



**CITY OF BOULDER  
ENVIRONMENTAL ADVISORY BOARD MEETING AGENDA**

**DATE:** March 9, 2016

**TIME:** 6 pm

**PLACE:** 1101 Arapahoe Ave, 1<sup>st</sup> Floor Conference Rooms

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**1. CALL TO ORDER**

**2. APPROVAL OF MINUTES**

- A. The [January 6, 2016](#) and [February 3, 2016](#) Environmental Advisory Board meeting minutes are scheduled for approval.

**3. PUBLIC PARTICIPATION**

**4. PUBLIC HEARING ITEMS**

**5. DISCUSSION ITEMS**

- A. Sustainability Dashboard Memo (6-6:15 – All)

**6. OLD BUSINESS/UPDATES**

- A. Black Bear Protection Ordinance Update Memo (6:15-6:30 - All)

**7. MATTERS FROM THE ENVIRONMENTAL ADVISORY BOARD, CITY  
MANAGER AND CITY ATTORNEY**

- A. Discussion of April's Open House Outline & Expectations of Board Members as Hosts (6:30-7:30 – All)
- B. Farewell and thank you to Steve Morgan (7:30-7:45 - All)

**8. DEBRIEF MEETING/CALENDAR CHECK**

- A. Joint Board Open House will be April 27 from 6-8:30 pm, location TBD..
- B. Maintain regular April meeting to introduce new board member.  
Invite Val back? Other discussion topics?
- C. Maintain and/or postpone May meeting as a study session to debrief open house?

**9. ADJOURNMENT**

For more information call (303) 441-1931. Board packets are available after 4 pm Wednesday prior to the meeting, online at [www.bouldercolorado.gov](http://www.bouldercolorado.gov).

**CITY OF BOULDER ENVIRONMENTAL ADVISORY BOARD  
MEETING GUIDELINES**

**CALL TO ORDER**

The board must have a quorum (three members present) before the meeting can be called to order.

**AGENDA**

The board may rearrange the order of the agenda or delete items for good cause. The board may not add items requiring public notice.

**PUBLIC PARTICIPATION**

The public is welcome to address the board (three minutes\* maximum per speaker) during the Public Participation portion of the meeting regarding any item not scheduled for a public hearing. The only items scheduled for a public hearing are those listed under the category PUBLIC HEARING ITEMS on the agenda. Any exhibits introduced into the record at this time must be provided in quantities of eight to the Board Secretary for distribution to the board and admission into the record.

**DISCUSSION AND STUDY SESSION ITEMS**

Discussion and study session items do not require motions of approval or recommendation.

**PUBLIC HEARING ITEMS**

A Public Hearing item requires a motion and a vote. The general format for hearing of an action item is as follows:

**1. Presentations**

- Staff presentation (15 minutes maximum\*) Any exhibits introduced into the record at this time must be provided in quantities of eight to the Board Secretary for distribution to the board and admission into the record.
- Environmental Advisory Board questioning of staff for information only.

**2. Public Hearing**

Each speaker will be allowed an oral presentation (three minutes maximum\*). All speakers wishing to pool their time must be present, and time allotted will be determined by the Chair. Two minutes will be added to the pooled speaker for each such speaker's allotted time up to a maximum of 10 minutes total.

- Time remaining is presented by a green blinking light that means one minute remains, a yellow light means 30 seconds remain, and a red light and beep means time has expired.
- Speakers should introduce themselves, giving name and address. If officially representing a group please state that for the record as well.
- Speakers are requested not to repeat items addressed by previous speakers other than to express points of agreement or disagreement. Refrain from reading long documents, and summarize comments wherever possible. Long documents may be submitted and will become a part of the official record.
- Any exhibits introduced into the record at the hearing must be provided in quantities of eight to the Board Secretary for distribution to the board and admission into the record.
- Interested persons can send a letter to the Community Planning and Sustainability staff at 1739 Broadway, Boulder, CO 80302, two weeks before the Environmental Advisory Board meeting, to be included in the board packet. Correspondence received after this time will be distributed at the board meeting.

**3. Board Action**

Board motion. Motions may take any number of forms. Motions are generally used to approve (with or without conditions), deny, or continue agenda item to a later date (generally in order to obtain additional information).

- Board discussion. This is undertaken entirely by members of the board. Members of the public or city staff participate only if called upon by the Chair.
- Board action (the vote). An affirmative vote of at least three members of the board is required to pass a motion approving any action.

**MATTERS FROM THE ENVIRONMENTAL ADVISORYBOARD, CITY MANAGER, AND CITY ATTORNEY**

Any Environmental Advisory Board member, City Manager, or the City Attorney may introduce before the board matters which are not included in the formal agenda.

**ADJOURNMENT**

The board's goal is that regular meetings adjourn by 8 p.m. Agenda items will not be commenced after 8 p.m. except by majority vote of board members present.

\*The Chair may lengthen or shorten the time allotted as appropriate. If the allotted time is exceeded, the Chair may request that the speaker conclude his or her comments.

**CITY OF BOULDER, COLORADO  
BOARDS AND COMMISSIONS MEETING SUMMARY**

**NAME OF BOARD/COMMISSION:** Environmental Advisory Board

**DATE OF MEETING:** January 6, 2016

**NAME/TELEPHONE OF PERSON PREPARING SUMMARY:** Sandy Briggs/303-441-1931.

**NAMES OF MEMBERS, STAFF AND INVITED GUESTS PRESENT:**

**Environmental Advisory Board Members Present:** Tim Hillman, Brad Queen, Karen Crofton, Steve Morgan and Morgan Lommele.

**Staff Members Present:** Jonathan Koehn, Brett KenCairn and Sandy Briggs.

**Community Member Present:** Stephen Fenberg

**MEETING SUMMARY:**

❖ **Energy Future Update: Municipalization**

- The board asked several questions regarding service areas and how power will get to customers residing in these different areas. The concept of “wheeling” was defined and the Doctrine of Regulated Monopoly was explained as to why the PUC can’t regulate certain ways for the power to flow.
- **K. Crofton** asked about scenario planning in case municipalization doesn’t happen. A discussion ensued about what things would cause the city to “take the off ramp” and what other ideas are on the table in lieu of creating a local utility. The following were identified as the reasons the city would stop pursuing it:
  - Being unable to meet the \$214 million acquisition cap
  - The PUC says we can’t go forward
  - The time frame expands and the community says no to additional funding
  - The city chooses to stop pursuing it because something changes legislatively that renders it unnecessary
- It was clarified that there is an approximate 50/50 effort with pursuing municipalization versus numerous other avenues for reaching the city’s goals.
- **K. Crofton** mentioned that this kind of information is what’s wanted and informative to people when communicating the plan to the community. Stressing that the efforts will not go to waste regardless of what happens is important.
- **T. Hillman** reminded the board that the community is already on board and has voted for the Carbon Tax on numerous occasions. He also asked about where interested community members would go to obtain information about the Climate Caucus and how to get involved.
- **B. Queen** reminded the board that the perceived loss of value of something is powerful regardless of the actual amount.

❖ **Climate Commitment Community Engagement Process**

- The board agrees that the emission reduction conversation is no longer resonating with the general public and there is no feeling of personal urgency.

- The board also agreed that people need to do things that are tangible and understand what their actions are creating in a real, everyday sense.
- The board posed the following questions, although they understand there isn't any hard data available yet:
  - How much of an investment is needed over the next 30 years to move things forward?
  - What daily choices and priorities need to be adjusted to encourage total energy systems transformation?
  - How will the ratio shift in terms of money being spent on clean energy versus fossil fuels?
- **K. Crofton** stressed that messaging needs to come first and the metrics need to support the messaging. Issues relating to security, resiliency and reliability have recently begun being brought more tangibly to people and need to be personally integrated before metrics are created.
- **B. Queen** suggested that getting to the root of the core rationale behind any opposition would be very effective in building trust with the city and turning opposers into willing participants, especially within the business community.
- **M. Lommele** suggested that creating a network of respected peers who can work as community champions would be useful as peer-to-peer influence is highly effective.
- Some board members suggested that just “dropping the hammer” and telling people what to do might be at least as effective as the proposed engagement strategy, if not more.

## 1. CALL TO ORDER

Environmental Advisory Board Chair **T. Hillman** declared a quorum called the meeting to order at 6:06 pm.

## 2. APPROVAL OF MINUTES

On a motion by **M. Lommele**, seconded by **S. Morgan**, the Environmental Advisory Board voted 5-0 to approve the December 9, 2015 meeting minutes.

## 4. PUBLIC PARTICIPATION

None.

## 5. PUBLIC HEARING ITEMS

None.

## 6. DISCUSSION ITEMS

### ❖ **Energy Future Update: Municipalization (Koehn)**

Regional Sustainability Coordinator, Jonathan Koehn, updated the board on the status of the City's municipalization efforts and how they synchronize with the Climate Commitment Community Engagement efforts that are also moving into full swing in early 2016. The alignment of Climate Commitment and energy work are critical components of the city's 2016 work plan.

He provided key points to set context and reviewed milestones and core objectives of the efforts. He also described how thinking has shifted across the nation from just greenhouse gas (GHG) emissions reduction and purchase of renewable energy credits to communities

positioning themselves to take advantage of the numerous opportunities that exist. This includes how to invest with local systems and businesses to drive innovation and keep these investments local.

He explained the involvement of the Public Utilities Commission (PUC) and their role in relation to the city and Xcel. Their job is to ensure system safety, reliability and integrity for all ratepayers. Their decisions are seen as guidance, not losses, and the latest ruling has solidified the possibility and set the boundaries for the city to move forward.

He further described how the city's rate structures could be creatively different from Xcel's current model, provided reliability metrics and explained the probabilistic analysis that had already been completed.

He clarified the "rent versus own" aspect of purchasing the infrastructure and informed the board that while there is a \$214 million cap in the charter, this isn't as huge as it seems when you amortize the numbers against what we're already paying in rates.

He stressed the importance of ensuring greater reliability for certain circuits that aren't performing at the level they should be. In particular, he mentioned the feeder that includes the city's water treatment facility. This is critical infrastructure for the city that lost power several times during the floods in 2013, among others. It's been recognized as Xcel's worst performing circuit in the State of Colorado.

He went on to posit that a customer driven energy services marketplace business model could make the city less of a utility and more of a service provider selling a commodity. Therefore, a free marketplace for companies to become directly involved with consumers could exist.

He concluded by informing the board about the formation of a Climate Policy Coalition and Climate Caucus that are active on the legislative front and that staff is also remaining creative and innovative in thinking about other ways to achieve the city's goals.

