

CITY OF ASHLAND



The Permit Process for

INDOOR



GRAY WATER

Applications



Homeowners, businesses have options for Graywater use

Oregonians can now reuse Graywater both inside (for flushing toilets) and outside (for watering landscaping) a home or building.

Graywater is wastewater collected from bathtubs, showers, bathroom sinks, and washing machines for reuse.

In 2008, the Oregon Building Codes Division approved statewide alternate methods (SAM) for using Graywater, or water conservation systems, for flushing toilets in both homes and commercial buildings. These methods apply in every Oregon city and county because Oregon has a statewide building codes system. The Building Codes Division is part of the Department of Consumer and Business Services.

The Building Codes Division has created a [Smart Guide on Water Conservation](#) which is available on our website located at <http://www.ashland.or.us>.

For more information about the DEQ's Graywater permitting program or for permit applications for outdoor Graywater use, go to www.deq.state.or.us/wq/reuse/graywater.htm . Get information on obtaining a permit, select "[How to Get a Graywater Permit](#)."

The City of Ashland Community Development Department provides local permit and inspection services. Graywater connections to the home or business require a plumbing permit, in most cases the cost is under \$100. We are available for over the counter consultations. Please visit our web site at <http://www.ashland.or.us> or contact us:

Plumbing Inspector:
Richard Hackstock
Phone: 541-552-2075 Email:
hackstor@ashland.or.us

Water Conservation:
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Permits for graywater reuse and disposal systems



State of Oregon
Department of
Environmental
Quality

**Water Quality Division
Community and
Program Assistance**

811 SW 6th Avenue
Portland, OR 97204
Phone: 503-229-5696
800-452-4011
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*DEQ is a leader in
restoring, maintaining and
enhancing the quality of
Oregon's air, land and
water.*

Q: What is graywater?

A: Graywater is wastewater that originates from showers, baths, bathroom sinks, kitchen sinks and laundries. It does NOT include toilet water or wastes, garbage wastes, dishwashing wastewater discharge, garbage disposal discharge or wastewater contaminated by soiled diapers.

Graywater may contain a mixture of organic matter, suspended solids, bacteria and common household chemicals that are disposed down the drain during common household activities.

Q: Why is reuse of graywater important?

A: Using graywater for well-defined, accepted uses can help conserve limited water supplies while advancing the ethic of reusing and recycling.

Q: Why do I have to get a permit to use graywater?

A: Oregon law [ORS 454.610 (1)] requires a person to obtain a permit from DEQ to construct, install, or operate a graywater reuse and disposal system.

Q: There are three different graywater permits. Which one do I need?

A: The type of permit (Tier 1, Tier 2 or Tier 3) is based on the size and complexity of your graywater reuse and disposal system.

Tier 1: A graywater reuse and disposal system in a single-family residence or duplex producing less than 300 gallons per day of graywater that is used only for subsurface irrigation would be eligible for a Tier 1 permit. A person obtaining a Tier 1 permit must register their system with DEQ but is not required to submit any documentation.

Tier 2: A graywater reuse and disposal system in a residential, commercial or institutional structure producing less than 1,200 gallons per day would be eligible for a Tier 2 permit. A Tier 2 permit is also required for any system treating graywater to Type 2 standards. Because of the volume or sources of graywater, these systems represent a higher risk to public health and the environment. A person wishing to obtain a Tier 2 permit must submit information to DEQ for review and approval before getting a permit.

Tier 3: A Tier 3 graywater permit is generally for systems producing more than 1,200 gallons per day of graywater or systems that treat and disinfect graywater to Type 3 standards prior to use. Because these systems are potentially large and complex, DEQ will evaluate each system individually and develop site-specific conditions necessary to protect public health and the environment.

Q: What's in the permits?

A: The permits describe management practices necessary to protect public health and the environment. The permits also require the graywater user to monitor and maintain the system and, in some cases, submit an annual report. The Tier 1 (2401) and Tier 2 (2402) permits are general permits. Copies of general permits can be viewed online at <http://www.deq.state.or.us/wq/wqpermit/genpermits.htm>. The Tier 3 permit is an individual permit and will include custom conditions.

Q: How do I apply for a permit?

A: Information on how to apply for a permit is available on DEQ's website at <http://www.deq.state.or.us/wq/reuse/graywater.htm>. To obtain a permit, you must submit a complete permit application with fees and required documentation to DEQ.

Q: Can I apply and pay for a permit with a credit card online?

