**Franktown Citizens Coalition Preliminary Input on CMP 2040 Update**

**Topics**

**Section 8-Water Supply**

**Section 8.1 – Prolong the life of water resources**

The Franktown Citizens Coalition provides the following summary of our recommendations for modifying the Douglas County Comprehensive Master Plan for the 2040 CMP update related to Water.

**Recommendations:**

**GOAL 8-1**

* **Prolong and protect the life of all bedrock aquifer water resources which include rural areas that depend on shallow aquifers: development planning should be sustainable and at densities and water usage that will preserve and prolong the life of the Dawson and Denver aquifers.**
* **In rural areas already zoned agricultural or RR, discourage developments denser than RR (1SFE/5 acres). Maintain zoning, as zoned, to preserve aquifers under rural land.**
* **Encourage establishment of conservation easements county wide to reduce development pressure and preserve open spaces and water**
* **Enter into public / private partnerships to acquire lands and conversation easements for open space**
* **Publicly promote and provide education via Douglas Country websites on water conservation measures such as water saving landscaping (i.e. xeriscaping), water saving plumbing fixtures and provide incentives for saving water, with disincentives for water waste**
* **Work in conjunction with DC water suppliers and create a policy guidance in the CMP that carefully balances development with water resources and prevents rezoning in rural areas to protect our water. Accomplish this by**

 **forming a partnership with the Colorado State Water Engineer to share**

 **information and promote further study of DC water resources and the**

 **depletion**

**GOAL 8-2 (NEW)**

* **DC to evaluate the need for a cost/benefit analysis of the cost of a sustainable water supply vs. loss of revenue due to lack of water (time phased) and consider a recommendation for an automated system to monitor aquifer depletion and rate of failed wells.**

Sustainable water plans are crucial for growth or development plans. Water is an ultimate constraint on Douglas County (DC) and Colorado growth. We have been operating under the assumption since 1969 (The Water Rights Determination and Administration Act of 1969) that our aquifers will last 100 years, but after 49 years many studies suggest aquifer life is substantially less than that.

The residents of Douglas County rely primarily on underground aquifers which consists of four aquifers: Dawson, Denver, Arapahoe, Laramie-Fox Hills which are contained in sand and permeable sandstone, separated by layers of impermeable bedrock. The Dawson aquifer is accessible by private wells. If both First and Second Dawson are included together, they run approximately 750-foot depths in various places.

Although it may be noted that aquifers are replenishable, and are constantly recharged, the problem is the recharging is falling behind the demands being made on them. In general (with some very exceptional individual wells), this relates to every aquifer everywhere development is taking place.

The Denver and deeper aquifers require deeper (more expensive) wells and are used by major municipalities and developments. The Denver Basin Aquifers have been an economical and quality source of fresh water for a growing community. The water permeates sandstone and scientists are not able to predict the behavior of the aquifer as it depletes. Well monitoring data indicates that well production volumes and aquifer water levels are declining. The Colorado Division of Water Resources (State Engineer's Office) has resources, data and reports regarding the Denver Basin Aquifers which can be located at Colorado Division of Water Resources, also

known as the Office of the State Engineer, located at <https://CDNR.US>. Additional independent information is available at the US Geological Survey, https://co.water.usgs.gov/"

Reducing water consumption may prolong the life of water supplies. Certain

landscape patterns can minimize water consumption. For example, xeriscaping (low-water demand landscaping) is commonly used in Douglas County and other water-limited areas. Xeriscaping uses low water-use plants while providing attractive landscapes. It is suggested that developments chose to eliminate use of water thirsty planting, such as Kentucky Blue Grass.

Douglas County has a large, active program of land acquisition for conservation purposes. This program will continue and be expanded, keeping the water in the ground, rather than exploiting it for unrestricted growth.

As part of the CMP education about the Douglas County water supply problem is essential. Teachings related to aquifers will be made available in our education systems: schools, universities, and public websites.

It is recommended that rainwater and graywater be used for landscape irrigation where allowable by law. In addition, water-saving technologies (i.e. low-flow fixtures) are another tool to use water efficiently and save money. Using water efficiently will help reduce the strain on the local water supply.

Douglas County has made extensive investment in procuring land for open space, thus saving the aquifer resource beneath, and encouraging conservation easements, with the same result. Prolonging the availability of aquifer water is a key step and should become a mandatory part of county planning for new development. However, stronger methods must be implemented to secure a *sustainable* source to replace the aquifer supply before its end-of-life.

Establishing a long-term water supply is imperative. The County’s future depends on a safe, reliable, and sufficient water supply. There is a need is for a cost/benefit analysis of the depletion of aquifer water and its impact on real estate values in DC. Real estate valuation provides the basis for taxation to support county services - education, transportation, police and fire protection, and other county services. Lack of water for ordinary domestic use would lead to a downward spiral of decreased tax revenues, resulting in decreased county services, resulting in further decrease of real estate revenue.

A sustainable water supply, to replace the aquifers, will producechallenges. The entire Rocky Mountain West has our problem; precipitable water is already committed "downstream” under the long-standing doctrine of “first in use, first in right”.

**Our most limiting and valuable resource…. WATER… is a MAJOR CONCERN.**