

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

**Date:** Monday, February 22, 2016  
**Location:** Conf. Room 1A, 215 N. Mason Street  
**Time:** 5:30–8:00pm

**For Reference**

John Shenot, Chair  
Ross Cunniff, Council Liaison 970-420-7398  
Lucinda Smith, Interim Staff Liaison 970-224-6085

**Board Members Present**

John Shenot, Chair  
Robert Kirkpatrick  
Jim Dennison  
Vara Vissa  
Tom Griggs  
Mark Houdashelt  
Chris Wood

**Board Members Absent**

Rich Fisher  
Gregory Miller

**Staff Present**

Lindsay Ex, Staff Liaison/Environmental Program Manager  
Dianne Tjalkens, Admin/Board Support  
Lucinda Smith, Director of Environmental Services  
Cassie Archuleta, Environmental Planner  
Mary Pat Aardrup, Environmental Planner  
Cassie Archuleta, Environmental Planner  
Caitlin May, Waste Reduction & Recreation Program Assistant

**Councilmembers Present**

**Guests**

None

---

**Call to order:** 5:34pm

**Public Comments:** None

**Review and Approval of Minutes:**

Jim moved and Rob seconded a motion to approve the January 2016 AQAB minutes as amended.  
Motion passed unanimously, 6-0-0. Vara arrived after vote.

Discussion: hazardous materials section said get info in advance about what travels through city and also says don't get advanced notice. Suggest first part say instead that know in general what types of items, but not necessarily details. 2<sup>nd</sup> part was discussing security issues and not getting details on those items. Lindsay made edits.

## **AGENDA ITEM 1: Indoor Air Quality/Healthy Homes**

*Mary Pat Aardrup briefed the Board on the City's Healthy Homes program and other indoor air quality (IAQ) issues and initiatives, followed by a discussion of key challenges and opportunities for improving indoor air quality and public health.*

Indoor air is in top five concerns of EPA. Generally worse than outdoor air—comes from activities, products and materials. Get majority of chemical exposure indoors. City program focuses on biological and chemical pollutants. VOCs are emitted from furnishings, office products, and cleaning products. Mold can emit VOCs and particulates. Particulates come from dust, dirt, building materials, etc. Poor ventilation is an issue.

Systems are designed to let in very little outdoor air. Recommend opening windows. Radon is a big issue. It is a radioactive by-product of uranium found naturally in Colorado. Uranium decays in soil under buildings; air in the soil moves up into cracks and other openings in foundation causing radon in the home.

Concentrations can rise to dangerous levels. 70% of homes tested in city come back with high levels of radon. Only 50% of that 70% actually mitigate. Creating a voluntary radon tracking system to connect with people who have high scores—provide with education, refer contractors, and tell about low interest loans available. Second leading cause of lung cancer after smoking. Since 1997 City has been conducting air quality surveys—consistently shown that ¼ of households have a family member with a respiratory problem. Colorado is in Zone 1—highest potential for dangerous levels of radon. Significant proliferation of new building materials, household chemicals, and increased use of pesticides make it hard to improve indoor air quality. City has robust radon program—have distributed 400 radon kits so far this year. Conducted major research project over three years—learned more about how to communicate with public. Wood Smoke ordinance that limits what types of fireplaces can be installed indoors. Have ordinance about Smoking Vehicles—do not permit any visible air pollution from any vehicle (except diesel), have many smoke free zones in the City including natural areas, parks, trails and downtown. Program works by training Master Home Educators (20-hour comprehensive training)—learn about behavior change and persuasion skills, safety, biological pollutants, chemical contaminants, and asthma education. Classes are limited to 25 participants—training is in April. Have trained 100 and have 30 active today. Principles of healthy home: free of contaminants, dry, clean, well ventilated, pest free, well maintained, and safe. Participants receive recipes to replace household chemicals with healthier products. Assessments have discussion/interview (discuss concerns) and walk-through, take 1.5 hours and residents are given 3 to 5 low- to no-cost recommendations. Have 84% compliance and do follow up calls. Get radon test, CO detector, 10-year smoke detector, and healthy cleaning products. Program began in 2011. Started with giving away many conservation products. Found that it was too much information and message was lost. Revamped to focus only on indoor air quality. Have assessed 465 homes since started, reach 2000+ residents every year through outreach. Focus now is on recruitment/retention of Master Home Educators, exploring DIY options, exploring tiered assessments (may lead to additional visits), consistent research and program development, and continued development of partnerships. Challenge is marketing—hard to advertise more when capacity does not allow staff and volunteers to handle increased volume. Would like to do a five-year program evaluation to measure impacts. Opportunity with CAP to explore impacts of climate change and help people prepare for extreme events. Have been asked by Denver and Children's Hospital to provide model for programs. "Prepare your sanctuary"—ready home to be safe and secure in extreme events.