A: No. You must mail a completed application with a check to the DEQ office indicated on the permit application.

Q: If I want to install a graywater reuse and disposal system, what do I have to do? Do I just contact DEQ, my city or county, or must I contact other state agencies?

A: If you want to reuse graywater, you must complete the following:

- develop a system design plan,
- develop an operations and maintenance manual,
- obtain a plumbing permit from the local city or county, and
- request a graywater reuse and disposal system permit from DEQ.

In some instances, DEQ may need to review and approve the system design plan and other documents. However, for most homeowners, a person may obtain permit coverage by agreeing to follow some simple best management practices and paying a permit fee. With a DEQ permit, a person may then install and operate a graywater reuse and disposal system as described in their system design plan.

Q: How long will it take to get a permit?

A: Once the permit application package is complete, including fees and documentation, it generally takes 30 days to get coverage under a general permit (2401 and 2402) and up to 6 months to get coverage under an individual permit.

Q: I applied for coverage under the 2401 or 2402 general permit and haven't heard anything. How will I know when I am covered under a permit?

A: DEQ will send you a copy of the signed general permit. Information on the cover page of the permit is specific to your system and identifies your coverage under the permit.

Q: What will the permits cost?

A: The permit fees vary based on permit type.

Tier 1 permit: A person applying for a Tier 1 permit must pay \$90, which includes a \$50 new-permit application fee and \$40 annual fee. Except with a new-permit application and in years when the permit is renewed (currently planned on a 5-year cycle), DEQ will waive the \$40 annual fee if an annual report on system operation and maintenance is submitted to DEQ. An annual report form will be available for Tier 1 permit holders on DEQ's website.



Tier 2 permit: A person applying for a Tier 2 permit must initially pay \$584, which includes a one-time fee of \$534 and then a \$50 annual fee. The one-time new-permit fee is necessary to cover DEQ's costs of reviewing and approving the permit. Unlike the Tier 1 permit, a person covered by a Tier 2 permit is required to submit both an annual report and pay the \$50 annual fee.

Tier 3 permit: The costs of a Tier 3 permit vary based on the system's size and complexity and can range from \$613 to \$3,948 for a new permit; annual fees may be \$341 to \$817.

Q: What would happen if I don't have the required permit for a graywater system? Are there penalties if I operate a graywater reuse and disposal system on my property without a permit?

A: Discharging graywater without a permit is a violation of state law. Unpermitted graywater systems may be subject to enforcement action, including the imposing of civil penalties.

Q: If I already have a graywater reuse and disposal system, is that "grandfathered in," or do I need to get a permit?

A: The Oregon Legislature specifically stated that a person may not construct, install or operate a graywater reuse and disposal system without first obtaining a permit from the DEQ. Anyone who may have a previously installed system has to meet all relevant requirements of the new rules and apply for a permit to operate the system.

Q: I have a small business that will be generating very low volumes (approximately 25 gallons per day) from sinks. Can I get a Tier 1 (2401) permit rather than a Tier 2 (2402) permit?

A: No. Under the Oregon Administrative Rules (OAR 340-053), graywater from non-residential structures can only be permitted under a Tier 2 or Tier 3 graywater permit.

Q: If I use graywater only for toilet flushing, do I need to get a permit from DEQ?

A: No. This type of activity may require a plumbing permit or approval from the Oregon Department of Business and Consumer Services, Building Codes Division. A DEQ permit is not required for indoor graywater reuse activities where the water is ultimately discharged to a sanitary sewer or an onsite wastewater treatment system. This includes toilet and urinal flushing as well as reuse in commercial laundries and car washes.

Q: I plan to reuse graywater for irrigation in a greenhouse. Do I need a permit from DEQ?

A: Yes.

Q: I capture graywater in a bucket and use it to water plants in my house. Do I need a permit from DEQ?

A: No.

Q: The 2401 and 2402 permits require submission of an annual report to DEQ by January 15. What information is required and how will I submit it?

A: If you are covered under either the 2401 or 2402 general permits, you will fill out a form that will be available on the DEQ graywater website in the fall of 2012. On the annual report, you will be required to provide the analytical results from any required



monitoring results (2402 only), how graywater was used during the previous year, the months when graywater was used for irrigation, a brief description of maintenance activities, and brief descriptions of any changes to the graywater reuse and disposal system.

Q: What's the difference between graywater reuse and graywater disposal?

