WILDLIFE HABITAT COUNCIL℠

Case Study 17

Tall Grass Prairie Case Study	
Name and Location	**Site Name:** Tall Grass Prairie, OK **Site Location:** Pawhuska, OK
Ecological Enhancement	Changed brine scared land with no vegetation into a native prairie area over 15,000 hectacres. Buffalo population re-stimulation.
Site Description	The Tall Grass Prairie housed a chemicals facility and a petroleum well field. The land is located on Osage Indian Land. Accidental releases of brine have occurred resulting in high saline/sodic conditions and hence, loss of soil fertility. Several brine scars exist throughout the Prairie. Historical photographs of the scars date back to the 1930s. At the chemicals plant site, the groundwater is also impacted by heavy metals.
Site Reuse Description	The Nature Conservancy is revegetating over 15,000 hectacres and stimulating buffalo re-population.
Stakeholder Involvement	BP, Nature Conservancy, Bureau of Indian Affairs, Oklahoma Energy Resource Board (OERB).
Site Assessment Approach and Cleanup	In late 1999, Eucalyptus trees were planted to accumulate and stabilize the inorganics. Certain inorganics will be phytosequestered versus others that will be phytoextracted. The "scars" have high salinity and sodic conditions down to 3 feet of depth. In 2000-2002 several test plots were planted with a variety of seed containing Canadian Wild Rye and Indian Grass among others. These plants enhance soil remediation and stabilization.
Reuse	While the growth has been slow, the site had been devoid of vegetation for 70+ years.
Obstacles	July in Oklahoma is a bad time to plant.
Costs and Funding	
Economic and Other Incentives	Public perception of this site will increase substantially. Going from scars to vegetated property is a major change.
Time	This project is on-going.
Other	
Contact	Dr. David T. Tsao, (630) 420-4321.

Information	