



USDA-CSREES 2007 National Water Quality Conference

Plum Creek Watershed Protection Planning

State and federal water resource management agencies have embraced the watershed approach for managing water quality. The watershed approach involves assessing sources and causes of impairment and utilizing this information to develop and implement watershed management plans. To date, most plans have been developed in conjunction with a TMDL. Also, most have involved substantial resource investment and required multiple years. Few plans have been developed in the U.S., none in Texas, which fully satisfy EPA's nine element guidance. Given the more than 400 watersheds in Texas that are in immediate need of action due to known impairments, strategies for more cost-effective and time-efficient watershed plan development are needed. Limited modeling approaches may be valuable and should be compared to other innovative methods to establish value thresholds. Successfully implemented plans may be able to prevent or resolve potential and existing water quality problems and preclude the need for development of a TMDL. With a watershed area of 388 mi², Plum Creek flows 52 miles from the foot of the Edwards Plateau, near Austin, through Blackland Prairie and East Central Texas Plains. The entire segment is listed as impaired for bacteria and with concerns for nutrient levels in the 2004 303(d) list. The three county watershed is a complex landscape of expanding urban development at the headwaters of Plum Creek and predominantly agricultural lands at the southern end of its watershed. This diverse setting provides challenges but serves as a unique setting for outreach, planning, implementation, and monitoring. This project works in concert with federal, state and local agency partners to coordinate a stakeholder driven process for development of a Watershed Protection Plan (WPP) in the Plum Creek Watershed, which satisfies EPA's nine element guidance. Implementation of the WPP will result in a viable, locally-driven solution to current water quality concerns.

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