A: Graywater reuse refers to a beneficial activity where graywater replaces another water source. An example of graywater reuse is using graywater to replace some of the municipal or well water you normally use for irrigation. Oregon Administrative Rules (OAR 340-053) allow graywater reuse for specific activities only. Graywater disposal is when you send your graywater to the sewer, a septic system, or other DEQ-permitted wastewater disposal system.

Q: I'm building a new sustainable structure. Do I have to connect to the sewer or install a septic system?

A: In general, yes. Since graywater cannot be reused at all times, unless otherwise approved by DEQ in an individual permit, all new and existing graywater reuse and disposal system must be connected to a wastewater disposal system.

Q: My local county has directed me to install a septic system to develop my property. Can I avoid installing a septic system if I use a graywater reuse and disposal system with composting toilets?

A: In most cases, no. The proposed rules require a graywater reuse and disposal system to be connected to an approved onsite (septic) wastewater treatment system.

Q: The rules describe three types of graywater. What are differences?

A: The rules recognize three different types of graywater based on the quality of the graywater.

- Type 1 graywater has received no treatment or has passed through some type of physical process, such as a filter or grease trap, to remove solids, fats, oils, and grease. Because Type 1 graywater is largely untreated, it cannot be stored for more than 24 hours and it may only be used for subsurface irrigation of landscape plants and compost.
- Type 2 graywater has passed through some type of chemical or biological process, such as a wetland, to further reduce the concentration of solids and organic matter in graywater. Type 2 graywater must be tested at least one-time per year to show that total suspended solids (TSS) and 5-day biochemical oxygen demand (BOD-5) concentrations are 10 mg/L or less. Because the organic material in Type 2 graywater has been stabilized, it can be stored for longer periods of time and used in landscape ponds as well as for drip irrigation.
- Type 3 graywater is Type 2 graywater that has also been disinfected. Type 3 graywater must be tested for total coliform bacteria concentrations 3-times per week. Because it has been disinfected to reduce pathogens, Type 3 graywater can be stored for extended periods of time and can be used for the largest number of uses, including but not limited to sprinkler irrigation, dust control, wash water, and various other uses.



Q: What does it mean that graywater can only be used for irrigation when evapotranspiration rates exceed natural precipitation?

A: Graywater can only be used for irrigation when plants need water in excess of that supplied by rainfall. If you would normally turn on a sprinkler to water plants, it is safe to use graywater. Graywater may not be used during the winter or when plants do not need the moisture, particularly if the ground is frozen or saturated. If the ground is frozen or saturated, graywater could potentially move off-site, affect other properties, contaminate surface waters, and create public health hazards.

Q: Can I use my graywater reuse and disposal system in the winter?

A: Graywater can be used for irrigation only when precipitation cannot meet plant water needs. The proposed rules also prohibit graywater discharges to frozen or saturated soils.

Q: Wastewater from my garbage disposal and dishwasher discharge through my kitchen sink plumbing. Are they considered kitchen sink wastewater?

A: No. Wastewater originating from garbage disposals and dishwashers is not defined as graywater and must be routed to a wastewater disposal system, such as a sewer system or onsite septic system.

Q: Can graywater be used to recharge groundwater?

A: Oregon has an anti-degradation policy that emphasizes prevention of groundwater pollution. As a result, any wastewater, including graywater, must be treated to high standards prior to groundwater discharge. Groundwater recharge could only be allowed with a groundwater evaluation and ongoing monitoring.

Q: Can I design my own graywater reuse and disposal system?

A: Yes. The rules allow individual homeowners to design and install their own graywater reuse and disposal systems. However, DEQ recommends that homeowners consult published literature or graywater experts to get the best system design.

Q: How much does a graywater reuse and disposal system cost to construct and install?

A: The costs of a graywater reuse and disposal system can vary widely, based on the system's size and complexity. A basic do-it-yourself system with components purchased from a hardware store could cost less than \$1,000 and in some cases less than \$100. Large, complex systems with graywater treatment and sophisticated irrigation components could cost more than \$10,000.

Q: Are graywater systems primarily for homes?

A: No. Although DEQ expects most systems to be installed in single-family residences, graywater reuse and disposal systems can be installed in commercial (for example, offices), institutional (for example, schools) and other structures.

Q: When I sell my house, do I have to do anything special?

A: When you sell your house, you must declare the graywater reuse and disposal system as an onsite wastewater system and give the new owner documentation on the system, including the system design plan and the operations and maintenance manual.

Q: I'm purchasing a house with a graywater reuse and disposal system. Do I have to get a permit to use the system?



