

**STRATEGIC PLAN  
For  
NATIONAL ENVIRONMENTAL POLICY ACT DOCUMENTATION,  
TAR CREEK and LOWER SPRING RIVER WATERSHED  
MANAGEMENT PLAN,  
OTTAWA COUNTY, OKLAHOMA**

Prepared for

**US Army Corps of Engineers  
Tulsa District**

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## **Introduction**

Weston Solutions, Inc. was tasked by the United States Army Corps of Engineers, Tulsa District to provide a Strategic Plan for National Environmental Policy Act (NEPA) Documentation, Tar Creek and Lower Spring River Watershed Management Plan, Ottawa County, Oklahoma under Contract No. DACA56-02-D-2008. This plan is being prepared to detail how NEPA can be used as a planning tool to integrate environmental concerns into policies and programs rather than individual projects, and provide a broad umbrella for consolidation of environmental compliance for existing projects, programs and future actions within the affected watersheds.

## **Background**

The Tar Creek and Lower Spring River watersheds are located in northeast Oklahoma, southeast Kansas, and southwest Missouri. In the early 1890's and until the early 1970's, these watersheds were extensively mined for lead and zinc ores. Acid mine drainage containing high concentrations of heavy metals began discharging into Tar Creek in 1979 from natural springs, boreholes, and open mine shafts. Since cessation of mining and associated ore milling activities, numerous health and safety issues have developed within these watersheds. Major identified problems resulting from previous mining activities include; public health risks related to elevated levels of heavy metals (specifically cadmium and zinc), open mine shafts, contaminated groundwater, surface water, and sediments throughout the region, and large metal contaminated chat piles.

In Oklahoma the U.S. Environmental Protection Agency (EPA) listed the Tar Creek Superfund Site on the National Priorities List in 1983 making it subject to the Comprehensive Environmental Response, Compensation Liability Act of 1980 (CERCLA, 42 U.S. C.) Since that time, the EPA has been working on clean-up and remediation activities at the Tar Creek site. Other agencies or groups involved with or assisting the EPA on remediation and clean-up work at the Tar Creek Superfund site include the Oklahoma Department of Environmental Quality (ODEQ), U.S. Geological Survey (USGS), U.S. Army Corps of Engineers (USACE), Department of Interior (DOI), University of Oklahoma (OU), Agency for Toxic Substances and Disease Registry (ATSDR), and Native American tribes.

In 2003 the USACE, Tulsa District, received approval to conduct a reconnaissance phase study and prepare a concept Watershed Management Plan (WMP) that identifies alternatives for the Tar Creek and Lower Spring River watersheds that complements either on-going or planned projects. This effort provides a holistic approach to solving numerous problems within the affected watersheds. In addition to the previously identified mining issues and concerns, watershed resource concerns investigated include chronic flooding and drainage problems, ecosystem impairment and

restoration, degraded water quality, air quality, natural resource damages, and Native American issues.

### **National Environmental Policy Act and Implementing Guidance**

The National Environmental Policy Act (NEPA) was enacted by Public Law 91-190, Jan. 1, 1970; 83 Stat. 852. 42 U.S.C. 4321; Amended by PL 94-52, July 3, 1975; PL 94-83, Aug 9, 1975). The purposes of the Act are: (1) to declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man: to enrich the understanding of the ecological system and natural resources important to the Nation: and (2) to establish a Council on Environmental Quality (CEQ).

With passage of the NEPA Congress provided the first comprehensive national policy for the environment. The Congressional Declaration for NEPA states:

*“The Congress, recognizing the profound impact of man’s activity on the interrelations of all components of the natural environment,...declares that it is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public land private organizations, to use all practicable means and measures...to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans” (42 U.S.C. sec. 431 (a )).*

Section 101 of the Act provides that federal agency decision-makers in carrying out their duties have the responsibility to “use all practicable means and measures” to:

- (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- (2) assure for all Americans safe, healthful, productive and aesthetically and culturally pleasing surroundings;
- (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable le and unintended consequences;
- (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain wherever possible, an l environment which supports diversity and variety of individual choice;
- (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life’s amenities; and

- (6) Enhance the quality of renewable resources and approach the maximum attainable recycling of depleted resources (42 U.S.C. sec.4331 (b)).

