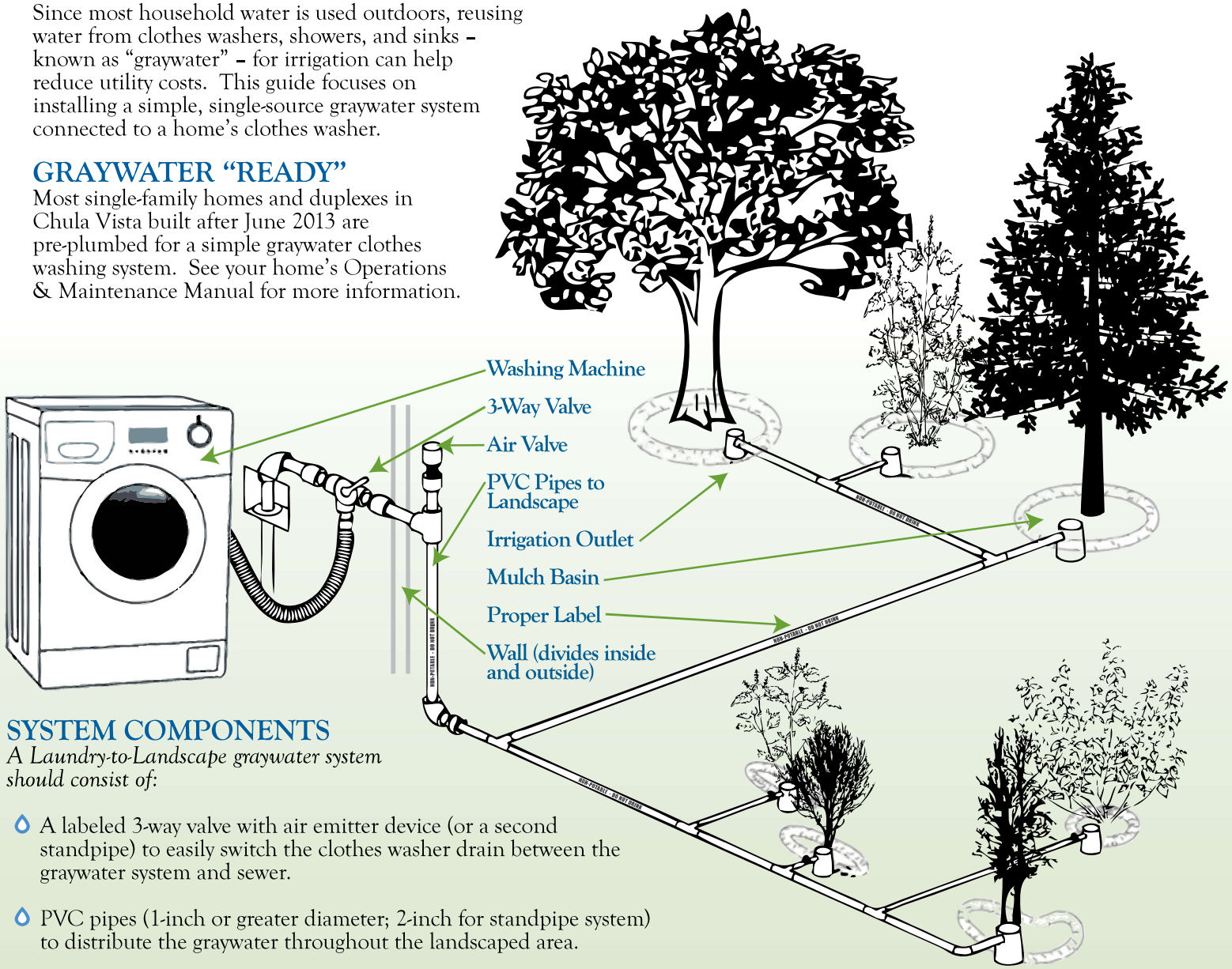
For more details, visit **www.chulavistaca.gov/goto/composting**.

Laundry-to-Landscape:
Graywater Systems

Since most household water is used outdoors, reusing water from clothes washers, showers, and sinks – known as "graywater" – for irrigation can help reduce utility costs. This guide focuses on installing a simple, single-source graywater system connected to a home's clothes washer.

GRAYWATER "READY"

Most single-family homes and duplexes in Chula Vista built after June 2013 are pre-plumbed for a simple graywater clothes washing system. See your home's Operations & Maintenance Manual for more information.



SYSTEM COMPONENTS

A Laundry-to-Landscape graywater system should consist of:

- A labeled 3-way valve with air emitter device (or a second standpipe) to easily switch the clothes washer drain between the graywater system and sewer.
- PVC pipes (1-inch or greater diameter; 2-inch for standpipe system) to distribute the graywater throughout the landscaped area.
- Irrigation outlets to direct the water to specific plants.
- Labels on all pipes designating the water as "Non-Potable – Do Not Drink."

