



COMMUNITY & NEIGHBORHOOD SERVICES COMMITTEE

June 7, 2010

The Community & Neighborhood Services Committee of the City of Mesa met in the lower level meeting room of the Council Chambers, 57 East 1st Street, on June 7, 2010 at 3:03 p.m.

COMMITTEE PRESENT

Dina Higgins, Chairwoman
Dennis Kavanaugh
Dave Richins

COMMITTEE ABSENT

None

STAFF PRESENT

Alfred Smith
Natalie Lewis

1. Items from citizens present.

There were no items from citizens present.

2. Hear a presentation, discuss and provide direction on a request to change the name of Basin 601 to Marlborough Mesa Park.

It was moved by Committeemember Richins, seconded by Committeemember Kavanaugh, that a request to change the name of Basin 601 to Marlborough Mesa Park, be approved.

Committeemember Kavanaugh expressed appreciation to staff for bringing this item forward and commented that he considers the park the "town center" for Marlborough Mesa.

Chairwoman Higgins called for the vote.

Carried unanimously.

3. Hear a presentation, discuss and make a recommendation regarding Mesa's approach to rainwater harvesting and gray water collection.

Development & Sustainability Department Deputy Director Scott Bouchie reported that in November 2009, City of Tucson Councilmember Rodney Glassman made a presentation to the Council regarding Tucson's rainwater harvesting and gray water ordinances. He stated that today's presentation is an update of the City of Mesa's efforts regarding these issues.

Conservation Specialist Donna DiFrancesco displayed a PowerPoint presentation (**See Attachment 1**) and reported that rainwater harvesting is the capture, diversion and storage of rainwater for plant irrigation or other uses. She explained that passive rainwater harvesting is

accomplished by utilizing drainage and grading for direct use into the landscape and said that active rainwater harvesting occurs through conveyance, storage and distribution. Ms. DiFrancesco referred to photographs illustrating examples of passive and active water harvesting. (See Page 2 of Attachment 1)

Ms. DiFrancesco advised that on June 1, 2010 the City of Tucson's rainwater harvesting ordinance, which applies to new commercial development only, went into effect. She highlighted the main components of the ordinance as follows:

- New commercial developments must create a water harvesting plan and water budget.
- New development must obtain 50% of their landscape water needs from rainwater harvesting.
- Three years to establish plants.
- Meter outdoor water use.
- Relief from the 50% requirement in a drought.
- Report annually.

Responding to a question from Committeemember Richins, Ms. DiFrancesco clarified that new commercial developments would be required to install separate landscape meters and said that the entities would be charged for direct water use only.

Ms. DiFrancesco further remarked that the City of Mesa already allows commercial rainwater harvesting systems and noted that the systems must meet certain engineering design standards for onsite retention. She explained that during a 100 year/two hour storm event, a system must be able to capture the rainwater, drain it within 36 hours, and added that the water can reach a depth of no greater than 12 inches.

Ms. DiFrancesco briefly highlighted staff's efforts to promote rainwater harvesting including, but not limited to, conducting residential outreach through the City's "Living Green" Workshop series; providing materials and resources on various City websites; and making available to the public free "Harvesting Rainwater for Landscape Use" booklets. She also stated that staff encourages residents and commercial businesses to take advantage of tax credits that are available for rainwater harvesting and gray water collection.

Ms. DiFrancesco referred to a series of photographs illustrating a rainwater harvesting demonstration site at Dobson Ranch La Casita Community Center. (See Pages 7, 8 and 9 of Attachment 1) She explained that permeable pavers were installed in a small courtyard area and the area underneath the pavers was excavated and lined and crates were installed to provide support and hold approximately 2,000 gallons of water that could be harvested off the rooftop of the facility. Ms. DiFrancesco noted that the water would be pumped from the site into the Community Center's irrigation system.

Committeemember Kavanaugh commented that during a visit to the demonstration site, he was informed that the project would provide water for over 50% of the facility's landscaping needs. He also remarked that a bubbler fountain was included as an element of the system and that it was well integrated in terms of aesthetics and practical uses.

Mr. Bouchie reported that Mesa has a municipal stormwater permit, which allows the City to discharge stormwater. He explained that for several years, staff and the Arizona Department of Environmental Quality (ADEQ) have been negotiating a new permit, which is anticipated to be issued sometime in July.

Mr. Bouchie briefly highlighted a series of requirements that must be met within the next four years in order for the City to be issued a new stormwater permit. (See Pages 10 and 11 of Attachment 1)

Committeemember Kavanaugh inquired why, if one of the requirements of the new stormwater permit is that the City encourage the use of permeable pavement, developers are not allowed to use those materials at the present time.

Mr. Bouchie responded that one of staff's recommendations is to work with the development community and internal City staff (i.e., Engineering, Water Resources, Development and Sustainability) to determine if there are code restrictions or obstacles that would prevent developers from using permeable pavement and other building materials for the purpose of rainwater harvesting.

Mr. Bouchie further reported that the Mesa Proving Grounds Community Plan includes concepts to integrate stormwater reuse in public areas. He explained that such methods include, but are not limited to, reducing potable water usage for public landscaped areas; increasing the use of stormwater/rainwater runoff; decentralized retention basins; and reducing stormwater in streets, thereby reducing infrastructure needs in roads and public rights-of-way.

Mr. Bouchie briefly highlighted staff's recommendations with regard to rainwater harvesting. (See Page 13 of Attachment 1)

Responding to a question from Chairwoman Higgins, Mr. Bouchie clarified that prior to moving forward with a rainwater harvesting ordinance, staff recommends first working with the development community and the above-mentioned City departments that would be significantly impacted by such an ordinance.

