**Ground Water Savvy People for Chaffee County and some references from Sue Benes, 2/22/18, p1**

BV (Water) Utility Clerk Lisa Brooker 719-395-8643 ext 11, bvutilities@buenavistaco.gov

[www.colorado.gov/pacific/cdphe/drinking-water-private-wells](http://www.colorado.gov/pacific/cdphe/drinking-water-private-wells)

Starting locally, I have spoken to all the people below and learned a great deal. I can say that no one was not helpful! Lisa was my first teacher and she gave me the connections to the annual quality data for BV as well as the referral to Brian, the Regional Water Commissioner (below).

BV Public Works Director Shawn Williams 719-395-68898 ext 5#, bvpwdir@bueanvistaco.gov

 Buena Vista Town 2017 Drinking Water Quality Report for Calendar Year 2016 (attached)

BV Preschool Children Well Water Study: Little APES Program (Avery-Parsons Early School):

 Chaffee County Public Health in collaboration with the Program called Cavity Free at Three and dental hygienists provide private well water test kits to pre-schoolers whose families may then get free testing of their well water. I do not yet know if the individual well results are public or if only the families receive the results. Contacts were dental hygienist Julie Netter. 719-539-4514

Salida Water Department Director Lonnie Oversole 719-539-6721, Lonnie.oversole@cityofsalida.com

 Salida City (of) 2017 Drinking Water Quality Report for Calendar Year 2016: Salida City Of, PWS ID: CO0108700. Lonnie was very helpful explain the Salida Public Water system and provided me with this link for the most recent annual quality report.

Salida Water Plant Randy Sack 719-539-2448 (answered by Dan, who referred me to Lonnie Oversole above), Randy.sack@cityofsalida.com

Salida Public Works Director David Lady 719-539-6257, david.lady@cityofsalida.com

Chaffee County Public Health Environmental Director Wayne “Wano” Urbonas, cell 719-207-1498, work phone 719-539-7197, wurbonas@chaffeecounty.org

Water Smarts: A well and septic system owner’s guide to ground water in the Upper Arkansas Area: by the Upper Arkansas Area COG (Council of Governments), in association with the USGS Pueblo Office, 2004. (booklet scanned and attached)

Upper Arkansas Area Council of Governments (Upper Ark Area COG): founded in 1979

 All 64 Colorado counties are in areas, subdivided into regions, serving varying numbers of counties in each. In addition to establishing a 2-1-1 telephone system for people to use to figure out who provides what service, there are also a library of terms, medications, lists of in-home providers and other senior services, transportation services, WIC services, and in some cases, recycling!

State Water Quality resources: 303-692-3500 M to F 8-5 and website sources such as [www.colorado.gov/pacific/cdphe/drinking-water-private-wells](http://www.colorado.gov/pacific/cdphe/drinking-water-private-wells) and other web doscuments pertaining to water written by CDPHE: Colorado Department of Health and Environment. The CDPHE is involved with well permitting and spacing from known ground water potential pollutants, such as existing septic systems and mines, and collaborates with the Colorado Division of Water Resources (see 2 men below). They are in collaboration with the EPA , organizations such as WellOwner.org, Wellcare information sheets, Private well class, and the National Ground Water Association. There are waste water treatment plant reviews mandated every 10 years. Some Chaffee County wells need testing for fecal contamination every 2 years, and all wells need to be at least 100 feet away from a septic system.

State Regional Water Commissioner, District 11, Brian Sutton 719-221-0367, brian.sutton@state.co.us (Quantity and Distribution and Well Permits) pg 2 Benes

State Deputy Regional Commissioner, District 11, Bruce Smith 719-966-9139, bruce.smith@state.co.us

 Brian Sutton explained that much of the history of water rights and diversion projects was through the State Engineers Office and website and The Division of Water Resources. They are in charge of water transmission such as the transmountain pumping from the Colorado River into lakes used as reservoirs in Northern Chaffee County and from the Arkansas River Valley over mountains to Pueblo, Colorado Springs and Aurora. Another quantity and distribution issue they are in charge of are dams and dam safety, limits on pumping, the decision-making on well permits and removing water from ponds and streams, and they map out the distribution of wells. Their quantity concerns are great, especially in hot summers and when there is little precipitation, and they help wade through water rights in order to follow Colorado Law in re-distribution and the prioritization of water usage. He reviewed the Colorado Constitutional doctrine “First in time, first in right” with examples that in summer the oldest rights dating back to before 1874 have the highest priority, and in winter there is no diversion of water if the rights on that land pre-date March 1, 1910. He explained that the BV Public water comes mostly from ground water: two big well sources and a smaller one near the Cottonwood Creek, and that the Salida Public water is a blend from surface water and ground water, a seasonal use of spring water and year round use of underground “galleries” of shallow sources with perforated underground pipes collecting ground water. Both BV and Salida Water Managers were very helpful in giving specific quality data.