He suggested to the board that since the city needs to align around specific and quantitative targets and determine what areas should be measured and what metrics are needed, the EAB could be directly instrumental in creating part of this work plan by providing their input.

#### ❖ **Climate Commitment Community Engagement Process (KenCairn)**

Senior Environmental Planner, Brett KenCairn, encouraged an open discussion with the board regarding the current status of Boulder's Climate Commitment and next steps in 2016 to engage the community.

He informed the board there a growing body of evidence that talking about reducing greenhouse gas (GHG) emissions is ineffective in instigating action. Therefore, as the ideas in the draft document are taken out into the community, the questions are now how to stimulate conversations around other targets and goals and make it relevant to day-to-day concerns.

He mentioned that while there isn't a large amount of resistance to the Climate Commitment plan, there is also not much movement of the "emissions needle".

He further explained that we're in a time of transition regarding public rhetoric as to what the problem is versus the symptom. The symptom is climate change. And it is now happening.

The problem is a system that burns fossil fuels emitting carbon into the atmosphere.

People's sense of the problem is in flux and we need a new set of metrics. And to determine these metrics, we need to ask the community a useful set of questions that will assist them in making a psychological transition through the various issues over the long term.

He requested feedback from the board regarding community engagement in terms of the right

things to do and ask and/or if there is anything missing. Focus groups are planned to be part of this, and the board's input on what types of groups to engage was also requested. Next steps include laying groundwork that will create road mapping tools to assist people with developing their own energy asset transition plans. The core of this stage revolves around survey questions that will provide guidance for staff about what people want and need to know. The action phase will kick in around May after the culmination of Earth Day events.

## 7. OLD BUSINESS/UPDATES

None.

## 8. MATTERS FROM THE ENVIRONMENTAL ADVISORY BOARD, CITY MANAGER AND CITY ATTORNEY

- Upon a motion by **K. Crofton**, seconded by **B. Queen**, the board unanimously voted 5-0 to approve and submit the Annual Letter to City Council as currently written.
- **B. Queen** will attend the City Council Study Session on Tuesday, January 12 as representative of the EAB to answer any questions and/or offer any requested clarifications regarding the annual letter.
- The board agrees that proactively soliciting and advocating for certain candidates to apply to the board is important and an effective way to ensure an applicant pool that fills the need for varied expertise among members.

## 9. DEBRIEF MEETING/CALENDAR CHECK

The annual retreat will be on February 3, 2016 from 5-8 pm. Heather Bergman will facilitate. **M. Lommele** will be unable to attend. She will provide any thoughts to share with the board at the retreat prior to that date.

## 10. ADJOURNMENT

Environmental Advisory Board adjourned at 8:04 pm.

Approved:

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Chair

Date

**CITY OF BOULDER, COLORADO  
BOARDS AND COMMISSIONS MEETING SUMMARY**

**NAME OF BOARD/COMMISSION:** Environmental Advisory Board

**DATE OF MEETING (RETREAT):** February 3, 2016

**NAME/TELEPHONE OF PERSON PREPARING SUMMARY:**  
Sandy Briggs, 303-441-1931.

**NAMES OF MEMBERS, STAFF AND INVITED GUESTS PRESENT:**

**Environmental Advisory Board Members Present:** Tim Hillman, Brad Queen and Karen Crofton.

**Environmental Advisory Board Members Absent:** Steve Morgan and Morgan Lommele.

**Staff Members Present:** David Driskell, Brett KenCairn and Sandy Briggs.

**Facilitator:** Heather Bergman

**1. Welcome & Introductions**

**2. Meeting Objectives/Desired Outcomes**

- ❖ Debrief accomplishments of 2015
- ❖ Board goals and focus areas for 2016

**3. Review “Homework” Responses**

*Review and discuss emailed responses regarding 2015 lessons learned and goals for 2016.*

- **What worked? Elements in 2015 that were effective and successful:**
  - ❖ Meeting format and structure are much smoother and more productive now.
  - ❖ Preparation for and passing of the Building Performance Ordinance was touted.
  - ❖ Appreciation for staff consistency and patience with adapting to argumentative situations and internalizing and addressing concerns was expressed.

*What didn't work?*

- **Lessons from 2015 to be more successful in 2016:**
  - ❖ Be more specific with metrics and measurements to more effectively impact policy development.
  - ❖ Identify and celebrate accomplishments.
  - ❖ Add more to the process by not allowing politics to take precedence over valid data.
  - ❖ Better integration between boards.
  - ❖ Make board feedback more actionable and part of the solution.
  - ❖ Continue with staff proactively providing information to the board with sufficient time for review and more clearly conveying their objectives for board presentations.
  - ❖ Foster Council's greater understanding and interest in EAB's annual letter.
  - ❖ Present feedback differently in order to be received more clearly.

As **H. Bergman** recently facilitated the City Council retreat, she provided some insight regarding Council member conversations around Board & Commission input. She informed the board that they are looking more closely at Boards & Commissions' feedback and suggesting potential Town Hall-style meetings in 2016. She also shared that joint board meetings are desired and encouraged in order to leverage knowledge and expertise across disciplines. She suggested staff and Council shouldn't be the only voices out there and relevant information added by boards and commissions should also get out to the community.

She further mentioned that if she is invited back to facilitate the Council retreat again in 2017, she will share with them that Boards & Commissions aren't 100% satisfied with how their information is being represented. Since this is always an issue and it's difficult for Council to honor Boards & Commissions' feedback while also getting their own work done, Council is considering offering more specific guidance as to how boards should approach writing their annual letters.

#### **4. 2016 City Council Priorities & Staff Work Plan**

Executive Director of Planning, Housing + Sustainability, **D. Driskell**, reported on City Council's recent retreat, and reviewed areas of action and major work efforts.

- ❖ Detailed work plan information from three departments was shared:
  - Planning, Housing + Sustainability
  - Human Services
  - Transportation
- ❖ Growth, development, housing and the Boulder Valley Comprehensive Plan (BVCP) were the main areas of discussion.
- ❖ Net Zero Codes are one of the main goals and energy codes typically need to drive them.
  - Consultants are being brought on to assist with code updates and begin to strategize the path to Net Zero.
- ❖ Discussions regarding redevelopment of the Boulder Community Hospital site that will model sustainability principles are just beginning.
- ❖ The launch of community engagement around the Climate Commitment document will be offered as a conversation, not announcement. And as an all-in effort to do it together.
- ❖ The city has been awarded two grants to assist with Whole Systems Transformation and Thermal Decarbonization strategies.
- ❖ Education and technical assistance around implementation of the Building Performance Ordinance and Universal Zero Waste Ordinance are ramping up.
- ❖ The Boulder Energy Challenge is aiming towards second round later this year.
- ❖ Integrated pest management not having a lot of action right now.
- ❖ Greater use of dashboards and metrics will be utilized to determine if the city is the right path.
  - Two are being developed. One from the City Manager's Office expected to roll out at the end of February, the other from Climate + Sustainability that will include a more detailed drill-down to specific city programs and metrics.
- ❖ Discussions are ongoing regarding the BVCP:
  - It is a 20-year view, not a statement of ultimate destiny.
  - Vision-driven planning.
  - Flexible and malleable.

- Housing options are a large part of it that attempt to strike a balance with what everyone wants and needs.
- There will be open houses and joint board meetings to engage the community and other boards in the discussion and decisions that are more participatory.
- The city is getting better comprehensive planning tools that will quantitatively evaluate and comparatively assess a whole series of different variables, but is still working on figuring out how they will best integrate and evolve to support the vision.

**B. KenCairn** informed the board that the Climate Commitment Ecosystems piece will take a larger priority in 2016. This will rejuvenate conversations around neonicotinoid, bring forward information regarding climate effects on local species and seek to more closely evaluate the impacts of consumption.

He further noted that the messaging around climate action will begin to emphasize more metrics that are concrete and where the goal is to do more of them—more renewable energy, more energy productivity, more sequestration, etc... while still recognizing an overall emissions reduction goal.

## 5. 2016 EAB Priorities in Relation to Council Priorities & Work Plan

How does the board want to integrate with and support city work efforts in 2016?

- ❖ Be more involved with dashboard creation and how to help analyze gaps that could potentially lead to policy reevaluation.
  - Have discussions around content and related analytics.
  - Help to review and create more reasonable reporting metrics for the general public.
- ❖ Have greater influence regarding the BVCP.
- ❖ Further incentivize areas of the Zero Waste plan to create similar successes to the bag ordinance.
- ❖ Aggregate impacts across strategic areas to determine if the city is on the right trajectory.
  - Show the community how it all adds up and fits together.

Which project or issue areas should be the board's highest priorities?

- ❖ Climate Commitment engagement with the community and across boards.
- ❖ Dashboard creation.

## 6. Operation Issues for Board Discussion

EAB mission update:

- ❖ The board determined there was no immediate need to change the mission statement.

Meeting structure/format:

- ❖ There was agreement that meeting rhythm and structure is working more smoothly and effectively now.
- ❖ Feedback and question format will depend on each presenter's preference.
- ❖ The board chair will ensure all members are getting their space to speak and will

maintain regular time checks.

- ❖ A study session format will be conducive to productive discussions when appropriate, as long as there is still some structure.

Board recruitment:

- ❖ Some members have reached out to colleagues to encourage them to apply.
- ❖ The board agrees the EAB would benefit from a member with strong ties to the business community.

## 7. Review/Create Draft 2016 Board Calendar

The following tentative meeting agenda schedule was outlined:

- ❖ March:
  1. Climate Commitment Community Engagement Process
  2. Climate + Sustainability Dashboard Metrics
  3. Discuss Expectations of Board Members and Ideas for April's Joint Board Meeting
- ❖ April:
  1. Joint Board Meeting – Climate Commitment Convening
- ❖ May:
  1. Engaging Community Conversations Around Climate Commitment
- ❖ June:
  1. Climate Impacts and Ecological Footprint of Consumption
- ❖ 3<sup>rd</sup> & 4<sup>th</sup> Quarters:
  1. Ecosystem Management/Impacts of Climate Change

## 8. Next Steps/Action Items

- ❖ **S. Briggs** will coordinate with other Board Secretaries to schedule a joint meeting in April with available relevant boards.
- ❖ **T. Hillman** and **M. Lommele** will determine and refine ideas to bring to the table for the joint meeting.
- ❖ It was requested the March meeting be postponed from the 2<sup>nd</sup> to the 9<sup>th</sup>. **S. Briggs** will check calendars with the absent board members and inform everyone of the meeting date once confirmed.
- ❖ **M. Lommele** will succeed by seniority to the EAB co-chair position.

