



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

**DATE:** May 6, 2015

**TIME:** 6 p.m.

**PLACE:** 1777 Broadway, 1<sup>st</sup> floor, 1777 W. Conference Room

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**1. CALL TO ORDER**

**2. APPROVAL OF MINUTES**

- A. The [April 1, 2015](#) Environmental Advisory Board meeting minutes are scheduled for approval.

**3. PUBLIC PARTICIPATION**

**4. PUBLIC HEARING ITEMS**

**5. DISCUSSION ITEMS**

- A. Greenhouse Gas Inventory Update (Elyse Hottel, Local Environmental Action Division)

**6. OLD BUSINESS/UPDATES**

- A. [Proposed Zero Waste Ordinance Update](#) (and request for letter of support from the board)  
B. [Board Protocol for Responses to Public Emails](#)

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

- A. [Information Item: 2016 – 2021 Greenways Capital Improvement Program](#)

**8. DEBRIEF MEETING/CALENDAR CHECK**

**9. ADJOURNMENT**

**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:** April 1, 2015

**NAME/TELEPHONE OF PERSON PREPARING SUMMARY:** Juliet Bonnell,  
303-441-1931

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

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

**Staff Members Present:** Brett KenCairn, Rella Abernathy, Kathleen Alexander, Heather Bailey, and Juliet Bonnell

**MEETING SUMMARY:**

- The board supported adoption of a resolution to ban neonics on city properties and agreed with staff's recommendation for amending the resolution language.
- The board suggested the following approaches to better engage the community in the discussion to protect pollinators:
  - Work with Bee Safe and leverage other partners (including activists in the community who might not have the same constraints and restrictions as city staff) to help with community outreach and education
  - Have City Council adopt a Pollinator Day to draw more community attention to this issue
  - Coordinate a pollinator symposium with the county to better align city and county efforts regarding neonics
  - Conduct outreach in schools using messages that are simple and fun and engaging to youth.
  - Create a "home kit" for residents that would allow them to test their yards and potentially help gather data for research on neonics.
- **M. Lommele** suggested changing the language in section 2 of the resolution to include a period after the phrase "suspend use of all neonicotinoids." She was disappointed that point-of-sale education couldn't be done at retailers and would like to see something done on this front in the form of incentives and/or clear labeling.
- **S. Morgan** commented that information on alternatives to neonics and their costs should be made available to the public. He also suggested conducting studies on the effects of neonics on pets in yards.
- **M. Lommele** encouraged the city to better engage the community with the positive side of the municipalization story.

## **1. CALL TO ORDER**

The Environmental Advisory Board Chair **S. Morgan** declared a quorum and the meeting was called to order at 6:20 p.m.

## **2. SWEARING IN OF NEW BOARD MEMBER**

**K. Crofton** was sworn in as a new member of the board.

## **3. APPROVAL OF MINUTES**

On a motion by **M. Lommele**, seconded by **B. Queen**, the Environmental Advisory Board approved (4-0, **K. Crofton abstained**) the March 4, 2015 meeting minutes as amended.

## **4. PUBLIC PARTICIPATION**

**Leah Yancey** from the Boulder County Commissioner's Office introduced herself to the board and informed them that she works on sustainability efforts and occasionally attends various board meetings across the county to support these efforts.

## **5. PUBLIC HEARING ITEMS**

A. Neonic Resolution (R. Abernathy, Community Planning & Sustainability)

**R. Abernathy** provided an update to the board on the neonic resolution and requested their feedback on whether they supported adoption of a resolution to ban neonics on city properties, whether they agreed with the preliminary staff recommendation for amending the resolution language and whether they have any suggestions for better engaging the community in this discussion to protect pollinators. The board's comments are captured in the meeting summary.

## **6. DISCUSSION ITEMS**

A. Municipalization (H. Bailey, Energy Future)

**H. Bailey** provided the board with an update on the municipalization effort including information about court rulings, case studies in other locations, information about other avenues that the city is pursuing to increase the city's energy efficiency and innovative efforts toward reducing greenhouse gas emissions. Staff's main focus is developing a transition plan that will enable the city to be prepared to run a utility by the end of 2017. Whether the city ultimately owns and runs a utility or not, the municipalization effort has created progress and will positively impact the way the city's energy is provided.

## **7. OLD BUSINESS/UPDATES**

A. Plastic Bag Ordinance Results

The board complemented the results and behavior change that this ordinance has created.

B. Board Protocol for Responses to Public Emails

The protocol will be updated to ensure that staff will provide adequate follow up to questions directed to the board from the public via email.

C. Clean Energy Tech Team EAB Representative

**K. Crofton** will attend a Clean Energy Tech Team meeting to determine if her skill set brings what the team is looking for from an EAB Representative.

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

## **9. DEBRIEF MEETING/CALENDAR CHECK**

**10. ADJOURNMENT**

Environmental Advisory Board adjourned at 8:30 p.m.

Approved:

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Chair

Date

DRAFT

## MEMORANDUM

To: Environmental Advisory Board

From: Department of Community Planning and Sustainability  
David Driskell, Executive Director  
Susan Richstone, Deputy Director  
Kara Mertz, Environmental Action Program Manager  
Jamie Harkins, Sustainability Specialist II  
Kelle Boumansour, Sustainability Specialist I  
Colette Crouse, Sustainability Communications Specialist

Date: May 1, 2015

Subject: Update and recommendation - Universal Zero Waste Ordinance

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The purpose of this agenda item is to get the Environmental Advisory Board's feedback on the proposed "Universal Zero Waste" ordinance and compliance schedule options. Specifically, staff is requesting EAB's input and recommendation, in advance of the May 19 City Council meeting where council will host a public hearing and consider the Universal Zero Waste requirements at a second reading.

Attached, Board members will find the Council memo from the first reading – scheduled for council's consent agenda on its May 5 meeting. Specifically, staff is seeking feedback on the compliance schedule options described, beginning on page 8 and outlined in [Attachment C](#).



**CITY OF BOULDER  
CITY COUNCIL AGENDA ITEM**

**MEETING DATE: May 5, 2015**

**AGENDA TITLE: Introduction**, first reading and consideration of a motion to order published by title only **Ordinance No. \_\_\_**, Amending Title 6, “Health Safety and Sanitation,” B.R.C. 1981 to add **Universal Zero Waste Requirements**.

**PRESENTERS**

Jane S. Brautigam, City Manager

David Driskell, Executive Director of Community Planning and Sustainability

Susan Richstone, Deputy Director of Community Planning and Sustainability

Kara Mertz, Environmental Project Manager

Jamie Harkins, Sustainability Specialist II

Kelle Boumansour, Sustainability Specialist I

**I. EXECUTIVE SUMMARY**

The purpose of this item is the first reading of a “Universal Zero Waste” ordinance (**Attachment A**) that would require all property owners and businesses in Boulder to provide adequate collection services and proper education for sorting trash, recyclable and compostable materials. This agenda item follows the [July 29, 2014](#) study session and [February 17, 2015](#) City Council meeting. At these meetings, council affirmed the goals and framework for the Zero Waste Strategic Plan and reviewed a proposed regulatory framework for universal provision of recycling and composting services in Boulder; paving the way toward “zero waste;” and re-establishing Boulder as a leader among U.S. communities striving toward zero waste.

The proposed Universal Zero Waste ordinance is based on the direction provided by council in February. The proposed ordinance requires the following:

- All property owners provide adequate trash, recycling and composting service to their tenants and occupants;
- All businesses separate recyclables and compostables from the trash; providing properly placed containers and signage to facilitate the collection of recyclables and compostables;
- All special events in Boulder provide both recycling and composting collection;

- The “six-day review” special trash collection period for student move-in be expanded to include twice per week recycling collection; and
- All recyclable materials be directed to the Boulder County Recycling Center.

Council is being presented with two options for phasing in compliance with the proposed ordinance, and council direction will be sought at the second reading, currently scheduled for May 19. The compliance date will be preceded by an implementation period that includes a shift of existing rebates and incentives targeted to encourage early compliance, as well as technical assistance to help businesses and multi-family property owners minimize landfilled waste. Ultimately, the adopted ordinance will be managed in a way to encourage compliance, rather than target non-compliance.

A City Manager Rule will be published for comment following final ordinance adoption, and it will include the final compliance schedule. An outline of the City Manager Rule is included in **Attachment B**. Two compliance schedule options for council to consider at second reading are included in **Attachment C** as follows:

- OPTION A:** Within one year of ordinance adoption, all property managers add recyclables and compostables collection service and within three months after this, businesses must add recyclables and compostables containers and signage; and begin using the service provided by the property owners.
- OPTION B:** All Boulder property owners provide recycling (and, where applicable, compostables) collection within one year of ordinance adoption; all businesses add recycling within three months after this; all landscaping businesses as well as those that serve, sell or prepare food must add compostables containers and signage at this time as well. Further, the rest of Boulder businesses must add compostables collection no later than three years from ordinance adoption.

