

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

Date: Monday, October 17, 2016
Location: Community Room, 215 N. Mason Street
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

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

Board Members Absent

Rich Fisher

Staff Present

Cassie Archuleta, Environmental Planner/Staff Liaison
Dianne Tjalkens, Admin/Board Support
Mary Pat Aardrup, Environmental Planner
Lucinda Smith, Environmental Services Director

Guests

Chris Breiland, Fehr & Peers
Andrew McFadden, Fehr & Peers
Shelby Sommer, Brendle Group
Alexandra Rojas, citizen

Call to order: 5:34pm

Agenda Review: No changes

Public Comments: None

Review and Approval of Minutes:

August minutes postponed.

Greg moved and Rob seconded a motion to approve the September 2016 AQAB minutes as amended. Motion passed unanimously, 6-0-1. Jim abstained.

AGENDA ITEM 1: Transportation Air Quality Impacts Guidance Manual

Funded through the 2015-2016 budget, this discussion item focused on the development of a manual for assessing the air quality impacts of transportation-related projects. The project's consultants, Fehr & Peers

and the Brendle Group have provided a first draft of the manual to the board. An overview and next steps was presented, and the consultant collected comments and feedback from the board.

Have completed research and draft guidance manual. Next steps are to get feedback, update as needed, addressing comments, develop a companion spreadsheet tool, and provide training to City staff. Some feedback they heard during the drafting process was desire for time-scale analysis, thresholds for when to apply the tool, defining the data needed and where to get it, and real world applications/examples.

Outstanding issues that will be discussed with City staff include defining the staff roles and responsibilities and integrating air quality results with other performance issues.

Overview:

- Executive Summary: handout to share with other groups to illustrate process at general level
- Introduction: history, key concepts, guiding principles, and background—introduces decision tree
- Impact analysis methodologies: based upon geographic scale and components of project (active modes, roadway/intersection operations, transit)
- Results and Reporting: in development
- Supporting Resources: includes glossary and case studies

Manual helps people who are working their way through the Excel-based tool.

Application of decision tree with case studies as examples:

- Spot Project vs. Corridor
- Horsetooth and Timberline: adding auxiliary lane, bike lane, and right turn channelizing
 - Spot Project
 - Less than ½ mile project will not create enough change to justify analysis of bike lanes, pedestrian refuge islands, and transit travel time
 - Intersection Operation analyzed:
 - Traffic speeds (before and after) relay into emissions per mile and overall change in emissions
- West Elizabeth Enhanced Travel Corridor
 - Corridor Project
 - Bicycle cycle track, transit travel time, vehicle operations analyzed. Enhanced sidewalk network not significant enough to analyze.
 - Bicycle cycle track—determined data needed (activity centers, adjustment factor for CSU campus, shift from cars to bikes, average trip distance, etc.) to calculate change in emissions
 - Transit travel time—reduction in travel time will influence people to transfer from personal vehicles to transit; calculate reduced emissions.
 - Intersection operations—calculated change in emissions due to increase in delays at intersections
 - Some increases in emission, some reductions; overall reduced vehicle trips has net reduction in emissions.

Comments/Q&A

- Is there something to idea that driving behavior depends on conditions? Worse conditions may equate to less driving and better conditions may increase driving. Ex: In congested places, people take transit because it is faster. If speed up intersections, and people drive more, do we really save those emissions? Is this something to worry about? How do we make sure we don't fool ourselves into thinking we're making gains when we're not. What can be done analytically?
 - Typically use rebound effect to factor this in—lose some of benefit from increased travel.
 - Sum of small projects that add up to trip characteristics. May consider more as scale projects up.
 - Induced travel: As travel cost goes down, get more travel—those don't come up on these individual projects, but are cumulative. Techniques exist to capture the bounce-back effect. Updating TMP (Transportation Master Plan)—place to take that into account. System analysis—city-wide.