Section 102 of the Act is the principal driver of NEPA which authorizes and directs all federal agencies to

- (1) use a systematic, interdisciplinary approach which integrates natural and social sciences and environmental design arts in planning and decision making;
- (2) identify and develop methods to insure that presently unquantified environmental amenities and values may be given consideration in decision making along with economic and technical considerations;
- (3) include in every recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on –
  - (i) the environmental impact of the proposed action
  - (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented
  - (iii) alternatives to the proposed action
  - (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity
  - (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented
- (4) study and develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning uses of available resources;
- (5) support international programs to prevent decline of mankind's world environment;
- (6) initiate and utilize ecological information in the planning and development of resource-oriented projects; and
- (7) assist the Council on Environmental Quality established by this Act.

Subsection 102 (2) c of the Act requires federal agencies to prepare environmental analyses, with input from state, and local governments, Indian tribes, the public, and other federal agencies, when considering a proposal for a major federal action. CEQ guidelines for implementing environmental quality regulations on

environmental impact statements are published in 40 CFR 15 parts 1500-1508 (July 1, 1986). U.S. Army Corps of Engineers regulations for implementing NEPA procedures are published in 33 CFR, 45 FR 56761, August 25, 1980; Amended by 46 FR 14745, March 2, 1981; Revised by 53 FR 3127, February 3, 1988.

The basic procedural guide for the preparation, coordination, and filing of NEPA documentation for the USACE is found in ER 200-2-2, dated March 1988. All NEPA related documentation for the Tar Creek and Lower Spring River WMP Phase II Feasibility Study would be prepared in accordance with these implementation guidelines.

### **Strategic Plan for NEPA Documentation**

Compliance with the NEPA is critical to the success of the Watershed Management Plan. Some remediation efforts in the watersheds have been exempt from NEPA, while others are not. Some agencies are complying with NEPA on an individual project basis without considering cumulative impacts on the entire watershed. In some instances there have been no efforts to comply with NEPA. Implementation of the Phase II Feasibility effort would be in accordance with the Economic and Environmental Principles and Guidelines for Water Related Land Resources Implementation Studies (Principles and Guidelines) and will require full compliance with the NEPA.

NEPA compliance with respect to addressing and considering all identified watershed management alternatives, completed remediation projects, demonstration projects, individual agency actions, proposed future actions, and unknown future projects and actions on a case by case would be extremely costly, untimely, and counter to the intent of the Act. The NEPA is to be used as a planning tool to integrate environmental concerns into policies and programs rather than individual projects. To resolve this problem the following strategic plan for NEPA compliance is proposed:

- (1) A Federal agency will be designated the lead agency in preparing, coordinating, and filing a broad programmatic environmental impact statement for the affected watersheds (40 CFR parts 1508.16);
- (2) Major stakeholders and agencies will be asked to become a “cooperating agency” for the programmatic Environmental Impact Statement (EIS) (40 CFR parts 1508.5);
- (3) As future site specific projects are formulated and developed or pilot demonstration projects proposed, the appropriate NEPA documentation (Environmental Assessment (EA) or Supplement to the Programmatic Environmental Impact Statement (SEIS) would be prepared and tiered back to the broad overall programmatic EIS for the WMP prior to construction or implementation (40 CFR part 1508.28).

**Summary of Known Tar Creek and Lower Spring River Watershed Activities, Post 2004**

Numerous investigations, studies, and projects have been completed, proposed, or under construction within the affected watersheds by various agencies. Generally, these projects can be included in the following categories and will be used as the “proposed action” for completing the programmatic environmental impact statement for the WMP:

**Contingent on Approvals, Tar Creek and Lower Spring River Watershed Management Plan Implementation**

Hydrologic Modeling in Selected Key Areas  
Programmatic Environmental Impact Statement

**The Oklahoma Plan for Tar Creek Activities (Detail of activities schedule TBD)**

Mine hazard attenuation  
Land remediation  
Passive treatment of metal contaminated mine waste

**Tribal Projects (TBD)**

**Environmental Protection Agency Activities in OK, KS, and MO**

- **EPA Region VII- Tar Creek and Lower Spring River Watersheds in KS and MO**

Tar Creek Watershed: Treece, KS (RI/FS complete)  
Lower Spring River Watershed: Complete On-going const. Baxter Springs, KS.  
Lower Spring River Watershed: Sub sites in Cherokee Co., KS, OP Unit 6  
Lower Spring River Watershed: Jasper County Mo. OP Unit 2