### **Comments/Q&A**

- Are radon kits deployed in rental units often?
  - Yes. Renters call for healthy home assessments which include a radon test.
  - Are homes differentiated? Second floor, basement, etc.?
    - Generally try to test at lowest level, but it's a gas that permeates. Test asks what level is being tested.
- Once a can of anything is open it is emitting VOCs? Is there a point that dissipates or a way to store that does not emit VOCs?
  - People keep "touch up paint" but don't use it. Can just keep a swatch of paint—don't need the can. If must keep some, put in small container in a Ziploc bag.
- For radon testing, normally told to seal house, but if have fans ventilating 24 hours a day—do you do radon test with fans on or off?
  - Suggest doing both.

- Short term test is recommended for closed house conditions—making sure to capture if there is radon. If confirm radon is present, do long term test.
  - Cost is generally \$1000-\$1500 to mitigate radon.
- How many people use zero interest loans?
  - \$30K available annually. Last year had \$28,700 spent.
  - City gives \$30K every year, but people pay money back so should have more each year.
- Curious about “safety” recommendations?
  - Used to talk about prescription medications, gun safety, etc. Now strictly looking at fire safety. Many residents have never discussed fire escape plans. Look for CO detectors. Talk about batteries.
  - CO detector is an IAQ issue. Fire escape plan is not an IAQ issue. Do people who participate have to sign a “hold harmless” form for the City?
    - Yes.
- DIY program, people can access information online and skip inspection?
  - Video walk through of a house. Would show everything to look for. Need permission to access video and must return a checklist. Would make recommendations and send additional information. Participants could send in photos, etc. Many ideas but not yet fleshed out.
- Paint in a can versus paint on a wall—what is difference in VOCs?
  - When paint wall, bring in new furniture, new carpeting, cabinets, etc., will off-gas for a period of time. If contained in a can will continually seep.
- Shouldn’t every home be tested for radon? Children are most aware and concerned. Send information and radon tests through schools.
  - CO Dept. of Public Health and Environment issued regulation that all childcare centers in state are required to test for radon by 2017. Have done outreach to all centers and offered to do radon test and indoor air quality assessment. Have a poster contest in schools for radon. Student from Lesher won last year.
- What are primary mitigation options for radon?
  - All new homes built since 2005 have passive mitigation system installed. Active system includes a fan.
    - Goes from space underneath backfill dirt and slab. Crawl space or basement foundation. In crawl space install poly to seal, put pipe through to move radon out of home. Do passive system first. If level remains high, add the fan.
    - When sell home, required to disclose?
      - Only thing required is to hand out the brochure.
      - Don’t have to disclose known radon issue?
        - No.
        - Realtors are onboard, and help to negotiate mitigation.
      - In strategic planning phase, talked to Councilmember Cunniff. Got impression he is not enthusiastic about anything mandatory or regulatory.
- Research showing dramatic improvements in people’s performance on cognitive tests when have good indoor air quality, and decreases in performance with bad indoor air quality. Asked Cunniff about whether the City should implement outreach to commercial property owners about productivity benefits of indoor air quality improvements.
  - Staff has been asked to assess commercial buildings. Have done a number of them.
- Reaching out to underrepresented groups?
  - Homes where people are doing a good job, there are still at least 3 areas for improvement. Validation is an important service, especially for elderly people who are home more often. Outreach to Hispanic and underserved populations is significant. Have Salud as partner.
  - Offer assessments in Spanish or other languages?
    - Yes.
- 50% who mitigate radon, is that more often rental or ownership unit?
  - Guessing owner occupied.

- Some homebuilders associations said home construction in Fort Collins would stop when first discussed ordinance for radon mitigation in new construction. Always hear those arguments.
- 21K cancer deaths annually attributable to radon?
  - Nationwide.
  - In high radon location like Fort Collins, would think that is would be number one cause of lung cancer. Suggest taking another step to compel people to put in a system. Ex: compelling landlords to disclose radon level of units. Programs should protect everyone, not just those who own their homes. One of most preventable cancer deaths.
- Suggest having Mary Pat return with input about what she needs from the board, and draft a recommendation at that time.