Staff is recommending compliance schedule A as it is more straightforward for the community; less resource intensive to interpret, implement and enforce; and more equitable among affected parties. Staff will be seeking council direction at the second reading of the proposed ordinance as to which compliance schedule is preferred, and council may choose to adjust the compliance schedule to either require fewer than three years for all businesses to add composting service (in option B) or to allow a longer compliance schedule (in option A). Staff will draft the City Manager’s Rule accordingly.

## **II. STAFF RECOMMENDATION**

**Suggested Motion Language:**

Staff requests council consideration of this matter and action in the form of the following motion:

**Motion to introduce and order published by title only Ordinance No. \_\_\_\_, amending Title 6, “Health Safety and Sanitation,” B.R.C. 1981 to add Universal Zero Waste Requirements.**

### **III. COMMUNITY SUSTAINABILITY ASSESSMENTS AND IMPACTS**

- Economic – Universal Zero Waste requirements level the playing field between various businesses in the Boulder community, ensuring a consistent level of service is provided to employees and customers throughout the community. While the cost to some businesses may increase by requiring additional compostables and recyclables be collected separately from trash, many businesses will find their efforts toward zero waste allow them to decrease the frequency of trash collection from the business. The economic sustainability is addressed in more depth in the Analysis section of this memo.
- Environmental – Based on the goals and criteria for analysis included in the draft Zero Waste Strategic Plan, the Universal Zero Waste ordinance moves the Boulder community closer to its zero waste and greenhouse gas emissions reduction goals. A comparison of the relative environmental impacts of the alternative compliance schedules is contained in the Analysis section of this memo.
- Social – The intent of the Universal Zero Waste ordinance requirements is to level the playing field between sectors of the population in Boulder. The multi-family property owner requirements assure that whether you are renting or own your home; whether you live in a single-family or multi-family residence; you will have equal access to recycling and composting collection services. Furthermore, wherever you work in Boulder or where your children attend school, the “rules” will all be the same. This helps minimize confusion and facilitate standardized and understandable guidelines for everyone in the community.

### **IV. OTHER IMPACTS**

- Fiscal – Implementation support for this ordinance is covered by 2015 trash tax revenues and fund balance from 2014.<sup>1</sup> The estimated expenses for ordinance implementation are \$738,000, detailed in the Budget section of this memo. Future enforcement and compliance tracking expenses are also anticipated to be covered by existing trash tax revenues.
- Staff time – Ordinance implementation and assistance represent significant work plan items over the coming two years, and have been incorporated into the existing work plans of city staff, contractors, interns and volunteers.

### **V. BOARD AND COMMISSION FEEDBACK**

The Environmental Advisory Board (EAB) reviewed the regulatory framework presented to Council in February and was fully supportive. The EAB is scheduled to review the final ordinance and alternative implementation schedules on May 6. Input will be summarized and presented to council in the second reading materials for the May 19 council meeting.

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<sup>1</sup> A request for an adjustment to base for Trash Tax fund balance is included in the budget supplemental request, also scheduled for first reading May 5, 2015.

## **VI. PUBLIC FEEDBACK**

In advance of the February 17 council meeting, a survey was sent out to business leaders and residents, which garnered 160 responses. Respondents included homeowners, renters, business owners, property owners and managers, employees, and business tenants. In general, a large majority of business and residential respondents supported the proposed regulations, indicating that they “strongly agreed” with many aspects of the proposal. In addition, nineteen community members and business leaders spoke at the Feb. 17 City Council meeting and many more attended. Staff developed a new survey to gather feedback on the proposed ordinance language and compliance schedule options and will compile the results in advance of the second reading on May 19. There will also be a public hearing at the May 19 council meeting.

## **VII. BACKGROUND**

At its July 29, 2014 study session, council requested staff work with the community to develop ordinance language that would significantly increase waste diversion from Boulder’s multi-family and commercial sectors. With a foundation of best practices from around the country, staff convened a working group of stakeholders and industry representatives to help craft a regulatory proposal for community and council consideration. In the course of the community conversation around business and multi-family requirements, it became apparent that a universal requirement would be more equitable and would stem the tide of illegal dumping. Based on council feedback, this agenda item includes a draft proposed ordinance for council consideration.

## **VIII. ANALYSIS**

At its Feb. 17 meeting, council reviewed a [Draft Zero Waste Strategic Plan](#) (ZWSP) which acts as a guiding document that provides an overarching framework to prioritize future zero waste investment options; and assists council and staff in decision-making. In the fall, once the companion web-based portal for the ZWSP is complete, staff will return to Council for acceptance of the final plan and its associated Action Plan, as well as the action plans of the city’s community zero waste partners. These action plans describe the next two to three years of significant work plan items and initiatives throughout the Boulder community. As the first action item under the auspices of the city’s draft Zero Waste Strategic Plan, council is being asked to consider an ordinance requiring universal provision of recycling and composting services throughout Boulder. Boulder’s community partners are also implementing action plan items to support this significant move toward zero waste: Boulder County is investing in upgrades to the Boulder County Recycling Center to accommodate the new recyclable materials; Eco-Cycle is stepping up its outreach to businesses and multi-family complexes to minimize the waste created and educate tenants on the new requirements; the CU Environmental Center is working to educate students living on and off-campus; and the City is working with *all* its community partners to ensure that consistent, clear and understandable guidelines are pushed out to all community members.

### **i. Proposed Ordinance Language**

The proposed Universal Zero Waste ordinance will re-establish Boulder as a zero waste leader throughout the country. It addresses the significant gap between where we are today as a community and where we want to be in terms of minimizing trash and conserving our natural resources.

The proposed Universal Zero Waste ordinance addresses the many sectors of the community to ensure equal access to recycling and composting services. It essentially ensures that wherever a resident, employee or visitor goes in Boulder, if there is a trash can, they will also find a recycling and composting container close by. The signage and guidelines for sorting trash will be standardized and simplified, and will accompany all containers. The proposed ordinance includes language to ensure that:

- *All property owners provide adequate trash, recycling and composting service to their tenants and occupants.*
- *All businesses separate their recyclables and compostables from the trash; providing properly placed containers and signage to facilitate the collection of recyclables and compostables.*
- *All special events in Boulder provide both recycling and composting.*
- *The “six-day review” special trash collection period for student move-in be expanded to include twice per week recycling collection.*
- *All recyclable materials be directed to the Boulder County Recycling Center*

#### Property Owner and Business Requirements

Based on the fact that an estimated 75 percent of Boulder businesses operate in leased space, the proposed ordinance has two parts. First, property owners are required to subscribe to trash, recycling and compost collection services adequate to accommodate the regular accumulation of these materials on site. Secondly, businesses themselves are required to actually use the service and educate their employees about how to properly sort trash.

#### Special Events Requirements

The proposed ordinance requires all special events in Boulder to be “zero waste” which expands on the current requirement that only those special events held on City property are required to provide both recycling and composting service.

#### Six-day Review Requirement

Since its inception, the city has paid for semi-weekly recycling collection service as part of the six-day-review special trash collection period. The proposed ordinance language shifts the cost of this to the property owners. For reference, it has cost the city approximately \$10,000 per year to provide this additional service to approximately 650 properties in the affected area.

#### BCRC Processing Requirement

Following the lead from when the city first required trash haulers to provide recyclables collection to Boulder residents, the proposed ordinance language directs commercial recyclable materials to the Boulder County Recycling Center as well.

In 2014, Boulder County commissioned a study to assess the financial and operational efficiency and cost effectiveness of the Boulder County Recycling Center (BCRC). The study concluded that the BCRC operations would be more cost-effective if additional commercial recyclables could be delivered to the facility. In addition, the study concluded that the efficiency of the BCRC could be improved significantly by investing in an optical sorter to allow it to accept more recyclables as well as a wider range of recyclables. The City's 2014 Zero Waste Program Evaluation Study reached the same conclusion. In February, the Board of County Commissioners voted to make this investment in the BCRC, which will allow the facility to operate more cost effectively and to be able to accept and efficiently process the increased quantity of recyclables that will be generated as a result of Boulder's proposed ordinance. In order to protect the investment of public funds and to increase the efficiency of the programs predicated on the city's zero waste goals, both options for the ordinance contain language that directs the recyclable materials to the BCRC. Further, the City Manager's Rule will contain a definition for Recyclable Materials that will include all the materials that will be acceptable at the BCRC with the new optical sorting equipment, including plastic "clamshell" take-out containers.