Remember: DO NOT DRINK GRAYWATER!

Before You Get Started

SAFETY

In order to safely and effectively use a Laundry-to-Landscape graywater system, you must make sure that it:

- Does not have a pump nor impacts other parts of the building's plumbing (i.e. no potable water cross-connection).
- Directs the graywater into an irrigation line or mulch basin.
- Has irrigation outlets that are covered by at least two inches of mulch, rock, or soil (or equivalent separation).
- Does not cause ponding or runoff.
- Has minimal contact with people and pets.
- Is not to be used on vegetable gardens.
- Does not contain water from washing dirty diapers, greasy or oily rags, or other hazardous chemicals (biodegradable/phosphate-free laundry detergent recommended).

For complete language on Laundry-to-Landscape graywater system requirements from the California Plumbing Code – Chapter 16A, please visit www.chulavistaca.gov/goto/sustainability.

INSTALLATION

Who can install a single-source graywater system? There is no formal City permit required for installing a single-source graywater system connected to a clothes washer as long as the CA Plumbing Code requirements summarized above are followed.

For more complex graywater systems that incorporate a pump or storage, a municipal permit is required. In either case, it is highly advised to work through a trained landscape professional or licensed contractor to ensure the proper design and installation of a graywater system.

CITY OF CHULA VISTA

Conservation Section, Department of Public Works
276 Fourth Avenue
Chula Vista, CA 91910

conservation@chulavistaca.gov
(619) 409-3893
www.chulavistaca.gov/clean

Learn More:

1. Visit the **San Diego Sustainable Living Institute**'s website for more information on water reuse methods: **http://sdsustainable.org**
2. Sign-up for a **free NatureScape workshop** – a City program to help residents learn about sustainable landscaping practices. For more information, visit **www.chulavistaca.gov/clean**

DID YOU KNOW?
A simple graywater system for a clothes washer can reuse over 7,000 gallons of water annually to help irrigate shrubs, trees, and gardens!

WaterSmart Checklist

CITY OF CHULA VISTA | Public Works Conservation Section

Get Started!

- Please fill out project information.
  This is a tool to help you save water and money, as well as a municipal code requirement.
- Complete the "Required Elements" portion of the checklist. All requirements must be met. Check each box to indicate that your landscape project meets the requirement.
- Select the other elements that apply to your project in each section. Not all elements will be appropriate for your project.
- Verify that the minimum requirements have been met. Make sure you have:
  - completed the project information section.
  - checked all the boxes in the "Required Elements" section.
  - met the minimum requirements for each sub-heading.
  - selected at least 12 checkboxes.
- Get ready for a beautiful, drought-resistant, and low-cost garden!

MAIL completed application to:
City of Chula Vista
Department of Public Works
Conservation Section
276 Fourth Avenue
Chula Vista, CA 91910

or FAX to:
(619) 476-5310

or RETURN to the box at the permit counter.

For help completing this checklist, contact a Conservation Associate at (619) 409-3893.

Para mas información en español, llame al (619) 409-3893.

PROJECT INFORMATION

Name of person completing form: _____ ☐ Homeowner ☐ Contractor ☐ Other (specify): _____

Homeowner name (if different from above): _____

Site address (project site): _____

Phone number: _____ Email address: _____

REQUIRED ELEMENTS (all must be checked)

☐ **Determine the climate type (write below):**

_____

In Chula Vista, east of the I-805 is considered "inland" where climates are genarally warmer and drier, and landscapes use more water. West of I-805 is considered "coastal" where climates are generally cooler and wetter, and landscapes use less water.

☐ **Prohibit water waste.**
Make sure you irrigate efficiently. Runoff to sidewalks and gutters occurs when water does not have a chance to soak into the ground, such as when it is applied at too high a rate, or on a slope. Low-head drainage occurs when an irrigation device continues to spray water after it has been shut off. Overspray occurs when water is applied outside of the intended area, such as on sidewalks.

☐ **Select water-conserving plants.**
Choose plants that are native to Southern California and your climate type. WaterSmart plants will naturally use less water. See the WaterSmart resources on page 1.

☐ **Limit turf to slopes with a grade of less than 25%.**
Steep slopes make it hard for water to soak in, and watering on slopes can cause erosion and runoff. It is best to use low-volume irrigation and drought tolerant plants on slopes.

☐ **Limit turf everywhere.**
Lawns use more water than almost any other type of landscape feature. In landscape areas that are ornamental and not used for access or play, use WaterSmart ground cover, a deck, or permeable paving to reduce the need for irrigation.

