

LARIMER COUNTY | ENGINEERING

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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.

MINUTES

Date: January 11, 2022

Time: 6:00 – 9:00 p.m.

Location: Virtual by Zoom

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

MEMBERS		STAFF		GUESTS
Rodger Ames	X	John Kefalas*	X	Colorado State University
Daniel Beveridge		Shelley Bayard de Volo [¥]	X	Emily Fischer
John Bleem	X	Lea Schneider ^o	X	
Jim Gerek - Chair	X	Heidi Pruess [§]	X	City of Fort Collins
Ted Hendrickx	X	Chris Manley ^o	X	Cassie Archuletta
David Lehman	X			
Allyson Little	X			
Kirk Longstein– Vice-Chair	X			
Kaitlin Rainsberger	X			
George Rinker	X			
Travis Rounsaville	X			
Shelby Sommer	X			
Catriona Smith	X			
Katrina Winborn-Miller				
Chris Wood				

X = present; * = Commissioner Liaison; ‡ = Speaker; ¥ = ESAB Liaison; ^o = Department of Health and Environment;

[§] = Environmental and Sustainability Program; ^o = Fleet

Call to Order: 6:00 p.m.

1. **Amendments or additions to the agenda** - None
2. **Introduction of members, staff, and guests** – The members introduced themselves
3. **Public Comment** – No public comment.
4. **Discussion Items**
 - **Options to Expand Air Quality Monitoring in Larimer County** – Rodger introduced Dr. Emily Fischer, providing some background on her work. She noted that she collaborated with Dr.

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Jeffrey Collette on this presentation, which presents their initial recommendations for air quality monitoring in Larimer County. Emily provided some background information on sources of air toxics, in particular benzene and ozone. She discussed sources of benzene and benzene-related compounds that are linked to oil & gas (O&G) extraction. She noted there are prior studies that can be looked at to inform needs for Larimer County. Those needs include:

1. Flexibility to observe with minimal infrastructure
2. 24/7 monitoring
3. Good spatial coverage
4. Quality VOC speciation within concentrated plumes
5. Time-integrated samples to assess long-term exposures.

With these needs in mind, in terms of sampling for volatile organic compounds (VOCs) they recommended a PID-triggered canister system for capturing near-source acute exposures for a reasonable cost. Photoionization detectors (PID) provide high time resolution measures of VOCs. They can be run using solar power, can be placed easily in a field or on a fence, and they are inexpensive. But they only measure a single compound within a mixture of VOCs so by themselves they are not entirely adequate. Canister sampling systems capture whole-air samples (all the VOCs and other air constituents) in a single sample. But you cannot have the canister open sampling the air all the time. So, you can use the PID system to trigger the canister to open and sample at the appropriate time. The PID can be set to detect a VOC constituent at a threshold level, above which the canister is then triggered to open and collect a sample. That canister sample can be then analyzed in the lab, where the entire mix of VOCs is identified and quantified.

Emily then went over some other systems, like what are used in Boulder County, Broomfield, and Erie, and explained why those systems are not as well suited for Larimer County. The auto-GC system collects the entire suite of VOC constituents, but on a 1-to-2-hour basis, so it could miss a transient exposure plume entirely.

In terms of a sampling strategy for air toxics, they recommend:

1. Locate 2+ PID monitors with canisters between potential sources and neighborhoods of concern (prioritize drilling, completion, and early production)
2. Co-locate time-integrated (weekly) canisters to document longer-term VOC near O&G facilities
3. Add additional integrated canisters further from O&G activities to understand O&G enhancements
4. Attribute VOCs using Positive Matrix Factorization (PMF) source apportionment
5. Approach can also be used for other VOC sources

In terms of ozone, Emily went over some background information on ozone (O_3), and the precursors (CO, hydrocarbons, NO_x) from which it is formed. She discussed the value of doing ozone monitoring in Larimer County. Design needs for Larimer County should consider:

1. Many VOCs likely contribute to O_3 formation
2. VOC mix may differ on high- O_3 days relative to low- O_3 days
3. VOC mix is likely variable on high O_3 days
4. NO_x sensitivity should be diagnosed because it may be changing.