## **ii. Implementation Period**

Based on the ordinance implementation experience of peer communities and to encourage early compliance, staff is crafting its multi-year work plan to be heavily weighted toward technical assistance and incentives prior to adopted compliance deadlines. Once the compliance deadlines have passed, the incentives will go away, but technical assistance will continue and will be focused on exemption requests and any complaints or warnings issued, in order to bring those properties into compliance as quickly as is practical. Other communities that have similar ordinances have conveyed that while it is important for businesses to know there is a process in which they will get a fine for a violation, most communities are not actually levying fines –

- Seattle has had a business recycling requirement in place for 7 years and has never issued a fine. Instead, it works with businesses where most just need a little assistance to get on the right track.
- In Mecklenburg County, NC, over 1000 inspections have been conducted with only a few violation letters, and no eventual fines. Each business corrected the violation with extra technical assistance.
- Most communities do not dig into trash to measure compliance; the enforcement efforts are directed toward obvious contamination – focusing on large amounts of cardboard sticking out of a dumpster or no recycling bins around; they do not police every little thing.
- Cities take different approaches to initial inspections, sometimes walking in the streets, sometimes asking the haulers to report, sometimes relying on voluntary community reporting. Other communities have found that it's relatively easy to see who does or does not have bins and who is using them properly.

In mid-2015, staff is rolling out new rebates and a tiered service model for both businesses and multi-family complexes that will be affected by the ordinance. Property owners and businesses will be able to access rebates and cost-sharing arrangements for

the one-time costs associated with collection containers or trash enclosures. Staff will also be providing assistance in collaboration with area haulers and under contract with the Partners for a Clean Environment (PACE) advisors, to help businesses minimize the total trash generated while maximizing the proportion of trash that can be separated into compostables and recyclables collection containers. Technical assistance will be offered in the form of a “do-it-yourself toolkit,” a “light touch” or a “deeper dive” assistance service to help encourage early compliance. In 2015, staff will also be developing and testing an online reporting form to determine whether it could be useful for self-reporting compliance with the ordinance. The anticipated timeline for ordinance adoption and assistance is as follows:

<u>Timeline</u>	<u>Action Items</u>
2 <sup>nd</sup> Quarter 2015	Ordinance adoption
2015 through mid-2016 (property owner compliance deadline; may be extended depending on compliance schedule contained in final City Manager’s Rule)	Technical assistance, zero waste advising services and incentives to encourage early compliance. Research and targeted implementation assistance for space-constrained business districts (e.g., Pearl Street Mall, University Hill)
3 <sup>rd</sup> Quarter 2016, ongoing	Exemption applications will be reviewed and properties will be provided with technical assistance in order to assess whether property could be brought into compliance rather than be granted an exemption.
	Technical assistance, free signage and educational support for any properties issued warnings <sup>2</sup>

### iii. Compliance Timeline Options

Council is being asked to consider two different schedules for compliance:

- Option A would require that all non-exempt Boulder businesses (estimated at approximately 3,000) establish collection programs for recyclables and compostables *within fifteen months* of ordinance adoption.
- Option B phases in the composting service requirement by requiring landscapers and businesses that prepare, serve or sell food to compost within *fifteen months* of ordinance adoption and all other businesses to add compost collection service within *three years*. Staff estimates that approximately 525 businesses of the total 3,000 fall into the category of landscapers or businesses that prepare, serve or sell food (428 eating and drinking places, 54 groceries, 18 florists, landscaping and garden stores; 28 food and beverage manufacturers).

The following analysis compares each option’s ability to achieve the community’s zero waste goals as outlined in the draft Zero Waste Strategic Plan (ZWSP), as well as describing the economic impacts of each option. Inherent in these analyses are policy

<sup>2</sup> Three written warnings, delivered in person will be issued prior to any fines being assessed. 2017 Budget will include trash tax contribution to any additional required resources for enforcement and exemption tracking .

considerations relating to the facilities currently available to process the community’s compostable materials. Council may want to consider whether in the short term, compostable materials should be processed in Boulder at a higher cost or transferred from Boulder to an in-vessel composting system outside of the city for a much lower cost. In the longer term staff will be working with the city’s zero waste partners to identify and contract for low-cost, local compost transfer and processing options.

Staff Recommendation

Staff is recommending compliance Schedule A as it would be more straightforward to define, understand and implement (i.e., “everyone has to add composting and recycling services” as opposed to “all businesses have to add recycling services; and if your business prepares, serves or sells food, it must add compost now, but if it does not, then you have three years before you have to add that service”); would lend itself to fewer businesses falling through a regulatory loophole (defining a business that serves, sells or prepares food” as well as a “landscaper or other business that generates a significant amount of vegetative waste” can be confusing and may require a significant amount of staff and community time to interpret); and would present a situation whereby the city and its partners could more easily provide recycling and composting assistance to everyone at once. Furthermore, compliance Schedule A would be more equitable as everyone in Boulder would have access to the same services on the same timeline, and one specific business type would not be unfairly burdened as compared to another business type.

As an alternative, council may choose to request a two-year compliance timeframe for either schedule option A (i.e., all businesses must add recycling and compost within two years); or schedule option B (i.e., all businesses must add recycling now; food generating businesses must add composting now; and other businesses must add composting within two years). Shifting the compliance date sooner or later would simply result in a shift to the timing of the impacts.

***How do the compliance options compare from an environmental perspective?***

The following matrix compares the compliance schedule options and their estimated ability to achieve the quantitative and qualitative criteria as outlined in ZWSP.

Ordinance	Quantitative Criteria			Qualitative Criteria	
	Estimated Average Waste Diversion Potential (tons/year)	Estimated GHG Emissions Reduction Potential (tons/year)	Community Engagement (# of affected employees; does not include customers)	Upstream Conservation	Ease of Implementation
Schedule A	12,000	17,640	94,000	low	medium
Schedule B	8,575	12,605	11,500	low	low

As is shown, the annual waste diversion potential and resultant greenhouse gas emissions reductions are greater with compliance schedule A, as more businesses are composting. This analysis only applies for years one through three; presumably, under compliance

schedule B, the annual diversion and GHG emissions reductions would “catch up” once all the businesses were required to add composting. Schedule A also performs better in the area of “community engagement” as measured by the number of employees affected by the change. It should be noted that this underestimates the total impact as it does not include the number of customers that would presumably be involved in the new zero waste requirements when they patronize these businesses. With respect to the qualitative criteria, there seems to be no difference between the two options in the area of upstream conservation – a business would be no more likely (under one compliance schedule as compared with the other) to look at its purchasing practices or manufacturing processes in order to minimize the total waste generated in the first place. For the reasons described above, schedule A would be easier to implement than schedule B.

### ***How do the compliance options compare from an economic perspective?***

#### Costs to the City

There is not a significant difference between the compliance options with respect to the costs to the city.

#### Costs to the businesses

The total cost to a business for adding recycling and composting collection can be made up of one or more of the following cost components:

1. One-time initial investment in collection bins
2. One-time initial investment in trash enclosure upgrades to accommodate collection containers
3. Ongoing costs to collect recyclables and/or compostables which includes in it a cost factor for a gate fee at a composting or recycling processing facility

With respect to the costs to businesses, both compliance options present the possibility that a business’ costs will increase by requiring the provision of recycling and/or compost services. However, many businesses also find their ongoing costs decrease by decreasing the amount of trash that must be collected while increasing the recyclables and/or compostables collection service. This is particularly true for restaurants and supermarkets whose trash is comprised primarily of compostable materials. The trash tax portion of a business’ collection bill will also decrease (though it is typically a small percentage of the total bill) as trash service levels decrease, based as it is on trash quantities, not the quantity of recyclables or compostables that are separately collected.

#### Hauling and processing costs

There are several local options for haulers with whom Boulder businesses can contract for composting collection services. Colorado law prevents the city from being able to control the costs for this service and it is difficult to obtain standardized cost estimates from haulers for these collection services. However, in an effort to compare the costs to the community for schedule A vs. schedule B, city and county staff have compiled the following facility and representative transportation costs for processing the compostable materials. Since the costs to a business for collecting compostable materials includes within it a cost for gate fees at the composting site, these costs should be an indication of the comparative costs for collection.

### Compostables Processing

There are currently three primary options in the front range for processing of compostables from Boulder: A-1 Organics' Denver Transfer Site, A-1 Organics/EDF Heartland BioGas facility and Western Disposal's Boulder Compost site. As is shown in the tables below, higher processing costs are often offset by lower transportation costs.

Comparative current costs for hauling compostables to area facilities

	Facility Gate Fee (\$/ton)	Approximate Transfer and Transportation Costs From Boulder (\$/ton)	<b>Estimated Total Costs (\$/ton)</b>
Heartland BioGas Facility	\$32	\$18	<b>\$50.00</b>
A-1 Organics Denver Transfer	\$26.50	\$37	<b>\$63.50</b>
Western Disposal	\$67.55	minimal	<b>\$67.55</b>

As part of the analysis to inform council's decision on whether to move forward with compliance timeline A or B, staff has been meeting with Western Disposal and A-1 Organics to understand the composting process at each facility as well as future cost projections for the three compost processing sites.

