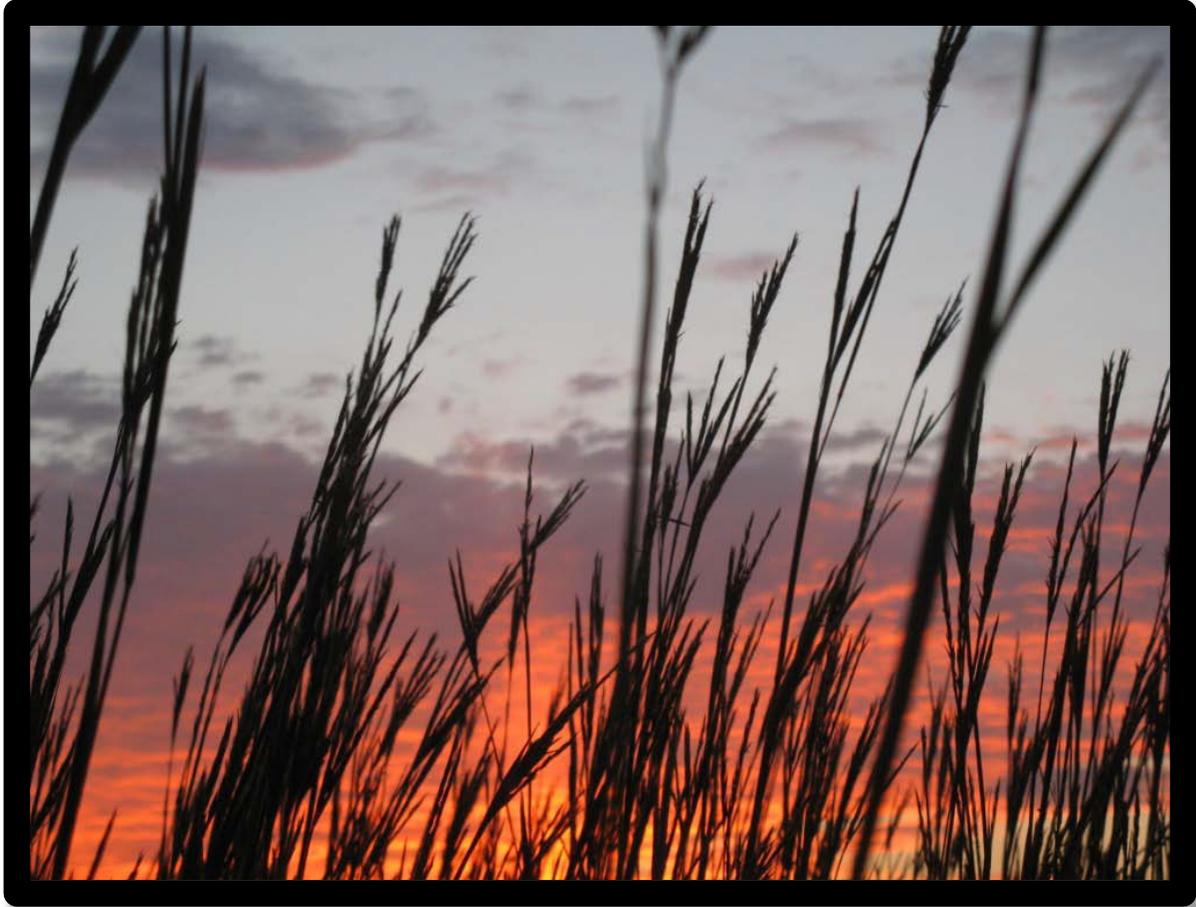


Background Information,
History of El Dorado Lake and
Watershed Restoration and Protection Strategy
(WRAPS) *(updated February 2019)*

In 1918, Rolla Clymer moved his young family to El Dorado, Kansas, where he became editor and manager of the El Dorado Republican, (then the El Dorado Times, now the Butler County Times-Gazette). He served Butler County, El Dorado and the Flint Hills in that capacity for 59 years. In his later years Clymer devoted much of his time to efforts to preserve the Kansas Flint Hills region which he dearly loved. In addition to newspaper editorials, he wrote and published numerous widely circulated articles and poems about the Flint Hills. Perhaps his best known tribute was his poem "Majesty of the Hills." An excerpt:

"The Flint Hills are changeless and unchanging-and have so stood since their limestone ridges first broke from beneath the surface of prehistoric seas. All modern development, the growing complexity of civilization's advance have surrounded and hemmed them in but have failed to alter their essential character. They vie not in grandeur with the mighty Rockies, nor do they aspire to eminence among the nation's fondly cherished landmarks. Yet they possess unique glory and appeal, which stems from their gentle and healing moods. For ones bowed by worldly discouragement and disillusion, they offer spiritual enchantment through eyes opened to their beauty and constancy."



