



Auxiliary Water Overview

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Austin Water

Auxiliary water is.....

- A water supply from a source other than the City's potable water supply.
- Sources include:
 - Rainwater
 - Graywater
 - A/C Condensate
 - Reclaimed or Recycled water
 - Raw water
 - others

Rainwater harvesting is...

- Capturing, diverting, and storing rainwater for later use
 - Potable applications
 - Landscape irrigation
 - Equipment washing
 - Outdoor fountains and ponds
- Benefits
 - Conserve water
 - Prepare for droughts
 - Improve plant health
 - Reduce stormwater runoff
- System types:
 - Simple, gravity-fed rainbarrel
 - Large-scale, pressurized systems

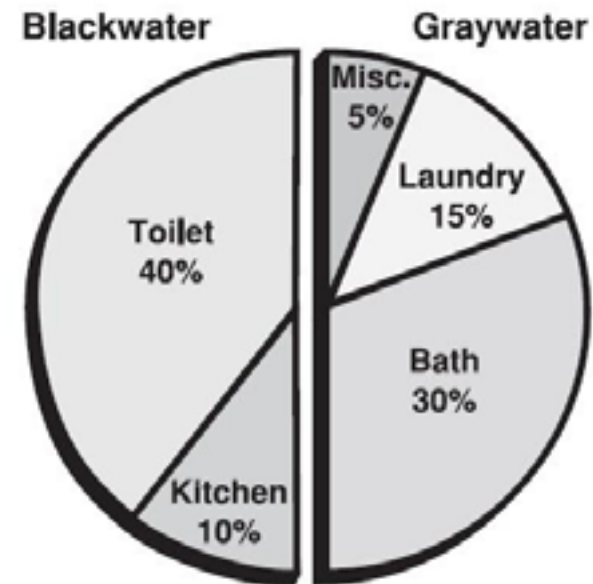


Rainwater Regulations

- TCEQ Regulations (TAC Chapter 290, Subchapter D and TAC Chapter 210, Subchapter F)
 - Potable use allowed
 - Must have appropriate backflow protections on place
 - Public water back-up supply may only be connected to the storage tank and not to the public water system
- City of Austin Regulations (2015 UPC Chapter 16, Appendix K & City Code §25-12-153)
 - Potable use allowed
 - Treatment required when used indoors
 - Backflow protection required for most pressurized systems and systems with indoor uses

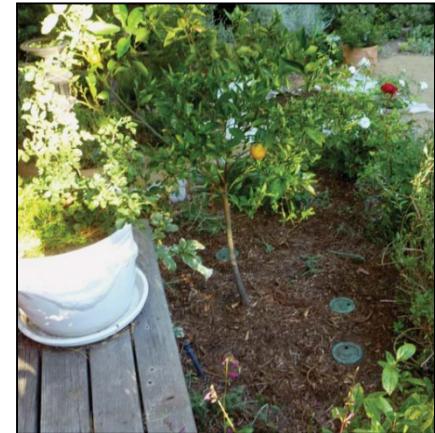
What is Graywater?

- Untreated wastewater from bathtubs, showers, lavatories and laundry
- Benefits:
 - Potential savings of 40-90 gpd
 - Sustainable onsite water reuse
 - Reduces pressure on wastewater infrastructure
 - Reliable source for irrigation during drought



System types

- Laundry to Landscape
- Branched drain
- Gravity fed
- Pressurized
- Subsurface, Subsoil and Mulch Basin



Graywater Regulations

- TCEQ Regulations (TAC Chapter 210, Subchapter F)
 - Connected to public wastewater system
 - Approval not required for domestic use under 400 gal/day
 - Originates from a private residence
 - Diversion to wastewater system
 - Tanks labeled, access restricted, pest habitat eliminated, cleanable
 - Does not create a nuisance or damage water quality
- City of Austin Regulations (2015 UPC Chapter 15 & City Code §25-12-153)
 - Level, sturdy, durable tank
 - Connections to drain or sewer
 - Non-potable labeling & coloring
 - Subsurface, subsoil and mulch basin irrigation
 - Backflow protection required for pressurized systems