Approved:

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Chair

Date

## Climate + Sustainability Dashboard Project Update for EAB, 3/9/16

### Project Purpose and Goal

The goal of the Climate + Sustainability (C+S) division dashboard is to increase accessibility and transparency of program data and provide a user-friendly visualization of climate and sustainability program performance. The dashboard will include program goals, metrics to measure those goals, targets and associated timelines. (A reference list of definitions is provided at the end of this memo.)

### Background

The concept of a performance dashboard is not new to the City of Boulder; it has been under discussion for nearly 10 years and aspects of dashboard-style reporting have been developed for specific programs, such as the quarterly one-page report format developed for SmartRegs and EnergySmart. In early Q4 2014, the City Manager's Office initiated a pilot citywide dashboard which is set to launch at the beginning of Q2 2016. Through that process, Tableau software was selected and implemented to provide robust visualization of city data. To support a consistent look and feel and integration with the citywide dashboard, future department and division dashboards, including the Climate + Sustainability performance dashboard, will use the same visualization software. The original vision for the C+S dashboard, conceived in 2012, provides a way to track the progress of climate and energy programs at a glance. During the initial concept scoping by the city's Information Resources and Information Technology teams, staff realized that a centralized repository for data was necessary to feed the dashboard if it were to be a dynamic reporting mechanism rather than a static graphic snapshot. Thus, the 'data warehouse' concept was introduced (see below for more info).

### Project Work Plan

Included with this memo is a detailed project work plan. The dashboard project is fairly complex and thus has been broken out into several smaller projects:

- data inventory;
- data warehouse;
- goal setting;
- dashboard; and
- communications campaign.

While the data inventory and goal-setting pieces are independent projects, the data warehouse is dependent on the data inventory in order to specify the best technical solution. The dashboard is in turn dependent on the warehouse and goal-setting to provide the data and context for the sustainability 'story.' The communications campaign, which is dependent upon each of these other pieces, will be launched at the completion or near-completion of the technical pieces of the dashboard project.

Data inventory: Through the work being done on the citywide dashboard and by the city's Open Data team (description below), it was determined that the first step in creating a dashboard was to prepare a complete inventory of available data for past and present Climate + Sustainability initiatives. The City of Boulder is fortunate to have recognized the value of focused work on sustainability years before most municipalities, providing both historical and current datasets for potential use in developing the dashboard.

Data warehouse: The data warehouse is exactly as it sounds: a single place to store all the data inventoried through the above effort. The type of technological solution implemented will be determined once all of the data to be 'warehoused' is catalogued. This could range from a centralized

folder structure on the city's internal servers to an off-the-shelf archiving software product to a custom Structured Query Language (SQL) database. The most important considerations are:

1. the data is accessible to city staff;
2. the data can be easily (and, ideally, automatically) updated; and
3. the data the dashboard update process can be automated.

Goal-setting: The goal-setting effort is comprised of the following:

- Organizing datasets according to performance measures and community indicators;
- Creating or confirming long term goals;
- Developing shorter term program targets where they do not already exist; and
- Identifying corresponding metrics that will measure and track progress to these targets and goals.

Most current programs have goals, targets and metrics associated with them, but they are not always made explicit. This effort will comprehensively review those goals, targets and associated metrics, link them to program efforts and timelines, ensure that we are actively collecting the data to support these progress measures and provide a level of standardization across programs.

Part of this effort will also be to determine how best to distinguish between and display community indicators versus performance measures, which have different spheres of influence. For example, the community-wide greenhouse gas inventory is a 'community indicator'; we have limited influence over the outcome due to economic trends, weather, etc. With a performance measure, we are directly influencing the outcome. The number of kWh saved per dollar spent in energy efficiency rebates through EnergySmart is a good example of a performance measure.

Dashboard: The dashboard is the visual display that summarizes the preceding work and will be the piece of the project most visible to the community. The C+S dashboard will be accessed from the existing division website pages, as well as the soon-to-launch citywide dashboard, ensuring a cohesive look and feel. It will display the individual program outcomes and corresponding context so that the dashboard can be interpreted by community members within the context of the city's larger sustainability goals (e.g. social equity, prosperity, resilience) regardless of their knowledge of sustainability issues and city programs.

Communication campaign: Because the goal behind this project is to increase accessibility and transparency of city program data, publicizing the dashboard to the community is essential. This effort will focus on getting the word out about this new resource and will also track community engagement with the dashboard through website analytics. Last, it will be important to communicate that city program performance is only one aspect of how the community at-large can and should be working to reduce GHG emissions, as well as the role of residents and businesses in supporting program outcomes.

### **Current Status**

The dashboard project is moving forward on several fronts. The data inventory is being conducted and staff is working to identify retired and current programs and datasets. Concurrently, goals and metrics are being discussed and identified where not previously explicitly stated. Training on the new Tableau software took place Feb. 29 and March 1, 2016. The templates already created as part of the development of the citywide dashboard will provide the foundation for Climate + Sustainability pages as well.

## Definitions

**Open Data Team:** A group of interdepartmental subject matter experts in data working to implement a city-wide policy on data sharing. A policy is being developed to support the City of Boulder's commitment to the principles of open government including transparency, civic engagement and innovation through open and accessible data.

**Goal:** What is specifically sought to be achieved – some have measurable specificity, some describe general direction

E.g. Reduce community greenhouse gas emissions eighty percent below 2005 levels

**Metric:** A mathematical set of relevant, quantifiable, attributes (measures) *taken over time*. The metric should also define the unit of measurement and specify exactly how one arrives at the measure so that any two individuals in different institutions would come up with the same number.

E.g. Relating to GHG emissions, electricity expressed in kWh multiplied by the utility's published carbon factor for a given year

**Target:** A specified, realistic, measurable objective or outcome related to goal

E.g. 2% reduction from last year's measured GHG emissions from city vehicles to be achieved by X date

**Baseline:** Measurement that is used as a reference for subsequent measurements or reference condition if change is not implemented.

E.g. 1990 Single Occupant Vehicle (SOV) rates

**Performance Measure:** A performance measure responds to a specific, measurable, attainable, relevant and timeline-based target so that an organization can better achieve its mission or goals. Usually the measure is focused on effectiveness, but as a second best outcome, the measure can focus on efficiency or outputs (services delivered) or outcomes.

E.g. Number of Universal Zero Waste compliant businesses; number of permit applications reviewed and completed within a specific schedule

**Community Indicator:** Quantitative assessments that provide information on the state of, or change in, a system. Such a system may be a wider geographic area, a community, a population, a sector, etc. Indicators attempt to convey a broader image than the underlying statistics would suggest and should send a plain and correct message without the need for much explanation or interpretation.

E.g. Number of days air pollutants exceed healthful levels (can be compared to previous year or years)

**Dashboard:** A performance monitoring system showing goals, metrics, targets and timelines. When tied to specific goals dashboards can include a "scorecard" or a particular view of performance.

**Climate + Sustainability Dashboard Project - DRAFT**

Goal: Increase accessibility, transparency and provide a user-friendly visualization of climate and sustainability related efforts

Task #	Activity	Resources	Quarter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Status	Notes
1 Strategy 1. Create an inventory of all existing climate, energy and zero waste program, project and pilot datasets.														
1. KEY DELIVERABLE: Spreadsheet of initiatives and corresponding datasets sorted by 'high-value', 'historical'														
1.1	Catalog all known OEA/LEAD/C&S programs	Dept. staff	Q1										In progress	Meeting with EV, KM, JK, YG
1.2	Determine if programs have associated data and if so, what kind (ex. .xls, .csv, .pdf)	Dept. staff	Q1										In progress	S:drive discovery
1.3	Create guidelines for 'high-value' vs 'historical' datasets	Dept. managers	Q1											Need to set up meeting or add to 3/23 agenda
1.4	Determine which datasets meet 'high-value' vs 'historical' criteria	Dept. managers	Q1											
2 Strategy 2. Develop central data repository, 'data warehouse', for datasets.														
2. KEY DELIVERABLE: Data warehouse solution														
2.1	Determine approach for storage of high-value and historical data - same/different solution? Archive?	IT Liaison(s), Chris Trice	Q1,2											This could be as simple as a folder structure in S:drive all the way to custom SQL database
2.2	Procure/build solution	IT	Q1,2											
2.3	Implement solution	IT/IR	Q2											
2.4	Extract data from source as necessary based on chosen solution (ex. .pdf, worksheet from .xls)	Brad Lose	Q2											Brad will be a good resource as he's been working on this for citywide dashboard
2.6	Populate solution(s) with data identified	IT/IR	Q2											
2.5	Loop back to ensure integration with Strategy 1	Dept. managers	Q2											Iterative process
3 Strategy 3. Determine goals, targets, timelines and metrics for Climate & Sustainability programs.														
3. KEY DELIVERABLE: Comprehensive list of goals and metrics with associated targets, timelines and datasets														
3.1	Meet w/ program managers to collect/create desired goals, targets, timelines & metrics	Dept. staff	Q1,2										In progress	First pass
3.2	Perform 'gap analysis' on datasets necessary to measure goal appropriately		Q2											
3.3	Review program goals & metrics given available data; include in dashboard? Y/N	Dept. managers	Q2											This will include deciding whether to alter a goal based on data access (see above)
3.4	Refine goals, etc. if needed; develop 'story' language for dashboard (same as citywide)	Dept. staff/ Communications	Q2											Definition of metric; significance of metric; target significance; description of trend/lack
3.5	Loop back to ensure integration with Strategy 1, 2	Dept. managers	Q2											Iterative process
4 Strategy 4. Build out dashboard using high-value datasets and standardized metrics.														
4. KEY DELIVERABLE: User-friendly, high-value online dashboard														
4.1	Determine how to display/integrate community indicators vs performance metrics; tell the 'story'	Dept. managers/ Communications	Q1,2											
4.2	Design user interface/website integration for dashboard	IT/ Communications	Q1,2										In progress	Consult IT/Communications as appropriate
4.3	Build individual program pages (Software: Tableau)	Tableau Contractor												
4.4	Review pages with program owners	Dept. staff												Get final sign-off
4.5	QC dashboard	ALL C+S												Everyone bang on it!
4.5	Loop back to ensure integration with Strategy 1, 2, 3	Dept. managers												Iterative process
5 Strategy 5. Create a communication campaign to spread the word on the launch of the new visualization tool.														
5. KEY DELIVERABLE: Buzz around C&S dashboard resulting in high usage after launch														
5.1	Soft-launch dashboard	Communications	Q3											Date dependent on above variables
5.2	Publicize to internal staff; gather feedback	Communications/City staff	Q3											
5.3	Make necessary adjustments	Tableau Contractor	Q3											
5.4	Official go-live	Communications	Q3											
5.3	Perform 'google analytics' inquiry to for view stats	Communications	Q3											Perform monthly/quarterly?