Sunset over the Flint

El Dorado Lake

El Dorado Lake was first proposed by the Kansas State Board of Agriculture in December 1944 as a solution to river basin flooding problems. On February 19, 1964, United States Congress approved the Corps of Engineer's proposal recommending construction of El Dorado Lake. On February 1, 1972, El Dorado City Commission passed an ordinance authorizing the City to enter into a contract with the U S Government for all the water supply in the lake. The City would pay 41% of the construction cost in return for access to water storage that would provide 22 million gallons per day in a 50 year drought. Land acquisition started in 1975 and actual construction of the dam began in 1977. The dam was closed in June 1981.

El Dorado Lake is one of the newer lakes in Kansas, only 35 years old, compared to Kanopolis Lake in Ellsworth County, one of the first lakes built, at 66 years old. At El Dorado Lake's conservation pool elevation of 1,339.00 feet, 8,400 acres are covered with a lake storage capacity of 50 billion gallons. The Lake has 247 square miles of drainage basin (part of the Upper Walnut Watershed), 98 miles of shoreline and 3,891 acres of state park land, making it the largest state park in Kansas. Average depth of the Lake is 19 feet with the deepest part being 63 feet.



El Dorado Lake Intake

How long can El Dorado Lake Provide Water to
Citizens of Butler County?

El Dorado Lake was designed to last 100 years. As the Lake ages, it fills with sediment from the land, creeks and river (the watershed) above it. Most of the sediment that gets deposited in the Lake occurs during heavy rainfall and flooding events. As the Lake fills with sediment, the water holding capacity decreases. The Kansas Water Office estimates that in the year 2081, El Dorado Lake would be full of sediment and would no longer be able to be used as a water supply.

Now the bad news:

Some sedimentation is unavoidable; however, various sedimentation studies have been completed on El Dorado Lake and they show the lake filling up with sediment *before* the 100 year lifespan. One study predicts at the current sedimentation rate, the lake will be full of sediment by the year 2043. For some of us, that is still in our lifetime! Other lakes in Kansas are already facing the reality of excess sedimentation.



Stream bank erosion is one contributor to increased sediment in El Dorado Lake

In addition to sediment, excess nutrients that run off into the Lake from the watershed above are also a concern. Excess nutrients cause algae blooms. Some algae blooms can be toxic. Several lakes in Kansas have had toxic algae blooms the past few years. Other problems excess nutrients cause include taste and odor problems in drinking water and increases in the cost of water treatment.



Waste from livestock or wildlife activities around streams and manure or fertilizer that enter water sources by way of runoff contribute to excess nutrients in El Dorado Lake.

This is where the Watershed Restoration and Protection Program (WRAPS) can Help

Kansas WRAPS offers a framework that engages local citizens and other stakeholders in a teamwork environment aimed at protecting and restoring Kansas watersheds.

