

**MINUTES
CITY OF FORT COLLINS
AIR QUALITY ADVISORY BOARD**

Date: Monday, February 26, 2018
Location: Colorado River Room, 222 Laporte Ave.
Time: 5:30–8:00pm

For Reference

Mark Houdashelt, Chair
Ross Cunniff, Council Liaison 970-420-7398
Cassie Archuleta, Staff Liaison 970-416-2648

Board Members Present

Matt Tribby
Chris Wood
Arsineh Hecobian
Mark Houdashelt, Chair
Karen Artell
Harry Edwards
Greg Clark
Vara Vissa, Vice-Chair
Jim Dennison

Board Members Absent

Staff Present

Cassie Archuleta, Staff Liaison
Megan DeMasters, Environmental Program Assistant
Selina Lujan, Environmental Planner, Healthy Homes Program
Tony Raeker, Environmental Planner, Green Building Program

Guests

Alan Braslau (Energy Board)
Claire Sills (CSU Student)
Margrit Hentschel (Citizen)
Aaron Fodge (Citizen)
Eric Shenk (Transportation Board)

Call to order: 5:31 pm

Public Comments

Michelle Haefele, a Fort Collins citizen, emailed the Board prior to this meeting urging the AQAB to recommend the implementation of restrictions on outdoor fires. Mark informed her that the Board has begun to discuss the issue in more depth and that it is a high priority for City Council. He extended an invitation to tonight's and future AQAB meetings.

Aaron Fodge worked for the City of Fort Collins when public burning was addressed during the 1980s in the context of the brown cloud issue. He expressed his belief that as Fort Collins becomes more densely populated, outdoor burning has become more of an issue and noted that the allowance of burning is not consistent with the CAP. He also cited the significant health implications, especially for sensitive groups.

Margrit Hentschel worked for City of Fort Collins on the wood burning issue for about 20 years. She expressed her belief that as the City grows, it should offer more protection to people against such issues. She stated that outdoor burning differs from other policy issues because it can be toxic to human health and can impact entire neighborhoods. Margrit also noted an increase in the number of outdoor burning devices in use and provided a map which she generated in her neighborhood to tally outdoor burning locations. She stated concern for those with respiratory issues, who may not have air conditioning and must resort to staying indoors with windows closed during hot summer months. She believes that the current ordinances related to burning are difficult to enforce.

Eric Shenk is Chairman of the Transportation Board. The Transportation Board recently chose members to serve as liaisons to certain other Boards, and he was selected to be the liaison to the AQAB. His purpose in attending the meeting was to reach out to the Board, observe its proceedings and invite AQAB members to attend Transportation Board meetings. He expressed a desire to work cooperatively with other Boards in an informal manner.

Approval of Minutes

Harry moved and Arsineh seconded a motion to approve the January minutes as presented with edits.
Motion passed, 8-0-1 (Jim abstained).

AGENDA ITEM 1: Radon

Megan DeMasters, Environmental Program Assistant, and Cassie Archuleta, Environmental Program Manager, provided an overview and requested feedback regarding the 2018 staff work plan for radon. Selina Lujan, from the Healthy Homes Program, and Tony Raeker, from the Green Building Program, were also present to answer questions.

Presentation

- The objective is to define the scope of the 2018 staff work plan for radon, discuss ways to improve the existing program and investigate potential policies to reduce radon exposure.
- Currently, the City sells both short- and long-term radon test kits at the Senior Center and at its 281 North College offices; participants of the Healthy Homes Program receive a free radon test kit (short term). Kits are analyzed by Air Chek and the results are sent to both customers and the City. The City also offers 0% interest loans for radon mitigation to those who qualify.
- Municipal Code requires every seller to provide a radon information brochure to potential purchasers. Since 2005, Fort Collins has required all newly constructed single-family and duplex homes to have a passive radon mitigation system.
- Key Statistics:
 - Fort Collins lies within a Zone 1 radon area (the highest radon level designation)
 - Radon is the second leading cause of lung cancer in U.S. (it's the leading cause for non-smokers)
 - 65% of homes tested in Fort Collins report high levels of radon (>4 pCi/L, the EPA's suggested mitigation level)
 - 41% of survey respondents have tested their homes
 - 26% of survey respondents have mitigated (out of total respondents, not out of number tested)
- Key Timeline Events:
 - February – April 2018
Collect data and research into existing programs, policies and best practices; this process will include stakeholder involvement and will lead to the development of a new radon questionnaire.
 - May – September 2018

