



Watershed Management Group



## **WATERSHED MANAGEMENT GROUP / RINCON HEIGHTS WATER QUALITY PROJECT FACT SHEET**

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**WHAT?** Watershed Management Group has received a grant from Arizona Department of Environmental Quality to conduct water quality education and improvement in the Rincon Heights neighborhood. The focus of the grant is reducing "non-point source" pollution (NPS)—pollution that comes from dispersed sources like pet waste, auto oil, grease, household and lawn chemicals, sediment, and yard waste. The main goals of the project are:

- Increase public awareness of local water quality and NPS issues, particularly as relates to local washes (High School Wash is the major channel through Rincon Heights)
- Reduce pollution by changing residents' behaviors like littering and dumping pollutants in washes and neighborhood streets
- Empower neighborhood residents to take action by teaching and demonstrating Best Management Practices (BMPs) for stormwater quality
- Create a model for retrofitting an established urban neighborhood, and share with people from other watershed and neighborhoods

**HOW?** A central feature of the project is the installation of BMPs like bioretention basins, berms, curb cuts, and buffer strips on 10 blocks throughout the neighborhood, via a series of educational, hands-on public workshops. These BMPs will not only directly improve water quality, but the workshops will give Rincon Heights residents and others the skills and experience to use these practices on their own properties and neighborhoods. The project will also feature educational presentations and outreach efforts on water quality issues in Rincon Heights, training for residents from other neighborhoods and watersheds, and production of a manual with tools for community leaders and residents.



**Bioretention basin, 1 year after install**

**WHEN?** The project runs for 2 years beginning August 2008. The BMP workshops will be held one a month, from November 2008 to May 2009.

**WHO?** The grant is managed by Watershed Management Group (WMG), with funds from Arizona Department of Environmental Quality. RHNA is a central partner in the grant. Other contributors to the project include the City of Tucson, Arizona Master Watershed Stewards, Tucson Plant Materials Center, and the University of Arizona.

**WHY?** The need to improve stormwater management and water quality is felt throughout Tucson. Rincon Heights is equipped with a crew of motivated, organized, dedicated community volunteers who have demonstrated an interest in improving watershed conditions. High School Wash is a large, central wash in Tucson that exhibits water quality/quantity problems found across southwestern urban washes. Because of these conditions, the neighborhood was selected to become a model for retrofitting an existing urban neighborhood with Best Management Practices. The project will capitalize

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on pre-existing neighborhood projects (chicanes on 9<sup>th</sup> and 10<sup>th</sup> streets, earlier planting projects), to leverage greater effects.

**HOW DO I GET INVOLVED?** Come to the events listed below! Also, please share your input about the project with us. Contact project manager James MacAdam at 520-396-3266 or [james@watershedmg.org](mailto:james@watershedmg.org) at any time with your comments or questions. Also, for more information on the program and WMG, visit <http://watershedmg.org>.

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#### **UPCOMING EVENTS:**

##### **Right-of-Way Water Harvesting Workshop**

**Time: Saturday, March 14, 12:00-5:00pm**

**Location: Rincon Heights Neighborhood**

WMG presents an educational, hands-on workshop to learn Best Management Practices for managing non-point source (NPS) pollution. We'll install water-harvesting features like rock-lined berms and basins, lay mulch and plant native vegetation. The projects may include curb-cuts for basins or other practices that retain, filter, and infiltrate polluted stormwater. Participants will gain the skills and experience needed to undertake these practices at their own properties.

##### **Earth Day "Pocket Park" and Rainwater Harvesting Workshop and Celebration**

**Time: Saturday, April 25, time TBA**

**Location: Rincon Heights Neighborhood**

WMG's annual Earth Day celebration this year will be a workshop to create a natural "pocket park" with rainwater harvesting and educational features on a neglected City lot. This family-oriented event will include hands-on rainwater harvesting work, fun educational activities, food and music.

**Space is limited in these events. Please register to reserve your spot.**

To register or for more information, contact James MacAdam, phone 780-9416, email: [james@watershedmg.org](mailto:james@watershedmg.org).



**Basin with curb cut after a storm**



**Neighborhood BMP workshop**



## Guidelines for working in the right-of-way

**Definition:** Wikipedia defines a right of way (ROW) as such: “A situation in which although a parcel of land has a specific private owner, some other party or the public at large has a legal right to traverse that land in some specified manner.” For purposes of neighborhood rainwater harvesting projects, the right-of-way we are most concerned with is the area adjacent to the street, usually extending from a curb through a sidewalk or designated pedestrian area. The most common area used for rainwater harvesting is the area between the curb and the sidewalk, and the most common practices used in this area are rock-lined basins, swales, and curb cuts.

