

LARIMER COUNTY | ENGINEERING DEPARTMENT

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The role of the Advisory Board is to advise the Board of County Commissioners and appropriate departments on environmental and science-related issues that affect Larimer County.

Environmental and Science Advisory Board

MINUTES

Date: October 10th, 2023

Time: 6:00 – 9:00 p.m.

Location: Rm 333 Estes Lake, 200 West Oak St., Fort Collins, Colorado and Virtual by Zoom

Contact: Shelley Bayard de Volo, sbayard@larimer.org or 970.498.5738

MEMBERS		STAFF		GUESTS
Rodger Ames – Chair	X	John Kefalas*	X	Colorado Climate Center, CSU
Tasha Carr	X	Shelley Bayard de Volo [¥]	X	Dr. Russ Schumacher
Anna Cloud	X	Heidi Pruess [§]	X	
Jim Gerek	X			
Matthew Haag	X			
Ted Hendrickx				
Allyson Little				
Andrew Newman				
Barry Noon	X			
Nicole Poncelet-Johnson	X			
George Rinker				
Shelby Sommer - Vice-Chair	X			
Natalie Walsh	X			
Katrina Winborn-Miller	X			
Chris Wood	X			

X = present; * = Commissioner Liaison; † = Department of Natural Resources; ¥ = ESAB Liaison; § = Larimer County Environmental and Sustainability Program; € = Community Planning, Infrastructure, and Resources

Call to Order: 6:05 p.m.

1. **Amendments or additions to the agenda** – Brad Udall will not present tonight due to illness.
2. **Introduction of members, staff and guests** – members and guests introduced themselves.
3. **Public Comment** – None





4. **Commissioner's Update** - Approval was made this AM of the cost sharing intergovernmental agreement with the City of Loveland on the Urban Renewal project. Next Wed. Oct 18th is the 3rd BOCC Water Education Series, at the Loveland campus. The theme of this one is Healthy Watersheds and Instream flows. They are all on the County YouTube channel, so folks can see them there if they cannot attend. Solid Waste Policy Advisory Council (SWPAC) meeting is next Thursday. The BOCC will be updating the SWPAC on the new path forward. The County will be for constructing and running the new landfill and modified transfer station. A second RFP has been released for the diversion of construction waste, organics, and yard waste. The Commissioner had a discussion this afternoon regarding the updated policy for boards and commissions. They discussed youth members to serve on boards, attendance policies where they are looking to make that policy more consistent across boards. The Larimer County Water Master Planning process is moving forward. The County recently engaged with the newly formed Northern Colorado Water Alliance made up of municipalities and local governments. They look at issues like agricultural-municipal use and water sharing. The 2024 proposed budget will be submitted next week. The budget was prepared with the assumption that HH will pass with the upcoming election. The County received a \$150K DOLA grant from the Forest Health program that will be used to study the use of woody biomass. . Some discussion of the HH ballot measure ensued.

5. **Discussion Items**

- Colorado Climate center 2023 Report – Russ Schumacher introduced himself and the Colorado Climate Center. Dr Schumacher is the current Colorado State Climatologist. He will be discussing two topics – weather and climate in Northern Colorado and Climate Change in the State. He provided a quick history of the Colorado Climate Center, which started as a Colorado State office in 1974. The Center's mission is 1) climate monitoring, 2) climate research and 3) climate services. The State's topography influences precipitation, which varies seasonally quite a bit across the state. There is a weather station on campus that has been in consistent use since 1889, although it was relocated on the campus several times over the years.

Part 1. A brief review of the 2023 water year (October 2022 through September 2023). Russ showed a data plot with annual average temperatures relative to accumulated precipitation. The data showed that 2023 was one of the warmest and wettest years, surpassed only by 1923 and 1961 (range 1901-2023). Next Russ showed the snowpack averages for across the State. Larimer County was about average in terms of snowpack (measured April 1). Then the summer rains came, with significant amounts May through August, ranging 4-8" on average per month. July 31st brought the heaviest rainfall with 3.3" in one hour on CSU campus. Reservoirs were recharged by all the rain, which relieved drought conditions in eastern Colorado.

Globally, the 2023 calendar year has been one of the warmest on record across most areas, with the western US an exception. Russ noted that the rain kept western US temperatures low, with Arizona being an exception after June.