#### *A-1 Organics/EDF Heartland Compost Digester and BioGas Facility*

**Attachment D** includes a letter from A-1 Organics explaining its Heartland BioGas in-vessel compost facility. Located in LaSalle, Colorado, this facility is scheduled to be fully operational this month. Developed as a joint venture between A-1 Organics, the largest and longest-running composting company in Colorado and Électricité de France (EDF), the facility is able to accept a wide range of commercial compostable food waste (but not woody yard waste) and sort out a wide range of both recyclables and trash that may accidentally be mixed in with the commercial compostable materials. Once the material is sorted, the food waste is processed by being composted in a vessel to produce a peat moss substitute and natural gas. The Heartland facility has a 20-year contract to sell the natural gas to the Sacramento Municipal Utility District in California.

#### *Western Disposal Composting Site*

Located in Boulder along 63<sup>rd</sup> Street, this facility currently accepts all the material from the residential curbside composting program in Boulder as well as compostable food waste from Western Disposal's commercial customers that subscribe to compost collection services. As is reflected in the table above, the current gate fee at Western's compost site is \$67.55/ton for source separated food waste. **Attachment E** includes a letter from Western Disposal description of the components of this cost to deliver materials to Western. Western has conducted analyses that indicate that more compostable materials coming in to its compost site could cause the gate fees to increase to approximately \$77/ton as more materials come into the composting site in the future. Discussions with Western Disposal have indicated the following general breakdown of these gate fees:

Compost site operations:	75%
Route administration & capital overhead:	4%
Sales, customer service and marketing of end product:	4%
IT department:	3%
General Overhead (legal, audit, Mgmt, etc.):	14%

*A-1 Organics’ Stapleton transfer station*

A-1 Organics currently operates a transfer station in Denver. The material is currently transferred to a compost site in Keenesburg, CO. Once the Heartland site opens, all commercial food waste will be brought there from the Denver transfer site and all woody yard waste will continue to be processed in Keenesburg. Gate fees at the Stapleton transfer station are expected to increase from the current rate of \$26.50 to approximately \$30 or \$35/ton in the future.

*Future facility options*

The City of Louisville has been investigating the possibility of developing a new compost or transfer site at its municipal public works yards. If this is developed in coming years, it could present a cost-effective alternative to the existing compost facilities.

In addition, the Erie landfill has indicated it is willing to provide a transfer site for compostable materials heading to the Heartland BioGas facility. The landfill operators estimate a \$50/ton gate fee to transfer food waste to the Heartland site.

Staff Recommendation

As is stated above, staff is recommending compliance Schedule A for ease of implementation, equity and to minimize confusion in the community.

In order to keep potential costs down to Boulder businesses, staff also recommends entering into a one- to three-year contract with Western Disposal to transfer commercial compostables to the Heartland BioGas facility. This option would provide Boulder businesses flexibility for higher levels of contamination in the compostable materials as everyone gets used to properly sorting their waste as we ramp up compliance with the new regulations. A contract would allow all haulers to use a local drop off center minimizing the GHG emissions associated with individual rear load vehicles driving materials to Erie or LaSalle directly; it would set an equitable gate fee for all haulers; and it would control the gate fee portion of the hauler’s collection costs, thus offering a lowest cost option for businesses who are adding compost collection. The one- to three-year contract term would allow for staff to pursue alternative transfer sites and lower cost compost facilities in the medium to long-term.

**iv. Post-compliance period**

In order to track compliance with the new requirements and exemptions issued, an internal tracking system will be developed in 2015. There is not an existing trigger or business process with the city that affects all businesses once they receive their business license, so compliance will need to be enforced through other mechanisms and will likely

be a combination of proactive enforcement and complaint-based processes. Code enforcement personnel can check for adequate collection systems outside of properties as well as any egregious contamination issues. Staff from the city’s environmental team and community partners can collect information about bins inside businesses, proper signage and education. Taken together, a cooperative compliance process may be developed to implement and enforce this regulation. This is the common enforcement approach taken by peer cities with similar ordinances. Once the implementation period is over, trash tax incentive funds can be transitioned to cover exemption processing and enforcement costs.

An internal tracking system will also create a workflow for providing appropriate education and assistance services to businesses and multifamily housing complexes that need help complying with the requirements.

**BUDGET**

The 2015 proposed budget for implementation of this ordinance is as follows:

Personnel	\$164,000
Interns and volunteers	\$12,000
Ordinance outreach and compliance tracking system	\$50,000
Business and MFU Rebates	\$200,000
“Toolkits” for businesses and MFUs	\$90,000
PACE Zero Waste Advisors	\$107,000
MFU advising program	\$70,000
Recycling/composting collection containers for city facilities and public places	\$45,000
<b>TOTAL</b>	<b>\$738,000</b>

**NEXT STEPS:**

Once this draft ordinance is posted for publishing by title only, staff will return to council with a second reading of the ordinance language; a public hearing will be held; and council can provide direction for its desired compliance schedule to be included in the City Manager Rules. Staff will return to council with a final Zero Waste Strategic Plan and associated Action Plan in the fall of 2015.

**ATTACHMENTS**

- A: [Draft Ordinance Language](#)
- B: [City Manager’s Rule outline](#)
- C: [Compliance schedule options A and B](#)
- D: [Feb. 5, 2015 letter from A-1 Organics](#)
- E: [April 27, 2015 letter from Western Disposal](#)

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE AMENDING SECTIONS 6-3-2, "DEFINITIONS," 6-3-3, "ACCUMULATION OF TRASH, RECYCLABLES, AND COMPOSTABLES PROHIBITED," 6-3-9, "SPECIAL TRASH SERVICE REQUIREMENTS ON CERTAIN RESIDENTIAL RENTAL PROPERTIES AT CERTAIN TIMES," AND 6-12-6, "DISPOSITION OF RECYCLABLE OR COMPOSTABLE MATERIALS," B.R.C. 1981, AND ADDING NEW SECTIONS 6-3-13, PROPERTY OWNER REQUIREMENTS FOR RECYCLABLES AND COMPOSTABLES COLLECTION," 6-3-14, "BUSINESS OWNER REQUIREMENTS FOR RECYCLABLES AND COMPOSTABLES COLLECTION," 6-3-15, SPECIAL EVENTS REQUIREMENTS FOR RECYCLABLES AND COMPOSTABLES COLLECTIONS," 6-3-16, "APPLICABILITY," 6-3-17, "EXEMPTIONS," 6-3-18, "VIOLATIONS," B.R.C. 1981, AND SETTING FORTH RELATED DETAILS.

WHEREAS, THE CITY COUNCIL OF THE CITY OF BOULDER, COLORADO, FINDS AND RECITES THE FOLLOWING:

A. The city, through its policies, programs, and laws, supports efforts to reduce the amount of waste that must be disposed of in landfills and pursues "zero waste" as a long-term goal by emphasizing waste prevention efforts;

B. The City of Boulder has been managing recycling and composting programs since 1981 when the Trash Tax, Chapter 3-10, B.R.C. 1981, was first instituted;

C. The City has found the most effective way to ensure maximum recovery of recyclable and compostable materials from trash is to require they be separated from trash;

D. City Council encourages businesses that prepare, serve or sell food to investigate donating edible food waste prior to composting it;

1 E. No entity currently exists in Boulder County that will accept mixed trash and  
2 separate it into recyclable and compostable materials offsite. Such post-collection processing of  
3 mixed trash and recyclable materials is not an environmentally effective or efficient method of  
4 managing trash;

5 F. The Boulder County Recycling Center is a publicly owned facility that can bolster  
6 the City's goals of increasing both the amount of recyclables being processed and the efficiency  
7 of implementing the City's Zero Waste Strategic and Action plans;

8 G. Therefore, the purpose of this Ordinance is to ensure every person within the City  
9 of Boulder is able to separate recyclables and compostables from trash and that the materials  
10 designated by the City Manager to be recyclable and compostable are recycled and composted  
11 properly.  
12

13 BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BOULDER,  
14 COLORADO:

15 Section 1. 6-3-2, B.R.C. 1981, is amended to read:

16 **6-3-2. - Definitions.**

17 The definitions in Chapter 1-2, "Definitions," B.R.C. 1981, shall apply to this chapter,  
18 including, without limitation, the definitions of compostables, hauler, recyclable materials, trash,  
19 trash container, visible to the public, and wildlife-resistant container.