Lower Spring River Watershed: Newton County MO., Newton County Mine Tailings Site (proposed Superfund Site): Bottled water; Cleanup of yard soil at contaminated residential properties; installation of public water supplies to homes with contaminated private water wells

- **EPA Region VI-Tar Creek Superfund Activities**  
Yard Remediation: Operable Unit 3 Completion Activities  
Mining Waste Disposition: Operable Unit 4 Activities

**Bureau of Indian Affairs (BIA) Activities**

Sale of Marketable Chat Environmental Assessments and Agency  
Coordination  
Identification of Mine Shaft Hazards on BIA Property

**Additional Activities (Subject to Approvals and Funding)**

Post-Reconnaissance Phase Watershed Management Plan Development  
Activities  
Completion of the Agency for Toxic Substances and Disease Registry  
(ATSDR) ATSDR Risk Assessment  
Non-Structural Health Initiatives  
Final Complementary Plan Determination Concurrent w/Hydro-geologic  
modeling of “With Project” Conditions

Design-Construct Activities  
Chat Slurry and Injection- Kenoyer Tailings Pilot Project  
Passive Treatment of Groundwater Utilizing Kenoyer Tailings  
Pilot Project  
Land Forming/ Re-vegetation

Stabilization of high priority areas prone to potential subsidence  
Reduce flooding at Picher, OK and Cardin, OK  
Reduce flooding at Miami, OK  
Reduce mine seeps by groundwater control, if feasible  
Restoration riparian corridors

**Stakeholders**

Subsection 102 (2) c of the NEPA requires federal agencies to prepare environmental analyses, with input from the state, and local governments, Indian tribes, the public, and other federal agencies, when considering a proposal for a major federal action. Scoping and public involvement are critical to the planning and decision making process (40 CFR parts 1506.6) and should engage the public early in planning process. The USACE initiated Scoping for the Phase I Watershed Management Plan Reconnaissance effort by conducting public meetings at Picher, Oklahoma on October 7, 2003 and Miami, Oklahoma on October 9, 2003. Subsequent meeting were held at Picher-Cardin on February 24, 2004, and March 25, 2004 and July 7, 2004.

Through intense agency coordination efforts and the Scoping process for the WMP, the following preliminary list of stakeholders and potential EIS Cooperators has been developed:

**Lead Federal Agency for NEPA Compliance**

To Be Determined

**Potential EIS Cooperators**

U.S. Environmental Protection Agency Region VI

U.S. Environmental Protection Agency Region VII

U.S. Department Interior

Bureau of Indian Affairs

U.S. Fish and Wildlife Service

Bureau of Land Management

U.S. Army Corps of Engineers

U.S. Geological Survey

U.S. Department of Agriculture

- National Resource Conservation Service

American Indian Governments

- Quapaw
- Wyandotte
- Peoria
- Ottawa
- Seneca-Cayuga
- Eastern Shawnee
- Cherokee
- Miami
- Modoc
- Shawnee

Agency for Toxic Substances and Disease Registry (ATSDR)

State of Oklahoma

- Oklahoma Department of Environmental Quality
- Oklahoma Corporation Commission
- Oklahoma Conservation Commission
- University of Oklahoma
- Oklahoma State University
- Oklahoma Geologic Survey
- Oklahoma Department of Mines
- Oklahoma Water Resources Board

State of Kansas

- Kansas Department of Health and Environment
- Kansas Geological Survey
- Kansas Department of Human Services
- Others

State of Missouri

- Department of Natural Resources
- Others

**Local Stakeholders**

City of Picher, Oklahoma  
City of Miami, Oklahoma  
City of North Miami, Oklahoma  
City of Commerce, Oklahoma  
City of Cardin, Oklahoma  
City of Quapaw, Oklahoma  
Grand Gateway Economic Development Authority  
University of Tulsa  
Cherokee County, Kansas  
City of Treece, Kansas  
Ottawa County, Oklahoma  
Ottawa County Reclamation Authority  
Communities in Missouri

**Other agencies / Groups involved**

Ottawa County Health Department  
Oklahoma Department of Health  
Various City Public Health Departments  
Tar Creek Basin Steering Committee  
Speak Out

Local Environmental Action Demanded (LEAD) Agency  
Tribal Efforts Against Lead (TEAL)  
Inter-Tribal Environmental Council;  
Cherokee Volunteer Society

Contingent on approvals, the final list of potential cooperators will be determined and each agency or group will be contacted formally, and requested to be a cooperator for the programmatic environmental impact statement.