



**Joplin, Missouri, after the tornado.** (Photo courtesy of Jon Skinner)

## Growing Trees Together

**Ric Mayer**

Legendary Pecos Bill could not have ridden this one out. The EF5 tornado that hit Joplin unexpectedly on May 22, 2011, did not look like a tornado at all. Tree planting volunteer Bill Miller said, "We stepped outside of the Family Dollar store. I didn't see a tornado. I saw a storm wall as wide as I could see headed our way. We got in the car and drove north of it."

One-third of Joplin and adjacent Duquesne was turned into a rubble-yard; a mishmash of all that makes up a city. In places more than a mile wide and the full length of the cities, six miles long before the storm began hopping through southwest Missouri and dissipated into a heavy thunderstorm.

The tornado could not have come at a worse time as far as the trees were concerned. In the middle of the lush spring growing season, much of the energy a tree expends to photosynthesis and the growing process was out on a limb when the tornado struck. The US Forest Service lead an Urban

Forestry Strike Team gathered from their own ranks as well as Missouri, Arkansas and Kansas foresters both public and private to quantify the damage to the community forest. The Strike Team inventory showed that between 15,000 and 20,000 community trees were lost.

People, then places, then things. For a community to recover from a natural disaster, no part of this triangle of needs can be excluded. Things like trees took a backseat to taking care of people and getting them into shelter of some sort, while the intense effort of unclogging the streets and clearing the wall-to-wall wreckage was commandeered by government and non-governmental agencies along with swarms of volunteers.

People who live there and people who came to help looked up from the debris and saw the bare bones of the big trees. The sycamores and elms, especially, were tree species that lost most of their limbs but still had their trunks and secondary leaders standing above the fray. These trees were struggling to stay alive by sending out advantageous sprouts. False hope by folks for these trees that had once been a canopy over the city sparked true hope.

Early efforts in the fall of 2011 to plant trees in the devastated area were not propelled by professional foresters. Led by well-intentioned laymen, a few thousand trees—mostly flowering dogwood and a mix of red maples—were planted in full sun without people having the time, energy, or knowledge base to establish the trees. A large proportion of those trees died even before the drought in spring and summer of 2012.

Fostered by the professionals in the Urban Forestry Strike Team, the idea took hold to develop an urban forestry project coordinating the resources of all interested stakeholders to plant and establish a recovery forest Joplin and Duquesne. The U.S. Forest Service and the Missouri Department of Conservation led funding and leadership in coordinating the effort by federal, state, and local government entities as well as concerned not-for-profits, gracious companies and volunteers from as far away as China.

When you need an ambulance you call 911. This consortium of professionals created a Community Forestry Recovery Coordinator (CFRC) position to be the feet on the ground in the tornado affected area to lead the partners in educating folks, and to plant and establish a new urban forest.

Sprouting the recovery forest began in earnest in late winter of 2012. As of May 11, 2013, around 9,330 trees have been donated and planted by volunteers. “Growing Trees Together,” as the collaboration is called, came on board in December of 2011; since then, 5,150 trees have been planted with education in mind and establishment in practice. Ninety-seven percent (543 of 562 park trees) survived the drought of 2012. An informal survey suggests about 3,670 (80%) of right-of-way and homeowner trees survived the 2012 drought.

This is not real estate work; when you are planting hope, timing, timing, timing is essential.

Establish a tree fund as early as possible. People relate to a ravaged city in different ways, and since the rubble-strewn landscape shows off the scare-crowed trunks of big trees standing over the debris, some people will want to donate for trees; give them an avenue to donate. The Joplin Area

Chamber of Commerce started a “Trees for Joplin” fund. Easy to donate toward and easy to extract funds for trees.

The current tree ordinances of the community can be either an obstacle or a boon. All ordinances are neither created equal nor equally enforced. In Joplin’s case, street trees were almost not allowed since the sight triangle was 150’ and the typical residential block 300’ long. Neither was the existing ordinance enforced. Now, led by the Joplin Tree Board and guided by the regional Missouri Department of Conservation Urban Forester, the pertaining ordinance is under review and suggested changes are yet to be ratified by the City Council. Two pilot Right of Way (ROW) tree plantings are in the ground, planted strategically in accordance with current ordinance. These plantings highlight the value of street trees.



**Boy Scouts planting trees in Joplin.** (Photo courtesy of Ric Mayer)

A resource worth noting in the aftermath of a disaster is the multitude of volunteers who show up to help. When the main cleanup is done and skilled volunteers are helping build houses, the unskilled volunteers can be taught on-site with an actual tree how to properly plant a tree in an hour. Preclude the experiential lesson with instruction to check out the multitude of “How-to”

formats on-line (for example: search “Tree Planting 101, Joplin, Missouri”) and volunteers can be engaged in planting trees that will become established and prosper. It took approximately 340 volunteer hours per week to water the park trees. This is proof that volunteers can swarm like bees gathering honey!

Joplin is poised to turn a natural disaster into a sustainable community reforestry workshop. The Tree Board had previously adopted a “Joplin Tree List” which specifies species selections due to their ability to withstand the hazards of the local environment and minimize potential problems. Joplin folks can plainly see what they do not want, a barren landscape. The value of trees was never more clear.

The Joplin manager and planners share a vision of tree-lined streets. Once again led by the Tree Board, the Joplin Parks Department is lobbying for a City Forester position to take over the work of the CFRC when the two year term position is completed. The City of Joplin has a study in progress to map out an action plan to put more than 6,300 ROW trees into Expedited Debris Removal area. Funds from the Department of Housing and Urban Development (HUD) will be allocated to purchase and plant the trees. It is estimated that folks have purchased as many trees as have been lost to lack of establishment care during the first year. Two years after the storm event, approximately 10,000 trees are in the ground and are being established. The City has funding aligned through HUD and plans for 6,300 more ROW trees. Forest ReLeaf of Missouri which has contributed 3,000 trees to-date through its donors, has the capacity to grow 5,000 more trees at 1,000 trees per growing season. There are at least two other funding sources for trees through the diminishing “Trees for Joplin “ fund and contributions by the Resource, Conservation, and Development Council. Of the 15,000 to 20,000 trees lost to the storm, plans are in progress to replace a minimum of 20,630 trees.

Planting a resilient, multi-specied mix of desirable species instead of a hodgepodge variety that includes silver maples, Bradford pears, and volunteer American elms susceptible to disease that precluded the tornado is in the works. The planned recovery forest can develop in an orderly, sustainable, and resilient manner more than the accidental urban forest could ever actuate. In the field of opportunity it is planting time again.