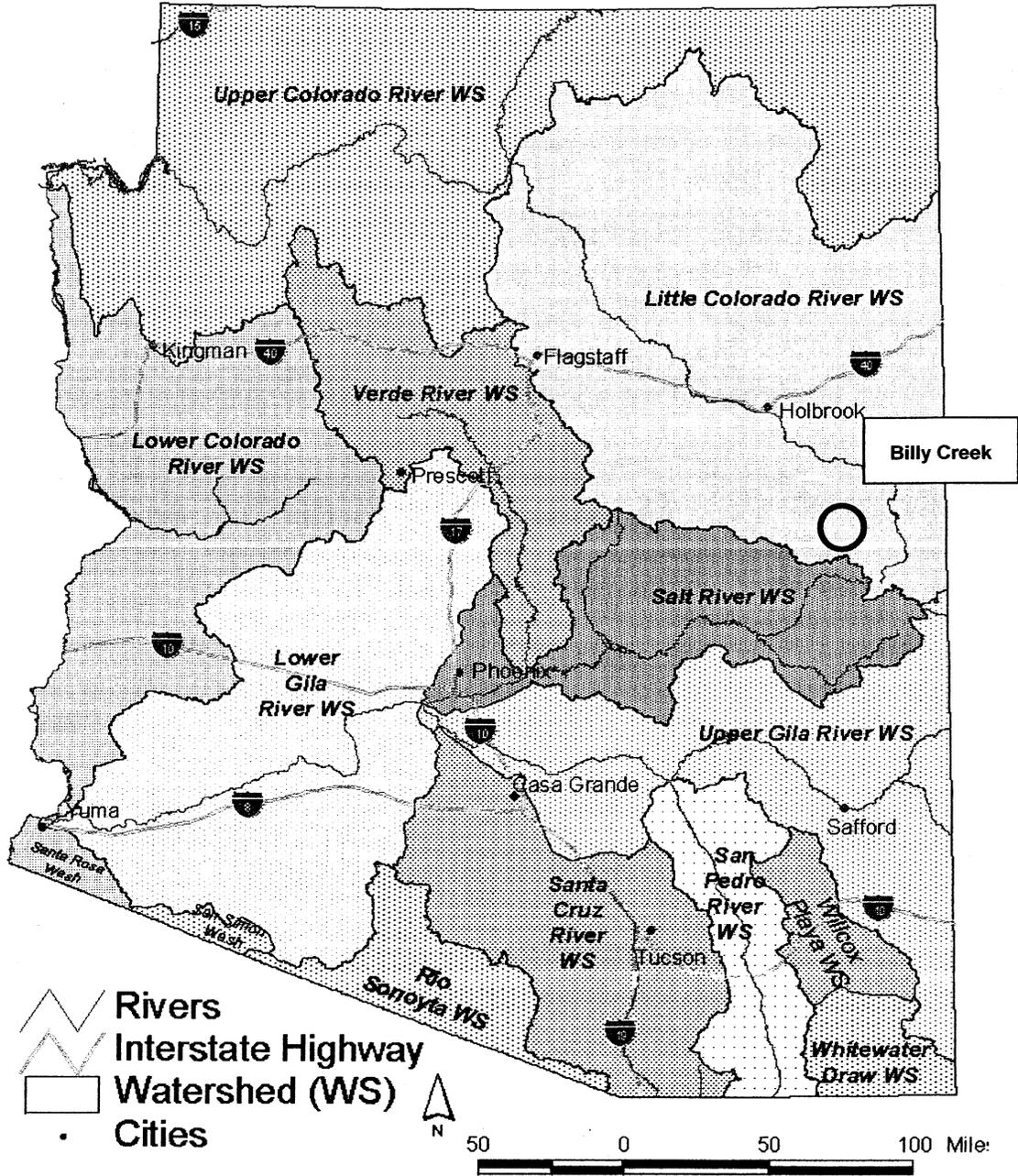


ARIZONA WATERSHED MAP FY 2008



Title of Project: Billy Creek Natural Area Riparian Restoration Project

EXECUTIVE SUMMARY

The purposes of this project are to: 1) restore and enhance riparian vegetation/habitats and proper hydrologic conditions/functions along 1 mile of Billy Creek in Eastern Arizona by removing two low, non-functioning earthen berms, stabilizing eroding stream banks, removing large pieces of concrete debris, and revegetating areas with native riparian plant communities; 2) protect the area from ATV and other destructive uses by limiting motorized vehicle access; 3) promote stewardship of riparian areas by installing interpretive signage to educate local residents on the value of properly functioning riparian systems; and 4) provide a successful pilot project to develop a strong, active constituency for support of other sections of Billy Creek. The project lies on public lands within the boundaries of the Town of Pinetop-Lakeside and will provide the foundation for a unique riparian corridor through this rapidly growing area (see Project Site Photographs, Figure 11).

The natural geomorphology and channel characteristics of Billy Creek have been altered by two large breached earthen berms that are increasing lateral erosion and destabilizing banks, causing soil loss and increasing sedimentation in the stream as they also increase the risk of unpredictable flood hazards. Concrete debris has been placed along banks by landowners in an attempt to stabilize the stream but now reduce riparian vegetation (Figure 12). Several landowners have constructed low earthen or rock walls and removed vegetation on lands actually belonging to the county in an apparent attempt to create ponds and enhance their property and/or view (Figures 13, 14).

The project will remove the failed earthen berms and the other encroachments to restore natural channel and floodplain characteristics, stabilize eroding stream banks using bioengineering and native plant species, close existing ATV access points, install signage to increase knowledge of Billy Creek, and revegetate areas of disturbance and/or impaired habitats (Figures 15, 16). This project will reduce bank erosion and thereby reduce the sediment load into Billy Creek. The applicant has called ADEQ to obtain any pertinent TMDL reports. Agency personnel referenced Rainbow Lake TMDL, which focuses on nitrogen and phosphorous. Thus, no best management practices will be utilized from the report. A monitoring program will measure project success. An active outreach program will be implemented to educate the adjacent landowners and the public and develop a strong local constituency.

The Town of Pinetop-Lakeside is located at 7,000 feet in the Ponderosa pine forests of the picturesque White Mountains of Eastern Arizona. The climate and natural beauty make it a popular summer home community, attracting many new residents who do not understand the fragility and uniqueness of perennial montaine streams in Arizona. The land surrounding the project area is owned by Navajo County. The Town has recently renewed a 100-year lease to manage the property, including the regulatory floodplain along the stream channel. Formal letters have been sent to notify all adjacent landowners of proposed restoration and enhancement activities. The Town Council has formally zoned the area as Open Space and wishes to enhance, restore, and protect the unique character and habitats of Billy Creek. It has future plans to develop an urban trail system along the creek through the community. This restoration/outreach project will provide a strong foundation for building a conservation constituency in the community.

Billy Creek provides a unique opportunity to enhance, restore, and protect a riparian area in an growing urban area. The project will not only benefit the immediate stream reach but will serve as a successful example and catalyst for the protection of upstream and downstream reaches. It will be a showcase of riparian restoration and a point of pride for the community. The project has broad public support.