

Agencies and Organizations Involved with Hot Springs Village Water Issues September, 2010

PC&C - Arkansas Pollution Control and Ecology Commission

PC&C is the environmental policy making body for Arkansas. With guidance from the Governor, the Legislature, the EPA and others, the Commission determines the environmental policy for the state, and Arkansas Department of Environmental Quality (ADEQ) implements those policies.

PC&C Regulation #2 governs water issues and is being revised in 2010.

Waterbodies in the state are classified by use, with the most sensitive classification being Extraordinary Resource Waters. The upper Saline River system, along with 51 other waters in the state, are included in this classification. This means that it is provided extra protection by the State because it's beneficial use is a combination of the chemical, physical and biological characteristics of the waterbody and its watershed which is characterized by scenic beauty, aesthetics, scientific values, broad scope recreation potential and intangible social values.

EPA - Environmental Protection Agency

The EPA mission is to protect human health and to safeguard the natural environment - air, water and land - upon which life depends. To do this they develop and enforce regulations based on environmental laws passed by Congress. They often set national standards that states enforce through their own regulations. They also give grants for environmental programs, study environmental issues, and work with businesses, organizations, and other state and local agencies.

ADEQ - Arkansas Department of Environmental Quality

ADEQ deals with point-source pollution and water quality. They strive to protect and enhance the state's environment through regulatory programs, proactive programs and educational activities. There are six regulatory divisions. Air,

hazardous waste, regulated storage tanks, solid waste, mining, and water. Each division performs these function:

1. Administers environmental protection programs as detailed in regulations.
2. Issues permits to facilities.
3. Issues licenses or certifications to workers in environmental fields.
4. Conducts inspections.
5. Takes enforcement action against violators.

ADEQ has 30 regulations that detail how they carry out state and federal environmental laws. All states are subject to Federal environmental laws passed by the U.S. Congress. Arkansas specific policy and standards are made law by the Arkansas General Assembly.

The PC& E Commission sets environmental policy for the state and ADEQ implements those policies.

ANRC - Arkansas Natural Resources Commission

ANRC deals with non-point source pollution and water planning. Their job is to manage and protect our water and land resources. They work with areas such as levee's, drainage, irrigation, watersheds, river improvements, and ground water protection. ANRC has responsibility for the regulation of the withdrawal of water from streams and reservoirs.

USGS - U.S. Geological Survey

USGS is a multi-disciplinary science organization that focuses on biology, geography, geology, geospatial information, and water. They are dedicated to the timely, relevant, and impartial study of the landscape, our natural resources, and the natural hazards that threaten us. USGS is who operated the gauges on the Middle Fork from 2002 to 2008 with financial assistance from the POA.

In 2007 the USGS issued a 65 page report on the Geomorphic Characterization of the Middle Fork, Saline River. The study was done to help address concerns raised by local residents, State, and Federal agencies about the current geomorphic conditions of the Middle Fork, Saline River. Basically they compared nine sections of the upper Middle Fork to what is considered normal stream

characteristics of a Ouachita mountain stream. The upper sections of the river were comparable to the norm, while the lower sections were slightly wider and shallower, but are gradually adjusting to the norm. The report concluded that it is practically impossible to relate the differences in stream characteristics to any specific disturbance to the river basin.

In 2007 USGS issued a 77 page report on the Water Quality and Biological Characteristics of the Middle Fork of the Saline River for the period 2003 to 2006. The primary purpose of the study was to describe the water qualities and biological characteristics of the Middle Fork and to compare these to factors that potentially affect the ecology of the stream. Water quality samples were collected at three sites in the Middle Fork Basin between 2003 and 2006. The study was broken down into the study of streamflow, water quality, and biological data including aquatic macro invertebrates, fish, and physical habitat.

