

WATER RECYCLING SYSTEMS, LLC

318 AVENUE I # 414 REDONDO BEACH, CA 90277
310-463-2634

Thank you for downloading our Residential Gray Water System Quotation information, we appreciate your interest. Additional information and your quote follows, however for ordering and installation we'll need additional details; project drawings, a site plan, our completed Project Questionnaire Form, or in lieu of ...just some photos or a site visit. This more detailed information will allow us to build a system to meet your specific needs. In most cases this information does not impact cost, only the layout of your system.

But first, a little about Water Recycling Systems, LLC, and a few of the clients and projects we've worked on.

Formed in 2007, we are a leading environmental resource company specializing in providing innovative and practical water conservation systems.

Our primary product line is gray water reuse systems. These units filter and disinfect shower, bathtub and laundry water so it can be safely, automatically and legally reused for irrigation and other recycled water uses.

We also design and install rain and storm water capture systems as well as innovative reuse systems using various sources of water supply; streams, lakes, ice machine run off, car wash and various manufacturing processes. Some as stand alone units, others that work in concert with our gray water systems.

We have worked with numerous General Contractors, Architects, Civil Engineers and Design Consultants. A partial sample of specific projects follow:

- **US Government General Services Administration / Marine Design Dynamics - US Marine Corps Project**
- **Fort Point Construction / Integrated Water Services - The Larry Ellison Residence**
- **The City of Santa Monica / EPD Consultants - Pro Craft Construction - The Santa Monica Library Job**
- **Washtenaw County Michigan / Sorensen Gross Construction - The Rolling Hills Water Park Job**
- **The City of Rolling Hills Estates California / Bolton Engineering - Peter Weber Equestrian Center Project**
- **Fitch Design / Burke Construction / The Pirch Jobs at The SoCo Center and The Glendale Galleria**
- **Hensel Phelps / University Mechanical / GSA - The San Ysidro Land Port of Entry Project**
- **The Needles School District / Integrated Water Services - The Big River Elementary School Job**
- **Landry Design Group / Tyler Development - The Tom Brady & Gisele Bundchen Job**
- **VH Construction / Advanced On-Site Wastewater Systems - The Urban Outfitters Job**
- **KAA Architects / Davis Construction / EPD Consultants - The Twilight House Job**
- **PDF Architects / MW Mitchell Construction - The Paul Mitchell Salon School Job**

We have been honored to receive the following awards and recognition:

- 2011 "SEED" Certificate of Recognition for Resource Preservation
- 2010 The City of Costa Mesa Planning Commissions Green Design Award
- 2009 "SEED" Award Winner for Water Conservation
- 2009 Recipient of a California State Assembly Certificate of Recognition

In addition to our websites media gallery be sure to click on the red and blue dot icon at the bottom of the home page under Connect.

Best Regards,

Buzz Boettcher

A MEMO FROM WATER RECYCLING SYSTEMS

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We offer three residential Gray Water Reuse Systems. System size and water processing capacity is determined by the number of full time residents living in the home and the landscape area. The page following the quote contains information on selecting the correct system for your specific needs.

Installation Challenges:

Homes undergoing a remodel or new construction are ideal candidates for our systems. Retro-Fit installations (to an existing home) can be challenging. In a Retro-Fit install, in addition to our system cost there will be the added costs for new plumbing lines to bring the water to our collection basin. Depending on a number of factors new drain lines can cost between \$500 and \$2,500.

Homes built on a concrete slab foundation, those on a raised foundation with limited crawl space access, old cast iron plumbing and multiple stories all increase the degree of difficulty and thus the installation cost. If your home has any of these attributes give us a call so we can discuss your specific challenges and options.

System Components:

Our systems are the highest quality and most durable available anywhere in the world. No plastic injection moulded - ill fitting, "Little Tikes" parts.

We're proud to say the first semi production system we installed in back in early 2009 is still churning away and recycling gray water every day without fail. While we've made numerous improvements, and will continue to do so, our our concept of water filtration, management and fully automatic operation remains unchanged.

With proper care you can expect in excess of fifteen years service and operation.

All parts are certified by NSF, IAPMO, UL or other approval and underwriting agencies. Plumbing lines and fittings are robust Schedule 80 PVC, pumps are commercial grade, either stainless steel or cast iron. Filter housings and collection basins moulded fiberglass and our optional UV disinfection systems are state of the art with flow switch lamp activation to prolong lamp life and disinfection power.

Simply put, we do not compromise on quality and durability.

Return on Investment:

Without doubt, there will be a pay back (ROI) on these systems. The length of time is totally dependent on your local cost of water, the number of occupants in the home producing water to be reused and their 'water habits'.

The more occupants the quicker the pay back.

The following examples are *approximate* pay back periods using current LADWP water rates:

5 - 7 Residents 4.9 years; 3 - 4 Residents 5.8 years; 2 Residents 9.9 years.

Other factors to take into account when contemplating the purchase of one of our systems:

1. Water Rates will only increase.
2. Where 'Tiered' pricing is used you'll remain in the lowest priced Tier 1.
3. Your 'sewage fee' will drop, - rather than put shower and laundry into the sewer, something you are charged for, you're reusing it to irrigate.
4. If irrigation restrictions or water rationing occurs you'll have your own supply on hand.