20 The following terms used in this chapter have the following meanings unless the context  
21 clearly indicates otherwise:

22 *Bear-resistant container* shall mean a container that meets the requirements for such a  
23 container established by the city manager in a rule adopted pursuant to Section 6-3-11, "City  
24 Manager Authorized to Issue Rules," B.R.C. 1981.

25 *Bear-resistant dumpster* shall mean a dumpster that meets the requirements for such a  
26 container established by the city manager in a rule adopted pursuant to Section 6-3-11, "City  
27 Manager Authorized to Issue Rules," B.R.C. 1981.

1 *Bear-resistant enclosure* shall mean a fully enclosed structure that meets the  
2 requirements for such a container established by the city manager in a rule adopted pursuant to  
3 Section 6-3-11, "City Manager Authorized to Issue Rules," B.R.C. 1981.

4 *Business* shall have the meaning set forth in Chapter 1-2, "Definitions," B.R.C. 1981, and  
5 as used in this section shall also include, without limitation, educational institutions, and  
6 charitable or nonprofit organizations.

7 *Owner* shall have the meaning set forth in Chapter 1-2, "Definitions," B.R.C. 1981, and  
8 as used in this section, shall include a business operator or business manager. With respect to  
9 requirements relating to the provision of recyclable and compostable materials collection for a  
10 condominium or cooperatively owned development, "owner shall include the owners'  
11 association or its equivalent.

12 *Person* shall have the meaning set forth in Chapter 1-2, "Definitions," B.R.C. 1981, and  
13 shall also include, without limitation, owner of any property or vacant land; occupant, owner,  
14 operator, or manager of any single-unit dwelling, multi-unit dwelling, mobile home, mobile  
15 home park, private club, or other similar property; or owner, operator, manager, or employee of  
16 any business or business property.

17 *Property Manager* shall mean any person who is an owner's representative, has charge  
18 of, or controls any property of an owner appointed to manage on-site property operations  
19 including trash collection services for the property.

20 *Refuse attractant* shall mean any trash or other substance which could reasonably be  
21 expected to attract wildlife or does attract wildlife, including, but not limited to, soiled diapers,  
22 sanitary pads, food products, pet food, feed, kitchen organic waste, food, food packaging,  
23 toothpaste, deodorant, cosmetics, spices, seasonings, or grease. Attractants do not include  
24 recyclable materials properly enclosed in a recycling container, or materials that do not meet the  
25 definition of trash in Section 1-2-1, "Definitions," B.R.C. 1981, and is fruit associated with a  
fruit tree or bush, produce associated with a garden, or a bird feeder.

*Self-haul* when used in reference to trash, recyclable and/or compostable materials  
generated by a business or person, shall mean the collection and transportation of such materials  
from a property where an owner, employee or agent of the property or business hauls the  
material rather than a hauler or to perform this function

*Venue facility* means any structure used for temporary events.

Section 2. 6-3-3(b), B.R.C. 1981, is amended to read:

**6-3-3. - Accumulation of Trash, Recyclables, and Compostables Prohibited.**

...

1 (b) No owner of any property ~~containing one or more rental dwelling units~~ shall fail to  
 2 maintain in effect a current and valid contract with ~~a one or more haulers~~ providing for  
 3 the removal of accumulated trash, recyclables and compostables from the property, which  
 4 contract shall provide for sufficient trash, recyclables and compostable materials hauling  
 5 to accommodate the regular accumulation of trash, recyclables and compostables from  
 6 the property no less frequently than on a biweekly basis.

5 ...

6 Section 3. 6-3-9(c), B.R.C. 1981, is amended to read:

7 **6-3-9. - Special Trash Service Requirements on Certain Residential Rental Properties at**  
 8 **Certain Times.**

- 9 (c) Within the special trash service zone and during a designated period, no owner of  
 10 property required to be licensed by Section 10-3-2, "Rental License Required Before  
 11 Occupancy and License Exemptions," B.R.C. 1981, shall fail to maintain in effect a  
 12 current and valid contract with a commercial trash hauler providing for the removal of  
 13 accumulated trash from the property, which contract provides for trash hauling:  
 14 (1) The hauler will check the regular trash containers for the property every day,  
 15 excluding Sundays and holidays.  
 16 ~~(1)(2)~~ (2) The recyclables hauler will check the regular recycling containers for the property  
 17 at least two times per week  
 18 ~~(2)(3)~~ (3) Any trash container which is full Monday through Friday will be emptied by the  
 19 hauler. On Saturdays, containers will be emptied if more than half full.  
 20 ~~(4)~~ (4) Any trash which is on the ground or otherwise near the container is picked up by the  
 21 hauler.  
 22 ~~(3)(5)~~ (5) Any recycling container which is more than half full when checked will be  
 23 emptied by the recyclables hauler.

18 Section 4. Chapter 6-3, "Trash, Recyclables, and Compostables," B.R.C. 1981, is  
 19 amended by the addition of a new section to read:

20 **6-3-13. - Property Owner Requirements for Recyclables and Compostables Collection.**

- 21 (a) For all services that meet the requirements of this section, the property owner or property  
 22 manager must establish on-site collection areas for recyclable and compostable materials  
 23 that are convenient to occupants and tenants. The recycling and compost collection  
 24 containers shall be placed in a location or locations within reasonable and convenient  
 25 proximity to all buildings and other uses on site and be at least as convenient to occupants  
and tenants as trash containers.

1 (b) When a property owner or property manager provides janitorial services to its tenants,  
2 employees or occupants, the contract for janitorial services shall include recyclables and  
3 compostables collection service that meets the requirements of this section.

4 (c) At least once per year, the property owner or property manager shall conduct training and  
5 distribute to all tenants information about how to use the on-site system established for  
6 collection of recyclables and compostables pursuant to this section. Property owners and  
7 managers shall provide new tenants with this information within 30 days of tenant move-  
8 in and no later than the thirtieth day after a substantive change in the recycling or  
9 composting location or service offered at the property.

10 (d) Property owners or managers must maintain and make available upon request, to the city  
11 manager for inspection and copying during normal business hours, any contracts and  
12 invoices for collection and disposition of recyclable and/or compostable materials for a  
13 period covering the most recent three years.

14 Section 5. Chapter 6-3, "Trash, Recyclables, and Compostables," B.R.C. 1981, is  
15 amended by the addition of a new section to read:

16 **6-3-14. - Business Owner Requirements for Recyclables and Compostables Collection.**

17 (a) All business owners must separate recyclable and compostable material from the trash  
18 and wherever business owners provide trash containers to employees or customers, they  
19 must also provide recyclables and compostables containers for employees and customers'  
20 use. Containers must be at least as conveniently located as trash and be of adequate size  
21 and number to prevent recyclables and compostables from being mixed with trash.

22 (b) At least once per year, business owners must conduct training that instructs all employees  
23 how to use the containers established for collection of recyclables and compostables  
24 pursuant to this section. Business owners shall provide new employees with this  
25 information within 30 days of when the employee begins work and no later than the  
thirtieth day after a substantive change in the recycling or composting service offered at  
the business.

(c) All business owners must provide Spanish and English or picture-only signs at each  
recyclables and compostables container, clearly indicating the appropriate materials to be  
placed inside the container in accordance with rules issued by the city manager.

(d) Business owners or managers must maintain and make available upon request, to the city  
manager for inspection and copying during normal business hours, any contracts and

1 invoices for collection and disposition of recyclable and/or compostable materials for a  
2 period covering the most recent three years.

3  
4 Section 6. Chapter 6-3, “Trash, Recyclables, and Compostables,” B.R.C. 1981, is  
5 amended by the addition of a new section to read:

6 **6-3-15. - Special Events Requirements for Recyclables and Compostables Collection.**

7 All special events and temporary events at a venue facility in the City of Boulder must  
8 provide recyclables and compostables collection in compliance with the city’s Special Event  
9 Permit requirements.

10 Section 7. Chapter 6-3, “Trash, Recyclables, and Compostables,” B.R.C. 1981, is  
11 amended by the addition of a new section to read:

12  
13 **6-3-16. – Applicability.**

14 (a) The requirements of section 6-3-13, “Property Owner Requirements for Recyclables and  
15 Compostables Collection” shall apply to all property owners within the City of Boulder  
beginning one year from the date this Ordinance is adopted by city council.

16 (b) The requirements of section 6-3-14, “Business Owner Requirements for Recyclables and  
17 Compostables Collection,” shall apply to all businesses existing within the City of  
18 Boulder by the date established in a rule adopted by the city manager in accordance with  
Chapter 1-4, “Rulemaking,” B.R.C. 1981.

19 (c) The requirements of section 6-3-15, “Special Events Requirements for Recyclables and  
20 Compostables Collection” shall apply to all special events and temporary events at venue  
facilities beginning on January 1, 2016.

