

# Town of Silver City Community Forestry Demonstration Project October 2013

The Office of Sustainability worked with the Parks Division of the Public Works Department to design and implement a community forestry demonstration project that uses stormwater harvesting for a portion of the irrigation.

The original plan outlined in the grant application was to partner with Main Street Organization to implement part of their Silver City Downtown Action Plan and Greenways Pathways Plan by planting trees along several finger streets that run from Bullard Street, the main street through town, a short distance to the Big Ditch Park. However, soon after the grant funding was awarded, the Manager of the Silver City Main Street Project moved on to a different job, and the position was left vacant for several months. In addition, the building owners along the finger streets where tree planting was planned voiced concern about damage to their buildings from irrigation water and tree roots. An alternative was sought that would meet the requirements of the grant of utilizing stormwater and planting trees.

The Office of Sustainability worked with the Parks Division of the Public Works Department and the Community Development Department to find a suitable location. The decision was made to enhance an undeveloped Town-owned park that functions as a detention basin collecting stormwater from a 22.0 mi<sup>2</sup> area. This plan was coordinated with and approved by the NM Energy, Minerals and Natural Resources Department in July, 2013.



The project area shown in Figure 2 is known as Johnny Banks Park. Prior to project implementation, the detention basin was mostly bare dirt with a few scattered weeds, located in an economically depressed area of Town known as Brewer Hill (Figures 2, 3 and 4).



**Fig. 2: Johnny Banks Park Detention Basin During a Rainstorm on July 16, 2013**



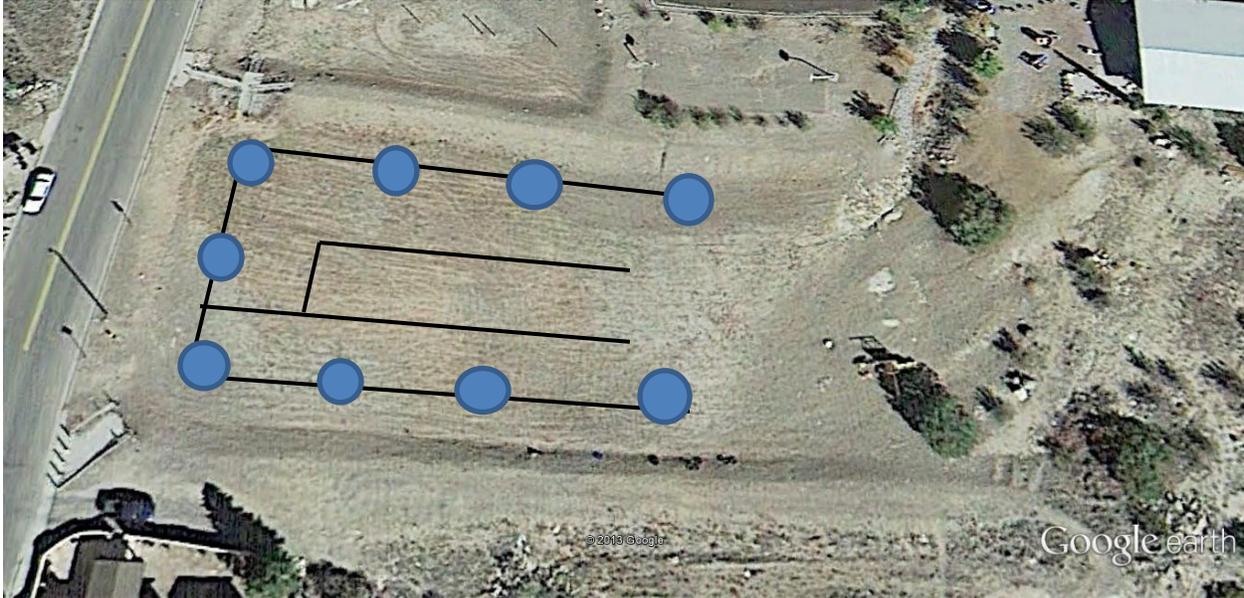
**Fig. 3: Street Runoff Flowing Into Detention Basin on July 16, 2013**



**Fig. 4: A close up view of stormwater in the detention basin on July 16, 2013**

A landscape and irrigation contractor was hired to work with the Parks Manager to develop and implement a plan to plant trees and grasses in the 150' x 80' area, and provide supplemental irrigation. The Town installed a water meter next to an existing fire hydrant to supply the irrigation water.

The contractor installed an irrigation system with underground plumbing to irrigate nine 24" box Arizona Sycamore trees with drip irrigation and a grassed area with spray irrigation. The area was graded and approximately 100 cubic yards of local topsoil was spread. Then the area was broadcast seeded with 120 pounds of ornamental turf- type tall fescue and perennial rye grasses. Finally, a mixture of aged compost and steer manure (225 cubic feet ) was distributed over the approximately 12,000 square foot area as mulch. See Figure 5 for a plan view drawing of the project. The Town will pay for the irrigation water and the Public Works and Parks Department will maintain the trees and the new infrastructure.



**Fig. 5: Plan View of Irrigation System and Tree Location**

The Arizona sycamore trees will grow into large, beautiful trees that will provide abundant shade in a previously unattractive location. Stormwater runoff will provide a portion of the irrigation water needed to keep these trees alive and healthy. The grass cover will not only provide a nice place to play and sit, it will provide soil erosion control and help retain soil moisture.



**Fig. 6: Photo of completed project area after morning irrigation October 29, 2013**



**Fig. 7: The Arizona Sycamore trees appear healthy after one week in the ground, October 29, 2013.**