



WRRC
WATER RESOURCES RESEARCH CENTER



THE UNIVERSITY
OF ARIZONA

COLLEGE OF
AGRICULTURE
& LIFE SCIENCES
COOPERATIVE EXTENSION

Desert Water Harvesting Initiative

Small Town Water Forum
June 26, 2014




wrrc.arizona.edu

Desert Water Harvesting Initiative

- DWHI Goal: to enhance outreach and communication between utilities, practitioners of water harvesting, academics, and interested citizens.
- BOR Desert LCC Grant to develop Resources
- Products Include:
 - Experts Directory
 - Compiled Publications
 - Assessment Toolbox



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The Water Harvesting Assessment Toolbox

- Decision support tool to explore water harvesting techniques and select locally appropriate tools
- Toolbox provides a facilitation process
- Participating personnel should include...water providers, flood control agencies, planning departments, stormwater management departments, conservation departments, utilities, transportation departments, elected officials, developers, homeowner’s associations, various water use sectors, environmental groups and/or others.
- Toolbox contains 5 tools



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EXAMPLE TABLE: PROVIDES DATA TO THE EXAMPLE CHART BELOW

RANK LEVEL OF LOCAL CHALLENGES AS 1 (LOW) TO 10 (HIGH)	RANK LEVEL OF LOCAL CHALLENGES AS 1 (LOW) TO 10 (HIGH)		
	CURRENT	10 YEARS	25 YEARS
1 POTABLE DEMAND EXCEEDS SUPPLY	6	10	10
2 INSUFFICIENT PEAK CAPACITY	3	6	6
3 NEGATIVE ENVIRONMENTAL IMPACTS	2	4	6
4 CLIMATE CHANGE IMPACTING DEMAND & SUPPLY	7	6	10
5 INCREASING URBAN HEAT ISLAND EFFECT	5	7	8
6 INCREASING STORMWATER VOLUME	8	9	10
7 STORMWATER QUALITY ISSUES	3	4	5

YOUR LOCATION: ENTER DATA IN THE YELLOW BOXES BELOW THE DATA WILL APPEAR IN THE GRAPH BELOW

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6 INCREASING STORMWATER VOLUME			
7 STORMWATER QUALITY ISSUES			

EXAMPLE CHART BELOW DRAWS EXAMPLE DATA FROM THE TABLE ABOVE

THE CHART BELOW DRAWS DATA FROM THE TABLE ABOVE

Step 1. Local Water Resources Challenges

Rank (Y-axis: 0 to 10) vs **Current, 10 Years, 25 Years** (X-axis)

Legend:

- POTABLE DEMAND EXCEEDS SUPPLY
- INSUFFICIENT PEAK CAPACITY
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Tool 3

- TOOL 3: Catchment-to-Canopy-Area Ratio Spreadsheet:** This Excel spreadsheet assists users in determining the optimum ratio of water harvesting catchment area to plant-canopy area to meet plant water needs in their location for a portion of each year.

Step 5. Estimate preferred catchment-to-canopy-area ratio



Tool 4

- **TOOL 4: Water Harvesting Resource Website:** The Toolbox website contains links to numerous resources and in-depth information about the water harvesting topics introduced in the Presentation, as well as links to download all of the Tools in the Toolbox.

Step 6. Learn and follow important design guidelines

Step 7. Manage water harvesting using key implantation steps



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Tool 5

- **TOOL 5: Decision-Maker Presentation Template:** This customizable PowerPoint presentation allows users to insert their own site-specific water harvesting assessment results, graphs, photographs, and recommendations to provide a concise and effective PowerPoint presentation for decision-makers and the public.

Step 8. Communicate water harvesting recs



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What you need to get started

- A facilitator who can gather materials, information, tools and people
- A meeting space with internet and projection capabilities
- 2 hours for a meeting that utilizes Toolbox tools



<https://wrrc.arizona.edu/DWHI/toolbox>

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