Committeemember Richins suggested that it might be appropriate for staff to consider adding language in the City's design standards related to rainwater harvesting now even though it may be premature to move forward with an ordinance.

Deputy City Manager Jack Friedline responded that working with City departments is a key element in this process. He commented that regarding the use of permeable pavement, it is not that developers cannot use such materials in their projects, but the fact that if they do, there are calculations for stormwater retention which present a new set of issues (i.e., longevity of pavers, silt accumulation).

Mr. Friedline, in addition, stressed the importance of staff monitoring Tucson's newly implemented rainwater harvesting program, and in particular, focusing on the associated engineering standards and building materials. He also expressed support for staff continuing to pursue their education and outreach efforts and assessing whether the La Casita demonstration site proves to be successful. Mr. Friedline recommended delaying the implementation of a

rainwater harvesting ordinance until such time as those efforts have been pursued. He added that staff would be happy to provide the Committee with future updates concerning this issue.

Committeemember Richins acknowledged Mr. Friedline's comments, but encouraged staff to look into engineering and design standards now that developers could begin to incorporate into their projects.

Mr. Friedline assured Committeemember Richins that staff has already begun that process and said he did not mean to infer that was not the case. He noted that staff intends to meet with the Developers Forum to solicit feedback regarding design and engineering standards as it relates to rainwater harvesting. Mr. Friedline added that any engineering standards related to rainwater harvesting that could be changed through an ordinance would be done so in an expeditious manner and brought back to the Committeemembers for their input and direction.

Committeemember Kavanaugh suggested that staff might have the opportunity to incorporate certain rainwater harvesting design standards into the construction of certain City projects (i.e., the new fire stations or the Fiesta District Police Substation). He stated that this would demonstrate to the development community what the City has been able to accomplish in this regard.

Mr. Friedline responded that the Committee had his commitment that staff would do so in all of their upcoming projects.

Ms. DiFrancesco stated that the City of Tucson developed a rainwater harvesting manual approximately ten years ago.

Ms. DiFrancesco continued with her presentation and reported that gray water is defined as wastewater that is collected separately from sewage and originates from laundry, bathtubs, showers and bathroom sinks. She stated that Tucson's residential gray water plumbing ordinance also went into effect on June 1, 2010 and briefly highlighted the requirements of the ordinance. (See Page 15 of Attachment 1)

Ms. DiFrancesco advised that the City of Mesa does not prohibit residential gray water systems, but noted that homeowners must comply with ADEQ's 13 best management practices (BMPs) provisions. She indicated that the water must be for residential use only, stay on the property, and cannot be used to irrigate any plants that produce food, except citrus and nut trees.

Ms. DiFrancesco further reported that municipalities cannot limit the use of gray water when ADEQ requirements are being met. She noted, however, that there is a stipulation which indicates that if a community considers reclaimed water as part of its 100-year assured water supply, it can restrict the use of gray water for residential use.

Responding to a question from Chairwoman Higgins, Water Resources Department Director Kathryn Sorensen confirmed that the City of Mesa does include reclaimed water as part of its assured water supply and has the authority to restrict the use of gray water. She explained that the City uses its reclaimed water through recharge and also through the exchange with the Gila River Indian Community, which is a contractual obligation. Ms. Sorensen commented that if gray water eventually interfered with the amount of water that Mesa sent as part of the exchange,

that would be problematic for the City. She said that Mesa also has another contractual obligation for its reclaimed water with the Palo Verde Nuclear Power Plant.

Ms. DiFrancesco reviewed a series of gray water concerns. (See Page 17 of Attachment 1)

Mr. Bouchie noted that on occasion, staff receives calls from homeowners who have incorrectly installed gray water systems, thereby creating environmental hazards (i.e., stagnant water, mosquito larvae). He said that such hazards can result in a violation of the City's stormwater ordinance and municipal permit.

Ms. DiFrancesco highlighted staff's recommendations with regard to gray water collection as follows:

- Continue education (i.e., Living Green Workshops and the Developer Advisory Forum).
- Work with internal City Departments to address issues/concerns.
- Educate developers on sustainable development at pre-submittals.
- Monitor Tucson and other communities for successes and pitfalls.

Chairwoman Higgins noted that Mesa already uses its wastewater in a sustainable manner and questioned whether it would be beneficial for the City to pursue gray water collection at this time.

Ms. Sorensen advised that one of the reasons gray water collection is attractive to the City of Tucson is because the municipality, unlike Mesa, does not have total control over its reclaimed water supply.

Responding to Chairwoman Higgins' inquiry, Mr. Bouchie stated that staff could devote their time and energy to other programs that would provide the City "more bang for its buck" and not have the unintended consequences that are associated with gray water collection.

Chairwoman Higgins stated that it was the consensus of the Committee that staff not pursue gray water collection at this time.

Mr. Bouchie suggested that in a year, it might be appropriate for staff to update the Committee regarding the impact of Tucson's rainwater harvesting ordinance and also staff's efforts to solicit feedback from the development community relative to design/engineering standards.

Chairwoman Higgins thanked staff for the presentation.

4. Adjournment.

Without objection, the Community & Neighborhood Services Committee meeting adjourned at 3:43 p.m.

I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the Community & Neighborhood Services Committee meeting of the City of Mesa, Arizona, held on the 7th day of June 2010. I further certify that the meeting was duly called and held and that a quorum was present.

LINDA CROCKER, CITY CLERK

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(attachment – 1)