

Volunteers sought for tree count

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Formal survey to gauge their value, upkeep

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The city is seeking volunteers to tally its trees and build a database to demonstrate that the costs of watering, planting and pruning them are dwarfed by the quantifiable benefits derived from our municipal canopy.

City officials should simply wait a few weeks and survey citizen sentiment at 4 p.m. in our dusty, dry, baked and blasted pueblo.

In summer, most Tucsonans would kill for a mature velvet mesquite with kneeling limbs, reaching arms and overlapping leaves on the western side of their homes, their parking spots or their picnic blankets.

Shade and beauty are, of course, the principal arguments for trees in Tucson, but the city's tree inventory is designed to move us to a more actuarial appreciation of them as necessary infrastructure.

Shade reduces temperatures and saves energy. Trees trap pollutants, inhale carbon dioxide and breathe out oxygen, slow runoff and aid infiltration into the aquifer, preventing water loss.

Adding up the worth of those benefits will make the trees on our streets and in our medians seem more an asset and less a burden when the city plans its streets, its rules and its maintenance budgets, said Roger Watson, of the city's Landscape Advisory Committee.

"We want to go beyond tree-hugging," said Watson, one of 17 trainers who recently spent a day learning how to teach others to count, measure and classify trees.

Of course, any valid cost/benefit analysis will have to look at the dark side of trees.

They must be watered and pruned. They litter leaves and bark. When they decay, they give back that carbon dioxide they took out of the atmosphere. They produce pollen and aggravate allergies. They can buckle sidewalks and tangle power lines. They get old and blow over.

Plant an inappropriate tree in a bad spot, and it's more trouble than it's worth.

Some trees actually contribute to ozone production by releasing its precursors - BVOCs, biogenic volatile organic compounds. Eucalyptus and oak are among the biggest offenders.

But plant the right tree in the right spot, and the benefits far outweigh the costs.

It's easier to prove on the residential level, where the biggest component of a tree's worth is its impact on property values. A tree-shaded yard adds up to 7 percent to a home's value, according to a July 2004 report on trees in the Southwest, prepared for the U.S. Forest Service's Center for Urban Forest Research.

The second biggest value was energy savings. Three large shade trees, placed strategically on the west side of a house, can cut cooling bills by up to 25 percent, a figure calculated earlier by one of the report's authors, Gregory McPherson, from studies done in Tucson.

Irene Ogata, Tucson's urban landscape manager, said she's certain a tree inventory will demonstrate similar, though less dramatic, savings for trees managed by the city.

The first step, she said, is to count the trees on city property along Tucson's major streets and routes - more than 388 miles of arterial and collector streets within the city limits.

Ogata said the data gathered will help the city establish the worth of its urban forest and manage it as a utility. Volunteers with handheld data collectors will record the size, type and condition of trees along city streets, filling in 14 separate fields.

Ogata said washes and parks will come next and eventually neighborhood streets. She figures she'll need 80 to 100 volunteers for the first round, being done with a \$10,000 grant from the State Land Department, matched by city staff time.

Joan Lionetti, executive director of Tucson Clean and Beautiful and a member of the landscape committee, said the inventory, and the creation of Ogata's position a year ago, are signals the city is finally regarding its landscaping as a utility, and not merely some added cost of street building.

"We've got to take our landscape seriously. We need a maintenance budget," Lionetti said.

The inventory will become a tool for coordination of maintenance and should lead to better enforcement of codes that require developers to shade parking lots and retain native vegetation when building, Lionetti said.

Software for the inventory was developed by the U.S. Forest Service and is being used across the country to measure and push for restoration of the nation's urban forests. Nationwide, we've lost more than 643 million trees to development, according to estimates from the tree-advocacy group American Forests.

Tucson may actually have more shade trees than it did before development, said Doug Koppinger, coordinator of Trees for Tucson, which has teamed with Tucson Electric Power to plant 50,000 trees over the past two decades.

There is no problem-free tree, said Koppinger. The trick is choosing the appropriate one. **School yards, for instance, don't need thorn-producing trees**, so oak, ash and desert willow may be used, even though they need some water.

The best native shade, said Koppinger, is provided by velvet mesquite or blue palo verde "if you don't have **allergies**. Unfortunately, of all the complaints I get, **90 percent are about blue palo verde.**"

Tucson needs shade more than many places, Koppinger said, noting the rapid growth of areas covered in buildings and asphalt. The urban-heat-island effect from those hot streets and roofs has raised average temperatures here 3 degrees over the past 30 years, according to research done by UA geologist Andrew Comrie.

Tree-planting makes sense in Tucson, even though it will take some precious water to keep those trees alive, said Gary Woodard, associate director of SAHRA (Sustainability of Semi-arid Hydrology and Riparian Areas).

"We've got a certain amount of water and need to decide how best to use it. If you use the right kind of trees, put them on the right side of buildings, you're saving a lot of energy.

"If you're trying to make Tucson a more broadly sustainable community, it makes sense. People like shade, like trees, like birds. Yeah, trees use water but it seems to me a pretty high-value use of water."

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PROS: Trees

Increase property values

Lower temperatures

Save energy

Remove carbon dioxide and give off oxygen

Improve air quality

Retain rainfall and lessen storm runoff

CONS:

Cost money to plant, prune and remove

Emit ozone-causing compounds

Use water

Buckle sidewalks and invade sewer lines

Interfere with utility lines

Spread pollen

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To volunteer

For information on the tree count, go to www.tucsonaz.gov/planning and click on 2006 Street Tree Inventory.

To volunteer, contact Irene Ogata at 791-4505

or e-mail: Irene.Ogata@tucsonaz.gov

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Get inexpensive trees

Tucson Electric Power customers in the Tucson metro area can receive up to two 5-gallon trees for \$5 each from Trees for Tucson, if they agree to plant them on the east, west or south sides of their home.

For information, visit www.tucsonaz.gov/tcb/

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* Contact reporter Tom Beal at 573-4158 or tbeal@azstarnet.com.

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