21  
22 Section 8. Chapter 6-3, “Trash, Recyclables, and Compostables,” B.R.C. 1981, is  
23 amended by the addition of a new section to read:

1 **6-3-17. - Exemptions.**

2 (a) Applications for exemptions from complying with the requirements of sections 6-3-13,  
3 “Property Owner Requirements for Recyclables and Compostables Collection,” or 6-3-  
4 14, “Business Owner Requirements, must be made by the owner of the property or  
5 business. Any exemption shall be for a period of one year. Property or business owners  
6 may re-apply for one additional exemption at the expiration of the initial exemption  
7 period. City staff will review exemption applications and work with the applicants to  
8 bring the property owner or business owner into compliance. Applications must be  
9 received within sixty days of the start of the compliance period established in section 6-3-  
10 17, “Applicability.” The city manager may issue additional rules that govern the  
11 conditions under which an application for an exemption may be submitted and granted. In  
12 order to be granted an exemption, applicants must demonstrate they have considered all  
13 reasonable options that would bring their business or property into compliance and must  
14 explain to the satisfaction of the city manager why none of these options are viable. The  
15 city manager shall determine whether an exemption will be granted. Applications for an  
16 exemption may require submission of an application processing fee.

17 (b) The following persons are exempt from the provisions of this chapter:

- 18 (1) The owner of a business that occupies less than fifty percent of the floor area of a  
19 residence.
- 20 (2) A business or property owner or manager that can demonstrate extreme economic  
21 hardship as defined by the city manager.
- 22 (3) Businesses that generate a de minimis volume of trash, recyclables or compostables  
23 as defined by the city manager.
- 24 (4) Any business owner or manager who can demonstrate that compliance would require  
25 the business to violate other municipal codes or regulations.
- (5) A businesses or property owner that hauls its own trash, recyclables or compostables  
as certified by a self-hauling certification, the contents and format of which is defined  
by the city manager, may be granted an exemption from section 6-3-3(b).
- (6) A property or business owner that composts on-site in compliance with all applicable  
laws pertaining to Title 6, Chapter 3, Section 6-3-6, “Compost piles permitted if not a  
nuisance.”
- (7) Property owners that share collection service as certified by a shared service  
certification, the contents and format of which is defined by the city manager, may be  
granted an exemption from section 6-3-3(b).
- (8) A business or property owner that can demonstrate to the satisfaction of the city  
manager that the property is sufficiently space constrained so as to preclude  
compliance with the provisions of these sections.
- (9) Innovation exemption - business or property owner may apply for an exemption if  
they are reusing or repurposing a significant portion of their waste stream.

1            Section 9. Chapter 6-3, "Trash, Recyclables, and Compostables," B.R.C. 1981, is  
2 amended by the addition of a new section to read:

3  
4 **6-3-18. - Violations.**

5            If the city manager finds a violation of any provision of this chapter, the manager, after  
6 notice and an opportunity for hearing under the procedures prescribed by Chapter 1-3, "Quasi-  
7 Judicial Hearings," B.R.C. 1981, may impose a civil penalty according to the following  
8 schedule:

- 9 (a) For the first violation of the provision, \$500;  
10 (b) For the second violation of the same provision, \$1,000;  
11 (c) For the third and subsequent violations of the same provision, \$2,000; and  
12 (d) The city manager's authority under this section is in addition to any other authority the  
13 manager has to enforce this chapter, and election of one remedy by the manager shall  
14 not preclude resorting to any other remedy as well.  
15 (e) Violations of this chapter are also punishable as provided in Section 5-2-4, "General  
16 Penalties," B.R.C. 1981.

17            Section 10. 6-12-6, B.R.C. 1981, is amended to read:

18 **6-12-6. - Disposition of Recyclable or Compostable Materials.**

- 19 (a) No person other than the person placing the recyclables or compostables for collection or  
20 that person's designated hauler shall take physical possession of any recyclables or  
21 compostables separated from trash, set out in the vicinity of the curb or alleys, and  
22 plainly marked for recyclables or compostables collection.  
23 (b) Each property owner, property manager, residential customer, commercial customer, or  
24 multifamily customer shall relinquish recyclable materials to a hauler only on the  
25 condition that the hauler deliver the recyclable materials only to a recyclables processing  
center as set forth in subparagraph (c) below.  
(c) In the absence of an express written designation to the contrary initiated by the customer,  
it shall be presumed that each property owner, property manager, residential customer,  
commercial customer or multifamily customer has designated recyclable materials to be  
hailed to the recyclables processing center owned by Boulder County or its successor in  
interest. However, each customer may designate another recyclables processing center by  
notifying the hauler of that designation in writing. This written notification must be given

1 at the initiative of the customer, not the hauler, and may not be written on a form  
2 furnished by the hauler.

3 (d) Haulers shall take all compostable materials collected to a state permitted compost  
4 facility that can certify that the material is processed into a compost product. Haulers  
5 shall maintain receipts and records for a period of five years. Upon request by any  
6 customer or the city manager, haulers shall produce receipts from the facility utilized.

7 Section 11. This ordinance is necessary to protect the public health, safety, and welfare  
8 of the residents of the city, and covers matters of local concern.

9 Section 12. The city council deems it appropriate that this ordinance be published by title  
10 only and orders that copies of this ordinance be made available in the office of the city clerk for  
11 public inspection and acquisition.

12 INTRODUCED, READ ON FIRST READING, AND ORDERED PUBLISHED BY  
13 TITLE ONLY this 5<sup>th</sup> day of May, 2015.

14  
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16 \_\_\_\_\_  
Mayor

17 Attest:

18 \_\_\_\_\_  
19 City Clerk  
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1 READ ON SECOND READING, PASSED, ADOPTED, AND ORDERED  
2 PUBLISHED BY TITLE ONLY this \_\_\_\_\_ day of \_\_\_\_\_, 2015.

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Mayor

Attest:

\_\_\_\_\_  
City Clerk

**Universal Zero Waste Ordinance  
City Manager's Rules  
Outline**

- I. Compliance Schedule**
- II. Definition of Recyclable Materials**
- III. Definition of Compostable Materials**
- IV. Exemption Application Process and fees, if applicable**
- V. Violation Process**
  - a. Three written warnings, delivered in person will be issued prior to any fines being assessed.
- VI. Reporting Requirements**
  - a. May require a Zero Waste Report in an electronic format provided by the City.
- VII. Guidelines for signage**
- VIII. Definition of Extreme Economic Hardship**
- IX. Self-Hauling Certification**
  - Shared Service Certification**

**UNIVERSAL ZERO WASTE ORDINANCE  
COMPLIANCE SCHEDULE OPTIONS**

**Implementation Schedule Option A:**

**Applicability:**

The **Property Owner Requirements** apply to all property owners within the City of Boulder beginning <one year from ordinance adoption>. The **Business Owner Requirements for Recyclables and Compostables Collection** apply to all businesses within the City of Boulder <fifteen months from ordinance adoption>. The **Special Events Requirements** apply to all special events and temporary events at venue facilities beginning on January 1, 2016. All new businesses and property owners must comply with these sections within 30 days of operating within the City of Boulder.

**Implementation Schedule Option B:**

**Applicability:**

The **Property Owner Requirements** apply to all property owners within the City of Boulder beginning <one year from ordinance adoption>. The **Special Events Requirements** apply to all special events and temporary events at venue facilities beginning on January 1, 2016. All new businesses and property owners must comply with these sections within 30 days of operating within the City of Boulder.

With respect to the requirements included in the section entitled, **Business Owner Requirements for Recyclables and Compostables Collection**, the following compliance schedule applies:

**Business Owner Requirements for Recyclables Collection**

<Within fifteen months of ordinance adoption>, all business owners must separate recyclable material from the trash and wherever business owners provide trash containers to employees or customers, they must also provide recyclables containers for employees and customers' use. Containers must be at least as conveniently located as trash and be of adequate size and number to prevent recyclables from being mixed with trash.

At least once per year, business owners must conduct training for all employees about how to use the containers established for collection of recyclables pursuant to this section. Business owners shall provide new employees with this information within 30 days of when the employee begins work and no later than the thirtieth day after a substantive change in the recycling service offered at the business.

All business owners must provide Spanish and English or picture-only signs at each recyclables container, clearly indicating the appropriate materials to be placed inside the container in accordance with rules issued by the City Manager.

**Business Owner Requirements for Compostables Collection**

<Within fifteen months of ordinance adoption>, all businesses that provide landscaping services or generate significant vegetative waste on a regular basis must separate compostable material from the trash.

<Within fifteen months of ordinance adoption>, all owners of businesses that prepare, serve or sell food must separate compostable material from the trash and if these businesses provide trash containers for employees' use, business owners must also provide compostables containers for employees' use. Owners of businesses that prepare, serve or sell food and that provide trash containers for customers' use, must also provide compostable materials containers for customers' use inside the business and in outside eating areas. Containers must be at least as conveniently located as trash and be of adequate size and number to prevent compostables from being mixed with the trash.

