

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: June 8, 2021

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	Jeffrey Pierce
John Bleem	X	Steven Decatur [§]		Sheryl Magzamen
Jim Gerek - <i>Chair</i>	X			
David Lehman – <i>Vice-Chair</i>	X			
Allyson Little	X	Larimer County Board of Health		
Kirk Longstein	X	Bernard Birnbaum		
George Rinker	X	Tony J. Van Goor		
Travis Rounsaville	X			
Catriona Smith	X			
Katrina Winborn-Miller				
Chris Wood	X			

X = present; * = Commissioner Liaison; † = Speaker; ¥ = ESAB Liaison; § = Larimer County Office of Emergency Management (OEM)

Call to Order: 6:00 p.m.

1. **Amendments or additions to the agenda** – None.
2. **Introduction of members, staff, and guests** – Jim noted that there were several attendees that were not observable, but present and listening into the Zoom webinar.
3. **Public Comment** – None
4. **Discussion Items**
 - Wildfire Smoke and Public Health – David Introduced the Colorado State University Team doing research on the impacts of wildfire smoke on human health. Jeff Pierce (Atmospheric Science) and Sheryl Magzamen (Environmental and Radiological Health Science) were presenting tonight and are the leads on a larger research team that involves a collaborative network of scientists from many different disciplines. Jeff Pierce started the presentation explaining how large fires over the past 45 years are correlated with spring-summer





temperatures, where in years of higher temperatures comparatively larger fires were more prevalent. Temperature explained ~50% of the occurrence of large fires, but aridity/dryness of forest fuels, brought on by drought, was just as important. Drought is the measure of dryness, the difference between water loss and precipitation. In years of drought, the number of fires is higher. Modeling shows that, when holding fuels constant, the median number of acres burned is expected to increase 10 to 20 times over the remainder of this century.

When you consider smoke from those fires, Dr. Pierce's research found that while particulate matter (PM_{2.5}) from non-fire sources (vehicle emissions, industry, etc.) is expected to decrease over the remainder of the century, PM_{2.5} from wildfires is expected to increase, making up for any losses achieved for non-fire reductions. In fact, they are already seeing that trend in data (2006-2019) where PM_{2.5} has significantly decreased in the southeastern US but increased in the Western US.

They modeled how smoke moves over space – short and long distances, high and low atmosphere, and how the chemistry of the smoke changes over space and time (from point source to days/miles away). How this is expected to impact human health depends on many factors, one of which is exposure, which can be difficult to measure. Exposure depends on whether people smell the smoke. Smoke from local wildfires is easily identified by its odor, however, long-range smoke (from more distant wildfires) lacks the smokey odor. As smoke travels through the atmosphere, the odoriferous chemicals dissipate below the olfactory threshold through a combination of dilution and chemical processes. People experiencing smoke from more distant fires therefore tend to have higher exposure because they do not realize that the air around them is smoky.

Sheryl then presented on the health impacts of smoke and first explained several different methods for modeling exposure to smoke (ground level monitors, satellite imagery, and others). When used in modeling, the data from the different monitoring methods provided different results in terms of health effects (asthma, COPD, pneumonia), primarily differences in magnitude of effect. The researchers applied their modeling to study health effects in the Colorado Front Range population and looked at hospitalizations and mortality rates (2010-2015) and found wildfire smoke related to increases in all respiratory diseases as well as heart disease. Similarly, mortality from asthma and cardiac arrest increased when levels of wildfire smoke were increased.

Monitoring ground level smoke is a challenge, and daily measures can be inconsistent. From Oct 1 to Oct 31, 2020, the two monitoring stations in Fort Collins, which are 13 km apart, had some days where measures of PM_{2.5} were considerably different. This demonstrates the hyperlocal nature of atmospheric smoke from local wildfires.

Open questions are looking at long-term health effects of seasonal events (i.e., health impacts from wildfires) that occurred one or two years prior. Another challenge is the public health implications of land management decisions- balancing ecosystem health and natural fire regimes with human health. There is a need for more studies of the short-term and long-term impacts for communities downwind of wildfire prone areas.



The team is now looking towards improving data collection of wildfire-related PM_{2.5}, including implementing citizen science data collection methods, and developing a warning system that can be implemented on bad smoke days. “Smoke ForecasterR” is a county level predictive service for emergency departments to alert them to the likelihood of increased respiratory visits.

Increased communication regarding smoke and air quality is needed. A recent survey (2019) of 1269 Coloradoans revealed that:

- nearly 40% know little to nothing about air quality,
- only 5% know what the Air Quality Index is and check it frequently
- 88% believe that air quality affects people’s health
- 60% reported not taking action to protect themselves when air quality is poor.

A follow-up survey is planned for Summer 2021.

They wrapped up discussing data that show people tend to have better indoor air quality, as compared to outdoor air quality when wildfire smoke is high (PM_{2.5} concentrations are high), but the survey sample is probably biased toward people who have mitigation measures (in-home air filters, air conditioners). Those who don’t have these measures need them in order to improve their situations.