A: Yes. You may use the system only if you obtain a permit from DEQ. Otherwise, you are required to abandon the system by removing the graywater diversion valve and directing all graywater flow to the sewer or onsite septic system.

Q: I've decided to abandon my graywater reuse system. What do I have to do? Can I put a lock on the diversion valve to prevent the system from being used?

A: Placing a lock on the diversion valve is not sufficient. To abandon a graywater reuse and disposal system, you must physically remove the diversion valve and direct all graywater flow to the sewer or onsite system. You will also need to submit a notice of termination form to DEQ. A notice of termination form will be available on the DEQ graywater webpage in the fall of 2012.

Q: Are other states promoting graywater reuse?

A: Yes. California was one of the first states in the nation to adopt a policy encouraging the reuse of graywater. Other western states that currently allow graywater reuse to varying degrees include Arizona, New Mexico, Texas, Utah, Montana, Wyoming and, most recently, Washington.

For more information please contact:

Ron Doughten, Water Quality, 503-229-5472.

Alternative formats

Alternative formats (Braille, large type) of this document can be made available. Contact DEQ's Office of Communications & Outreach, Portland, at (503) 229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696.



**State of Oregon
Building Codes Division
Alternate Method Ruling No. OPSC 08-02**

**APPROVAL OF WASTEWATER CONSERVATION SYSTEMS AS A STATEWIDE
ALTERNATE METHOD OF PROVIDING WATER FOR FLUSHING TOILETS AND
URINALS**

Statewide Alternate Methods are approved by the Division administrator in consultation with the appropriate advisory board. The advisory board's review is limited to the technical and scientific merits of the proposal. In addition:

- *building officials shall approve the use of any material, design or method of construction addressed in a statewide alternate method,*
- *the decision to use a statewide alternate method is at the discretion of the designer,*
- *statewide alternate methods do not limit the authority of the building official to consider other proposed alternate methods encompassing the same subject matter*

Initiated By: The Building Codes Division

APPLICABLE CODE SECTIONS:

None

BACKGROUND:

A wastewater conservation system treats and distributes untreated wastewater that has not come into contact with toilet waste for the purpose of flushing toilets and urinals in single-family residential structures. Water conservation system water is limited to used water from bathtubs, showers, bathroom washbasins, clothes-washers and laundry tubs. This ruling does not include wastewater from kitchen sinks or dishwashers.

Many other states allow wastewater conservation systems under plumbing codes and through alternate methods. Water conservation systems are being installed in California, New Mexico, Arizona, Washington, New York, Massachusetts, Texas, Vermont and Utah.

PROCEDURAL HISTORY:

The division initiated this alternate method ruling as a means of addressing sustainability in Oregon. On June 20, 2008, the division presented a statewide alternate method for plumbing systems that conserve water from certain plumbing fixtures, to the Oregon State Plumbing Board, specifying standards for the design and installation of non-potable water systems. The division has revised the alternate method based on the Board's feedback.

TECHNICAL DISCUSSION:

Under Oregon law, when the division considers making an alternate method ruling on a method of construction, it must consider “standards and interpretations published by the body that promulgates any nationally recognized model code adopted as a specialty code of this state.” ORS 455.060.

The International Code Council (ICC) through its Evaluative Services and in the text of the International Plumbing Code (IPC) recognizes water conservation systems. The IPC indicates that with adequate conditions placed upon installation and use, water conservation systems are effective. In terms of authoritativeness, several ICC model codes form the basis of the state building code in Oregon. Water conservation systems are also listed by the International Association of Plumbing and Mechanical Officials (IAPMO), which promulgates the model plumbing code currently adopted by Oregon.

IAPMO has the following product standard for water conservation systems, IAPMO IGC 207-2006. In addition to this standard by the entity that publishes Oregon’s model codes, another authoritative source, the Canadian Standards Association (CSA) publishes CSA B128.1-2006 as the standard for water conservation systems.

FINDINGS:

As approved by the Oregon State Plumbing Board and the Residential Structures Board, the following scientific and technical facts apply to water conservation systems as an alternate method:

- The acceptable standards for performance and installation of water conservation systems includes IAPMO IGC 207-2006 and CSA B128.1-2006.
- Water conservation systems are being installed in California, New Mexico, Arizona, Washington, New York, Massachusetts, Texas, Vermont and Utah. These states have used codes (including nationally recognized codes standard published by the International Code Council (ICC) and the International Association of Plumbing and Mechanical Officials (IAPMO) as the basis for the installations.
- Approved water conservation systems shall be installed as per the statewide plumbing code, the attached ruling, any ANSI accredited product listing program and the manufacturer’s installation instructions.
- This statewide alternate method ruling 08-02 applies to installation in single-family residential structures, rowhouses and townhouses only.

