



Graywater Regulations & Pilot Program Proposal

**Larry Rich
Sustainability Coordinator**

**SUSTAINABLE
LONG BEACH** HISTORIC PAST INNOVATIVE PRESENT SUSTAINABLE FUTURE

Graywater Pilot Project

- Pilot Project Background
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- Pilot Project Proposal
 - Drawing Parameters
 - Program Timeline
 - Application Process
 - Selection Criteria
 - Selected Properties
 - Installation
 - Post-Installation



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Background

- October 19, 2010 - Request to consider “Tubs to Shrubs” Graywater Recycling Pilot Project
- Office of Sustainability worked with the Water Department, Development Services, Health Department and Council Offices to explore a graywater pilot project that would select a small number of households to undertake approved graywater systems
- Assess the water conservation as well as the cost and effort required



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Graywater Background

- California Department of Water Resources created Graywater Regulations in 1997
- SB 1258 (Lowenthal) directed the Department of Housing and Community Development (HCD) to develop new graywater standards for residential properties
- New rules became effective in August 2009, revised in 2010 and incorporated in the CA plumbing code



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Graywater Permits

- One type of graywater system does not require a local permit
 - Clothes washer systems at single and two-family dwellings only
 - “Tubs to Shrubs” or “Laundry to Landscape”
- Anything else still requires a permit
 - Simple System. Up to 250 gpd of discharge
 - Complex System. Over 250 gpd of discharge



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Clothes Washer Systems

- Twelve conditions apply to a clothes washer system:
 - Notification of proposed location/installation (If required)
 - Direction control of the graywater shall be clearly labeled
 - Installation, alteration or repair of system does not include a potable water connection or affect other building components
 - Graywater contained on site where it is generated
 - Graywater directed to/contained within irrigation or disposal field
 - Ponding or runoff is prohibited



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Clothes Washer Systems - continued

- Twelve conditions apply to a clothes washer system:
 - Graywater may be released above the surface provided mulch, rock, or soil shield covers the release point
 - Systems to minimize contact with humans and pets
 - No water used to wash diapers or infectious garments
 - No hazardous chemicals
 - Exemption from construction permit can not violate other codes, laws or ordinances
 - Operation/maintenance manual be provided and remain with the building throughout the life of the system



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Pilot Project Proposal

Long Beach's Graywater System Pilot Project:

- Long Beach homeowners can enter to win the chance of having a new "Laundry to Landscape" Graywater System installed on their property
- Installation would be completed by the Office of Sustainability Green Job Trainees with guidance by professional plumber



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Drawing Parameters

- Eligibility: Owner of a single family residence
- Winners: 36 total winners, four selected from each city council district
- Labor and materials provided at an estimated value of between \$500 and \$1,000



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Program Timeline (Tenative)

Contractor selection	March '11
Announce program	April '11
Application period	April '11 – May '11
Selection of recipients	June '11
Agreements signed	July '11 – September '11
Installations	July '11 – December '11



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Application Process

- Step 1: Online Application
 - Includes brief description of landscape and location of clothes washer and characteristics of property (parameters, square feet etc.)
- Step 2: Drawing of priority list
 - For each district, applicants are randomly drawn and placed in order of priority
 - Contractor and Green Job Trainees visit properties in order they are drawn to assess the suitability
 - Unsuitable properties will be disqualified



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Selection Criteria

- For each district, applications placed into drawing pool and drawn to establish priority list
- Evaluation of application against 12 Graywater conditions
- Home assessment completed by Contractor and Green Job Trainees to assess practicality



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Selection Criteria - continued

- Changes recommended to owners of unsuitable properties
- Disqualified if they cannot / will not meet recommendations
- Qualified applicants placed on standby until assessment period is over



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Selected Properties

- Recommended changes are made
- Applicant signs and accepts agreement
 - Indemnifies City, Office of Sustainability and Water Dept.
 - Reiterates Terms & Conditions
- Plot plan is drawn by Contractor and Green Job Trainees
- Installation plans are made between Contractor, Green Job Trainees and property owner



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Installation Process

- Contractor and Green Job Trainees visit property for pre-installation inspection to establish materials needed and timeline
- Contractor and Green Job Trainees complete installation
- Contractor sends bill for labor and materials to City for review and payment



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Post Installation

- Possible City of Long Beach inspection (Building, Health or Water Departments)
- Program survey for accepted applicants
 - Customers fill out survey to provide feedback on the experience and water savings
 - Water Dept and Office of Sustainability measure water savings, including site visits and monitoring water bills



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Post Installation

- Media Announcements
 - Press release, homeowner recognition at SCC or city council meeting and/or television segment with LBTV
- Information gathered from program to be used to create a 'How To Guide' for Long Beach residents
- Results of program to be used to consider future programs that include more advanced Graywater systems



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