

Data Submitted (UTC 11): 7/1/2020 12:28:24 AM

First name: Keith

Last name: Hadley

Organization:

Title:

Comments: Below I present a summary of personal comments regarding the Whitney Reservoir proposal to supplement Aurora and Colorado Springs' future water supply. Specifically I note that my knowledge of this proposal is cursory based on the information presented in The Aspen Times (July 16, 2019). That noted, I found the proposal lacks a comprehensive justification for the proposal and provides little hope for the cities to satisfy their increasing need for water during a warmer and drier climate regime (see below).

The assumed water supply solution for Aurora and Colorado Springs with or without a new reservoir will remain unresolved. Whether it is a 6,850 acre-feet or a 20,000 acre-feet water reservoir for the Colorado Front Range water supply, the issue bound to experience an unresolved, long-term water crisis wedded to exponential population growth, global climate change, and a dire and somewhat unrealistic attempt at water management. To wit, water crises in arid and semi-arid urban and large agricultural areas in Colorado - as for most modern and ancient societies and cultures - have not been shown to be sustainable over centuries to millennia. Likewise, the other fundamental dilemma remains unaddressed by human desire, the relived case of water shortage that will once again far exceed the wisdom prevalent in the lessons of history and science.

That noted, science mixed with a conservative application to human environmental modification might best explain why and how the water issues might be done. In many cases, reservoirs are often poor choice to resolve sustainable water supplies. I say that by asking that the cities and the USFS deep far deeper into your research. Engineering may provide some solutions but as stated, they those actions, e.g., drilling, roadway construction, etc., will not resolve the proposed damage to complex environmental systems.

Considering these points, allow me to pose a few simple questions.

What are the scientific premises, metrics, and projections of a new reservoir regarding novel air and water temperature regimes, increased evaporation rates and wind velocities, coupled with the projected reservoir surface area and wave action in a deforested areas and the eliminated wetland complex?

What are the known and projected losses of biological and ecological diversity in complex wetlands that are coupled with then reduced CO2 sequestration, higher water temperatures, water chemistry changes and flux, water temperature, sedimentation accumulation and redox conditions and disturbed toxic conditions?

What are the summed and comparative differences to ecologic, biophysical, economic, and social values of preservation relative to the elimination in a rare, functioning ecosystems and habitat? To my knowledge no scientists have neither claimed nor definitively shown that complete ecological restoration has been or can be demonstrated. Conversely, engineers suggestion oft suggested that mitigation -lacking evidence to the contrary - can replace a fully functioning, multi-millennium ecological communities.

Lastly, what is the "monetary" or "economic" value of a rare ecosystem and the value of water? Will four and a half million dollars of purchased land have the potential to circumvent conflict related to failed "restoration" and the elimination of resurveyed public land to allow the project?

The false paradox that reservoir water will solve the Front Range water problem - see Aurora's water resources and us table and Canada's considerations of water management - is nicely summed by Benjamin Franklin:

"When the well is dry, we learn the worth of water."

Perhaps a more appropriate and well-reasoned use of the area being considered in the Whitney Reservoir proposal would benefit from a new vantage. I am certainly not an expert water management strategies but you might find several components of the Stanford University's report on California's Forty Years of Policy and Lessons. Indeed some of the Front Range experts and academics are probably familiar this work and the potential for a more fruitful way of resolving water problems:

<https://purl.stanford.edu/dj435dw5816>

That said, eliminating wetland complexes may well be an expensive dead end. There are surely other solutions.