A/C Condensate

- High quality water (condensate) collected from Air Conditioner “coils”.
- Reliable yields in warmer weather
- Mandatory condensate reuse for systems 200 tons or greater in MF and ICI sectors
- Condensate currently used:
 - LCRA Red Bud Center
 - Austin City Hall

A/C Condensate Regulations






- TCEQ Regulations (TAC Chapter 210, Subchapter E)
 - Level I Authorization allowed for uses satisfying three requirements with no state approval
 - Water must come from approved list of sources (condensate included in list)
 - Condensate must be used in an approved fashion including but not limited to:
 - Irrigation
 - Fire protection
 - Dust suppression
 - Cooling tower makeup (Water Quality testing required)
- City of Austin Regulations (2015 UMC 310.10, 2015 UPC Chapter 15 & City Code §25-12-153)
 - Treatment required when used inside structure
 - Approved uses include:
 - Water closets/Urinals
 - Trap primers
 - Irrigation industrial processes
 - Water features
 - Cooling tower makeup

SF Residential Allowed Usages and Treatment Requirements

| |  RAINWATER |  GRAYWATER* |  STORMWATER |  CONDENSATE |  OTHER NON-SEWAGE ORIGINATED WATER |
|------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Below Grade Irrigation/ Outdoor | Filtration | Filtration | Filtration | Filtration | Filtration |
| Above Grade Irrigation/ Outdoor | Filtration | Not allowed | Treatment & Disinfection | Treatment & Disinfection | Treatment & Disinfection |
| Toilet/Urinal Flushing/ Clothes Washing | Treatment & Disinfection | Not allowed | Treatment & Disinfection | Treatment & Disinfection | Treatment & Disinfection |

*Graywater is not allowed to be used for irrigation in the Edwards Aquifer Recharge Zone or in any other geologically sensitive area.


MF and ICI Allowed Usages and Treatment Requirements

| |  RAINWATER |  GRAYWATER* |  STORMWATER |  CONDENSATE |  OTHER NON-SEWAGE ORIGINATED WATER |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Below Grade Irrigation/ Outdoor | Filtration | Filtration | Filtration | Filtration | Filtration |
| Above Grade Irrigation/ Outdoor | Filtration | <ul style="list-style-type: none"> • Not Allowed for Multi-Family • Treatment & Disinfection for Commercial | Treatment & Disinfection | Treatment & Disinfection | Treatment & Disinfection |
| Toilet/Urinal Flushing, Clothes Washing & Trap Primers | Treatment & Disinfection | <ul style="list-style-type: none"> • Not Allowed for Multi-Family • Treatment & Disinfection for Commercial | Treatment & Disinfection | Treatment & Disinfection | Treatment & Disinfection |
| Process Water & Cooling Tower Makeup Water | Treatment when combined with Graywater | Treatment | Treatment when combined with Graywater | Treatment when combined with Graywater | Treatment when combined with Graywater |

*Graywater is not allowed to be used for irrigation in the Edwards Aquifer Recharge Zone or in any other geologically sensitive area.

Permit requirements

- All on-site water reuse systems require an installation permit with the following exceptions:
 - Gravity type exterior non-potable rainwater systems of any size
 - Non-potable rainwater or condensate water systems that use a pump, but are 500 gallons or less
- Homestead permit available for Laundry to Landscape Graywater Systems
- New Auxiliary Water Permit sub-work type available