Members from both boards asked questions. David asked about costs of adding ground level low-cost monitors, and if the county were to put \$10K toward purchasing such monitor how many they would be able to buy for that. At \$300/per unit that would provide 30 monitors. Sheryl noted that if such monitors were placed in the higher elevations of the county, which are less densely populated but experience higher levels of smoke, that would be a big benefit in terms of collecting useful data. There is currently one of these monitors at the Discovery Museum in Fort Collins.

- Larimer County Proposed Oil and Gas Regulations – Kat presented the sub-committee’s review of the proposed regulations. They have developed a spreadsheet with specific excerpts from the regs where the committee had questions or made suggested revisions. They also have a redline version of the regs. But neither the spreadsheet nor the red-line version is ready for finalization tonight. What they will present tonight is an overview of what the regs are saying and then some examples on main comments that they found in review of those rules. Kat then went through each part of Section 11, highlighting the content of each section and what comments/concern the committee had on each section.

Members discussed fees, and whether there was an application fee. As part of the application process there are fees like the transportation capital improvement fee, inspection fee, and other fees associated with the Special Review Process. Kat then showed the County's draft schedule, and it appears that comments need to be in by end of June and Jim commented that getting comments in the sooner the better. Kat asked whether the County had the resources to be more stringent than the State’s regulations, and what is the added value to be more stringent? The Regulations require the applicant to prepare and implement separate monitoring plans. There were concerns of what the County will do with the additional data collected as a requirement and whether the more stringent



regulations will result in improved outcomes. If not, is it useful to require more of County staff in terms of review and monitoring if the outcomes are not really improved? Commissioner Kefalas noted that for complex permit applications, the Planning dept can request, at the expense of the applicant, outside technical advice. He also asked whether these questions have been provided to planning staff and whether they will be available for tomorrow evening's Planning Commission meeting? Jim answered that the Community Development staff has not seen these questions. Commissioner Kefalas would like to pass them onto staff and discuss them at tomorrow's meeting. Jim will provide Commissioner Kefalas the slides from tonight's meeting.

There was more discussion regarding the need for applicants to prepare and implement separate monitoring plans. Most of the Section 11 regulations are very similar to the State's Regulation 7 and members questioned whether the County examined the Reg. 7 requirements for regulatory overlap. They noted that the Special Review requirements and procedures, combined with attachment "Article 6.4.3" at the end is confusing, difficult to follow and unclear. The subcommittee will pass on a memo with the primary concerns/comments, and the spreadsheet all as a package. It would be good to have a checklist that the applicant can use and would help the County with getting all the documents they need. They also recommended requiring a pre-application meeting, a county review time commitment, some re-wording, or clarifications of rule provisions to make things easier to understand, and citations to other rules or sections where necessary.

Some specific comments related to defining the term "substantial" for 11.2.7. Use of "3rd party consultants" – how will they be approved? "Trigger level" in section 11.3.3.B, is again not defined.

Kirk asked if there is administrative discretion with these rules? Jim noted that the Director of Planning has some level of discretion if it does not conflict with the regulations. Commissioner Kefalas noted that all must go through the Special Review process and asked whether that addresses their questions. Kat noted that some of the subcommittee's concerns related to items that must be submitted and discussed in the plans - i.e., "trigger" levels have to be defined to know whether you have reached it. An applicant could define trigger levels as part of their plan, but it would be better to have a blanket definition that puts everyone on an even playing field.

Additional specific comments included methods for measuring NOx and PM through canister sampling. Using the term "cumulative impacts" in section 11.3.3.C Air Quality Plan. This term implies costly air quality modeling analysis, and trained staff are needed to review the results of such analysis reports. They were not sure this is what the County intended by using the term and suggested different terminology clarification in what is expected or not expected to satisfy the plan requirement. Odors – Speciated air sampling is not defined and there is no timeframe for notification requirements. Water quality – PFCs are included in water sampling, and it is very expensive to analyze for. Recognizing that there is concern with PFCs in surface and ground water, they questioned what the County will do with such data. They suggested the County allow operators to certify whether they use materials that contain PFCs and PFASs. Risk Management – No required frequency is provided for conducting audits, and do audit findings need to be reported to the County? Emergency Response – scope is wide, consider adding requirement to describe most likely



and worse-case scenarios and response scenarios. Spill and releases – containment systems - What standards are proposed for “similarly impervious”, as EPA has not provided a standard for “sufficiently impervious”.

The subcommittee has additional comments that were not included in tonight’s presentation. Chris and Ally asked what the process is moving forward. Does writing a memo help or just present at the public meeting? Jim noted that public meetings are general for single comments or comments that take 2-3 minutes. Written comments are preferable. Cat did note that this is a work in progress still, but it would be good to start formalizing into a memo. The ESAB bylaws allow for a special meeting to be called that would facilitate the sub-committee finishing their work and then allow the whole board the opportunity to review, comment and vote on the memo and any other deliverable. Cat laid out possible timing to have the memo prepared, the Board discussed various options and decided on holding a special meeting at the end of the month.

