CITY OF MONTEREY APPLICATION FOR GRAYWATER IRRIGATION SYSTEM PERMIT

1. Project Information

<table>
<thead>
<tr>
<th>Application Date:</th>
<th>Assessor’s Parcel Number (APN):</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Project Address:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Applicant/Property Owner Name:</th>
<th>Designer/Contractor Contact Name:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Phone Number:</th>
<th>Phone Number:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Email:</th>
<th>Email:</th>
</tr>
</thead>
</table>

**Occupancy Type:** (choose one)

- [ ] Single Family Residential *(one-two dwellings)*
- [ ] Multi Family Residential *(>two dwellings)*
- [ ] Commercial  
  
  **# of daily occupants:** ________

**Description of Project:**

**Graywater Source:** *(indicate the type and number of fixture(s) to be diverted to graywater irrigation)*

- [ ] Shower(s)  
  
  **#________**
- [ ] Clothes Washer(s)  
  
  **#________**
- [ ] Lavatory *(bathroom sink)*  
  
  **#________**
- [ ] Other: __________________________________________________________________________  
  
  **#________**

**Check All That Apply:**

- [ ] Yes  
  
  No  
  
  This property is served by municipal water/sewer

  **If Yes, name of Water Provider:** ______________________________

- [ ] Yes  
  
  No  
  
  This property contains a well

- [ ] Yes  
  
  No  
  
  This property contains an onsite wastewater treatment system

- [ ] Yes  
  
  No  
  
  This property has high groundwater within 3’ of the soil surface.

- [ ] Yes  
  
  No  
  
  Does the system design include a surge tank or storage of graywater?  
  
  *If Yes,*  
  
  - Attach specifications that describe how the storage tank will automatically empty every 24 hours.
  
  - Attach specifications showing how graywater overflow will be piped to sewer/septic by gravity.

  **Note:** Storage tanks are not recommended. Best management practice is to direct graywater immediately to irrigation field.

**Topography of Area to be Irrigated with Graywater:**

- [ ] Flat
- [ ] Slightly sloped
- [ ] More than 30% slope

---

I certify that I have read and understand the California Plumbing Code requirements for graywater irrigation systems. I understand that if there is a complaint investigation that verifies a violation of the applicable standards, then the property owner will be subject to cost recovery and any fines resulting from the investigation (Calif. Health & Safety Code Section 510).

**Applicant Signature:** ______________________________  
**Date:** ______________________________

**Printed Name:** ______________________________
2. Estimated Daily Graywater Production – Residential Only  
(Attach Calculations for Commercial Projects)

**Calculation Method (choose one)**

- **CPC estimate**

  # of potential occupants: _______ (Assign 2 occupants to master bedroom and 1 occupant to each additional bedroom)

  - Laundry: _______ occupants x 15 gallons/day = ___________ gal/day
  - Shower/sink: _______ occupants x 25 gallons/day = ___________ gal/day

  **TOTAL** ___________ gal/day

- **Estimate of graywater produced from winter (Dec-Feb) water use records** (attach utility bill)

  - Laundry: Avg. water use per month ÷ 30 days _______ (gallons/day) x 0.22 _______ gal/day
  - Shower: Avg. water use per month ÷ 30 days _______ (gallons/day) x 0.17 _______ gal/day
  - Sink: Avg. water use per month ÷ 30 days _______ (gallons/day) x 0.03 _______ gal/day

  **TOTAL** ___________ gal/day

3. Graywater Irrigation Field Area

**Minimum Required Irrigation Field Area:**

\[
\frac{\text{_________ (gal/day)}}{\text{_________ gal/ft}^2/\text{day}} = \text{_________ ft}^2
\]

*From Section 2* 

**Maximum Absorption Capacity**

*Use the table below to find the maximum absorption capacity of your soil*

<table>
<thead>
<tr>
<th>DESIGN OF SIX TYPICAL SOILS</th>
<th>TYPE OF SOIL</th>
<th>MINIMUM SQUARE FEET OF IRRIGATION/LEACHING AREA PER 100 GALLONS OF ESTIMATED GRAY WATER DISCHARGE PER DAY</th>
<th>MAXIMUM ABSORPTION Capacity IN GALLONS PER SQUARE FOOT OF IRRIGATION/LEACHING AREA FOR A 24-HOUR PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coarse sand or gravel</td>
<td>20</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Fine sand</td>
<td>25</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>Sandy loam</td>
<td>40</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Sandy clay</td>
<td>60</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td>Clay with considerable sand or gravel</td>
<td>90</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>Clay with small amounts of sand or gravel</td>
<td>120</td>
<td>0.8</td>
</tr>
</tbody>
</table>

**Total Actual Irrigation Field Area:** ___________ ft²

Example: Irrigation field area of trees and large shrubs can be quantified as circles using the formula \(3.14 \times r^2\)

\[
3.14 \times 5^2 = 78.5\text{ft}^2
\]
4. Graywater Irrigation Method  (Select and complete all that apply to the project)

☐ Gravity to Mulch Basins (Branched Drain)

Total mulch basin surge capacity: _______ gal/day ÷ 7.48 gal/ft³ ÷ 0.80 = _______ ft³

From Section 2

☐ Effluent Pump to Mulch Basins

Make and model of effluent pump (attach specifications): __________________________

Total mulch basin surge capacity: _______ gal/day ÷ 7.48 gal/ft³ ÷ 0.80 = _______ ft³

From Section 2

☐ Drip Irrigation System

Drip emitter flow rate: _______ gal/hour

Total number of drip emitters: _______

Make and model of pump/filtration system (attach specifications): _______________________

Make and model of backflow prevention device (attach specifications): ____________________

☐ Constructed Wetland (1-day retention time)

Total capacity: _______ gal/day ÷ 7.48 gal/ft³ ÷ 0.25 = _______ ft³

From Section 2

5. Graywater Irrigation Plan

Using the attached graph paper (or your own), draw a map and legend of graywater system components that shows the pathway of piping from the fixture(s) inside the building to the landscape/irrigation field. If graywater is directed to the front yard, show the street frontage and your driveway. In your drawing, include the location of all:

- Graywater valves
- Graywater pipes and fittings  
  (indicate material and size)
- Clean-outs
- Pumps and surge tanks  
  (if applicable)
- Graywater outlets and mulch basins
- Backflow prevention  
  (drip irrigation only)
- Setback of graywater outlets to property lines and buildings*
- Setback of graywater outlets to onsite wastewater treatment system tanks and leachfields*  
  (if applicable).
- Setback of graywater outlets to wells and drainages*  
  (if applicable).

*See table below for required setbacks. See the California Plumbing Code for additional notes about setbacks.

CPC Table 1602.4 - LOCATION OF GRAY WATER SYSTEM

<table>
<thead>
<tr>
<th>MINIMUM HORIZONTAL DISTANCE IN CLEAR REQUIRED FROM</th>
<th>SURGE TANK (feet)</th>
<th>SUBSURFACE AND SUBSOIL IRRIGATION FIELD AND MULCH BASIN (feet)</th>
<th>DISPOSAL FIELD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building structures</td>
<td>5</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Property line adjoining private property</td>
<td>5</td>
<td>1.5</td>
<td>5</td>
</tr>
<tr>
<td>Water supply wells</td>
<td>50</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Streams and lakes</td>
<td>50</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Sewage pits or cesspools</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Sewage disposal field</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Septic tank</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>On-site domestic water service line</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Pressurized public water main</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>
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GRAYWATER IRRIGATION FIELD PLAN  Scale = _____” = ______’

APN #____________________    Address:________________________________________

LEGEND:
Example Graywater Irrigation Plan