Auxiliary Water System Permit Application
 Special Services Division 3907 South Industrial Drive, Suite 100, Austin, TX 78744
 (512) 972-1060 www.austintexas.gov/department/special-services-division
AWUCrossConnection@austintexas.gov

| | | |
|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------------------------------------------------|
| Property Address: _____ | | Zip Code: _____ |
| Contact Name: _____ | | Phone Number: (____) _____ |
| Mailing Address: _____ | | |
| City: _____ | State: _____ | Zip Code: _____ |
| Email: _____ | | |
| Type of Auxiliary Water on site (check all that apply): | | |
| <input type="checkbox"/> Condensate | <input type="checkbox"/> Gray Water | <input type="checkbox"/> Ground Water |
| <input type="checkbox"/> Lake/River | <input type="checkbox"/> Reclaimed | <input type="checkbox"/> Rainwater |
| <input type="checkbox"/> Re-Irrigation | <input type="checkbox"/> Spray Aerobic (OSSF) | <input type="checkbox"/> Well |
| <input type="checkbox"/> Other (please describe): _____ | | |
| | | |
| | | |
| Distribution Method (check one): <input type="checkbox"/> Gravity <input type="checkbox"/> Pumped | | |
| Does the Auxiliary Water enter the building? <input type="checkbox"/> Yes <input type="checkbox"/> No | | |
| Is potable water used for makeup? <input type="checkbox"/> Yes <input type="checkbox"/> No | | |
| Usage (check all that apply): | | |
| <input type="checkbox"/> Car Wash | <input type="checkbox"/> Cooling Tower | <input type="checkbox"/> Irrigation <input type="checkbox"/> Toilet/Urinal Flushing |
| <input type="checkbox"/> Trap Primer | <input type="checkbox"/> Process Water | <input type="checkbox"/> Water Feature |
| <input type="checkbox"/> Other (please describe): _____ | | |
| | | |
| | | |
| Print Name: _____ | | Date: _____ |
| Signature: _____ | | |
| FOR OFFICE USE ONLY | | |
| Received by: _____ | Date: _____ | |
| Entered by: _____ | Date: _____ | |
| Status: <input type="checkbox"/> Approved <input type="checkbox"/> Rejected <input type="checkbox"/> Withdrawn | | |
| Notes: _____ | | |
| | | |

Permit Process



Design Approval & Permitting

Construction and Approval for Use

1 Preliminary Review
Contact the Austin Water Conservation Division for a complimentary preliminary review of your on-site reuse system permit application. This step is optional but highly recommended to ensure the permitting process goes smoothly, and to ensure you are made aware of any qualifying incentives for on-site reuse systems provided by the utility.

2 Submit Applications
Submit a Development Services Department application for a plumbing permit and an Austin Water application for auxiliary water registration to the City's One Stop Shop.

3 Obtain Approval
When your system design is approved, you will be issued a permit to construct the on-site water reuse system.

4 Construct the System
A system must pass all Development Services Department Inspections. If your system requires a backflow prevention assembly, this will have to be tested and approved by a third party prior to your final construction inspection.

5 Operate and Maintain System
After you pass the final Development Services Department inspection, you are approved to use your system to save water. No operating permit will be issued, but you are responsible for maintaining your system and conducting annual cross connection testing if your system requires a backflow prevention assembly.

6 Rebate Disbursement
If you have applied for an Austin Water incentive, there will be an additional post-installation inspection prior to the disbursement of your rebate.

Professional Design

- All on-site water reuse systems for one- and two-family dwellings must be designed by a person registered or licensed to perform plumbing design work (either a Master Plumber or a Professional Engineer) with the following exceptions:
 - An exterior rainwater or condensate system for irrigating landscaping of a single family dwelling
 - An exterior rainwater or condensate system for irrigating landscaping other than that of a single family dwelling where the system's maximum storage capacity is 500 gallons
 - A gravity gray water system having a maximum discharge capacity of 250 gallons per day (gal/d)
 - A Laundry to Landscape graywater system
 - A stormwater or other non-sewage originated water system having a maximum discharge capacity of 250 gal/d and that includes treatment and disinfection