5. **Approval of Minutes** – May minutes were deferred to the next meeting.

6. **Updates and Round Table**

- Commissioner Update – Commissioner Kefalas noted that the BoCC will look to pass a resolution to express opposition to State Initiative 16. They have also revised the draft Wildland Firefighter Recognition proclamation. Three candidates for the ESAB were interviewed last week, and all three applicants were excellent candidates. The Climate Smart Larimer County process – the RFP for community engagement coordination closes June 15th, and the job has been posted for the program manager position. They have received a lot of applications and hope to hold interviews soon. There will be a joint work session with the PC to discuss oil and gas regulations as well as potential changes to the 1041 regulations.
- ESAB Bylaws – Jim discussed the proposal to increase the number of members of the ESAB. There is generally no opposition to the expansion, but the question is - to how many? A marked-up version of the bylaws was provided as part of the packet. That marked-up version includes several recommended changes. Jim noted that he would like to limit the changes, at this time, to increasing the number of members. Kirk asked what the commissioner would like to get out of increasing the number of members. Commissioner Kefalas noted that because the issues the board investigates are becoming more complex, there is a need to spread out that workload. As well, with Jim and David transitioning out over the next year or two, there is a need to mentor new leadership. Several members said they agreed with increasing the number. Travis noted that because of the pandemic it has been a weird year, and we have asked Jim and David to stay on in their leadership roles until someone is ready to step in.

The board continued to discuss how the vote to change the bylaws proceeds, and whether it must be in person. There was more discussion on other changes, but agreement that those changes should wait until the board has more opportunity to deliberate. Commissioner Kefalas noted that the interviews have already occurred and if there are openings on the board, these applicants should be appointed.

Jim proposed that the change be “to a maximum of 15 people”. Commissioner Kefalas noted “up to 15”. Commissioner Kefalas asked if it is an issue that the bylaws currently



require “a vote of 2/3rds in person”? Jim said it was not an issue for him. David suggested that any changes should be provided to members with the agenda for the meeting so that members have an opportunity to think about it prior to the meeting. Shelley indicated she provided a marked-up version with the agenda for tonight’s meeting that has several suggested changes, made simply for points of discussion. That announcement satisfies the procedural requirement that David alluded to. Jim reiterated that the board should vote tonight on just the single change of “up to 15”, and then over the next 6 months discuss the other changes in a more deliberative process. Jim asked for a motion – Rodger motioned; Chris seconded. Kirk noted that he would like to see an expansion of the role of the issue coordinator, but that doesn’t have to be done now. No further discussion. All were in favor with the motion, and it passed by acclamation. Commissioner Kefalas asked that Shelley get this on the next BoCC administrative matters consent agenda.

- Environmental Stewardship Awards – Shelley noted that the awards ceremony will be next Monday, 3 PM, during the Land Use hearing, in person, so no need for Zoom. The ceremony is televised and will be recorded.
- Rail Tie Wind Project and DEIS – Jim reminded the board of their work last month to approve, in concept, the comments on the DEIS for the project. Jim worked to finalize the memo and it was presented to the BoCC in worksession. The ESAB comments were then passed onto the WAPA May 25th, by mail, after having been approved that day on the BoCC Administrative Matters consent agenda.
- RAQC and NFRMPO – Jim updated the board on Kirk’s request to start tracking the work of the two organizations. Jim opened the floor to Kirk, recognizing that it is late and if Kirk would like to postpone his update to the next meeting when he may have more time that would be OK. Kirk agreed but noted that how this came about was through his work as the issue coordinator for the CSLC, transportation is the largest emitter of GHGs. That said, the NFRMPO is the organization that addresses transportation issues for Front Range communities, so it makes sense to start tracking their work. Some of their work includes addressing the regional transportation planning and addressing the area’s ozone non-attainment status. There will be future opportunities to provide comments on the Transportation Improvement Plan, which is a plan required to be in place to receive Federal grants funds and other federal funding sources. Kirk is interested to learn more about the plan’s alignment with alternative fuels, and other air quality conformity standards that the MPO needs to maintain, EV charging infrastructure, and how the region is missing out on potential funding for some of these initiatives. Kirk asked if the board has interest and if any members want to work on this with him. Rodger noted that he really liked the idea and would like to participate. Kirk will follow-up with Rodger and Jim.

7. **Issue Index** – Was updated with tonight’s discussion.
8. **Agenda Topics for Future Meetings** – Next regular meeting will be July 13th, 2021. Topics TBD.
9. **Adjourn** –Travis moved to adjourn the meeting and John seconded. All agreed and the meeting was adjourned at 9:02 PM.