SCOPE OF RULING:

This ruling addresses water conservation systems for residential use of flushing toilets and urinals. This ruling is limited to used water from bathtubs, showers, bathroom wash basins, clothes-washers and laundry tubs. It does not include wastewater from kitchen sinks or dishwashers. The system shall have no connection to any potable water system. The proper system design, maintenance and use are the responsibility of the building owner. The acceptability of water conservation systems as an alternate method of construction are contingent on construction meeting the following conditions:

1. Except as otherwise provided for in this alternate method, the provisions of the Oregon plumbing code shall be applicable to water conservation installations. The alternate use of water conservation systems are in addition to the other requirements of the Plumbing Code.
2. The type of system shall be listed to the IAPMO IGC 207-2006 or CSA B128.1-2006 standard or be listed by an American National Standards Institute (ANSI) accredited product listing program. The system, except as otherwise approved, shall consist of a holding tank or tanks, pump, and automatic chemical treatment device.
3. All piping and plumbing component materials and products used in the installation of a water conservation system shall be as approved for the specific use in the Oregon Plumbing Code or be listed by any ANSI accredited product listing program.
4. No water conservation system or part thereof shall discharge water outside of the building served unless approved by the Oregon Department of Environmental Quality.
5. System components shall be properly identified as to the manufacturer.
6. Installation shall conform with the equipment and installation methods identified by the manufacturer and product listing.
7. A flow test shall be performed through the system to the point of water conservation use. All lines and components shall be watertight.
8. Holding tanks shall be installed per the manufacturer's installation instructions and listing and shall be secured or anchored against overturning. Holding tanks shall be filled with water to the overflow line prior to and during inspection. All seams and joints shall be left exposed, and the tank shall remain watertight.
9. Each holding tank shall be vented as required by Chapter 9 of the plumbing code and shall have a locking, gasketed access opening or approved equivalent to allow for inspection and cleaning.
10. Each holding tank shall have its rated capacity permanently marked on the unit. In addition, a sign stating WATER CONSERVATION SYSTEM WATER, NON-POTABLE WATER shall be permanently marked on the holding tank. This signage is not required for the toilet tank
11. Each holding tank shall have an overflow drain. The system must be designed so that the tank overflow will gravity drain to the existing sewer line or septic tank. The tank shall be protected against sewer line backflow by a backwater valve. The overflow drains shall have a connection to the building drain or building sewer, upstream of septic tanks, if any. The overflow drain shall not be equipped with a shutoff valve.
12. The overflow drainpipes shall not be less in size than the inlet pipe. The vent size shall be determined based on the total drainage fixture units as outlined in Table 7-5 of the plumbing code. Unions or equally effective fittings shall be provided for all piping connected to the holding tank.
13. Each holding tank shall be structurally designed to withstand all anticipated loads.
14. Holding tanks shall be constructed of solid, durable materials not subject to excessive corrosion or decay both externally and internally by an approved coating or other acceptable means and shall be watertight. Holding tanks shall meet nationally recognized standards for the intended use; be listed by an ANSI accredited listing agency.

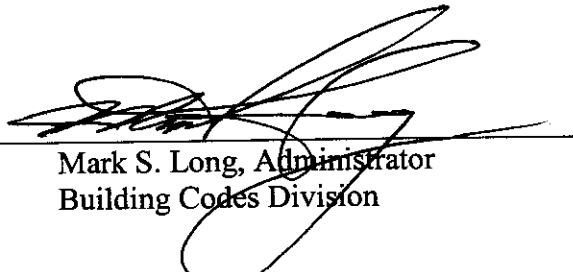
15. Holding tanks constructed of alternate material may be approved by the Municipality, provided they comply with approved applicable standards or are listed by an ANSI accredited listing agency.
16. All water conservation system piping shall be purple in color or be marked by a continuous purple tape, painted purple or be marked with the words NON-POTABLE WATER or with an equivalent international symbol. All valves, shall be accessible. A backwater valve installed pursuant to this code shall be provided on all holding tank drain connections to the sanitary drain or sewer piping.
17. Other collection and distribution systems may be approved by the local Municipality, as allowed by Section 301.0 of the plumbing code and this ruling.
18. Marking on pipe for water conservation systems shall be permanent, distinct, and easily recognizable.
19. All water conservation system piping shall be purple in color or be marked by a continuous purple tape, painted purple or be marked with the words NON-POTABLE WATER or with an equivalent international symbol.
20. Marking on piping shall be repeated at intervals of not more than five feet.