Part 2. Climate Change in Colorado 2023 Report – The last time the Climate Center produced their report was 2014. At that time, the projection was for continued warming with high confidence and a lack of confidence in what precipitation projections might be. Russ showed a time series of temperature anomalies with respect to a 1971-2000 average. The data clearly show a warming trend, with the 7 of



the 9 warmest years on record being since 2012. The South Platte Basin has warmed 3.2 degrees F since 1895, with 1.4 degrees F of that temperature change since 1980.

Regarding statewide precipitation, departures from a 1971-2000 average shows year to year and decade to decade variability across the 1900 to 2020 time series. Looking at the last 20 years compared to the 50 years previous, broken down by season, it's been drier in spring, summer and fall, with winters being wetter. This trend is like model projections, although with a lot of uncertainty. Precipitation in Larimer County shows a decreasing trend since 1980, although not significant.

Russ then discussed future projections and emissions scenarios, showing the trajectory plots under the various emission scenarios. The Climate Center has been using the moderate emissions scenario models RCP 4.5 and SSP2 4.5, which are currently the most reasonable scenarios under current policies and agreements. Russ discussed the results of their modelling, using historical modeling to assess model accuracy, where results tracked well with observed NOAA data. Future projections show warming through 2050, compared to an average of 1971-2000 temperatures of about 2.5 to 5.0 deg F. We have already warmed 1.5 deg F, so that would be an additional median temperature increase of 2.5 deg. F.

Russ then showed a table of water influenced variables with their climate change influenced trends and confidence. Evaporative demand is expected to increase (very high confidence), soil moisture is expected to decrease, and snow melt runoff is expected to be earlier (both high confidence). Colorado River stream flow projections (2050) show a shift to earlier peak flows compared to current flows (1971-2000). Last, Russ touched on hazards and extremes, of which more frequent and intense heat waves were projected with very high confidence. Fewer cold waves, more frequent/intense droughts and high wildfire threat are projected with high confidence. The length in number of days for heat waves are expected to increase 10-fold, and number of days for cold waves is expected to decrease by maybe half.

They take home messages from Part 1

- Observations in the past decade have affirmed the long-term trends as described in the 2014 Report:
- More warming everywhere, in all seasons
- Precipitation trends less clear, but early 21st century drier than late 20th
- The observed warming alone is already imposing reductions on snowpack, soil moisture, and stream flows
- Some climate extremes and hazards have already become more frequent/intense due to warming: Heat waves, drought, wildfires.

Take home messages from Part 2

- Latest climate and hydrologic modeling affirms the likely climate futures laid out in the 2014 Report:
 - Yet more warming; total of +2.5°F to +5.5°F by 2050
 - Or +1°F to +4°F from now to 2050
 - Future precipitation change is less certain
 - Snow, soil moisture, streamflow very likely to decline further



- Heat waves, droughts, and wildfire will worsen with the additional warming
- Heavy/extreme precipitation and flooding likely to worsen as well.

The Colorado Agricultural Meteorological Network (CoAgMET) operates out of the Colorado Climate Center. The network consists of weather stations located all over the state, primarily at lower elevations. The data from those stations is freely available. They also provide data from Northern Water's weather network. Last, the center hosts the Community Collaborative Rain, Hail and Snow Network (CoCoRaHS). This year is the 25th anniversary. The community network started in Fort Collins after the 1997 flood, and the center provides low-cost rain gauges to people to put in their back yards. The network is now distributed across the US and internationally.

- **Larimer County Climate, Environmental Stewardship and Sustainability Policy and the CC4CA Policy Statement** – Rodger noted that tonight the task is to just approve (or not) the changes that Rodger made based on the Board's comments at the September meeting. There is no time for extended discussion on any of the changes tonight. Rodger identified 10 items from the discussion last month that he would like to approve, one by one. He would like to proceed using unanimous consent. If there is no consensus on a particular item, then they can proceed with a motion and a show of hands, the majority prevails. Members can abstain from voting; they can vote no if they do not agree with an item. The ask here is not to approve a final policy, because Heidi is receiving many comments from other Boards as well as the ESAB. Also, Rodger reminded members that the ask from Heidi is to make sure that the policy's language agrees and supports the CC4CA policy. Prior to tonight's meeting, Rodger re-read the CC4CA policy while going through the County policy as part of his review. Matthew suggested that the ESAB re-visit this policy in the future because he felt that they could really improve the policy if they spent some more time with it. Shelley projected the red-lined version on the screen and Rodger went through all 10 of the main points, and members voted on each one.