Assemble and meet with a working group (which will hopefully include AQAB members, City Air Quality and other Staff with relevant expertise).

- September – November 2018
Perform an overall cost/benefit analysis, which will include both an economic analysis and health risk characterization.
- November – December 2018
Present the findings of this study and obtain a formal recommendation from the AQAB.

Megan posed the following questions to the Board:

- What additional feedback can be incorporated into this process?
- What is the level of interest for involvement in AQAB?

Discussion

- Jim requested clarification on some of the mitigation rate statistics presented regarding the radon survey that was distributed. He suggested revising the wording of survey questions to further refine and clarify this statistic. He also noted that some of the City's current literature cites radon levels of 4.0 pCi/L as "safe" per the EPA but suggested that this is more of an action level. Concentrations below this may still be unsafe depending upon exposure.
- Jim and Greg discussed broadening the pool from which working group members are selected to include not only homeowners interested in mitigating, but those who have already gone through the mitigation process, as well as realtors, property managers and tenants. Mark stated the importance of including renters and mentioned that it may be prudent to use the CDPHE as a resource, as they have robust data regarding radon. He asked if any of the people that performed testing through the City were doing post-mitigation testing.
 - Cassie stated that previous mitigation attempts were not currently tracked, but that would be an important question to include in the new survey. She suggested that the Board review the new questionnaire before it's released to the public.
- Greg and Vara both completed radon testing in their homes through the City and noted a few issues. For example, the current method of mailing test kits may prove problematic as it can take several days, and the kits only have a lifespan of 7 days. Vara noted that she used 3 test kits before she received useful results. She didn't get a report from first kit. For the second one, the results were not useful, because she exceeded the recommended 3 day exposure (user error).
 - Selina stated that if citizens call the City with their test kit number, a staff member can track it to determine where it is in the process or if there is an issue with the kit. If something goes wrong with the kit, a replacement will be provided.
- Harry inquired whether the current survey includes public buildings such as hospitals, schools, daycares or senior centers, where there may be sensitive groups.
 - Cassie replied that the current survey is distributed to homeowners and renters. The City maintains a list of everyone that's received a test and follows up after high test results to provide resources for mitigation. Selina has begun research and outreach at daycares around the City. CDPHE recently released new guidance for measuring and mitigating radon and has been performing outreach to sensitive populations.
- Vara noted the importance of including health professionals and affected individuals (patients) as stakeholders in consideration of the significant health effects inherent to this issue. She inquired about quantitative data regarding radon-related health issues in the Fort Collins area. For example, is there a relationship between the frequency of lung cancer patients and radon levels? Matt reiterated a need for hard data to back up policy decisions and the costs associated with them.
 - Megan stated that research would include an examination of other (Zone 1) communities in

Colorado and would branch out to experts elsewhere to obtain more quantifiable information.