Emily then went over some studies showing results, and based on what they learned from those studies they recommended the following for O_3 -related monitoring and analysis:

1. Conduct an initial survey across Larimer County on high-O₃ days with canisters
2. Establish and maintain NO_x/NO_y monitoring over multiple summer seasons at Fort Collins West
3. Quantify VOCs during peak O₃ periods: with two design options.
4. Establish additional O₃ measurement locations
5. O₃-related analysis plans should include
 - a. Removal of smoke-impact via established methods
 - b. Establish NO_x sensitivity via weekend-weekday analysis
 - c. Attribute VOC source contributions with PMF analysis.

Regarding item 3 above, Option A would involve triggering a canister when O₃ exceeds 70 ppbv, while Option B involves triggering a canister every day at a consistent time (i.e., every afternoon at 4PM). Option B is more expensive, but provides more information, and is a little more scientifically robust. Emily then showed a summary of her recommendations, using graphics and maps that showed the geographic distribution of monitors.

Members asked questions. George asked about visibility and the increasing impacts throughout a given week. Emily noted that she did not address wintertime air quality here tonight, nor fine particulates, which are in part responsible for visibility issues. Travis asked about the canisters and the Ozone sampling. There was discussion of several different sampling scenarios depending on the question of interest and budget. There was discussion of source apportionment and Emily showed a slide of pie charts to provide an example of the kinds of results you get from that analysis. Cassie Archuletta, City of Fort Collins, noted that the County and City staff are working together with the CSU team, and they are looking to have more community driven conversations that involve getting feedback on the various kinds of sampling and what the community wants to see. The discussion wrapped up and transitioned to the next topic.

- Air Quality Monitoring Memo – Rodger thanked Emily for her presentation. The memo is a summary that Rodger put together that mirrors Emily's presentation tonight. It lays out potential general objectives. Shelley presented the memo for the members to see. It provides some background on the issues – air toxics and ozone. The issues are health impacts, so near source monitoring is of interest in terms of air toxics. Rodger showed a map of active oil and gas wells in Northern Colorado. He pointed out that the NAA zone within Weld County was expanded by the Colorado AQCC to the northern border with Wyoming. He then presented an ozone pollution rose figure that shows the cardinal directions from which ozone producing emissions originate and their ozone concentrations. Rodger proposed that the intent of the memo is to help the BoCC distinguish between objectives for near source toxics and ozone precursor air quality monitoring, and how monitoring could be implemented to address each objective. There needs to be a discussion of what to do now. Rodger proposed that simply forwarding Emily's presentation from tonight to the Commissioner Kefalas and Lea Schneider would meet the intent under which the memo was initially drafted. Kirk asked if there was a way to align the memo with the work that Cassie and Lea have been doing regarding the upcoming EPA grant? If there are some decision points on long term versus short term monitoring, and how the community wants to prioritize? Regarding where to allocate resources? Commissioner Kefalas noted that the CIPR Director is planning an air quality monitoring worksession with Community Planning and the Health Department for the BoCC in the next few weeks. The memo could help inform the work that the Health department is doing. Lea noted that they do not have a date for that worksession yet, but they are moving