The report concluded that point sources and nonpoint sources of nutrients occur in the basin and these could affect water quality. Nutrient concentrations were significantly greater during high-flow conditions and lowest during the summer months. Nitrogen, phosphorus, and metals concentrations were generally greatest in Mill Creek and in the Middle Fork just below where Mill Creek enters it. Further downstream these values returned to the levels found above Mill Creek. Annual flow-weighted nutrient concentrations were greater than relatively undeveloped streams, but less than some others in Arkansas. E-coli concentrations were greater at the location above the Village and during periods of high flow. Concentrations of boron, copper, and zinc were greatest in Mill Creek and in the Middle Fork just below Mill Creek.

Habitat scores at all of the sites were generally suboptimal, and were generally associated with substrate embeddedness, bank stability, and riparian vegetative zone width. This could relate to wastewater treatment plant effluent, land use and land use practices, construction activities, and unpaved roads.

FWS - U.S. Fish and Wildlife Service

FWS is a bureau within the Department of the Interior. Their mission is to work with others to conserve, protect and enhance fish, wildlife and plants and their habitats for the continued benefit of the American people. Functions they

perform include, enforce federal wildlife laws, protect endangered species, manage migratory birds, restore nationally significant fisheries, and conserve and restore wildlife habitat. FWS is charged with protecting the Arkansas fatmucket mussel and the Ouachita Madtom catfish. The Arkansas fatmucket is currently listed as threatened. The Ouachita Madtom, which has been studied since the 1970's is currently unlisted because it has been proven to be more abundant than previously believed. Both are known to exist only a small area of Arkansas which includes the upper Saline River system.

AGFC - Arkansas Game & Fish Commission

AGFC is charged with wisely managing all the fish and wildlife resources of Arkansas while providing maximum enjoyment for the people. AGFC assists the Village with the stocking of fish in our lakes, the sampling of fish populations, providing deer counts, and supervising deer bow hunts. They also perform checks of compliance with state boat safety and fishing laws on our lakes.

TNC - The Nature Conservancy

TNC is the leading conservation organization working around the world to protect ecologically important lands and waters for nature and people.

In 2008 TNC completed a two year study of the Saline River system, primarily the Middle Fork, which was funded by the EPA Clean Water Act. The study concluded that the worst pollutant was sediment from eroding stream banks, unpaved roads, development, timber management and pasture lands. As a result of this study the FWC funded a program for TNC and the AGFC to restore a 1,500 foot bank along the Middle Fork near Crows. This section of bank had been dumping about 1,770 tons of sediment into the Middle Fork every year.

In 2007 Cooper Communities donated 123 acres in Hot Springs Village along the Middle Fork to the Nature Conservancy.

SWA - Saline Watershed Alliance

Its purpose is to secure water sources for the citizens of Saline County through the year 2050, and to provide this water to the utilities in the county at a uniform

price. Currently Judge Lanny Fite is leading an effort to purchase 9,000 acres of land on the Little Alum Fork Creek, a secondary tributary of the Saline River. They would then build a lake which would hold about 17,000,000 gallons of water. The estimated cost is \$57,000,000 and would be paid for by a 1% sales tax increase that would last about seven years.

MAWA - Mid-Arkansas Water Alliance

Consists of 26 water systems in Mid-Arkansas of which the POA is a member. The alliance's goal is to identify and gain the additional water needed for its customers for the next 50 years. Assisting in this effort are the Little Rock office of the U.S. Corps of Engineers, the Arkansas Natural Resources Commission, and the Ouachita River Water District. MAWA works closely with the Saline Watershed Alliance. Hot Springs Village has indicated its desire to secure 500,000 gallons per day of the allocated lake Ouachita water from the Corps of Engineers.

AIM - Alliance for an Improved Middle Fork

AIM was formed in the early 2000's when there was a lot of dispute about whether the Village was affecting the flow of the Middle Fork. At about the same time the POA, along with the USGS, funded several gages on the Middle Fork. AIM provided a forum for stakeholders to evaluate scientific data and issues, initiate public outreach and education, and develop and implement improvement projects that the promote effective stewardship of the Middle Fork. AIM is currently inactive.