Universal Symbol for Non-Potable Water

CONCLUSION:

After considering the technical and scientific approval by the Oregon State Plumbing Board and the Residential Structures Board, the division rules that water conservation systems are acceptable as a construction method, subject to stated limitations, and Statewide Alternate Method Ruling No. OPSC 08-02 is approved.



Mark S. Long, Administrator
Building Codes Division



Date



City of Ashland

Building Safety Department

Address: 51 Winburn Way, Ashland OR 97520

Phone: 541-488-5305 Fax: 541-488-6006

Web: www.ashland.or.us

PLUMBING PERMIT APPLICATION

Permit #: BD -

Date:

This permit is issued under OAR 918-460-0030. Permits expire if work is not started within 180 days of issuance or if work is suspended for 180 days.

LOCAL GOVERNMENT APPROVAL		
Zoning approval verified?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sanitation approval verified?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
CATEGORY OF CONSTRUCTION		
<input type="checkbox"/> Residential	<input type="checkbox"/> Government	<input type="checkbox"/> Commercial
JOB SITE INFORMATION AND LOCATION		
Job site address:		
City:	State:	ZIP:
Subdivision:	Lot no.:	
DESCRIPTION OF WORK		
PROPERTY OWNER		
Name:		
Address:		
City:	State:	ZIP:
Phone: - -	Fax: - -	
E-mail:		
This property owner installation is being made on residential or farm property owned by me or a member of my immediate family, and is exempt from licensing requirements under OAR 918-695-0020.		
Signature:		
CONTRACTOR INSTALLATION		
Business name:		
Address:		
City:	State:	ZIP:
Phone: - -	Fax: - -	
E-mail:		
CCB license no.:	BCD license no.:	
City of Ashland license no.:		
Print name:		
Signature:		
<input type="checkbox"/> Visa	<input type="checkbox"/> MasterCard	<input type="checkbox"/> Discover
Phone: - -		/
Credit card number		Expiration
Name of cardholder as shown on credit card		\$
Cardholder signature		Amount

FEE SCHEDULE			
Description	Qty.	Cost ea.	Total cost
New residential			
1 bathroom/1 kitchen (includes: first 100 feet of water/sewer lines, hose bibs, ice maker, underfloor low-point drains and rain-drain packages)		\$285	\$
2 bathrooms/1 kitchen		\$345	\$
3 bathrooms/1 kitchen		\$405	\$
Each additional bathroom (over 3)		\$45	\$
Each additional kitchen (over 1)		\$45	\$
Remodel/alteration (minimum fee)		\$40	\$
Each fixture, appurtenance, and piping		\$15	\$
Storm water retention/detention facility		\$45	\$
Irrigation systems		\$15	\$
Piping or private storm drainage systems exceeding the first 100 feet		\$22	\$
Residential fire sprinklers (includes plan review)			
0 to 2,000 square feet		\$200	\$
2,001 to 3,600 square feet		\$263	\$
3,601 to 7,200 square feet		\$317	\$
7,201 square feet and greater		\$373	\$
Manufactured dwelling or pre-fab (circle one)			
Connections to building sewer and water supply - greater than 30 feet		\$50	\$
RV and manufactured dwelling parks			
Base fee (including the first 10 or fewer spaces)		\$150	\$
Each additional 10 spaces		\$100	\$
Commercial, industrial, and dwellings other than one- or two-family; Graywater Systems			
Minimum fee		\$40	\$
Each fixture		\$15	\$
Piping (based on number of feet)		\$N/A	\$
Miscellaneous fees			
Specialty fixtures		\$15	\$
Reinspection (no. of hrs. x fee per hr.)		\$50	\$
Special requested inspections (no. of hrs. x fee per hr.)		\$65	\$
Fee assessed for technical services, when requested by another government entity, ORS 190		\$	\$
Medical gas piping	Minimum fee	\$50	
Enter value of installation and equipment \$ _____.			
Enter fee based on Plumbing Fee Schedule			\$
APPLICANT USE			
(A) Enter subtotal of above fees	\$		
(B) Investigative fee (equal to [A])	\$		
(C) Enter 12% surcharge (.12 x [A+B])	\$		
(D) Plan review (% of [A])	\$		
TOTAL fees and surcharges (A through D):	\$		