**BOARD AGENDA SUBMISSION SHEET**

Staff:

In our ongoing efforts to streamline and improve Environmental Advisory Board (EAB) processes, we are requesting every staff person wishing to present to the EAB complete and submit this document no later than two weeks prior to their presentation date.

If a recommendation is sought, please also forward a resolution letter or draft motion for inclusion in the meeting packet.

Please email this completed page and resolution letter/draft motion (if applicable) to Sandy Briggs ([BriggsS@bouldercolorado.gov](mailto:BriggsS@bouldercolorado.gov)) at least two full weeks prior to your attendance date.

Contact Sandy Briggs (x1931) or Brett KenCairn ([KenCairnB@bouldercolorado.gov](mailto:KenCairnB@bouldercolorado.gov), x3272) should you have any questions.

Thank you.

**Meeting Date:** March 9, 2016

**Subject:** Update on the implementation of the Black Bear Protection Ordinance (No. 7962)

**Type:** Action (if board needs to vote) \_\_\_\_\_ Information (If presentation is for information only) X

**If an action item:**

\_\_\_ Do you have a motion drafted for consideration?

\_\_\_ If not, when do you need a motion completed and voted on? By \_\_\_\_\_

**For all items:**

What do you want to achieve through this presentation to the board?

The purpose is to provide EAB with an update on the implementation of Ordinance No. 7962. I would like to ensure that EAB understands where we are in the implementation efforts, and see if they have any questions or concerns.

**Your name:** Val Matheson

**Date:** 3/2/2016



## MEMORANDUM

To: Environmental Advisory Board

From: Planning Housing and Sustainability Department  
Susan Richstone, Deputy Director of Planning  
Lesli Ellis, Comprehensive Planning Manager  
Valerie Matheson, Urban Wildlife Conservation Coordinator

Date: March 9, 2016

**Subject:** Update on the implementation of the Black Bear Protection Ordinance (Ordinance No. 7962)

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### EXECUTIVE SUMMARY

The purpose of this memo is to provide the Environmental Advisory Board with an update on the implementation of the Black Bear Protection Ordinance (Ordinance No. 7962, adopted by City Council on March 18, 2014).

This memo includes information on:

- the phased approach to implementing Ordinance No. 7962;
- 2015 urban bear activity in comparison to the past six years;
- waste disturbances by bears and waste cart monitoring; and
- the development of a black bear study in partnership with Colorado Parks and Wildlife (CPW).

Ordinance No. 7962 requires trash and curbside compost containers to be secure from bears at all times within the Secure Trash Regulation Zone. Implementation efforts began in the spring of 2014 and include the following three phases:

- **Phase I-** single family residences with approximately 6,000 trash and compost carts in Zone 1, effective Oct. 1, 2014.
- **Phase II-** commercial and multifamily units comprised of an estimated 580 dumpsters in all of the Secure Trash Regulation Zone, and single family residences with an estimated 8,700 trash and compost carts in Zone 2, effective June 15, 2016.
- **Phase III-** all public waste containers in the entire Secure Trash Regulation Zone in coordination with the implementation of the Universal Zero Waste Ordinance effective date to be determined.

Specific patterns identified in the 2015 urban bear report and monitoring data include:

- Bears had knocked over and strewn trash from a similar number of carts in 2015 (five carts) as compared to 2014 (four carts), and considerably fewer than in 2013 (116 carts) and 2012 (142 carts), and
- The proportion of bear reports east of the Secure Trash Regulation Zone (Broadway) was greater in 2015 than previous years.

Though bear activity east of Broadway increased in 2015, staff is not recommending an expansion of the Secure Trash Regulation Zone in response to the past year. 2015 was the first bear season the ordinance was implemented and a difficult year for bears to find food in natural areas across the Front Range due to a natural food crop failure.

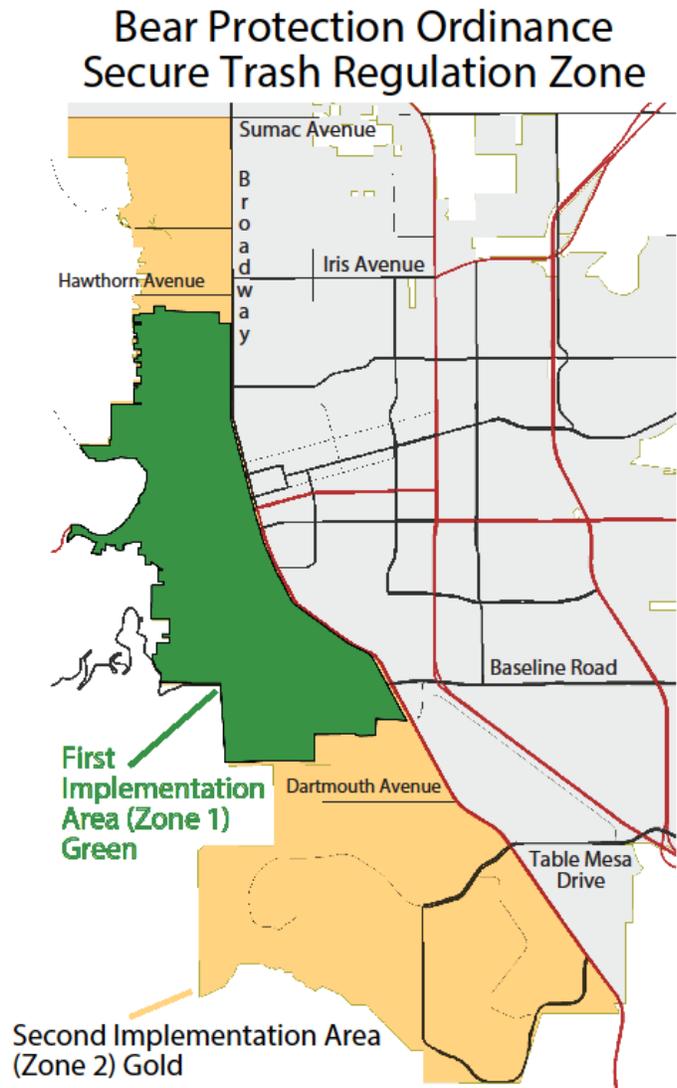
The city and CPW staff are working together to develop a study to gain additional information about how and when bears use the urban area. The goal of the study is to improve human-bear coexistence by better understanding how black bears use the urban area of Boulder.

No council action is requested but staff will be available on Feb. 29, to answer questions.

## **BACKGROUND**

### ***Bear Protection Ordinance***

On March 18, 2014 council adopted Ordinance No. 7962 requiring trash and curbside compost containers to be secure from bears at all times in most of the city west of Broadway. (See March 18, 2014 City Council agenda item titled: Consideration of a



motion to adopt on third reading Ordinance No. 7962  
[www.documents.bouldercolorado.gov/weblink8/0/fol/446/Row1.aspxlink](http://www.documents.bouldercolorado.gov/weblink8/0/fol/446/Row1.aspxlink).)

Implementation at the time of the ordinance adoption included a phased approach, hiring additional enforcement staff, and monitoring the effectiveness of the ordinance and bear behavior. For more information on the background of the ordinance see *Attachment A*.

## **ANALYSIS**

This section includes information about the efforts made, and the information gathered through each phase of Ordinance No. 7962 implementation. The information is organized by each of the three phases of implementation, and includes information on:

- phase timeline, area, and waste containers involved;
- education and enforcement efforts; and
- urban bear activity and waste cart monitoring.

### ***Phase I ordinance implementation (June – Dec. 2014)***

Phase I of Ordinance No. 7962 implementation began in the spring of 2014 and included single family residences in Zone 1. During the months of June through September 2014, approximately 3,100 trash, and 2,900 curbside compost bear-resistant carts were put in use at single family residences in Zone 1. This phase also involved: notifying landowners, residents, and property managers about the ordinance requirements, working with local trash haulers to establish a feasible cart distribution and compliance timeline, focused education and enforcement, and monitoring the effectiveness of the ordinance, and bear behavior.

#### ***Education and Enforcement***

In June 2014, the city mailed 9,392 informational postcards (*Attachment B*) to residents, property managers and landowners that were responsible for waste management in the approximate 7,000 residences and business in Zone 1.

In Sept. 2014, staff began monitoring bear-resistant cart use. (See Waste cart monitoring section below.) Staff observed a pattern of bear-resistant cart misuse (i.e., lids not being latched) and developed an educational door hanger to reinforce the importance of latching the carts (*Attachment B*). These door hangers were distributed by Code Enforcement staff and Boulder Bear Coalition volunteers at locations where cart misuse was observed. On Oct. 1, ordinance enforcement began. Between Oct. 1 and Dec. 1, 2014, Code Enforcement issued 245 warnings. Most of the warnings were for cart misuse, but some were for not storing waste in a bear-resistant cart or enclosure. All properties where warnings were issued voluntarily complied, and the city issued no summonses.

### *Urban bear activity*

Reported bear activity from 2009 through 2013 showed only one report of a bear west of Broadway and north of Sumac (Wonderland Lake). In 2014, the pattern of activity looked different with several bear reports north of Sumac and west of Broadway (*Attachment C*). The number of reports north of Sumac was greater (13 reports) than in previous years (8 reports total 2009 to 2013).

In 2014 there were factors independent of secure trash and compost containers that contributed to less urban bear activity. These factors included: (1) good natural and domestic fruit tree production (though some of the drainages and fruit producing vegetation west of town were scoured by the flood of 2013); and (2) a lower number of bears in the area in 2014 because four habituated bears were killed in Boulder in 2013 which lowered the number of bears in the area in 2014.

### Waste cart monitoring

Staff monitoring (**Table I**) and community reports suggest there were fewer trash cart disturbances in 2014 compared to previous years. Staff received feedback from the community that alleys west of Broadway looked substantially cleaner and have had less trash strewn.

### ***Phase II ordinance implementation (Feb. 2015- Dec. 2016)***

Phase II of Ordinance No. 7962 implementation includes changing approximately 580 dumpsters in use in the Secure Trash Regulation Zone to bear-resistant dumpsters and changing approximately 4,400 trash carts and 4,300 curbside compost carts with bear-resistant carts at single family residences throughout Zone 2. Residents in Zone 2 began receiving their fully-automated, retrofitted, bear-resistant carts in February 2015. Some residents, particularly older adults, expressed concerns with the weight of the carts when moving them to and from the curb. City staff and Western Disposal explored ways to accommodate all residents and as a result, Western began testing lighter versions of the cart and the city pushed back the enforcement date from June 15, 2015 to June 15, 2016. This change allowed the city and Western Disposal to fully examine options for increasing the usability of bear-resistant carts and dumpsters, and allowed residents who were challenged by the weight of the new carts to use their regular, non-bear resistant carts for up to one year without receiving a fine. Western Disposal tested and certified lighter versions of the fully automated 32, 64 and 96 gallon bear-resistant retrofitted carts at the [Grizzly and Wolf Discovery Center](#) in Montana in 2015.