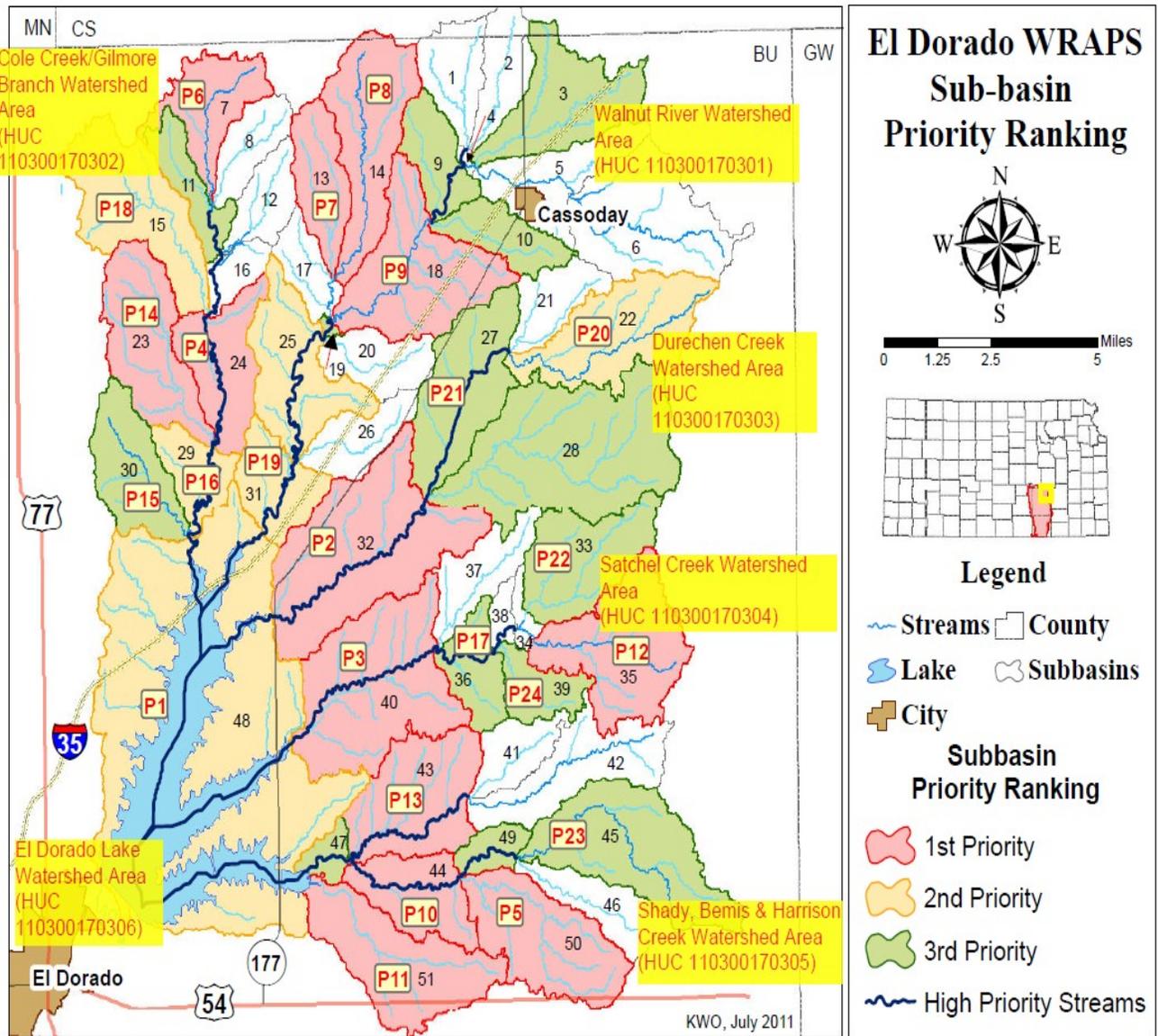
The WRAPS program is unique because the natural resource agencies of Kansas seek local input from citizens on how to best manage and protect our watersheds. Members help identify watershed problems, identify goals for watershed improvement and assist in creating a watershed management plan to assure a safe, dependable water supply for future generations.

An Upper Walnut El Dorado Lake WRAPS Team is in place. If you would like to get involved, contact the Conservation District Office at 316-320-3549.

Butler County Conservation District has been actively involved in watershed restoration and lake protection in the Upper Walnut Watershed and El Dorado Lake since 1998. Grants have been awarded (around \$254,461.00 since 1998) through the WRAPS Program for education and information activities and the implementation of conservation practices to reduce sedimentation and excess nutrients. Funding has become harder to get due to budget cuts and more WRAPS projects competing for funds in Kansas.

A Nine Element Watershed Plan is required before a watershed area can apply for WRAPS funding. Our Nine Element Plan was completed in 2012 and we are currently in year 4 of implementing the Watershed Plan through grants received through WRAPS. An update of the Watershed Plan is scheduled in the next few years.

Priority areas have been established in the Watershed based upon erosion studies and models and funding is targeted to those areas where the models show erosion is occurring at a higher rate.



Excerpts from the Upper Walnut/El Dorado Lake
Nine Element Watershed Plan:

Keeping in mind farmers and ranchers living in this watershed have an enduring connection to this region of the Flint Hills, make their living off the land and its' resources and wish to pass on this way of life to their sons and daughters; knowing they have a responsibility to others to manage their resources wisely for their families as well as all the families who rely on El Dorado Lake and their tributaries for their water supply; it is the Conservation District's mission to provide long term support through conservation education and information to assist watershed residents in decision making and offer technical and financial assistance for practices that reduce sediment and nutrients; with the ultimate goal of guarnteeing their way of life is protected while we work to assure water from El Dorado Lake is available for our children, their children and beyond.

The Upper Walnut/El Dorado Lake Watershed Plan will address El Dorado Lake and its tributaries as a high priority watershed in this region and offer ways to reduce sediment and excess nutrients which are currently identified as impairments in the watershed. As pollutant reductions are achieved, the Plan will address ways to maintain those reductions to meet current water quality standards. This Plan will remain flexible to allow for changes that may take place in the watershed in addition to providing updates and revisions as new information on water quality, impairments or improvements occur.