ACTION ITEMS: Mary Pat will be scheduled for a future meeting.

---

## **AGENDA ITEM 2: Hazardous Materials and Emergency Preparedness**

*The Board continued discussion of hazardous materials and emergency preparedness issues that arose during a briefing on this topic at the Board's January meeting. The Board considered whether to accept an invitation from Poudre Fire Authority for an on-site visit and briefing at their hazardous materials training facility.*

### **Comments/Q&A**

- Impressed by depth and degree of what is done regarding hazardous materials. Would like to see facility. When have specialized program like this, hard to know if system is right unless get an outside audit.
  - Don't know if there are external criteria or ratings that can be applied. Can find out if they have been evaluated by an independent party and results. If not, can find out if there a process.
  - When auditing a system, often interview randomly chosen employees.
  - True measure is when they have to handle an event.
  - Minutes talk about two incidents—they met with many agencies, they have history of what went right and what went wrong. They have pre- and post-reporting for events. Concerned that impressed that Avago was an expert and City goes to them. Should be both ways. City should be prepared if something happens at Avago.
- Mike Gavin and team feel they are under-capacity. Rely on partners in private sector to help. When consider recommendations on budget offers, might want to support offers related to his team's capacity. Will review timeline at next meeting.
- No comfort to hear emergency planning team talking about how regulated the companies are that could be involved in this kind of accident. Does not mean that people are following regulations, or that they are sufficient. Derailments that have led to disasters were equally regulated. City cannot do much about railroad, but is still a concern. Heard clearly that don't know what is going down rail line unless railway tells them. Know what is spilling by placards on the tanks.
- What has City considered to change for trains? Hours for transporting certain chemicals? What are options? Controls?
  - Can ask for things but cannot require railroad to do anything.
  - If can't control railroad, and can't prevent a spill, can only prepare for a spill. Make sure best prepared city they go through.
  - And ask them to divert certain things outside of city.
    - Diverted to east of town.
    - Did that happen because we asked for it?
      - Voluntary.

ACTION ITEMS: Review BFO timeline at next meeting. Staff will find out about audit process.

---

### **AGENDA ITEM 3: Fugitive Dust Ordinance**

*Lindsay Ex updated the Board on discussion of this topic by City Council at its February 9 Work Session and subsequent staff actions. Further recommendations from the Board could be proposed.*

Caitlin May has been helping with field data collection. Seeking feedback on items Council wanted addressed before first reading. Options presented to Council included 1. adopting code changes and manual with delayed enforcement, 2. same with immediate enforcement, 3. adopting code changes only with manual as guidance, and 4. status quo. AQAB recommended option 1, while Fugitive Dust Working Group suggested option 3. Council direction is to lead by example—implement administrative policy for every City project to use the manual starting immediately. One tricky part is for existing projects. Working with AECOM to get additional data on cost impacts to single family home construction. Essentially cost for dust mitigation doesn't change much based on home size/price. Staff is doing follow up on accuracy of data. Have had one dust complaint this year—related to CSU. Will create a SharePoint site where all enforcement staff (from multiple departments) can access/track complaints. Council gave feedback and talked about hybrid approach to issue—concerns on impacts to housing affordability and exploring what is right threshold for applying options. Hybrid approaches: A. option 1 for all site over 5 acres, and option 3 for everything under 5 acres. Excludes commercial projects and can still have impacts on housing affordability on larger sites. Have considered 10K ft<sup>2</sup>. Erosion control kicks in at 10K. Most single family home construction is around 7K ft<sup>2</sup>. Could also exclude single family homes from ordinance. Last option is excluding high cost mitigation, but could be confusing to enforce.