Phase II also includes focused education and enforcement, and monitoring urban bear activity and waste carts to evaluate the effectiveness of the ordinance.

### *Education and Enforcement*

The City of Boulder partnered with Colorado Parks and Wildlife to educate residents within the enforcement area about the ordinance and the bear resistant containers. CPW volunteers were provided with educational door hangers by the city (***Attachment A***) to distribute to households where volunteers observed violations such as bins not being latched or closed properly, overflowing garbage or compost, broken containers, or containers that were not bear resistant. Over 300 residences were provided with these door hangers over the course of more than 20 volunteer days. Additionally, University of Colorado's office of Off Campus Housing distributed postcards about the ordinance and the importance of properly using bear-resistant dumpsters to returning students as part of their move in packets and welcome bags.

For 2015, 952 trash violations were issued in the Secure Trash Regulation Zone. There were 321 summonses issued; most were for cart misuse, and some were for not storing waste in a bear-resistant container. Code Enforcement utilized a comprehensive enforcement approach that included enforcement of four different trash regulations that pertain to how waste containers must be stored, and when containers can be put out for collection. Some properties were cited for a combination of violations for not securing trash. Though properties within the Secure Trash Regulation Zone are not required to obtain bear-resistant dumpsters until June 15, 2016, properties that have obtained them are expected to use them correctly (dumpsters left in the open position are subject to a summons). Staff have received concerns from some residents who store waste containers in alleys and experience unauthorized use of their waste containers. In these instances, residents claim unauthorized users are accessing the containers and leaving them unsecured. Examples include: trash carts unlatched by dog walkers to dispose of dog waste; people rummaging through trash, and illegal use of dumpsters. Some properties have unique challenges that need to be addressed in complying with the requirements. In these instances staff works with the community to better understand the obstacles to compliance with the ordinance. Solutions that have worked for some properties include: storing carts off the alley, locking dumpsters, reporting illegal dumping when it occurs, constructing a trash enclosure or structure on the property (requires exploring zoning requirements for construction), and communicating with the adjacent property and possibly sharing trash costs and responsibility if the placement of the dumpster benefits adjacent residents too.

2016 efforts will include:

- continued focused education in partnership with CU off campus housing, area property management companies, to ensure student move-in packets, and welcome bags, include information about secure trash requirements;

- continued educational efforts in partnership with CPW, and the Boulder Bear Coalition to provide information about secure trash options to residents within and outside the Secure Trash Regulation Zone if there is a pattern of bear activity east of Broadway or north of Sumac in 2016;
- enforcement of dumpsters in the Secure Trash Regulation Zone and residential carts in Zone 2 will begin on June 15, 2016; and
- an additional Code Enforcement officer is expected to be hired in May 2016 to enforce Ordinance No. 7962 in addition to enforcing other laws that pertain to quality of life issues.

#### *Urban bear activity*

Reported bear activity from 2009-2014 showed very little activity east of Broadway, but in 2015 there was a greater proportion of bear reports east of the Secure Trash Regulation Zone than in previous years particularly in the area east of 19<sup>th</sup> street west of 28<sup>th</sup> street. In 2015 the police dispatch records for bear calls was included in the database, greatly increasing the number of reports being plotted on the Reported Bear Sightings map for that year (*Attachment D*). For 2015, the additional bear report source creates the appearance of increased bear activity in 2015; however, it is important to note the actual number of reports in 2015 from our historic sources (reports to CPW, Open Space and Mountain Parks staff, and Urban Wildlife Coordinator) was 116 which is in keeping with the number of reports from previous years (57-167 reports).

The city will continue to monitor and evaluate activity beyond the Secure Trash Regulation Zone to determine whether 2014 and 2015 observations of bear activity beyond the Secure Trash Regulations Zone will continue and thus necessitate expansion of the regulation area in the future. It is important to note 2016 will be the first year of enforcement for the entire Secure Trash Regulation Zone (including dumpsters and single family resident carts). The environmental conditions, including a lack of natural food sources for bears in 2015 may have been more of a driving force for bear activity east of Broadway than an indicator that the area where trash is secured is not large enough. For these reasons, city and CPW staff are not recommending expansion of the Secure Trash Regulation Zone at this time. Staff's assessment is there is not enough information obtained from one season of bear activity in the midst of implementing a new waste storage program to identify changes in bear behavior as a result of the program.

#### Partnership with Colorado Parks and Wildlife (CPW) to better understand how bears are using the urban areas of Boulder in 2016

CPW has proposed working with the City of Boulder on a study of Black Bear use within city limits. The study would involve putting three to five Global Positioning System (GPS) Collars on bears that are using the urban area, for the next three years.

The study is not expected to produce statistically significant results but rather provide anecdotal information about how individual bears use the urban area. Having a better understanding of how bears use the urban area will allow for more informed policy development and help the community protect bears, community members and improve overall human-bear co-existence. Specific study objectives include:

- Determine bear locations and movement patterns.  
Much of the city policy development is based on resident reports of bear presence, however, much of the urban bear activity goes unreported and likely unnoticed.
- Determine temporal patterns (night/day) to better understand and inform the community on normal bear behavior.
- Determine locations where bears are in frequent close contact with humans to help us determine identify locations where human bear conflicts are more likely and where proactive education efforts would be effective at minimizing human conflicts.
- Determine what percentage of time collared bears spend in the city- to better understand how bears function across the landscape.
- Determine if there are den sites within the city to identify what types of physical features facilitate and/ compatible with bears denning.
- Verify the reliability and consistency of community reports compared to actual bear locations to determine how often bears are reported in town and to evaluate if that is a reliable way to measure bear activity.
- Help to determine if the coverage area of the trash storage ordinance is appropriate and over time if the pattern of usage is shifting from west of Broadway to east of Broadway.
- Identify movement corridors within the city and locations where bears immigrate/emigrate from the city.

On Nov.16, 2015, staff provided the Open Space Board of Trustees (OSBT) an update on preliminary aspects of the study. One board member expressed concern for the misconception in the community that reporting a bear would result in a “strike” meaning the bear would get moved or euthanized if reported. Staff clarified that the circumstance that has become known as a “strike” is when a bear’s activity or location triggers CPW to relocate an animal, and bears are generally not relocated a second time. Hundreds of reports of bear activity are received by the city and CPW, and euthanizations and relocations are relatively rare events. Another board member expressed support for ensuring that animals involved in the study (collared animals) would not be more likely relocated or euthanized due to involvement in the study.

Waste cart monitoring

In 2012 and 2013, (prior to Ordinance No. 7962 requiring trash to be secure from bears) the City of Boulder partnered with Colorado Parks and Wildlife (CPW) to monitor trash violations including trash being strewn by bears in the area that is now encompassed by the Secure Trash Regulation Zone (for Bear Education and Enforcement Pilot final report visit: [www.boulderwildlifeplan.net](http://www.boulderwildlifeplan.net) “Background”). In the fall of 2014 and 2015 staff monitored the same route to compare trash storage practices prior to and after the implementation of Ordinance No.7962. The monitoring route included 612 single family homes and was conducted for 12 days in 2014 and 2015, and compared to 12 days of monitoring data collected in the fall of 2012 and 2013.

The monitoring showed fewer trash carts knocked over and strewn in 2014 (four carts) and 2015 (five carts), compared to 2013 (116 carts) and 2012 (142 carts) (see **Table I**).

All of the residences along the monitoring route had bear-resistant trash and compost carts, however, there were 96 observations of unlatched trash carts, and 161 observations of unlatched compost carts. In these cases the carts were not overflowing, the lid had just not been pushed down to engage the locking mechanism. In addition to the five trash containers that trash strewn by bears (shown in Table I) there was one compost cart and two recycling carts that had also been strewn by bears. In addition, there were 15 observations of carts that were visibly broken.

**Table I. Number of observed trash violations\* at 612 residences in the Bear Ordinance Secure Trash Regulation Zone during 12 monitoring days between Sept. 16, and Oct. 30, over the past four years.**

Year	Total Trash Violations	Unique Addresses	Bear-Caused Violations (Trash Strewn)	Percent of Total Caused by Bears
2012	145	113	142	97.9%
2013	120	71	116	96.7%
2014	42	35	4	11.6%
2015	8	7	5	62.5%

*\*violations include B.R.C.6-3-5(a)(1) requiring trash to be stored in containers that are not overflowing, and their contents are not scattered by animals*

### ***Phase III ordinance implementation***

For Phase III, distribution of public waste containers is being coordinated with the implementation of the Universal Zero Waste Ordinance (Ordinance No. 8045 accepted by council on June 16, 2015).

The city is exploring design options for bear-resistant public compost and trash receptacles while assessing the city's needs for additional recycle and compost bins to comply with the Universal Zero Waste Ordinance. This assessment will take the form of a strategic assessment of new bin needs as well as an identification of areas where trash cans may no longer be needed. Findings of this strategic assessment will guide the timeline and prioritization for capital investments and final implementation to secure public waste containers from bears.

### **NEXT STEPS**

- Develop timeline for "Phase III" of implementation which will include transitioning all city managed public waste containers in the entire Secure Trash Regulation Zone. This date is expected in 2017 but has not yet been determined.
- Provide an update to City Council expected in March 2016, but not scheduled at the time of this memo.

### **ATTACHMENTS**

- A:** Supplemental Background section
- B:** Educational Materials: Postcard and Door hanger
- C:** Map of 2014 Reported Bear Sightings compared to 2009-2013
- D:** Map of Reported Bear Sightings 2009-2015

## **BACKGROUND**

### ***Bear Protection Ordinance***

On March 18, 2014 council adopted Ordinance No. 7962 requiring trash and curbside compost containers to be secure from bears at all times in most of the city west of Broadway (see March 18, 2014 City Council agenda item titled: Consideration of a motion to adopt on third reading Ordinance No. 7962 [www.documents.bouldercolorado.gov/weblink8/0/fol/446/Row1.aspxlink](http://www.documents.bouldercolorado.gov/weblink8/0/fol/446/Row1.aspxlink)).

Implementation at the time of the ordinance adoption included the following elements:

- a phased approach beginning with alleys where waste containers are stored 24 hours a day, 7 days a week, and experience the most visible trash disturbances by bears;
- hiring two additional Code Enforcement staff to support the new ordinance in addition to enforcing existing quality of life ordinances; and
- monitoring the effectiveness of the ordinance, changes in enforcement, violations, and bear behavior.