State Division of Wildlife Officer Kevin Madler 719-539-8413, kevin.madler@state.co.us

 Kevin knows of Envision as his colleague is on our committee trying to balance nature, recreation, agriculture and horticulture. His observations having newly become our DOW person is that for the most part, our agriculture run-off contribution to the groundwater has been a small problem since there is little augmentation and ample hayfields to absorb the moderate the chemicals. In addition, he has found few classic feedlots with large amounts of manure that would add nitrates and coliform/E.coli to the soils. He observed a small problem for deer who were licking high-salt spilled from a brewer area that was also causing slips from ice in the winter and together he and the brewer solved the problem.

Private Assessment by JW Associates, PO Box 3759, Breckenridge, CO 80424 contact in 2011 report: Brad Pfiel 970-406-0085, bpfiel@jw-associates.org studying Arkansas Headwaters Watershed,

 [http://www.jw-associates.org/Projects/Ark Headwaters/ArkHeadwaters.html](http://www.jw-associates.org/Projects/Ark%20Headwaters/ArkHeadwaters.html)

 I called this number and left a message. No feedback yet.

CSU Soil, Water and Plant Analytical Lab: Manager James “Jim” Self, Ph. D. and Office Administrator Debra “Debbie” Weddle, both at T 970-491-5061, [www.extsoilcrop.colostate.edu/soillab/soillab.html](http://www.extsoilcrop.colostate.edu/soillab/soillab.html)

CSU Chaffee County Extension: Kurt Jones, 719-539-6447, kurt.jones@colostate.edu

Colorado Department of Public Health and Environment (CDPHE):

 CEO and Chief Medical Officer Larry Wolk, MD, MPH. 303-692-2000, no public email, p3 Benes

Admin. Asst. for Dr. Wolk: Erika Kelley, Phone=same rotary number with 8 choices using the main number, Erika.kelley@state.co.us, although we spoke over the phone and I was able to ask questions, she prefers all communication and inquiries be in writing as an email which she then refers to the person she thinks is appropriate. There are many items on the website including Dr. Wolk’s letter to the national Public Health people in Washington addressing how Colorado would comply with new regulations for lead and copper testing of public water systems with 15 or more connections, or serving 25 or more people for 60 or more days per year. That letter is public as a pdf: WQ-DW-CDPHE Lead Response. There were new forms required when submitting a water specimen, and detailed descriptions of the sampling methods and protocols and labelling. The goal of that new lead/copper program for drinking water is to detect changes in water quality within aged piping and plumbing, or anywhere along the distribution piping, or in the environment near the ground water sources, prior to disasters occurring like what occurred in Flint, Michigan.

 CDPHE Phillip.stanwood@state.co.us (303-692-3502) public documents at their website state that Phillip and Ron Falco, P.E., are the Safe Drinking Water Program Managers and starting February 1, 2017, the mandatory reporting would require lead and copper from tap samples, total coliform/E.coli samples, TTHM, HAA5, and Chlorite/Chlorine Dioxide samples (disinfection by-products rules). The new rules were designed to find contaminants in the distribution system(s).

Federal/ National Resources:

EPA: Groundwater worksheet, Private Drinking Water Wells worksheet, much much more: https://www.epa.gov/environmental-topics/water-topics#our-waters

CDC: Centers for Disease Control (projects for infectious and toxic water problems)

NRCS (Colorado): A division of the USDA (US Department of Agriculture), their goals are almost exactly the same as those of Envision Chaffee County: save the environment, save agricultural lands, improve eroding or damaged lands by covering with a vegetation which would appeal to wildlife, save wetlands, protect quantity of water, improve quality of water, enhance wildlife by improving habitat, protect agriculture and recreational endeavors

<https://www.nrcs.usda.gov/wps/portal/nrcs/main/co/programs/>) They also have grants to apply for if there is a specific project or need in Colorado!

USGS (US Geological Survey): They collect data about what they call surface water quantity and blend the data with quality data collected by CDPHE, the EPA and un-named third parties, the latter quality data stored in STORET. <https://www.waterqualitydata.us/portal/>

 An excellent review of the Arkansas within Chaffee County was provided to us by Rick Hum.

**The Press interested in the Environment**: Read this! p4 Benes

The Atlantic: February, 2018: What’s Actually Behind Cape Town’s Water Crisis ( a must read by Richard Poplak): hgttps://www.theatlantic.com/international/archive/2018/02/cape-town

 Cape Town will be the first major city that runs out of water, predicted to occur about June 4, 2018, referred to as “Day Zero”. This article studies the factors that played into this crisis: (1) three years of almost zero winter precipitation, called by meteorologists a once in 628 years weather event, (2) a very unequal city with habitual segregation, (3) politics, etc.

**Organizations Interested in the Environment (too numerous to count) should be part of the team, especially if they have local chapters. We can learn from their data and how they approach issues.**

Example organizations: American Farmland Trust, Arbor Day, Audubon, Central Colorado Conservancy, Colorado Bat Working Group, Galapagos Conservancy, National Park Foundation, National Wildlife Federation, Ocean Conservancy, Sierra Club, Trout Unlimited, World Wildlife Fund, etc.