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WWW.REUSEGRAYWATER.COM

November 14, 2014

Gray Water Recycling System Quote for a Single Family Residence

System Includes:

Gray Water Underground Collection and Distribution Basin

- Fiberglass Basin; Capacity Determined by Dwelling Occupancy and Layout
- Fiberglass Gas and Watertight Basin Lid with Stainless Steel Fasteners
- All Inlet and Outlets connections exit Basin Side Wall through Gas and Water Tight Fittings
- All System Control Floats are Mounted on a Removable Float Tree Assembly

Filtration System

- High Capacity Single Cartridge Debris Filter
- Collection Basin Recirculation Pump System
- Recirculation Pump Automatic On-Off Timer Controls

Irrigation Delivery Pump System

- Irrigation Delivery Pump System
- Irrigation Pump Automatic On-Off Timer Controls

Make Up Water System

- Municipal Water Connection for Uninterrupted Irrigation Water Supply During Vacation and Minimal Gray Water Production Periods
- Low Water Float Switch Activated Solenoid Valve
- Reverse Pressure Back Flow Preventer for Cross Contamination Protection

Central Electrical Control Panel

NEMA 4X Central Control Panel with Electrical Sub Panel and all other System Controls

OPTIONAL EXTRAS

1. Back Flushable Debris Filter with Progressive Filter Media
2. UV Disinfection for Bacteria Eradication
3. High Water Audible and Visual Alarm System
4. Irrigation Pump Pressure Switch System; for Multiple Irrigation Zones

Standard System Specifications

- System pump capacities are based on a residence with less than five feet of site elevation change and components located in close proximity

System Function and Benefits: Shower and laundry water will be diverted from the sewer system to be filtered, disinfected (option 2) and automatically delivered to a drip line network for landscape irrigation.

Water Recycling Systems will provide the following:

- All system components specified above provided in ‘plug and play’ configuration.
- Complete installation instructions and on site installation assistance as needed **.
- All WRS provided plumbing in Schedule 80 PVC.
- Collection Basin Stub out connections for all plumbing and electrical connections.
- Consultation with others to assist in all areas of system installation, function and operation.
- Complete O & M Instruction Manual.
- Permit consulting; see permit section below.

Others to provide the following:

- System installation including all digging, trenching, bedding material, back filling, compacting, plumbing, electrical and irrigation lines and connections.
- Electrical supply at a capacity and location specified by WRS.

Permit Issuance, WRS will provide the following:

- System component ‘cut sheet’ specifications and general system layout.
- Provide ongoing consultation with Architect, Contractor, Building Department and others involved.
- For an additional fee WRS can provide all necessary drawings and calculations done by a Licensed Professional Civil Engineer (PE) and handle the entire permit process.

System Delivery and Terms: Allow four weeks from order to delivery. Quote subject to change. Receipt of deposit locks system cost and all sales are final.

| | | |
|---|--|----------------|
| Total System Cost: | 2 Full Time Occupants: | \$5,998 |
| | 3-4 Full Time Occupants: | \$6,997 |
| | 5-7 Full Time Occupants: | \$8,996 |
| Options: | 1. Back Flushable Debris Filter: | \$ 276 |
| | 2. UV Disinfection System: | \$1,772 |
| | 3. High Water Alarm System: | \$ 576 |
| | 4. Irrigation Pump Pressure System: | \$ 917 |
| Costs Do Not Include Applicable Tax Or Shipping and Delivery | | |
| Payment Terms: 50% with Order, Balance Due on Delivery | | |

Warranty/Guarantee: System is guaranteed to function per WRS literature to filter household shower and laundry water to acceptable standards for automatic sub surface irrigation usage. WRS will replace or repair any defective system component during the first year of operation. Some individual system components also carry manufacturers’ warranties of a longer time period.

Water Recycling Systems, LLC

Contractor - Homeowner

By signing above I certify I have read and understand all the above information including the responsibilities of WRS and “Others”.

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How to Choose the Correct System for your Specific Needs

System size is based on a number of factors, the main one being the number of occupants living in the home. Sizing is based on the fact a 5 to 7 person home will produce more water for reuse than a 3 to 4 person home and likewise for a 2 person dwelling.

However, one thing we've learned is every home has it's own specific attributes and 'one size' does not necessarily fit all.

There are 2 person 'ranch style' homes with far more landscaping and irrigation needs than a 7 person home. Thus, while our sizing guide creates an excellent starting point, one needs to assess the total picture. It is entirely possible that a 5,000 square foot 7 person home built on a small lot with minimal irrigation needs can easily get by with a 2 person system while a 1,000 square foot 2 person home on an acre of land would benefit from one of the larger systems.

Review your homes specific attributes, determine which system size you feel is appropriate and then give us a call to discuss the details.

Irrigating with Recycled Gray Water

To be 'code compliant' with the existing (and ever changing) California Gray Water regulations, irrigation must be done 'sub surface' through a drip line network that is either buried or covered with red wood chips or mulch. Other States may have different code requirements; consult your local Building and/or Health Department for details. While the merits of sub surface verses spray vary among landscape professionals, drip has been gaining popularity rapidly for a number of reasons:

- Drip is more efficient and delivers water and it's nutrients directly to the plant roots
- Overspray and evaporation is eliminated, whether due to wind, faulty sprinkler heads or aerosol drift ...how many times have you seen your neighbors watering the sidewalk, street or driveway.
- Watering can occur at anytime without impacting what's happening on the surface.

There are disadvantages, but they are applicable to spray system as well:

- A poorly designed system won't properly distribute the water as needed.
- A poorly maintained system will not delivered the desired results.
- If you have a existing spray system the cost of installing a drip network can be a deterrent.

What Detergents and Soaps Should Be Used

The debate of what detergent and soap to used (even if you don't have a gray water system) is too long winded for a discussion here. Just don't over use detergents, todays concentrated products require far less soap than you may be used to using. We do know that one of the main ingredients of laundry detergent is Phosphorus and Nitrogen. Likewise, one of the main ingredients of lawn and garden fertilizer is ...Phosphorus and Nitrogen. And please, avoid excessive use of bleach, borax or drain cleaners.

Thanks very much for your interest in our systems and feel free to get in touch anytime.

Best regards,

Buzz Boettcher
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