### ***Phased implementation***

Due to the large area included in the ordinance and thousands of trash and compost containers that need to be changed or modified, the ordinance is being implemented and enforced in a phased approach. The phased approach identifies two sub-areas, or zones within the entire Secure Trash Regulation Zone. The first implementation area was the highest priority for securing waste from bears and includes properties with trash pick-up in alleys (Zone 1). The second implementation area includes the remainder of the properties in the Secure Trash Regulation Zone (Zone 2).

The phased approach includes the following locations, and timeline:

- **Phase I-** single family residences in Zone 1, effective Oct. 1, 2014.
- **Phase II-** commercial and multifamily units (dumpsters) in the entire Secure Trash Regulation Zone, and single family residences in Zone 2, effective June 15, 2016.
- **Phase III-** all public waste containers in the entire Secure Trash Regulation Zone, effective date to be determined.

### ***Hiring additional Code Enforcement staff***

In 2014, two additional Code Enforcement positions were created to execute the enforcement of Ordinance No. 7962 in addition to enforcing other laws that pertain to quality of life issues. The positions included one officer and one administrative assistant.

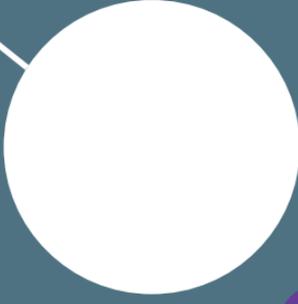
### ***Monitoring ordinance effectiveness, violations, and bear behavior***

For the past seven years the city has been maintaining a database of reported bear sightings and the attractants associated with the bear activity. The number of reported bear sightings varies from year to year and is not considered a representation of actual bear activity because much of

the urban bear activity goes unreported. The bear report database is helpful in providing information about the pattern of urban bear activity over time and was used in establishing the Secure Trash Regulation Zone. In addition, in 2012 and 2013, the city, in partnership with Colorado Parks and Wildlife (CPW), monitored compliance with trash ordinances and bear activity in waste containers along an established monitoring route in western Boulder as part of the Black Bear Education and Enforcement Pilot. (For final report visit: [www.boulderwildlifeplan.net](http://www.boulderwildlifeplan.net) “Background”.) In 2014 and 2015, city staff continued monitoring trash violations and bear-resistant cart misuse along the same monitoring route established for the Pilot, to help evaluate the effectiveness of the ordinance.

***Factors that cloud interpreting cause and effect change in bear behavior***

Urban bear behavior in Boulder can be highly variable from year to year and is dependent on a variety of dynamic environmental factors. For example, in wet years with no late spring freeze, food production in natural areas is high, and pressure on bears to search for human-based food sources in town is lower. Similarly, prior to 2008 (and particularly in 2007) bear activity in south Boulder seemed to be greater than bear activity in north Boulder. That pattern of behavior seems to have shifted in recent years but not necessarily due to any programmatic or environmental change. Sometimes individual bears and their offspring have a preference for an area and these individual preferences change over time. For these reasons, the city cannot look at one season of bear activity after initiating a new waste storage program and identify changes in bear behavior resulting from the program.



## PROTECT BOULDER'S BEARS

### NEW CITY ORDINANCE

Your trash and compost must be secured at all times until it is collected by a trash hauler.

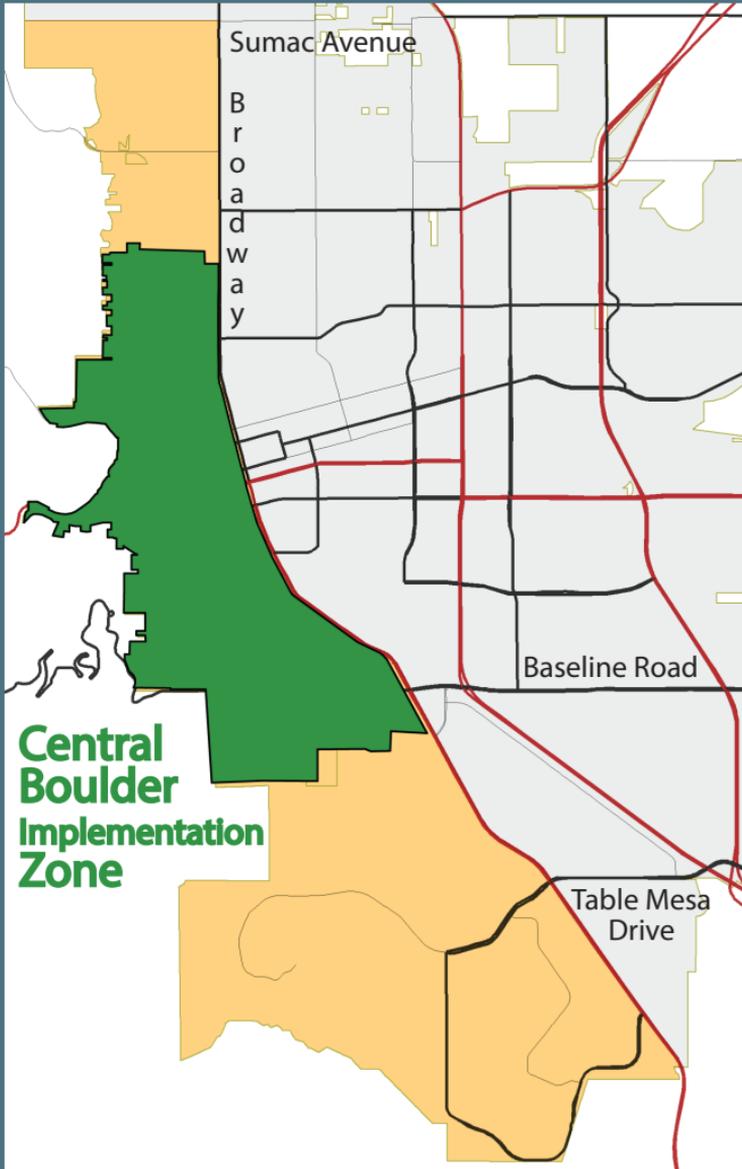
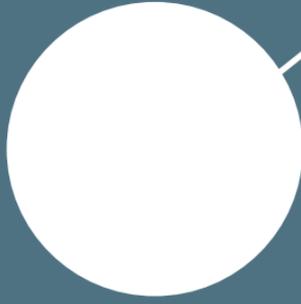
### SECURE YOUR WASTE

All containers, dumpsters or enclosures must be bear-resistant.

OR

Waste must be stored in a house, garage, shed or other structure.

Storage requirements are available at [www.boulderwildlifeplan.net](http://www.boulderwildlifeplan.net). Waste haulers will provide details about the options and services.



## Secure Trash Regulation Zone

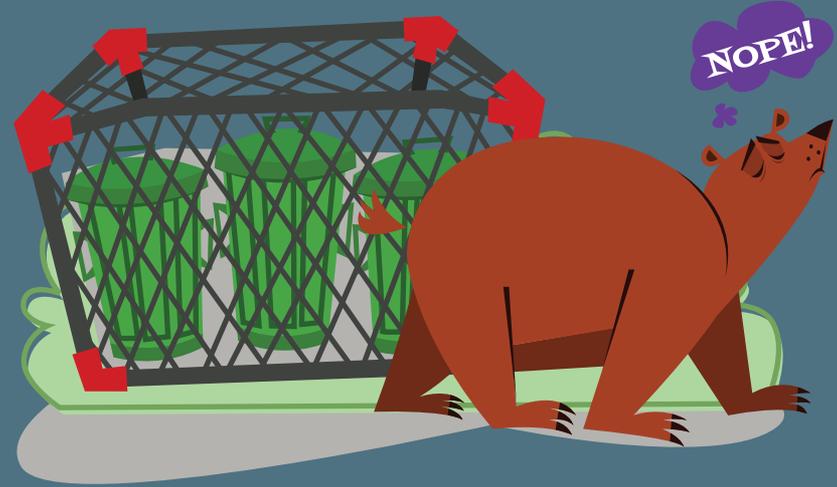
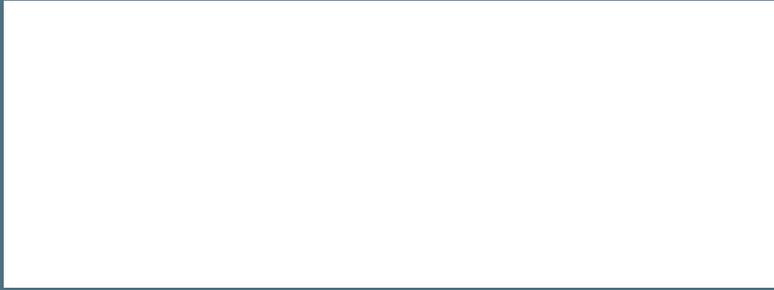
The ordinance applies to all properties west of Broadway to the western city limits, south of Sumac Avenue to the southern city limits.

In summer 2014, implementation of the new storage requirements will begin in central Boulder, including areas where waste is collected from alleys.

The fine for a first offenses is \$250. Code enforcement officers may issue tickets in-person or give citations to property owners via email, mail, or printed notification.

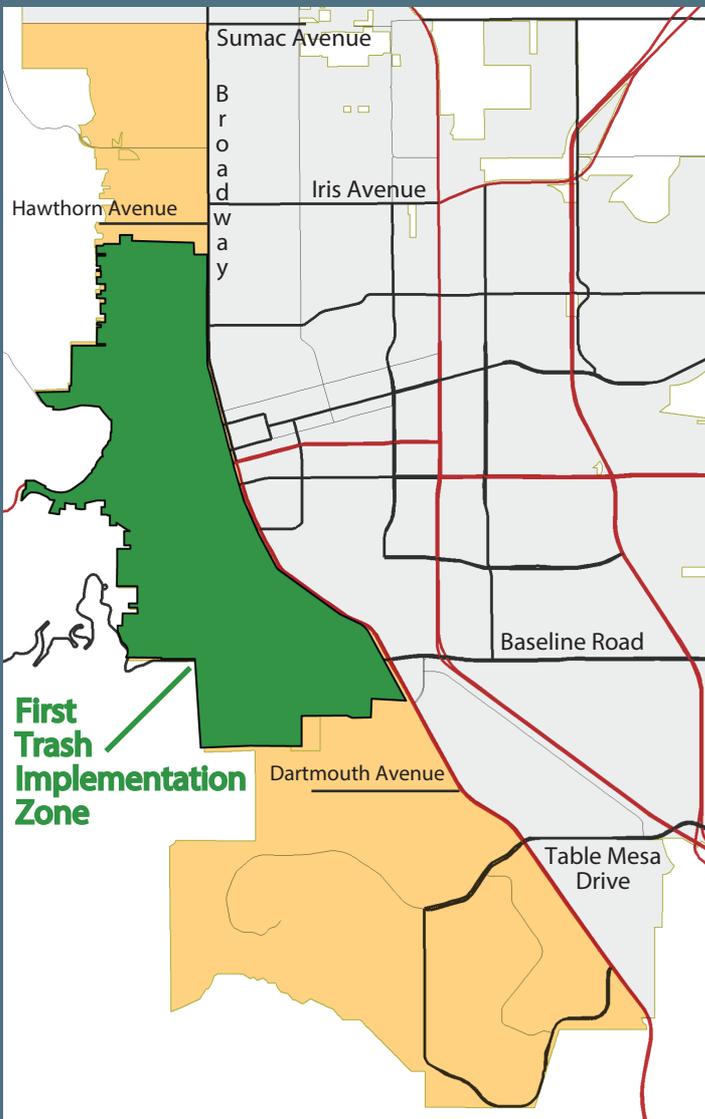


# PROTECT BOULDER'S BEARS



## NEW CITY OF BOULDER ORDINANCE

Your trash and compost must be secured at all times until it is collected by a trash hauler.  
All containers, dumpsters or enclosures must be bear-resistant.