- Arsineh inquired if the City's radon brochures are standardized and asked who will be performing the cost-benefit analysis.
 - Cassie responded that the brochures are standardized, and Megan stated that a team of professors and students at CSU will be performing the cost-benefit analysis.
- Mark asked if this work plan will be presented to Council and if it aligns with their priorities.
- Cassie responded that Council has not requested to see the work plan and that City Staff are hoping for guidance from the AQAB through this process. Periodic updates will be provided to Council. Board members expressed concern with the timing of the health risk characterization within the overall work plan, noting that it may be difficult to accomplish in the amount of time specified. They believe that knowing the risk level will be a key factor in the overall process, and should be addressed at the outset when designing the survey. Jim noted that epidemiological studies are very complex and expensive; he suggested using an example from the EPA or reaching out to the Larimer County Health Department and CSU to see if such a study has already been performed. He also stressed the need to include commercial buildings in the characterization.
 - Megan noted that the time frame specified for health risk characterization represents a period where the workgroup will be analyzing options. Selina and Cassie followed up by stating that the City has strong partnerships with both the Larimer County Health Department and CSU and could reach out to them for assistance with the characterization. With regards to the inclusion of commercial buildings, Tony responded that the implementation of testing and mitigation codes in privately owned commercial buildings has been difficult. The City understands that there is a potential for high exposure rates within the workplace and that the Green Building Program is working closely with the Air Quality Program on this issue.
- Mark noted that the time frame for this project seems ambitious and asked if we would know enough by the time this year's budget offers are due to ask for more funding.
 - Cassie stated that there will not be an opportunity to request more money this year, but a request could be made for the budget revision next year. The City has \$20,000 to spend this year to support hourly staff and some of the epidemiological review to be performed by CSU. Staff are committed to providing 2-3 vetted recommendations to the AQAB that will be presented to Council during this time frame.
- Jim suggested requesting more money in anticipation of implementation costs and other unknowns that may arise next year
 - Cassie stated that it's unlikely that a funding request can be made without concrete details, but she will float the idea to see if she can find support.

AGENDA ITEM 2: Outdoor Residential Burning

Cassie Archuleta, Environmental Program Manager, provided an overview and requested feedback regarding the objectives, scope and public engagement plan for outdoor residential wood burning.

Presentation

- The objective of this study is to develop recommendations regarding options to better protect human health and reduce nuisance from outdoor wood smoke.
- The current scope includes research existing policies and programs, performing a behavior perception survey, public outreach and deliberation, and the development of recommendations.
- The overall goal is to deliver definitive recommendations to City Council.
- Smoke as an Air Quality Concern:
 - Smoke is a mix of particles and gases, and particle pollution that has known health impacts (both short-term and chronic)

- Sensitive populations such as the elderly, children, and people with respiratory issues or heart disease are at greatest risk. One quarter of all survey respondents in Fort Collins report a household member with a respiratory issue.
- Fort Collins does not currently violate federal PM_{2.5} standards; this is a localized air quality issue that poses health risk, odor nuisance, visibility/brown cloud and safety issues.
- The primary focus of this study is on outdoor residential burning, which currently specifies certain limitations on recreational fires, including size and fuel limitations, the need for above-ground containment, acceptable distance from combustible structures, and the need to be attended at all times.
- Currently, complaints regarding smoke are received through the Neighborhood Services Program as there is no Code that addresses the issue. Neighborhood Services then performs outreach in the form of a letter to the party engaging in burning to attempt to remedy the issue. The Poudre Fire Authority may also become involved, providing on-site outreach, especially if there's a safety concern. Citations are rarely given.
- A spectrum of options has been discussed, including:
 - Incentives/Outreach (PFA provides safety response, City provides outreach and offers mediation, additional voluntary programs, incentives)
 - Permitting Program (educational/initial inspection, neighbor notifications/permissions)
 - Temporary limits (high pollution advisory days, seasonal/limited days, nuisance limits/enforcement discretion)
 - Permanent limits/bans (limited areas, limited fuels, smoke/opacity limits)
- Public Engagement may include:
 - Key stakeholder engagements, including the formation of a working group, boards and commissions and Neighborhood Connections
 - Events and surveys, including a behaviors and perceptions survey, expert panel and community issue forum
 - Electronic forums and social media, including the utilization of the Our City online platform, Facebook, Twitter and Nextdoor
 - General outreach on Fcgov.com, Cable 14, a project email list, press releases and/or a utility bill mailer
- The current timeline is as follows:
 - January – March 2018
Policies and behaviors research
 - April – August 2018
Outreach and deliberation
 - May – June 2018
Super-board meeting
 - August – October 2018
Obtain a recommendation from the AQAB (October) and draft formal recommendations for Council