**Ownership, liability and maintenance:** In Tucson, the right-of-way is owned by the City of Tucson. However, any improvements that landowners or neighbors make to the right-of-way, such as installing basins or planting vegetation, must be maintained by the adjacent landowner. The landowner may also be held responsible for liability claims made for accidents occurring on their right-of-way. Refer to city codes for complete liability information.

**Permit process:** When planning a project in the ROW in Tucson, you will need (in generally this order):

- Permission, and a signed statement from the adjacent landowner agreeing to maintain the improvements.
- A completed permit application with the City of Tucson Department of Transportation, including details about any contractors you will be using to complete the work (e.g. backhoe services, sawcutters for cutting the curb), and a rough design your intended project.
- Once the permit has preliminary approval, call Blue Stake, a utility locating service, to have the location of utility lines marked on your site. You may choose to use Blue Stake earlier in the process to assist with designing the locations of your trees and basins. However, if the work is not done within 14 days of your request, you will need to update your ticket with Blue Stake (this is all explained in detail when you call Blue Stake).
- Once the site is marked, call the phone number on your permit to have a city inspector come look at your site. Once the site visit is complete and your site is approved, you are ready to go!
- Once all the work is complete, a final inspection is required.

**Design considerations and code requirements** (see City of Tucson or your jurisdiction’s staff for a complete listing, and up-to-date changes):

### *Basins and earthworks:*

- Basins should be lined with rock and mulched to delineate them from the pathways. You do not want to create basins that are a safety hazard! If basins are deeper than 20 inches, there must be a hand rail installed on the adjacent pathway.
- Mark basins out with flags or landscape paint before you start digging and carefully plan the length, width, and depth of basins. Plan where water will go if the basins overflow.

### *Trees and vegetation:*

- Determine the proper spacing and location of trees using the mature size of trees. Trees must be at least 50 feet from any traffic signs, not block sight visibility at intersections, and trees planted under power lines should at mature size be lower than the lines. Vegetation with a mature height under 30” may be used closer to traffic signs and within site visibility areas at intersections.
- Pedestrian pathways must be kept clear at least 80 inches high. All shrubs and trees must be kept trimmed back so they do not encroach on the pathway.

- The presence of certain utility lines may restrict the kind of vegetation you can plant (the utilities will inform you of this when you call Blue Stake).
- Trees for Tucson is a city program that will cover one-half the cost of trees that residents plant along the street in the public ROW in front of their houses. If you or your neighborhood group are receiving trees from Trees for Tucson, they can approve tree placement in the right of way. Request native trees such as Ironwoods, Velvet Mesquites, Blue Palo Verde, and Desert Willow.

*Pedestrian pathways and access:*

- There must be an unobstructed pedestrian pathway at least 4 feet wide. You will need special permission if you want to create a raised pathway in the ROW. Generally, pathways should be graded/laid to send rainwater into your rainwater harvesting features. Basins (including their rock edges) need to be set back at least 12 inches from pathways.
- Make sure people can safely exit their cars and enter the right-of-way by maintaining a 2-foot, flat landing space right next to the curb (this 2 foot measurement is from the face of the curb on the street to the beginning of any rockwork). In addition, create access paths from the street to the walkway by creating pathways 4-5 feet wide in between basins. For easy access, make basins no longer than the average car length.
- To preserve pedestrian access, basins may only be located on one side of a given stretch of the ROW.

**Doing the work:**

- The day before you start digging, soak the areas you will be planting to reduce dust and make digging easier.
- Keep in mind that digging in a ROW in the desert can be like digging in rock! Plan your workshops accordingly, and/or consider using mechanized support like backhoes.
- If unfinished basins are left in the ROW, they must be marked with "CAUTION" tape or similar, above ground level (wooden stakes are useful for this purpose).

**Curb cuts:** Curb cuts have their own special set of requirements, including a permit, that can be easily integrated with the above process. For a visual detail of curb cut specifications, visit <http://dot.ci.tucson.as.us/stormwater>, scroll down to Water Harvesting Methods and click on "Typical Section of an example Water Harvesting curb cut detail". For complete information on curb cuts, contact the City of Tucson.

**Contacts:**

City of Tucson: 520-791-5100

Blue Stake: 800-782-5348

Trees for Tucson: 520-250-8220, <http://www.tucsonaz.gov/tcb/tft/>