DESIGN ELEMENTS (minimum 2)

☐ **Group plants wisely.**
Place thirsty plants together and WaterSmart plants elsewhere. Find the water use requirements for your plant selections by clicking the Landscape Water Management tab at: http://ucanr.org/sites/UrbanHort

☐ **Plant native plants.**
Plants that are native to Southern California are adapted to our climate and use less water than non-natives.

☐ **Install French drains and mulch to eliminate runoff.**
French drains are basically just a ditch or trench filled with gravel or rock to redirect surface water away from an area. These can be used to help capture water and use it in the landscape before it runs off onto the streets or sidewalks.

☐ **Use separate valves.**
Use separate irrigation valves for groups of plants with different water use requirements.

☐ **Do not install traditional spray heads in planting areas less than 8 feet wide.**
Traditional sprinkler heads spray too large of an area for narrow planters. Appropriately-sized sprinkler heads will limit overspray into adjacent areas.

☐ **Install check valves.**
Check valves ensure that devices do not leak after they are shut off by the controller.

☐ **Install master valve and high flow shut-off sensor.**
These devices detect and automatically shut off water if a nozzle or irrigation line breaks.

☐ **Install a weather-based irrigation controller.**
These devices communicate with satellites and collect weather data to automatically customize your irrigation system.

☐ **Install a rain barrel or other rain harvest system.**
Rain barrels capture and/or store rainwater to be used for landscape irrigation.

☐ **Install a code-approved graywater system.**
Graywater systems capture and move wastewater from domestic activities (like laundry) for use in landscape irrigation.

☐ **Install drip irrigation or soaker hoses.**
These are ideal for watering trees, shrubs, and garden beds.

☐ **Install rotating spray nozzles.**
These are a great alternative to traditional spray nozzles used for irrigating lawns and can reduce water use by 20-50%.

☐ **Install synthetic turf.**
Synthetic turf maintains the look of a lawn, but because it is not living, it requires much less water.

☐ **Use re-circulating water in ornamental water features.**
Reusing the same water reduces the need for additional water input.

OPERATION, SUSTAINABILITY, AND MAINTENANCE (minimum 5)

☐ **Program your irrigation controller.**
Use a watering schedule appropriate to the season and your area. Use this free online tool to help you easily reprogram your controller every season to maximize efficiency: www.bewaterwise.com/calculator.html

☐ **Mulch.**
Keep a 3-inch layer of mulch on all exposed soil surfaces to retain moisture, deter weeds, and keep the soil from eroding. Examples of mulch materials include bark, compost, composted manure, grass clippings, newspaper, shredded leaves, straw, rock/gravel, and synthetic varieties.

☐ **Control weeds.**
Weeds steal water needed by desirable plants, house pests, and present fire danger during the dry season. Mulch and weeding are effective ways to limit weeds.

☐ **Get certified as a NatureScape for FREE.**
This is an easy way to get some help making WaterSmart and sustainable landscape choices.

By checking the box above, you indicate that you would like the Conservation Section to contact you with more information about getting your project certified as a "Backyard Habitat" through the City's FREE NatureScape program. You can help create and preserve wildlife habitat and native plant communities.

☐ **Protect soils from compaction during construction.**
Soil is at most risk for compaction when the soil is wet, generally between October and April. If your project occurs during a wetter season, make sure to specify areas that are off limits for cars and heavy equipment. Compact soils cannot absorb water as well and are more likely to have runoff.

☐ **Water at night.**
Watering only in the early morning before 8 am reduces water lost to evaporation during the heat of the day.

☐ **Eliminate chemical use in your garden.**
Use preventative methods like mulch and non-chemical methods (digging out weeds or using beneficial insects for insect control) whenever possible. Choose only the least toxic and least persistent pesticides available. This helps keep gardens safe for people, pets, and wildlife. Plus, more fertilizer means more watering! For more information, visit www.chulavistaca.gov/goto/composting.

☐ **Mow higher and use a mulching or electric mower.**
Set your mower to 2 to 2 1/2 inches for bluegrass, 2 to 3 inches for tall fescue, and 1 inch for Bermuda grass to reduce irrigation needs.

☐ **Aerate compacted soils.**
This is especially important for landscape areas that cannot be protected during constructions projects. Compaction makes it difficult for water to drain and for plants to develop strong root systems.

☐ **Water only plants.**
Adjust your irrigation system to make sure not to water sidewalks, streets, or your house.

☐ **Provide a 2-foot buffer between turf and hardscape.**
A hardscape is simply a surface that water cannot penetrate. Examples of these kinds of surfaces include cement and other paved surfaces.

For help completing this checklist, contact a Conservation Associate at (619) 409-3893.
Para mas información en español, llame al (619) 409-3893.