

O.C. Fisher Lake Ecosystem Restoration Project
STATUS REPORT
October 2009

The O.C. Fisher Lake Ecosystem Restoration Project is a project of the United States Army Corp of Engineers under the authority of Section 1135 of the Water Resources Development Act of 1986. The Upper Colorado River Authority is the local, non-Federal sponsor of the project. The project is being through the cooperative efforts of the City of San Angelo (COSA), Texas State Soil and Water Conservation Board (TSSWCB), Texas Parks and Wildlife Department (TWDP), Angelo State University (ASU), Texas AgriLife Research, and U.S. Fish and Wildlife Service (USFWS).

The purpose of the project is the restoration of the ecosystem of O.C. Fisher Lake basin and surrounding area. To this end, a multi-year feasibility study was performed for the purpose of identifying the environmental degradation caused by the construction and operation of O.C. Fisher Lake, and to develop and evaluate restoration measures to restore the integrity and diversity of the ecosystem to a more natural and sustainable condition. That results of that study were documented in a Detailed Project Report (DPR) and Integrated Environmental Assessment, which was completed in June 2005.

The study area is located in northwest Tom Green County of west central Texas adjacent to the city limits of San Angelo. It is located on the North Concho River, 6.3 miles above the river's confluence with the South Concho River of the Colorado River watershed. All lands, with exception of the dam and uncontrolled spillway operated by USACE, are operated and maintained through license agreements with USACE. ASU operates and maintains the land north of the North Concho River for fish and wildlife management, biological research, education, and plant conservation. TPWD operates lands south of the river for multiple recreational purposes.

Environmental degradation began in 1952 during construction of the reservoir. Approximately 253 acres of prime riparian habitat and a total of 7,524 acres of woody vegetation were lost. Large acreages of native prairie were also lost. Environmental degradation continued from operation of the project upon completion of the reservoir. Livestock were allowed to graze upon the lands and naturally occurring wildfires were suppressed. Overgrazing and removal of fire, coupled with drought conditions and subsequent drop in lake level, allowed invasive brushy species the opportunity to dominate the habitat and negatively impact the hydrology of the ecosystem. Each year, invasive brushy species continue to expand their range, further depleting the hydrological regime of the ecosystem through high rates of evapotranspiration.

Invasive brushy species include saltcedar, mesquite, and willow baccharis, all of which detrimentally alter the historical habitat conditions due to their prolific growth and high

moisture consumption. Recommendations of the plan include control of these species through chemical and mechanical treatments. The implementation phase of the project began in August of 2007 with ground-truthing of type-density identifications and delineations of various invasive brushy species.

Actual treatment of brushy species began in May 2008 with aerial application of herbicide to treat willow baccharis. Over 1600 acres were sprayed in May and June. This was followed with treatment (also by aerial application) of approximately 1300 acres of saltcedar in the fall of 2008. Mechanical removal of mesquite began in February 2009.

Approximately 500 acres of mesquite was removed through June of 2009. At that time, Mesquite Fuels & Agriculture, Inc., the company contracted to remove the mesquite, stopped its operations at O.C. Fisher temporarily, but is scheduled to resume excavation activities in January 2010.

Some time after the willow baccharis was sprayed it was determined that the initial treatment failed to achieve acceptable results. It has been surmised that the poor kill rate is attributable to the plants being in a stressed condition prior to spraying. The chemical company, DuPont, and the applicator, North Star Helicopters, have agreed to retreat the willow baccharis at no additional cost to the project. That treatment could occur as early as spring 2010, but the willow baccharis will be sprayed only when the conditions are deemed optimal for achieving the desired results, which may push its implementation to a later year.