Discussion

- Mark noted that if this is to be framed as a health issue, it may be hard to limit the study to addressing only wood burning smoke sources.
 - Cassie stated that Council's focus at this time is outdoor recreational burning. Cooking fires (and products manufactured specifically for cooking) are not typically restricted by cities; however, smokers could fall under a nuisance umbrella.
- Greg inquired if an analysis has been performed to determine the smoke source from which the majority of complaints originate.
 - Cassie stated that most complaints originate from the densest neighborhoods, but she wants to gather perceptions of this issue from everyone, regardless of their neighborhood. She hopes that performing a survey will provide more insight.

- Jim requested quantitative information regarding the amount of particulate matter released by fires with varying fuel sources and sizes. He suggested localized monitoring to quantify emissions in neighborhoods and noted that it may be difficult to classify burning as a health risk without providing measureable statistics.
 - Cassie stated that CSU may already have some data regarding wood smoke emissions.
- Arsineh noted that wood-burning fires also emit VOCs, some of which can cause cancer depending on concentration and exposure time. What must be determined is how, exactly, emissions are dispersing. She noted that, as Cassie mentioned, there is data available at CSU for stove fires that burn different kinds of fuels; they also perform human exposure experiments which check people’s lung capacity and other variables after being near a wood-burning fire.

Staff Follow Up: Cassie to reach out to CSU to get some messaging regarding other health effects of VOCS, as most messaging is currently based on particulate matter.

- Arsineh asked if there’s any way to enforce burning issue aside from a visit from the PFA.
 - Cassie stated that there is an ordinance in place for air quality (public) nuisance, but it is difficult to enforce.
- Matt cautioned against using opacity as a parameter for determining emissions, since it’s very difficult to determine when there’s an exceedance, particularly at night, when most outdoor fires may be burning. He also enquired about the experiences of other communities that have implemented burning codes, stating that since this is such a polarizing topic, it may be beneficial to reference these experiences.
 - Cassie noted that City staff has gained perspective from studies performed by Boulder and Denver, who tackled the issue by addressing it in the context of regional pollution. Policy research has identified a number of communities that have dealt with this issue in different ways.
- Harry asked if the City has investigated the use of more efficient outdoor burning tools.
 - Cassie stated that there may be an opportunity to offer rebates or implement an exchange program to get people to trade appliances in for non-wood burning ones. The City is open to hearing people’s creative ideas.
- Vara noted that a City-wide map, like the one presented by Margrit, may be helpful in understanding the spatial distribution of this issue. She also noted that Nest has highly sensitive CO/smoke detectors that also have apps for mobile phones to send alerts. She believes the use of such technology may be beneficial for collecting smoke emission data by residents in their neighborhoods.
 - Cassie stated that (through the survey) it will be possible to obtain zip code resolution for the purposes mapping, but anything more refined would present privacy issues. Most research suggests that if you can smell smoke, then particle pollution is high, but supporting measurements would be helpful to back up claims.
- Cassie would like feedback from the Board throughout the process and will keep them abreast of new developments. Ultimately, the City would like a formal recommendation from the Board before going to Council.

AGENDA ITEM 3: Discussion Items

Issue Index

Cassie compiled Board members’ ratings of items on the issue index. Ratings were submitted by each member as AQAB priorities. Cassie presented the index, with updated priorities, as a living document to be used as a tool throughout the year to identify areas of interest to the Board and arrange appropriate presentations. She used members’ personal high priorities to assign AQAB coordinators to issues. The Board discussed the possibility of attaching tangible goals to the issues that are of highest priority.

Interaction with Other Boards

Members also discussed using the issue index as a guide to interacting with other boards. Mark has compiled a list of relevant boards and proposed that each AQAB member monitor the agenda(s) of other Boards and attend pertinent discussions as members of the public. Members could sign up for email alerts to receive upcoming agendas to determine which meetings will be valuable to attend. They could then report back to the AQAB during the monthly meeting. Matt noted that the index could also be used to identify opportunities to present (as individuals) at other Board meetings. Mark will email the list of relevant boards that he's compiled so that members can highlight those that they may be interested in tracking; he'll compile the list before the next meeting.