- Nothing in manual that says how we decided what methodologies to propose. Should be explained somewhere.
 - Process was influenced by literature review and public works processes/tools.
- Criteria for defining spot vs. corridor vs. other categories? Considering whether only local traffic, or not?
 - Each methodology cut sheet has project types, nuances, etc. to consider. Hard to constrain to manageable analyses. Open to suggestions on the language used to describe the differences.
 - Example: If had five intersections along Timberline getting spot treatments, would look at the bigger picture. Intent is to be able to expand beyond only City-sponsored projects. Can add clarifying language to suggest considering larger scale/cumulative effects of multiple spot projects.
- Assume that volume of traffic stays the same?
 - In example, between bus and bike, have 500 trip shifts. Do you then take out those 500 vehicles?
 - Also adversely affecting other vehicles on the road.
 - Big benefit from the shift is accounted for. Change to vehicle operations is minimal compared to shift to multimodal but should still be accounted for – will incorporate.
- Some calculations weren't accurate. Why?
 - Some will work well in some areas and not in others depending on density, demographics, etc. As see more case studies can decide which methodologies work best where. Index models for harder to solve issues are set in the back with other resources.
- If there are more bikes or transit will it impact vehicle operations?
 - Not taken into account for overall emissions. Can add some language to clarify this.
 - Can you incentivize bikes? Are the pieces interrelated?
 - Analyzed separately, but if any of them change it will change the total.
 - With corridor project, benefitting bike and transit modes, leads to fewer people driving. Should have slightly lowered vehicle volume, but won't substantially change overall results.
- These models are starting points that can be modified as the City starts using them. Will the City have latitude to make the changes?
 - Yes. That is the intent as we learn more.
 - National methodology, in consultant opinion, overstates shift to bikes. Can use two methods and average until have more data collected to show which methods work best based on area (density, demographics, etc.). Spreadsheet tool automates math.
- Did not find some pieces referenced in the appendix that were supposed to be there.
 - Still adding to that section.
- Manual still needs work, but big picture is exactly what had been hoping for. Spreadsheet will help a lot. Will the manual explain when to use the methods, or will that be determined with City policy?
 - Hope will use thresholds to determine use. Criteria before that would be policy set by City.
 - Fleshing out decision, pre-planning, data. Hoping all projects with air quality impacts will have some level of assessment. After methodologies are fleshed out, will have learning process.
 - At some level it, should be mandatory.
 - Cassie will bring this feedback to staff.
 - In the past, City staff has come to the board seeking feedback on projects, but could not give data on air quality impacts. The board would like to have this analysis any time staff are coming to the board asking for feedback on a project.
- Would be helpful to understand significance of emission reduction amounts, as compared to CAP (Climate Action Plan). Also, transportation behavior survey is being funded. Could the survey be coordinated with this to ask specific questions? Would it change methodologies if you could have additional survey data?
 - People proposing survey are part of internal stakeholder group that is working on this manual. Will also influence TMP.
 - Should debrief modelling of impacts on a project before starting next project.
- Accounting for differences between weekday and weekend, or summer (fewer students) vs. rest of year? How do you get from daily number to annual number?
 - Have section that says how to pick the daily counts.

- Regarding emissions changes—given in grams in some cases. Significance in corridor is that were able to enhance the corridor for transit and bikes with a net positive to emissions. Spot and corridor projects will be very small numbers, but when see how many spot projects or corridors could have similar treatment, see the scale that can be achieved. Incremental shifts might seem small, but changing trends to achieve cumulative impact.
 - Would like to know percentage reduction of intersection.
 - If have multiple scenarios, interesting to see percentage change.
 - That context will help, especially if ranking project options.
 - Will be most useful in comparing alternatives. If have four alternatives and have different impacts on emissions, will be useful information that we didn't have before. Relative values will be more important than context of bigger picture. Are we selecting alternative with best emissions profile?
 - Manual is geared toward that. When start to look at citywide plan, that context comes into play. Will do best to help describe that context.
 - Most presentations we've had only present one alternative.
 - Emissions will not be only information used to make decisions. But can ask presenters how the selected alternative compares to others and how the decision was made.
- Preferred way to provide feedback?
 - Send comments to Cassie, who will consolidate. Consultants will work with staff to address.
- Is this a manual that can be used to compare the air quality impacts of Hughes Stadium vs. the new stadium?
 - Could analyze transportation impacts, but not construction impacts.
 - Would be neighborhood scale analysis. The tools to do the analysis are included in the manual.
 - Cassie will discuss examples she has heard with staff.
- Will this be available to the public?
 - City projects are public.
- CAP has many transportation measures that are not related to construction projects, like incentives for electric vehicles and using the bus more.
 - Figuring out behavior change is the tricky part. What is the mode shift effect of car shares, charging for parking, etc.? The bulk of calculations are the same, once you determine the mode shift.
 - Fuel factors are based on all vehicles being fuel powered.
 - Shifting in efficiency over time will be updated via selected inputs. Keeping scope manageable.
 - If can analyze behavior change can still use the calculations in the manual.

ACTION ITEMS: Cassie will provide board input to staff.

AGENDA ITEM 2: Air Quality Survey

Mary Pat Aardrup (Environmental Planner) provided an overview of the community air quality survey, which is sent approximately every 5 years to coincide with the development of the 5-year Air Quality Plan. Draft survey questions were provided for board review and feedback.

Survey is divided into five categories:

- Program awareness—what does community know about programs?
- Questions on air quality
- Climate
- Waste reduction and recycling
- Demographics

Keep integrity of past surveys to collect comparative information. Top concern is gathering information that will help in developing key messaging and new programs and projects. One of most useful questions is about respiratory problems. Learned through the survey that 1 in 4 families in Fort Collins has a member with a respiratory problem. That was significant factor in building the Healthy Homes Program. Survey will be

distributed in January with results in March. Those who participate will be entered into drawing to win electric lawn mower. Survey length is limited to five pages.

Mary Pat reviewed the survey item by item. Requests further input from board members via email.