forward. Lea and Chris Manley are meeting this week with Cassie and Emily to strategize on a separate EPA grant. The other grant is targeted at community engagement and only provides a year of funding. They really need to consider grant opportunities that are longer term. Lea suggested a more coordinated effort among the ESAB and her staff/CSU/City of Fort Collins team. It's difficult to get at costs without a plan in place. Lea asked how a strategy to collaborate can work. Jim explained how the ESAB has worked in previous staff- led work groups. The work group can meet as needed and the ESAB representative is not bound to only participate during meetings. They only need to come back to the ESAB to provide updates at the monthly meetings. Jim asked for clarification of whether the Commissioner and Lea wanted the ESAB's participation? Commissioner Kefalas said yes, he would like to see that participation. Lea asked for clarification on how to move this process forward. Shelley informed Lea to make a request that the ESAB designate a member to participate with her and her working team. Cassie noted that they are still fleshing out how to get community involvement. She envisions participation with not only the ESAB but other interested parties. The Board was looking to get Rodger's agreement that he would represent the ESAB, but he was having communication difficulties at the time. Kirk suggested that they follow-up outside the meeting and confirm/formalize Rodger's participation. Jim noted that there are models for community engagement – i.e., the County-led Wasteshed process. If there is interest in ESAB participation in a larger multi-interest group, Jim suggested Lea go ahead and make the request. Jim noted that Emily's presentation tonight was great and provided excellent bottom-line summaries that should facilitate estimating costs. She presented options that are grounded in science and was also grounded by the work of others in the field. Jim also noted that the position paper that Rodger drafted will be provided to all ESAB members to review and the board will follow-up with comments and provide that to Lea and the BoCC.

Kirk asked that the minutes be sure to include the next steps that the ESAB needs to take. Shelley responded with noting that as she understood things the next steps are that Lea will make a request by email that she would like a representative from the ESAB to work directly with her and her team to provide support and expertise on the air quality monitoring goals, objectives, and opportunities for community engagement and grant funding. That request will go to Shelley, and she will forward it onto Jim and Kirk.

5. 2021 Annual Report and 2022 Work Plan – Jim pointed out significant changes in the draft annual report since the last meeting. One item missing in the report was the Rail Tie Wind Project draft EIS status. The corrected language was shown, Ally noted that she liked the language and Shelley noted she also updated the appendix to include the work products. Jim then moved onto the draft 2022 workplan. Jim noted they he, Kirk and Shelley met with Commissioner Kefalas, and asked that he provide some input in terms of any topics or recommendations that he would like included. Commissioner Kefalas noted that the BoCC is not meeting to discuss their annual priorities until after tonight's meeting, but that he made some comments, which were shown in green. Jim noted that the workplan is written to allow for addition of priorities as they come up throughout the year. The Board then went through and discussed the proposed work plan. Adding the consideration of wildfire awareness, and specially air quality monitoring. Jim asked for a motion to approve the report and work plan; John moved, and David seconded. There was no discussion, and all voted in favor of the approval.
6. **Approval of Minutes** – Kirk moved to approve the draft December minutes as presented, and Travis seconded. The motion passed by acclamation.

7. Updates and Round Table

- Commissioner's Update – Commissioner Kefalas noted that at yesterday's Land Use hearing the BoCC adopted the 2021 International Residential Building and related Codes, and within that are specific guidelines for wildfire hazard areas, building materials, and defensible space. As far as Code updates, for new buildings the BoCC adopted EV "ready" parking spaces instead of EV "capable". The BoCC's new chair for the 2022 year is Commissioner Kristin Stephens, and Jody Shadduck-McNally is the Chair pro tem. BoCC heard a presentation yesterday from Lori Hodges, director of the Office of Emergency Management, and the BoCC will be adopting the 2022 Comprehensive Emergency Management Plan. At that meeting they also had a discussion with Justin Whitesell, Emergency Management Operations director and discussed proposed amendments to fire restrictions to clarify for the community when those are in place. There will be an upcoming worksession to discuss new information contributed from the community on the draft 1041 regs and following that the new updated regulations will be adopted at an upcoming Land Use Hearing.
- EV Charging Memo and Fleet – Kirk discussed the recorded BoCC worksession where Fleet director Heidi Vilhauer presented on the County's progress toward EVs and EV charging infrastructure. One of the outcomes from the previous ESAB-submitted memo was that one of their recommendations was not supported – that is, forming an internal staff team. Kirk suggested that the ESAB re-think its position and figure out how it can support staff in their efforts. One of the take homes from the worksession presentation is that the County is only in the early stages of assessing how to incorporate EVs into the fleet. So, setting up another working group seems premature.