#### **Comments/Q&A**

- Problem with fact that FDWG was not balanced. City staff and stakeholder who would have to comply. Not a valid poll of what community would want.
- Suggest using other parties than contractors for estimates.
  - Architects and other third parties.
- CSU—state jurisdiction?
  - We have no jurisdiction over CSU. However, staff member was able to bring info to construction meeting.
- How often are projects over 5 acres?
  - Often. Would have to look at land development applications.
- Even if hybrid approach for small projects, concern that third option only allows City to work on problems after they've been created. Limited number of contractors in this city. Some may do nothing until someone complains, habitually. Would like policy that if have a frequent violator, have consequences.
- Size differential—are we capturing where the dust is being generated, or selecting an arbitrary marker? Ex: Near Kinard individual homes were being built, but development was very large. Don't want to make it convenient to be excluded.
  - Large scale developments would not be excluded.
  - 10K ft<sup>2</sup>, refers to size of area disturbed.
- Better off to compromise with stakeholders to get something enforceable. Lose 99% of value of program if can only enforce when there is a complaint. Cost-benefit ratio. Some of dust generating activities like blowing leaves on a parking lot, cutting concrete, etc., unsure how these fit, but they should be covered no matter what. Delete highest cost, smallest return BMP. Pilot showed good dust reduction.
- Board has already given support of option 1.
- Option 3? Or C will not be effective as number of complaints will be low. Hybrids make decisions based on size of lot rather than on type of activity. Not having seen cost numbers, can't understand how much impact there would be on affordable housing.
  - \$700-\$14,000 cost estimates per home.
  - Option D—High wind restriction is highest cost for single family home. Is one of 4 BMPs for demolition and renovation.
    - Manual has recommended BMPs and mandatory BMPs. If put in exception for properties under 10K ft<sup>2</sup> would reduce cost to housing by half.

- 0.2%-5% of work week could have winds greater than 30MPH. Still achieving all dust control measures for times when wind is under 30MPH.
- Need good neighbor principle. Don't have right to impose dust on others. Operating when wind is at 30MPH is unconscionable. Will not support this option. Not comfortable with hybrid approach.
- Need more information on high cost BMPs thinking of deleting, what the cost is, etc.
  - Still collecting data on this. Drilling down on actual costs.
- These are initial approaches to address Council's feedback. Staff will develop one option to take to Council in April.
  - Amount of dust generated on one windy day will defeat purpose of the manual.
  - Option 3 would not require the manual to be required. But if problem exists can issue citations. Even if option D identified no high wind restriction for certain sites, they could still have to do wet suppression or something else if there is dust.

ACTION ITEMS: Add additional discussion on this item to March agenda.

---

## **AGENDA ITEM 4: Updates and Announcements**

### **Community Recycling Ordinance**

- Work Session in January brought info to Council. Council wants staff to work with trash haulers as important partner. City Manager and Deputy City Manager met with haulers last week to ask if in support of zero waste goals Council adopted. Staff awaiting outcome of that meeting. Not ready to pursue food scraps, but may be ready to bundle trash and recycling for multifamily. Have big questions about phase-in period. Will return to Council in next 3-4 months.
  - Time frame for food scraps?
    - No. But some interest in seasonal weekly yard waste collection. Will not bring food scraps as part of this ordinance.
    - CAP goals?
      - Food scraps are a big greenhouse gas reduction opportunity. Council looked at everything including cost. Their direction is not to pursue it.
      - Have March Work Session on CAP.

### **Climate Action Plan**

- March 10 Work Session. Thursday Community Advisory Committee will meet for first time. Have set of strategies that can share with board. Updating GHG reduction impacts and including community recycling ordinance as a strategy. Midcycle offer around community engagement was funded. Talking with Sustainable Living Association to add climate action messages to Earth Day.
  - Revised version available online?
    - Yes. Next Thursday.

### **Transportation Air Quality Impacts Guidance Manual**

- Have selected a firm. Impressed with modelling efforts and work done in Aspen recently. Finalizing scope. Focusing on development of training manual and tool to help guide staff on what kind of evaluations to conduct. Will visit board in April.
- 

## **AGENDA ITEM 5: Futures Actions and Agenda Items**

### **Review of City Council 6 Month Agenda Planning Calendar**

- Fugitive Dust
- CAP
- West Elizabeth
- Old Town Planning Projects
- Downtown Plan

### **Agenda Planning—March**

- Dust
  - Update on CAP
  - West Nile Virus
  - Indoor Air Quality—include what programs does regarding smoke (tobacco and marijuana)
  - Overview of BFO process
  - Update on Downtown Plan—Seth Lorson or Cameron Gloss (CAP integration with plan)
  - Old Town Plan—multimodal additions
- 

**Meeting Adjourned:** 8:09pm

**Next Meeting:** March 21