At least once per year, owners of businesses that prepare, serve or sell food must conduct training for all employees about how to use the containers established for collection of compostables pursuant to this section. Business owners shall provide new employees with this information within 30 days of when the employee begins work and no later than the thirtieth day after a substantive change in the composting service offered at the business.

All owners of businesses that prepare, serve or sell food must provide Spanish and English or picture-only signs at each compostables container, clearly indicating the appropriate materials to be placed inside the container in accordance with rules issued by the City Manager.

No sooner than <3 years after ordinance adoption>, the City Manager may issue rules to require all business owners to separate compostable materials from the trash and wherever business owners provide trash containers to employees or customers to also provide compostables containers for employees' and customers' use. Containers must be at least as conveniently located as trash and be of adequate size and number to prevent compostables from being mixed with trash. Said rules will also contain requirements for training and proper signage for the compostables collection service.



*Colorado's Leader in Organic Recycling*

February 5, 2015

Hillary Collins  
Kara Mertz  
Boulder, Colorado.

Re: Foodwaste Transfer Site – Renewable Natural Gas Cost Estimates

Dear Hillary and Kara,

Over the past few weeks, there has been much discussion around the foodwaste transfer option that I have been speaking about for several months. During these past months we have also been able to narrow down the nature of our operations and cost options related to foodwaste SSO (Source Separated Organics) as well as composting of foodwaste bearing greenwaste streams. I have also been asked my opinion related to true sustainability and viability aspects of composting (that of course produces compost) versus anaerobic digestion that produces renewable natural gas (RNG) and digested solids (DS). I know I have connected with the two of you during this time as well as others.

In an effort to provide clarity to the estimated costs, benefits, risks, and rewards associated with foodwaste SSO recycling and what my opinions are I felt it would be beneficial to write you as well as others addressing these items. You may want to sit back...this could be a rather lengthy letter.

My strong opinion is that the most beneficial, viable, and low risk option for SSO is via Anaerobic Digestion (AD) to produce renewable energy, be that through the creation of RNG and its option of CNG, or electricity. The challenges, risks to site operations, potential environmental impacts, and back end options (marketing of compost) with composting the SSO are considerable and are growing. I speak from 25 years in this industry and from the perspective of one of the original pioneers in foodwaste composting operations in the country.

Composting is a viable option of course for SSO, but it is most viable when dealing with lower volumes of SSO combined with little time pressure to deal with them. As the volumes are growing, and as the time available to deal with them is decreasing, the challenges and risks have responded in their own way. Even without the SSO stream, composting of the mixed greenwaste and foodwaste stream (residential) will need to expand as more and more of that stream presents itself.

The challenges and risks associated with debris management, removal of non-compostable materials as well as compostable materials, odor issues, dust issues, fire risk management, neighbor relations, escalating concerns over air emissions (be they viable or not...another debatable item), increasing regulatory burden and cost, escalating costs of equipment and labor needed to compost these materials, marketability of finished compost produced from



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SSO, siting challenges and costs, and finally simply being able to collect enough revenue to cover the related costs and produce a profit have become monumental.

We also see considerable pressure on the bulking agent (greenwaste stream) that is necessary to compost SSO. These pressures will result in increased costs to obtain the bulking agent needed to compost the SSO and once again put pressure on tipping fees. The AD option does not require bulking agents, it reduces the volumes of total materials hauled and handled.

Additionally we feel a significant responsibility to our front end clients that have invested in compostable packaging and containers for us to actually compost these materials and limit the risk that they end up in a landfill. AD provides that opportunity, composting diminishes it due to cross contamination, composting in windy dry conditions, having to expose these materials to the outside versus the inside of a windrow, and on and off site litter collection.

Composting of foodwaste is receiving ever increasing publicity and pressure to expand and grow on a national level. While we desire the same goals of diversion and zero waste, we also have seen the major negative impact of composting SSO on the composting entities and industry itself. Many operations across the country have been forced to close or have incurred significant penalties. Especially those that receive large volumes of SSO on tight schedules. Where composting of large volumes of foodwaste has been successful it has required major investment in very expensive systems and processes and as such requires significant increases in tipping fees for the SSO. Those entities only exist in areas with high landfill tipping fees, and they require materials be transported a large number of miles...sometimes in the hundreds of miles one way.

Those are some of the reasons I feel the best sustainability option for SSO is AD. It provides a much more controlled environment, reduces volumes of materials that have to be handled. Simplifies the material management process, still provides compost out the back side of the plant after removing the VOC's and producing RNG and can not only provide an option to reduce the tipping fees for SSO versus composting, but it can also provide stability in pricing through long term RNG offtake and product procurement agreements.

DPS – in the discussion below related to costs you will see reference to the “DPS”. This is an acronym for Digester Processing System. This digester project is designed to succeed. In order help insure its success, A1 has taken on the challenge of constructing an estimated \$3,000,000 DPS system to be located on the digester site itself.

The DPS is being designed and built to insure that we can remove packaging from incoming substrates (including SSO), blend materials, hydrate them properly for the digester, and deliver them to the digester. It will include multiple storage and processing options, redundant systems to remove the packaging, compostable containers, and yes non-compostable items that WILL be present. These as well as other recyclable items such as cans, jugs, cardboard, etc. can be segregated so that they can find their final recycling or composting home.

The systems we have invested in will also significantly increase the diversion and recycling opportunities for streams that without this option could not even be composted and would have to be landfilled (out of date packaged products, liquids in jugs, chips in bags, catsup packets, spoiled meat in packages, etc.)

The transfer site system is an important part to the success as well. To hold down our costs at the DPS, we are requiring the transfer site itself to be responsible for pre-screening incoming SSO. It will be responsible to detect reject loads, separate them, and landfill them. We are asking the transfer site to also remove larger identifiable non-



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compostable items in the smaller loads they receive prior to loading on the transfer trailer destined for the DPS. The transfer site cannot be a “low budget” operation. It will need to maintain good housekeeping, efficient material management, provide necessary containment and loading options, plus the normal administration options, overhead requirements etc.

OK, having said all that, I am sure additional questions may be out there and I will do my best to respond promptly to them. Meanwhile, below is a summary of costs and conditions for the options identified. They are to be presented as estimated at this time until we are sure of the demands and conditions that may be presented in the coming weeks from the Boulder County area.

One other point of clarification. As all are aware, for years we provided a transfer option at our Stapleton Site where we had installed our DODA system. That site was scheduled for redevelopment and we have been in the process of vacating it for several months now. The replacement site has been located and after many months of developmental planning and the approval process we are now moving dirt on it. It will be located near the intersection of I76 and 88<sup>th</sup> in Commerce City. The major change with the new site will be that we cannot receive and transfer SSO foodwaste at it. It is not designed as a transfer site, it will be a greenwaste and wood waste recycling site. The DODA will be located at the DPS. We cannot stockpile and ship mixed greenwaste and SSO foodwaste from that site. That is another reason why locating local transfer sites in Boulder is the right move.

Costs and conditions associated with the SSO transfer option, as well as some costs associated with other woody and or mixed stream materials:

Option 1: Commercial foodwaste SSO Transfer. SSO (i.e. restaurants, grocery stores, food production facilities, etc.) may contain compostable items such as BPI or ASTM 6400 certified packaging, paper towels, etc. This is a range estimate until final inputs are considered. This cost loaded on our trailer would be **\$30-\$35 per TON**. This represents ONLY the cost of transportation and processing via DPS and digestion. It does not include the cost of operations at the transfer site.

The transfer site would receive, inspect, reject and dispose as needed, and remove light contaminants before loading on A1 transfer trailer. The transfer site would be responsible for proper permitting, compliant operations, and disposal costs.

A1 would provide special transfer trailers (24-25 ton material capacity) for switch-out process. A1 would switch-out trailers and transport to the DPS system at Heartland Biogas Digester

Estimated minimum volume is 1 load per day, 5-6 days per week.

This material can also contain containerized or packaged products like out of date plastic jugs of milk, cartons of cereal, yogurt and fruit cups, wrapped cheese, canned products, potato chips in boxes, etc. NO GLASS OR CERAMICS. The process would require transfer site assistance in separating highly containerized products from standard SSO to allow for separation at the DPS of compostables, which will be composted at one of our compost sites separately. If loads are co-mingled with standard SSO all packaging removed will be landfilled. Organics will be digested to create RNG (Renewable Natural Gas) and digested solids for beneficial reuse.



