**1. Project Information**

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| --- | --- |
| **Application Date:** | **Assessor’s Parcel Number (APN):**  |
| **Project Address:** |
| **Applicant/Property Owner Name:**  | **Designer/Contractor Contact Name:** |
| Phone Number:  | Phone Number:  |
| Email: | Email: |
| **Occupancy Type:** *(choose one)*[ ]  Single Family Residential *(one-two dwellings)*  # of potential occupants: \_\_\_\_\_\_ (*# of bedrooms + 1)*[ ]  Multi Family Residential *(>two dwellings)* # of potential occupants: \_\_\_\_\_\_ *(# of bedrooms + 1) x (# of units)*[ ]  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)*

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| --- |
| **Calculation Method** *(choose one)***[ ]  CPC estimate *(****Assign 2 occupants to master bedroom and 1 occupant to each additional bedroom)*Laundry: occupants x 15 gallons/daygal/dayShower/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 0.22gal/dayShower: Avg. water use per month ÷ 30 days (gallons/day) x 0.17gal/daySink: Avg. water use per month ÷ 30 days (gallons/day) x 0.03gal/day ***TOTAL gal/day*** |

**3. Irrigation System Capacity**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Actual Irrigation Field Area: \_\_\_\_\_\_\_\_\_\_\_\_ft2****Minimum Required Irrigation Field Area:**  (gal/day) ÷  gal/ft2/day = **\_\_\_\_\_\_\_\_\_\_\_\_ft2***From Section 2**Maximum Absorption Capacity****\** Minimum Required Irrigation Field Area** *\*Use the table below to find the maximum absorption capacity of your soil*

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

 |

**4. Irrigation Method** *(Select and complete all that apply to the project)*

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| --- |
| **[ ]  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. 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 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).*

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

**CPC Table 1602.4 - LOCATION OF GRAY WATER SYSTEM**

|  |  |  |  |
| --- | --- | --- | --- |
| **MINIMUM HORIZONTAL DISTANCE IN CLEAR REQUIRED FROM**  | **SURGE TANK (feet)**  | **SUBSURFACE AND SUBSOIL IRRIGATION FIELD AND MULCH** **BASIN (feet)**  | **DISPOSAL FIELD**  |
| Building structures | 5 | 2 | 5 |
| Property line adjoining private property  | 5 | 1.5 | 5 |
| Water supply wells | 50 | 100 | 100 |
| Streams and lakes | 50 | 100 | 100 |
| Sewage pits or cesspools  | 5 | 5 | 5 |
| Sewage disposal field | 5 | 4 | 4 |
| Septic tank  | 0 | 5 | 5 |
| On-site domestic water service line  | 5 | 5  | 0 |
| Pressurized public water main | 10 | 10 | 10 |

**GRAYWATER IRRIGATION FIELD PLAN Scale = \_\_\_\_\_” = \_\_\_\_\_\_\_’**

**APN #\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Address:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**LEGEND:**

**Example Graywater Irrigation Plan**

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