Multi-Board Working Group

At last month's AQAB meeting Ted Settle and Sam Solt from the Economic Advisory Commission proposed multi-board meetings to discuss the Triple Bottom Line (or other important issues) and invited members of the AQAB to participate. This topic, and the potential restructuring of Boards and Committees, will be discussed at a Futures Committee meeting, which will be held at City Hall in the CIC room on 5/14/18 at 4pm. The AQAB will need to designate a member to attend this meeting if they'd like to participate.

Board members agreed that this would be worth investing in, but that it needs to be very well organized. They also discussed the TBL tool that is being developed and noted that, depending on the tool's impact, it may change the focus of the proposed multi-board meeting. The Board decided that it would be worthwhile to send an AQAB representative to the Futures Committee meeting; Mark will notify Ted Settle that a member will be in attendance.

Board Updates

- The City Waste team is looking for suggestions for their upcoming BFO offers.
- Fort Collins recently released a Carbon Sequestration Report, a study to evaluate the potential for City land use practices to reduce or offset Fort Collins' greenhouse gas emissions. It can be viewed on the Climate Action website.
- With regards to the Net Zero study which was recently released by Platte River Power Authority, there may be reason to believe that hydropower is not a net zero energy source. A local sustainability group is working with CSU to determine if hydropower needs to be included in carbon emissions.
- The Platte River Power Authority has released an RFP for another 20 MW of renewable energy by photovoltaic solar generation and up to 5 MW of storage.
- CU recently completed a study which suggests that consumer and industrial products, such as paints, pesticides and perfumes, contribute far more to atmospheric VOC concentrations than previously believed. The study suggests that such products constitute 50% of fossil fuel VOC emissions in industrialized cities.
- Vara attended a Community Conversation, titled 'Elevate Climate Action Event', organized by CSU 's Center for Public Deliberation on 2/08/18.
- Mark, Greg and Vara attended an Innovation Summit was held on 2/12/18 to organize and discuss the grant-award process facilitated by Innovate Fort Collins in the coming year.
- Mark Chris and Karen attended the City Plan Kickoff Meeting 2/12/18.
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- Mark recently attended a Climate Action Plan Citizens Advisory Committee meeting.
- Vara and Chris recently attended the annual State of the City address.
- Jim recently attended an indoor air quality technical convention.
- Mark recently attended a CSU talk on how to reduce energy consumption using self-driving vehicles.
- Greg met with Lucinda Smith to discuss the TBL analysis tool that's being developed by the City. It will apply a qualitative rating system to assess projects and how they fit within the TBL decision process. The City hopes this tool will help to standardize the determination of priorities for different projects.
- Arsineh recently made a presentation at the Garfield County Energy Advisory Board meeting regarding emission rates from oil and gas operations in the area.
- Vara attended the Winter Series Neighborhood Connections workshop (which was focused on communication). She believes it may be a good forum to disseminate information from boards to

neighborhood representatives on issues like idling, outdoor burning and radon.

- Mark will be serving on the EV Readiness Roadmap steering committee that is meeting on 2/27/18.

Future Actions and Agenda Items

- Review of City Council 6 Month Agenda Planning Calendar
 - 3/3/18 – Council Work Session to review the 2018 Strategic Plan
 - 3/27/18 – Council Work Session for Significant BFO Considerations for 2019/2020
 - 4/3/18 – Oil and Gas Land Use Code Updates
 - 4/47/18 – 2018 Strategic Plan Adoption
 - 5/8/18 – Climate Action Plan Update and 100% Renewable Energy Study Results and Solar Business Model Review
 - Elections
 - Update on Oil and Gas Setback Rules
 - Update on PRPA Net Zero Study
 - Upcoming Superboard Meeting
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Meeting Adjourned: 8:11 pm

Next Meeting: March 19, 2018



Signed by Chair