Jim asked if Kirk was requesting anything more from the Board at this point? Kirk noted that he was not, and that the floor was open for discussion. Commissioner Kefalas asked if there were plans for the Fleet and Facilities directors to follow-up with the ESAB? Shelley explained that they are planning on presenting at the February meeting. Shelley also explained that Kirk's assessment that forming an internal staff work group is premature, and that any discussions in terms of EVs and infrastructure in the Community will come out of the CSLC process. Kirk noted that since that memo was submitted, the CDOT passed their new ruling for the North Front Range Metropolitan Planning Organization (MPO) to require GHG modeling for infrastructure projects that come through the MPO. Kirk noted that considering that new rule, the ESAB memo is probably a little ahead of the game. Heidi Pruess commented that the next steps are that the Heidi V and Ken C will present to the ESAB and request input. Commissioner Kefalas noted that the County applied for a \$600K grant from DOLA, under their Energy Impact Assistance Fund. It was to help fund EV charging stations at the new fleet campus, but the application was not approved. They may re-apply after considering options more in line with the grant's focus on impacts from oil and gas development. Rodger noted that maybe the memo was a little premature, but in developing it he and Kirk did get up to speed on the EV funding landscape, so in that regard it was a useful exercise for the ESAB. Shelley noted that it was also productive in that it started the conversation with staff, and that conversation will continue and move forward. Kirk posted a link to the Colorado Energy Office's EV Dashboard, noting that it's a visualization tool on EV related data (charging stations, numbers of EVs on the road, etc.) <https://energyoffice.colorado.gov/zero-emission-vehicles/evs-in-colorado-dashboard>).

- CSLC Task Force Update - Shelby provided an update on the community's task force meeting last week. The meeting was online only, involved member introductions, reviewed the engagement results in terms of the demographics of those who responded. There were nearly 600 participants, primarily people from the cities of Fort Collins and Loveland, skewing toward

people with college degrees, and higher income brackets. The task force will focus on how to get participation from the parts of the community from rural areas, those with lower education levels and income brackets. The goal is to develop strategies on how the community wants to move forward, so getting broad community participation is key to a successful process. Shelley asked if the team advertised in news media like the North Forty News? Heidi P. noted that they did advertise widely in newsprint, radio, as well as the other typical sources. Shelby also noted that although they have done community meetings with high participation, the number of people from those meetings completing the survey is very low. Shelby noted that one of the four engagement meeting will be held in Spanish language. David asked about engaging the Poudre and Thompson school districts including High School kids? Shelby shared that she had suggested that one of the online sessions be recorded in sections and those recordings be provided as self-guided content for times when substitute teachers need material for classes. Heidi P noted that CSU is hosting a high school/middle school age Climate Expo at their campus, and the CSLC team is invited to come and host a booth. The community task force includes one member who is a minor, and they can represent that demographic and voice. They are also working with the Cooperative Extension Office, who is facilitating work with 4H groups. There is also a CSU student on the community task force that is helping them with brainstorming some activities that they can do at the CSU Union in coordination with the CSU Climate Center.

The first survey is closed, but there will be future opportunities in the upcoming workshops that will have surveys that go along with those workshops. So, there will be a second round of surveying. Shelley posted the link to the CSLC webpage where members can find more information, sign up for workshops, and the next round of surveys will be posted there in the future.

- Roundtable– no comments from ESAB members, except for positive comments on Emily and Rodger's presentation on air quality monitoring.

8. **Issue Index** – Was updated with tonight's discussion

9. **Agenda Topics for Next Meeting** – Next regular meeting will be February 8th, 2022. Discussion items will include EV Charging and Larimer County Fleet/Facilities, and initial plans for the 2022 Environmental Stewardship Awards.

10. **Adjourn**