Comments/Q&A

- How is survey distributed?
 - Preselected group will get post card notifying them of coming survey. Survey is mailed to them. They also get reminder/thank you postcard.
 - Random selection?
 - Yes, but by birth date to ensure age variations. Do statistical weighting and look at demographics.
- Why limited to five pages?
 - Funding and how much people can absorb.
- Response rate in past?
 - Approximately 27% last time.
- How was it decided to do hard copy vs. online?
 - Not a good way to police online versions to make sure statistically valid. Can make it available online to selected participants. Also opportunity for Spanish speakers to take survey in Spanish.
- Mix of very specific programs and very large/general concepts like Climate Action Plan. Some of the buzz words have changed. Hard to know if it's specific, a brand, etc.
 - Trying to understand where to drive marketing, education and awareness programs.
- Add appliance rebates.
 - That is Utilities, not part of air quality program. Utilities does their own survey. Will ask Lindsay Ex since it does affect emissions to see if can incorporate.
 - Also home efficiency programs.
 - And solar.
- Could add involvement on a City board as a place where have seen information.
 - Add schools and workplaces as well.
- Question on expectations of air quality—is this written well?
 - Seems the same as next question. Suggest removing it.
- Concerned for air quality for pets/animals that spend majority of time outdoors like horses. Suggest adding a question to determine community concerns on that topic.
- Suggest adding questions regarding willingness to pay. Everyone wants perfect air quality, but important to know how many people are willing to incur cost.
 - Possible language: sacrifice, responsibility, lifestyle changes, ...even if a cost is involved
- Add question on role of City government. Some may not feel it is role of City to provide clean air.
 - Have open ended question about City role.
- People might want to know about benefits for the cost to decide how important it is to them.
 - Will revise and send new question to the board.
- Consider adding fugitive dust to section on pollutants of concern.
- Section 8 asks similar questions to Section 6.
 - Section 8 is about personal impacts.
- Is Council considering an ordinance on outdoor fire pits and smokers?
 - Staff is committed to a research report. This survey will help inform this work.
- Can you add how long people idle at traffic lights to idling section?
 - Has come up before. Some lights are 30 seconds or more, but not encouraging turning vehicle off at lights, as a safety issue.
- Suggestions for Section 15: include promoting biking and walking, smoking regulations, lawn care equipment programs, and addressing fugitive dust.
 - Survey informs five-year air quality plan.
 - Chose ones the department was most likely to work on.
- Are there many homes that use wood burning for heat?
 - Small percentage of households use more than 2 cords.

- All within city limits.
 - Also staying consistent, not decreasing.
 - In Section 16, could ask if employer provides an incentive.
 - Could add other energy burning equipment, like lawn care equipment to this section.
 - Section 19 would be better section to ask about payment/costs.
 - Section 24 add question about requiring haulers to collect organics (compostables).
-

AGENDA ITEM 4: Other Business

Staff Updates

Radon Program Statistics

Jim sent questions about the radon program. The board had discussed whether there should be changes to radon reporting in the city. Councilman Cunniff is in support of mandatory reporting at change of property ownership.

Updates from Mary Pat:

- Working with CDPHE to answer cancer related questions.
- 70% of Fort Collins homes test high for radon and less than 50% of those mitigate.
- 21,000 people die annually in US from radon.
- Do not have information on rentals—getting help from CDPHE.
- Asking permission to receive test results from all participants getting radon testing. If over level 4 send additional information. Next step is to follow up to see if mitigated.

Discussion

- 2.3% chance of getting lung cancer in Fort Collins. With current population, could have 3000 cases in Fort Collins.
 - Percentage is how many will get cancer if exposed for a lifetime.
 - CDPHE is going to unravel this question for us. However, whatever the number, they are all avoidable. Could be number one preventable cause of death. Countrywide, 40% of people are in rental units.
- Compile options that could be sent to Council.
- Maps in Coloradoan showed radon hot zones in Fort Collins.
 - Naturally occurring gas in the area. Levels can fluctuate as well. State used to have pockets without radon, but it has changed.

ACTION ITEM: Email additional questions to Mary Pat.

Future Actions & Agenda Items

Council Six-Month Agenda Planning Calendar

- BFO (Budgeting for Outcomes) sessions
- West Elizabeth Travel Corridor

November Agenda Items

- Radon
- Asbestos—State regulations on renovations vs. City asbestos assessment requirements for demolition.
 - Staff are in process of doing revisions to these forms.
 - Problem is that contractors are doing remodels without inspections. There is exposure to workers and those occupying building after the remodel.
- Downtown Plan
- 2017 Meeting Calendar

Decisions for December Meeting

- Meet December 19, or have joint meeting with the County (moved to January)
- At next meeting, will decide whether do December 19, cancel, or reschedule.

ACTION ITEMS: Email Cassie and Mark if not planning on renewing board membership. Can solicit Council to seek members with specific experience/knowledge

Meeting Adjourned: 8:12pm

Next Meeting: November 21, will be held in the Colorado River Community Room at 222 Laporte Ave.