Storage requirements are available at [www.boulderwildlifeplan.net](http://www.boulderwildlifeplan.net). Waste haulers will provide details about the options and services.

### Secure Trash Regulation Zone (Gold)

The ordinance applies to all properties west of Broadway to the western city limits, south of Sumac Avenue to the southern city limits.

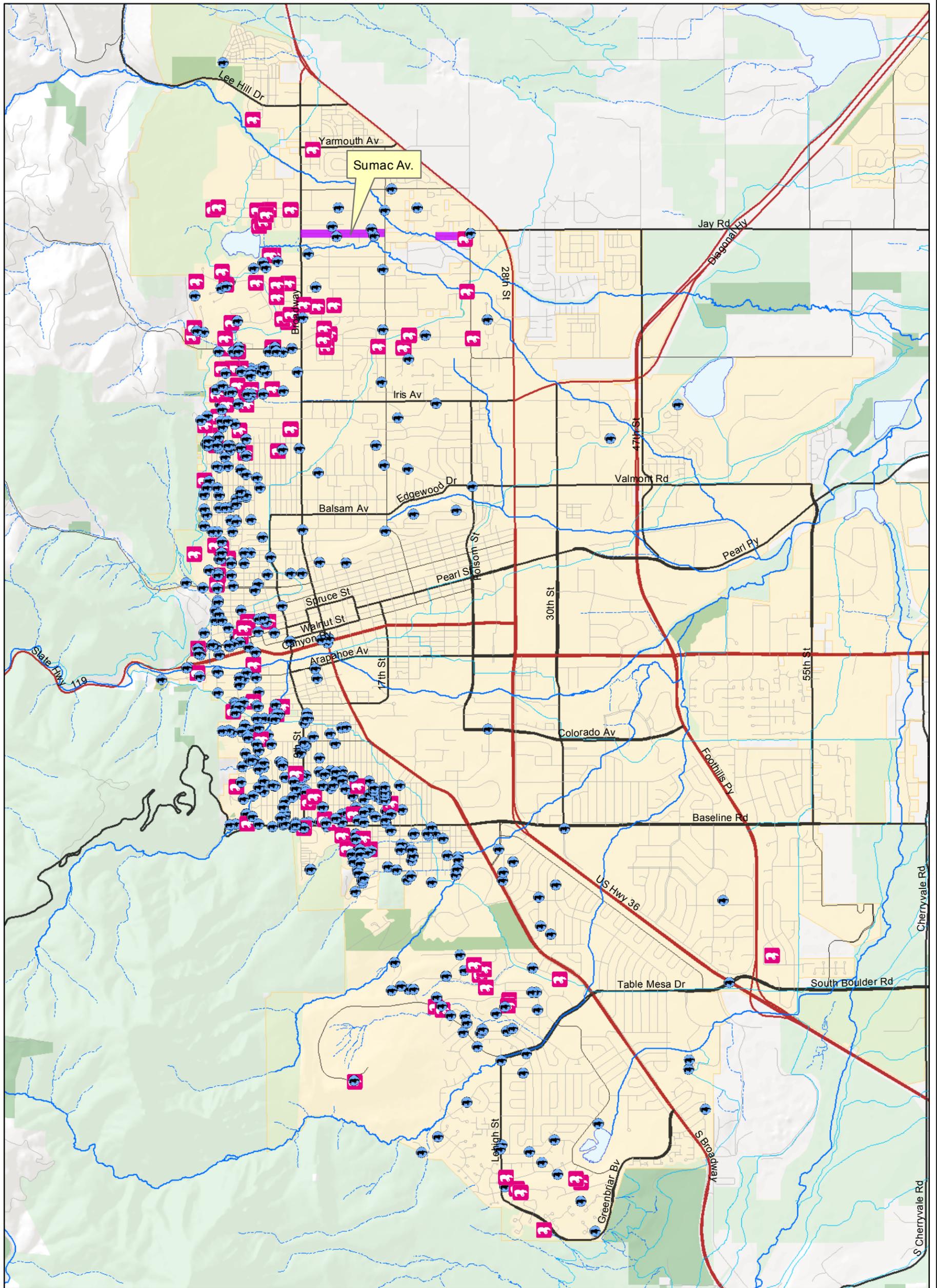
### First Trash Implementation Zone (Green)

Implementation of the new storage requirements will begin in summer 2014.

The fine for a first offenses is \$250. Code enforcement officers may issue tickets in-person or give property owners citations via email, mail, or printed notification.

# Reported Bear Sightings 2009 - 2014

## Within City of Boulder Limits



**Bear Sightings**

- Year**
- 2014
  - 2009-2013

**Open Space and Mountain Parks Property**

- Conservation Easement
- Fee Property
- Miscellaneous Easement

~ Major Lakes

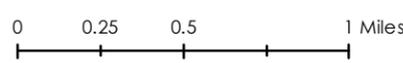
  City Limits

- Alley
- Highway
- Local Street
- Major Road
- Minor Road

~ Creek

~ Creek, Intermittent

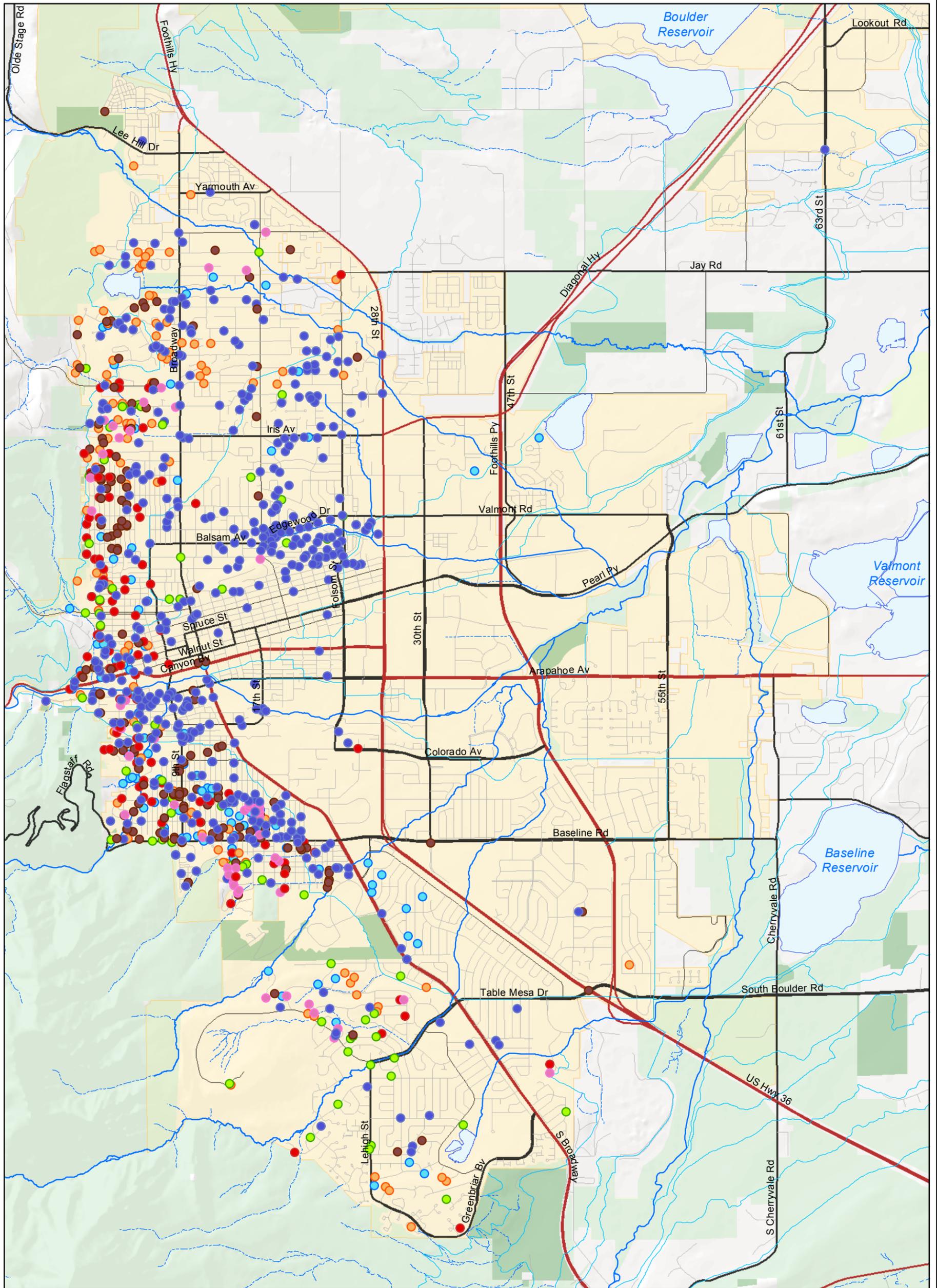
~ Ditch



Urban Wildlife Management Plan

# Reported Bear Sightings 2009 - 2015

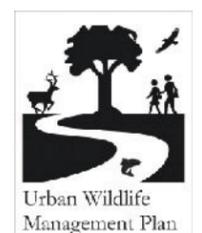
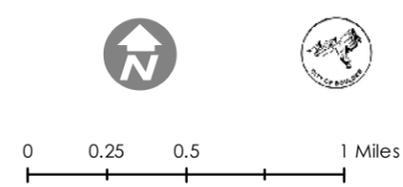
## Within City of Boulder Limits



- Bear Sightings by Year**
- 2009- 72 reports
  - 2010- 101 reports
  - 2011- 57 reports
  - 2012- 167 reports
  - 2013- 118 reports
  - 2014- 127 reports
  - 2015- 538 reports\*

- Major Lakes
- City Limits
- Open Space and Mountain Parks Property
- Conservation Easement
- Fee Property
- Miscellaneous Easement
- Alley
- Highway
- Local Street
- Major Road
- Minor Road
- Creek
- Creek, Intermittent
- Ditch

\*Includes 422 calls to Police Dispatch



# City of Boulder – April Joint Board Meeting regarding Climate Commitment and Energy Codes

## *Request for Input*

Staff requests input from EAB on the planned content for the upcoming joint board meeting on Climate Commitment and Energy Codes. Specifically, we'd like EAB to review the outline for the feedback we plan to solicit during the energy code portion of the meeting. Is there anything missing that you would like to see included?

