LEAKY CISTERNS

BETTER THAN GOOD,
THEY’RE GREAT!
LARGE SYSTEM (>10,000 GAL.)
ANYTHING YOU WANT

MEDIUM SYSTEM (>1,000 GAL)
PRIME FOR LEAKY CISTERN
WATER A TREE
SUBSIDIZE LANDSCAPE/VEGETABLE GARDEN WATERING
KEEP SOIL AROUND SLAB MOIST

SMALL SYSTEM (<500 GAL.)
WATER A PLANT
TOP OFF A SMALL WATER FEATURE
General System Layout

- Gutter
- Pre-tank filter
- First flush diversion
- Rain tank
- Outlet manifold
- Tank overflow
CONCURRENT BI-SPEED DRAWDOWN
WHAT IS A LEAKY CISTERN

• A CISTERN THAT DRAINS AUTOMATICALLY
• DESIGNED TO DRAW DOWN ALL OR A PORTION OF THE STORAGE CAPACITY IMMEDIATELY FOLLOWING RAIN EVENT
• CAN BE PASSIVE OR AUTOMATED
• DONE THROUGH UNDERGROUND INFILTRATION SYSTEM OR SLOW SURFACE RELEASE
• SIZE AND METHOD BASED ON ROOF AREA AND SOIL INFILTRATION RATES
How fast does stormwater reach the creek?

with leaky cistern: weeks

with overland flow: hours

Leaky Cistern Types

basic leaky cistern

oversized leaky cistern allows reservoir at bottom

leaky cistern with overflow reservoir cistern

leaky cistern with wildlife watering stone

Leaky Cistern Uses

water for lawn and trees

water for vegetable garden

fill the swimming pool

water for wildlife habitat
COMMUNITY BENEFITS OF LEAKY SYSTEMS

• REDUCED RUNOFF INTO CREEKS WHICH REDUCES EROSIVE FLOWS
• HIGHER WATER TABLE TO SUPPORT HEALTHY VEGETATION EVEN DURING DROUGHT
• INCREASED BASEFLOW IN STREAMS
• REDUCED STRESS ON AGING STORMWATER INFRASTRUCTURE = LESS TAXES TO FIX
INDIVIDUAL’S BENEFITS OF LEAKY SYSTEMS

• REDUCED NEED FOR DEEP ROOT WATERING
• REDUCTION IN DRAINAGE UTILITY FEE
• LOWER WATER COSTS
• HIGHER QUALITY WATER FOR LANDSCAPING AND VEGETABLE GARDENS
• INCREASED SELF SUFFICIENCY
REBATES

- The rebates offer $.50 per gallon of storage for passive systems and $1 per gallon for pressurized systems. Maximum of $5000 rebate.

- In general AWU wants the property owner to be the one that fills out the rebate form because they want them to buy into the whole process and by taking the time to fill and file the rebate acknowledges some level of knowledge for the rain harvesting effort.

- You can help them get started and for some systems pre-approval and post inspections are necessary which means it would behoove you to get the ball rolling. Roll the time it takes into the labor of the system and you can show them the reduction of the cost by incorporating the rebate.

- You can give them the site drawing, system drawing, and operation & maintenance guide.

- Drainage utility fee discount
RESOURCES

- THE TEXAS MANUAL ON RAINWATER HARVESTING
  HTTP://WWW.TWDB.TEXAS.GOV/PUBLICATIONS/BROCHURES/CONSERVATION/DOC/RAINWATERHARVESTINGMANUAL_3RD
  EDITION.PDF

- AUSTIN WATER UTILITY RAINWATER REBATES $.50 TO $1 PER GALLON
  HTTPS://WWW.AUSTINTEXAS.GOV/DEPARTMENT/RAINWATER-HARVESTING-REBATES

- WPD RAINSCAPE REBATES HTTPS://WWW.AUSTINTEXAS.GOV/DEPARTMENT/WATERWISE-RAINSCAPE-REBATE

- RAINWATER CALCULATIONS FOR DEVELOPMENT PERMITS, COA ENVIRONMENTAL CRITERIA MANUAL APPENDIX R-7

- COA RAINWATER HARVESTING GUIDELINES, COA ENVIRONMENTAL CRITERIA MANUAL 1.6.7.D

- CALCULATE SOIL INFILTRATION/PERCOLATION RATE, COA ECM 1.6.7.4.D OR
  HTTPS://WWW.AUSTINTEXAS.GOV/SITES/DEFAULT/FILES/FILES/WATERSHED/GROWGREEN/RAINGARDEN_FACTSHEET.PDF

- RAIN GARDEN INFORMATION AND METHODS
  HTTPS://WWW.AUSTINTEXAS.GOV/SITES/DEFAULT/FILES/FILES/WATERSHED/GROWGREEN/RAINGARDEN_FACTSHEET.PDF

- RAIN HARVESTING MAINTENANCE, COA ECM 1.6.3.C.7