Item	(Line number) Comment	In Favor	Objections
1	too complicated, should be short and to the point and something that everyone can understand and communicate.	10	1
2	(24) Remove "current scientific findings and methods"	6	5
3	(42) Add "evaluate the risk of committing to or meeting"	11	0
4	(45) Add objective: "Provide balanced protection of public natural resources that the County manages with long-term economic trade-offs and community needs, supporting locally driven and designed programs."	11	0
5	(54) Remove "Emphasize climate specific impacts by supporting action toward"	11	0
6	(57) Change " Climate Pollution Reduction e.g. GHG, Ozone, Air toxics, Reduction of Green-House Gas-gas emissions, considering all lifecycle stages. "	11	0
7	(64) Change Prioritization-Consideration	11	0



8	(67) Change <u>most efficient economically and</u> least carbon intense <u>renewable sources</u> we including and local renewable sources	11	0
9	(77) Add objective <u>Consider the life-cycle, sourcing and managing hazardous Waste from emerging technologies</u>	11	0
10	(87) add <u>the actions/goals of the policy</u> pollution reduction, conservation, and resilient actions.	11	0

6. **Approval of Minutes** – Tasha had some edits on the September minutes which Shelley incorporated. Matthew moved to approve the September minutes, and Natalie seconded. The September minutes were approved by acclamation.

7. Updates and Round Table

- Approving Representative for County Water Master Plan Advisory Group – The board officially approved Nicole as primary representative and Anna as back-up representative. Tasha moved to approve, and Jim seconded. The motion was approved by acclamation.
- State water regulations, WOTUS and gap waters – Nicole provided a summary from her attendance in the Governor’s office WOTUS stakeholder meetings that discussed the CDPHE’s dredge and fill in gap waters enforcement policy. From the discussions at the meetings, the State is considering, at a minimum, that industry and contractors continue to implement best management practices when working in gap waters, just as they did when those waters were Federally regulated. Nicole explained what the gap waters are and how the Sackett Supreme Court decision has left many streams, creeks and other waters unprotected under the Clean Water Act. Shelley noted that the CDPHE has also engaged with stakeholders through webinars and that they currently have a voluntary notification process where contractors and other entities can notify them of their dredge and fill projects and provide information on the mitigation being implemented as part of those projects.

Nicole said that the State has designated 73 stream segments on the South Platte River as impaired for arsenic, which means there will be increased monitoring on those segments. The EPA still needs to designate the safe levels, and one goal of the monitoring is to identify natural background levels, but depending on the results of monitoring there may be remediation needs.

- Air Quality Community Advisory Group – Rodger noted that he applied to become a member of the Air Quality Community Advisory Group (City of Fort Collins and Larimer County Department of Health and Environment). He encouraged Chris and Katrina to consider also participating, but at this point he noted that it’s best to wait and see if his application is even approved for participation.
- EV Road map and Partners in Energy – Shelby provided an update on the EV roadmap process. The County is submitting a grant to Charge Ahead Colorado to fund Level 2 EV charging stations at five locations at County facilities. As part of the NEVI (National EV Infrastructure program) there is work to identify locations where fast DC chargers can be installed. Shelby noted that there is a lot of collaboration happening and things are moving quickly within the EV space.



- Colorado Energy Office and the State's GHG roadmap – Chris updated members on the State's updated GHG Roadmap for emissions reduction, that they are calling 2.0. Before the goal was to reduce emissions economy wide by 50% by 2030, and now the goal is net zero by 2040. They are starting to shape the policy framework for that. There should be a stakeholder meeting coming and Chris will be attending meetings and can keep the board updated on the process as it moves forward.
8. **Issue Index** – will be updated for tonight's agenda items.
 9. **Agenda Topics for Future Meetings** – Update on the Solid Waste Infrastructure Master Plan; LC Health and Environment update
 10. **Adjourn** – Ally moved to adjourn the meeting and Natalie seconded. The meeting was adjourned at 9:00 PM