Backflow Protection

| List of Auxiliary Water Sources and Uses ⁽¹⁾ | | Backflow Protection Required At Potable Water Connection | | | Backflow Protection Required at Point of Interconnection with Potable Water |
|---------------------------------------------------------|---------|----------------------------------------------------------|---------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------|
| | | Domestic Water Meter ⁽²⁾ | Irrigation Water Meter ⁽²⁾ | City Service to Private Fire Main ^{(2), (3), (4), (5)} | |
| Lake/River Water | | RP | RP | DC | RP |
| Well Water | | RP | RP | DC | RP |
| Condensate water | Gravity | - | DC ⁽⁵⁾ | DC | RP |
| | Pumped | RP | RP | DC | RP |
| Rainwater | Gravity | - | DC ⁽⁵⁾ | DC | RP |
| | Pumped | RP | RP | DC | RP |
| Gray water | Gravity | - | DC ⁽⁵⁾ | DC | AG |
| | Pumped | RP | RP | DC | AG |
| Reclaimed Water ⁽⁶⁾ | | RP | RP | DC | AG |
| Other Water Supply ⁽⁷⁾ | | RP | RP | DC | AG |

- ❖ Backflow protection not required for rainwater and condensate systems 500 gallons or less

City of Austin Incentives

- Rainwater Harvesting
 - \$0.50 per gallon for non-pressurized systems and \$1.00 per gallon for pressurized systems
 - Up to \$5000 per site (lifetime limit) or half the cost of the system
- WaterWise Rainscapes
 - \$30 per 100 sq. ft. converted up to \$500 per property (lifetime limit)
- Bucks for Business
 - \$0.50 for every 1,000 gallons saved over the ten-year lifetime of the rebated equipment or 50% of the cost, whichever is less, up to \$100,000

Austin WATER
Clearly Reliable

Request ID Number _____ (City Use Only)

Rainwater Harvesting Rebate Program Application

Please read the program guidelines on page 1 prior to completing this form.

Are you applying for:
 Less than 500 gallons of storage capacity to be complete prior to application submission
 Installation date: _____
 1,000 gallons or more application must be submitted for entire year to purchase an individual
 Property type: Single-Family Multi-Family Commercial, Institutional, or Industrial
 *Commercial applications must include a completed W-9 form with application.

Applicant (owner, landlord, or account holder): _____
 Austin Water Account No. or water district name: _____
 Primary Phone: _____ Secondary Phone: _____
 E-mail Address: _____
 Installation Address: _____ Zip Code: _____
 Mailing Address: _____ Zip Code: _____

Total new storage capacity _____ (Is a pump included?) Yes No

For systems of 100 gallons or more, site drawing, system drawing, and operation and maintenance guide must be included with the application. Please check off the items below to indicate that each is included.

Site drawing: sketch the layout of building, streets adjacent to the site, existing or proposed tank location, Austin Water meter location, and piping from the tank to the landscaped area. Identify the dimensions of the catchment area and the landscaped area to be irrigated with the harvested rainwater.

System drawing: sketch the system, including piping and first flush details, pump location if applicable, tank material, placement, and dimensions, and pad material and construction.

Operation & maintenance guide: written description of how the system will function and how maintenance will be performed.

Customer Agreement
 I certify that the information I have supplied in the application is accurate and that I have read and understand the program guidelines. I understand Austin Water does not assume liability for related products or services and that rebate application consideration or rebate receipt does not take the place of any required permit or inspections. I agree to make a good faith effort to keep my rainwater harvesting system functional for at least five years and larger rainwater collection systems for at least ten years, initial and maintain required backflow prevention. If the entire system does not use collected rainwater for potable use, and allow Austin Water to reference my project to research, maintain and to be contacted regarding participating in public meetings or promotional tours of rainwater harvesting systems. I understand that Austin Water reserves the right to cancel or modify the program without notice and that rebate am subject to funding availability.

Signature: _____ Date: _____
 Print Name: _____

Mail applications and other documents to:
 Austin Water Connection
 P.O. Box 1088
 Austin, TX 78747
 Or fax to: 512-324

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Auxiliary Water Looking Forward

- Water Forward Task Force
- CodeNext Green Infrastructure
- Austin specific guidance under development
- US Water Alliance One Water Collaboration
- National Blue Ribbon Commission to Accelerate the Adoption of On-Site Systems





Questions?

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