## *Overview of Joint Meeting*

The Environmental Advisory Board is hosting a joint board meeting on two inter-related topics – the draft Climate Commitment Document, and the long term strategy to get the city's energy codes to net zero. The relationship between these two is the important role that the city's accelerated building energy productivity requirements – directed through its energy codes – play in achieving the city's new emissions reduction goals. For the boards that have worked on both emissions reduction objectives and the built environment impacts (Planning Board, EAB, TAB) both of these topics may be relevant. For other boards, they may be only interested in the impacts of codes on their interest area (Landmarks). For the other invited boards—OSMP, PRAB—they may only be interested in the ways the climate goals affect their areas of activity.

The first hour will focus on the Climate Commitment, and the last 1.5 hours will focus on the strategy process for updating our energy codes. This latter portion will also be open to other impacted stakeholders, such as building developers, and will provide an opportunity to give early guidance on the strategic direction, objectives, and scope of near and long term energy code updates, prior to a study session with City Council.

This is the boards' opportunity to have early input into the long term strategic direction of the energy codes. Ideally, those boards would have at least 2 reps, or anyone that wants input on strategic direction of codes should attend.

The key boards for the Energy Codes are:

- 1) Planning Board
- 2) EAB
- 3) Landmarks

## *Introduction*

### **~5 minute Meeting Overview**

Brief description of the objectives of the joint board meeting and description of how the input received in the meeting will be utilized.

## ***Outline of Climate Commitment Portion of the Meeting***

### **~15 Minute PowerPoint Presentation to Provide Background and Context**

1. Review of the city climate action programs and goals.
2. Overview of the current science on climate change and the proposed emissions reduction goal.
3. Overview of the Climate Commitment document and its three action focus areas: energy, resources and ecosystems
4. Focus on energy systems change and associated information on Boulder's present and future energy systems
5. Description of existing and emerging city organization initiatives around energy efficiency and energy source change.
6. Overview of the next stage of community outreach and engagement to identify community priorities and opportunities to support and collaborate on energy systems change and other emissions reduction related initiatives e.g. resource conservation, enhancing ecosystem services etc.

### **~30 Minutes – Breakout group discussions in the three focus areas of the Climate Commitment: energy; resource use/consumption; and ecosystems**

Participants will be invited to break up into working groups based on their interest and expertise in one of the three areas of focus for the Climate Commitment—Energy systems (energy efficiency, energy source change, transportation); Resources (efforts that reduce the emissions impact of resource uses in water, food, waste or other resource consumption areas), and Ecosystems (actions that impact the urban, agricultural and wildland ecosystems in ways that enhance or degrade the capacity of these systems to provide critical ecosystem services such as storm water infiltration, air quality, urban heat island buffering, soil sequestration etc).

### **~10 Minutes – Small Group report out on initiative opportunities that can augment existing city initiatives.**

Each of the small groups will report out on key issues identified for further analysis and/or action opportunities to enhance emissions reduction/climate stabilization in each of the three action areas—energy, resources, ecosystems.

### **~30 Minutes – Community Engagement Discussion**

Staff will provide an overview of the community engagement strategy now being implemented to gather feedback on the current Climate Commitment draft and gather additional information regarding community perspectives, priorities, and opportunities to enhance community action and collaboration.

## ***Outline of Energy Code Portion of the Meeting***

Items highlighted in **yellow** indicate where we plan to solicit feedback from the boards and other invited stakeholders.

### **~45 Minute PowerPoint Presentation to Provide Background and Context**

1. Where are we today with our Residential and Commercial energy codes? Where do we need to go?
  - a. Show how Boulder's codes compare to rest of country
  - b. Present the goals and objectives developed by staff for the energy codes - solicit feedback and comments on this**
  - c. Present the timeline and plan for this long term strategic process (creating a plan for energy codes out to 2030), and how that will inform the next energy code update coming in 2017
2. Present Options for the definition/boundaries of Net Zero Energy (NZE)
3. Present and explain the options and recommendations for base energy codes for both Residential and Commercial
  - a. Explain why it's important to be on a nationally updated code instead of something custom for Boulder (i.e. the GreenPoints code for Residential)
  - b. Explain the IgCC (International Green Conservation Code) and how it relates to the IECC (International Energy Conservation Code) and ASHRAE 90.1, etc
- 4. Present options for the update cycle for energy codes, pro and cons – solicit feedback in group discussion format**
  - a. Explain building construction cycle/timeline and also the code update cycle for national codes
  - b. Does it make sense to update codes every 3 years or every 6 years?
  - c. If we update the base codes every 6 years, we still have the options to make small amendments/changes in interim 3 years
5. Present options for adding energy code amendments to allow off-site renewable energy/carbon offset options
  - a. Explain why this is needed
  - b. Solicit feedback on the criteria for any offsite options** – for example, should a minimum level of energy efficiency be required before allowing this?

### **~30 Minutes to walk around to Large Poster boards around the room and “vote” on certain topics**

Each board will have a staff member stationed at it to answer questions. There will also be an option to write a specific question on cards with your contact info for response at a later date.

1. *Sustainability requirements*: As the city looks to move towards a more comprehensive code like the IgCC, the city will phase in various requirements over time to allow the market to adjust, and to allow our staff time to handle the increased workload. The IgCC has about ~50 different possible code provisions – everything from stormwater management to heat island mitigation to sustainable building materials. This will be an opportunity for people to vote (with colored voting dot stickers) on their high, med and low priority requirements for both residential and commercial codes.
2. *Definitions for NZE*: Options to vote on your preferred definition

**Reconvene the group for ~15 Minutes for closing thoughts**

1. Any additional feedback on Commercial energy codes that we haven't covered?  
Residential?
2. What are you excited about? Any big concerns moving forward?

## 2016 Environmental Advisory Board Staff Calendar

### January 6 Meeting

Public Hearings	Staff

Discussion Items	Staff
Energy Future Update: Municipalization	Jonathan Koehn
Climate Commitment Community Engagement Process	Brett KenCairn

Materials due by **noon on Wed, Dec 30**, emailed to EAB by 4 pm.

PPTs for meeting due to Sandy Briggs **by 4 pm Wed, Jan 6**.

### February 3 – Retreat

### March 9 Meeting

Public Hearings	Staff

Discussion Items/Matters for the Board	Staff
Sustainability Dashboard Memo	
Black Bear Protection Ordinance Update Memo	
Discussion of April’s Open House Outline & Expectations of Board Members as Hosts	

Materials due by **noon on Wed, March 2**, emailed to EAB by 4 pm.

PPTs for meeting due to Sandy Briggs **by 4 pm Wed, March 9**.

### April 6 Meeting

Public Hearings	Staff

Discussion Items/Matters for the Board	Staff
Black Bear Protection Ordinance Update	Valerie Matheson

Materials due by **noon on Wed, March 30**, emailed to EAB by 4 pm.

PPTs for meeting due to Sandy Briggs **by 4 pm Wed, April 6**.

### April 27 – Joint Board Open House – Details TBD

### May 4 Meeting

Public Hearings	Staff
Climate Commitment Community Engagement	Brett KenCairn

Discussion Items/Matters for the Board	Staff
Universal Zero Waste Ordinance Update	Kara Mertz

Materials due by **noon on Wed, April 27**, emailed to EAB by 4 pm.  
PPTs for meeting due to Sandy Briggs **by 4 pm Wed, May 4**.

June 1 Meeting	
<b>Public Hearings</b>	<b>Staff</b>
<b>Discussion Items/Matters for the Board</b>	<b>Staff</b>
Study Session – Climate Commitment - Ecosystems	Brett KenCairn

Materials due by **noon on Wed, May 25**, emailed to EAB by 4 pm.  
PPTs for meeting due to Sandy Briggs **by 4 pm Wed, June 1**.

July 6 Meeting	
<b>Public Hearings</b>	<b>Staff</b>
<b>Discussion Items/Matters for the Board</b>	<b>Staff</b>

Materials due by **noon on Wed, June 29**, emailed to EAB by 4 pm.  
PPTs for meeting due to Sandy Briggs **by 4 pm Wed, July 6**.

August 3 Meeting	
<b>Public Hearings</b>	<b>Staff</b>
<b>Discussion Items/Matters for the Board</b>	<b>Staff</b>

Materials due by **noon on Wed, July 27**, emailed to EAB by 4 pm.  
PPTs for meeting due to Sandy Briggs **by 4 pm Wed, Aug 3**.

September 7 Meeting	
<b>Public Hearings</b>	<b>Staff</b>
<b>Discussion Items/Matters for the Board</b>	<b>Staff</b>

Materials due by **noon on Wed, Aug 31**, emailed to EAB by 4 pm.  
 PPTs for meeting due to Sandy Briggs **by 4 pm Wed, Sept 7.**

October 5 Meeting	
<b>Public Hearings</b>	<b>Staff</b>

<b>Discussion Items/Matters for the Board</b>	<b>Staff</b>

Materials due by **noon on Wed, Sept 28**, emailed to EAB by 4 pm.  
 PPTs for meeting due to Sandy Briggs **by 4 pm Wed, Oct 5.**

November 2 Meeting	
<b>Public Hearings</b>	<b>Staff</b>

<b>Discussion Items/Matters for the Board</b>	<b>Staff</b>

Materials due by **noon on Wed, Oct 26**, emailed to EAB by 4 pm.  
 PPTs for meeting due to Sandy Briggs **by 4 pm Wed, Nov 2.**

December 7 Meeting	
<b>Public Hearings</b>	<b>Staff</b>

<b>Discussion Items/Matters for the Board</b>	<b>Staff</b>

Materials due by **noon on Wed, Nov 30**, emailed to EAB by 4 pm.  
 PPTs for meeting due to Sandy Briggs **by 4 pm Wed, Dec 7.**