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Option 2: Direct Delivery to DPS – SSO or packaged product delivered directly to DPS located on the HBG Digester site at which is at Weld County Road 49 and 40. **\$30-\$32 per TON FOB DPS site.**

This material will require pre-screening at the DPS site by A1 and the subsequent culling and disposal of rejected materials which will need to be transported to a landfill. This option will also entail handling of numerous smaller loads and reduced efficiency at the DPS.

I hope this information is helpful. There is still much more I can say that I have not included in this letter. If you need me to do a Q&A with anyone please feel free to request that and to of course call me as needed. In full disclosure I am copying Bryce Isaacson here as well. I will also provide these quotes to others who desire to consider the transfer site option. Our desire is to work with Boulder and Boulder County on options to efficiently and effectively pursue their zero waste goal.

Sincerely



Bob Yost  
Vice President, CTO

Cc: Bryce Isaacson, Western Disposal



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April 27, 2015

RE: Compost processing options for commercial compost service requirement

To Mayor Applebaum and City Council:

As the City of Boulder contemplates meeting the objectives of the Zero Waste Strategic Plan (ZWSP) with options including requiring commercial sector recycling and composting, Western Disposal wanted to provide Council with this memo to specifically address issues related to the processing of commercially collected organic material.

Western Disposal is an engaged partner with the City of Boulder, indeed the entire local area, in helping to achieve ambitious zero waste goals through numerous service offerings including organics collection and composting service. Western's compost processing operation, located on 14 acres in east Boulder, was originally built in 2003 to manage the increasing volume of yard waste from Boulder's organics spring cleanup and material from the City and County sponsored yard waste drop-off. It was expanded in 2008 to include food waste processing to serve as a critical underpinning to the City of Boulder's curbside organics collection policy initiative. Today, Western provides compost service to nearly 31,000 residential customers and more than 400 businesses and HOAs in the City and County, processing over 8,000 tons of yard and wood waste into mulch and producing over 20,000 cubic yards of compost. Through investment of private resources, we have kept the material local and paved the way for the County as a whole to increase diversion to levels that far exceed other Colorado communities.

Western would like to assist the City in meeting the goals in the ZWSP by offering cost effective solutions for businesses to comply with any composting collection requirement. In order to assist the City Council with the decision making process regarding this requirement, Western is offering two options for the handling of the organics collected from City of Boulder businesses at our compost facility. These two options contain both costs and environmental considerations that must be weighed by stakeholders to determine the best option. These options include fully composting all materials on our site or serving as a transfer facility for the materials and hauling them to the Heartland Biogas Facility and are discussed below.

*Option #1 - Compost On Site*

The first option is for Western Disposal to compost all the commercial organics from the new requirement. Western's compost facility is currently open to residential subscription haulers and we will open our facility to all commercial haulers if/when the City passes business composting requirements. The key benefits for this option are that these organics would be composted in the City of Boulder and it would require the fewest number of miles driven. This would not only reduce greenhouse gas emissions



associated with transportation, but would also promote a local solution for this material. However, this option will be more expensive for Western and other haulers due to the costs of composting the material. Western estimates that our tipping fee for organics would be \$77.00 per ton.

We recognize that this tipping fee is notably higher than that of A1 Organics composting site located in Keenesburg, CO. A1 Organics' tipping fee has recently been used as a comparison to Western's fee during recent meetings of the Boulder County Resource Conservation Advisory Board. We appreciate the opportunity to address this issue and illuminate the factors behind the differences of our relative fee structures and transportation costs:

1. Location: Western's convenient location comes at a cost. Our compost yard is sited on municipal, industrial land valued at approximately \$500,000 per acre as contrasted to agricultural Keenesburg with an average value of \$10,000 per acre. Our taxes are significantly higher, as is the carrying cost of the land. This cost difference must be accounted for in the pricing per ton of material Western processes.
2. Economies of Scale: Western processes approximately 17,000 to 20,000 cubic yards of compost per year. A1 Organics Keenesburg facility processes over 200,000 cubic yards of compost per year. With 10 times the volume, they spread operational and equipment costs over far greater volume output, keeping their processing cost per ton lower.
3. Capital Investment: As per the compost capacity analysis authored by Matthew Cotton of Integrated Waste Management Consulting, LLC, Western would need to expand our pad in order to handle the expected additional volume. In addition, we will need to make key investments including purchasing & installing a scale and upgrading/replacing equipment. We also anticipate adding an FTE to manage the additional volume.

#### *Option #2 - Transport to Heartland Biogas*

The second option involves Western serving as a transfer site for organics collected from commercial establishments within the City. All haulers would unload these organics at our compost yard. Rather than compost these materials on site, however, this material would be hauled to the Heartland Biogas facility located in Weld County, Colorado. At this site, this material would be placed in an anaerobic digestion system producing methane for use by the Sacramento Municipal Utility District as an alternative to coal. In addition, the composted material by-product which is a high-value peat-moss type material that would be sold as a soil amendment.

The tipping fee for this option at our yard is estimated at \$50 per ton, which is the same as proposed by the Front Range Landfill for a second transfer site. This is a less expensive option for haulers and ultimately for businesses, however as the material is shipped approximately 1 hour away, the transportation produces greenhouse gas emissions and the soil amendment materials would not be locally produced.

Western has long prided itself on being a true community partner with local governments. For almost 45 years, this partnership has involved assisting residents and businesses in complying with a variety of policy initiatives ranging from increased diversion to protection of urban wildlife. Western's capital

investment in our three-cart collection system helped to increase diversion by providing larger containers for recycling and paved the way for the change to single stream recycling and embedded compostable collection. Our capital investment in a composting facility allowed the City of Boulder, unincorporated Boulder County and the City of Louisville to increase their diversion rate by 20% or more and allowed residents to have compostables collection in 2009; years ahead of other communities in the State. And our capital investment in our retrofit designs for the bear-resistant cart and container regulations helped to bring a lower cost alternative to City residents and businesses.

Western is supportive of the City's new ZWSP and remains committed to working with the City to ensure any new policies seeking to increase diversion are successful. Thank you for the opportunity to provide this additional information regarding the processing of commercially collected organic material.

Sincerely,

A handwritten signature in black ink, appearing to read "Bryce Isaacson", with a long horizontal flourish extending to the right.

Bryce Isaacson  
Vice President of Sales and Marketing  
Western Disposal Services

## **Recommended Board Protocol for Responding to Emails from the Public**

Based on the way other city boards handle emails from the public, staff recommends the following protocol for Environmental Advisory Board (EAB) response to emails from the public.

If an email from the public is only sent to board members (instead of to both board members and staff), the Chair of the EAB will forward the email on to staff. When staff receives the email, the EAB Secretary will send an immediate response to the member of the public which reads:

“Thank you for your email to the Environmental Advisory Board. We appreciate your taking the time to communicate with us. We will consider your message and will send a response within the next three weeks.

If you have additional questions regarding a particular agenda item, please contact Juliet Bonnell, Board Secretary at [bonnellj@bouldercolorado.gov](mailto:bonnellj@bouldercolorado.gov)”

The Board Secretary will work with the Staff Liaison to draft an appropriate email response. Depending on the nature of the email and the appropriate response, the board may or may not be cc'ed on staff's follow-up email response.

**CITY OF BOULDER  
INFORMATION ITEM FOR:**

**ENVIRONMENTAL ADVISORY BOARD – May 6, 2015**  
**PLANNING BOARD – May 21, 2015**  
**TRANSPORTATION ADVISORY BOARD – May 11, 2015**  
**OPEN SPACE BOARD OF TRUSTEES – May 13, 2015**  
**WATER RESOURCES ADVISORY BOARD – May 18, 2015**  
**PARKS AND RECREATION ADVISORY BOARD – May 18, 2015**

**GREENWAYS ADVISORY COMMITTEE AGENDA ITEM**  
**MEETING DATE: May 26, 2015**

<p><b>SUBJECT:</b> 2016-2021 Greenways Capital Improvement Program</p>
<p><b>REQUESTING DEPARTMENT:</b> Annie Noble – Flood and Greenways Engineering Coordinator</p>
<p><b>PURPOSE:</b> The 2016-2021 Greenways Capital Improvement Program is being provided to board members as an information item. If you have any comments or concerns regarding the 2016-2021 Greenways Capital Improvement Program, please pass them along to your Greenways Advisory Committee representative. If you have questions on this material, please contact Annie Noble at 303-441-3242 or <a href="mailto:noblea@bouldercolorado.gov">noblea@bouldercolorado.gov</a></p>
<p><b>GREENWAYS ADVISORY COMMITTEE ACTION REQUESTED:</b> A recommendation from the Greenways Advisory Committee to the City’s Planning Board and City Council concerning the proposed Greenways Capital Improvement Program is requested.</p>

Attached is information concerning the proposed 2016-2021 Greenways Capital Improvement Program (CIP) for review and consideration. A recommendation by the Greenways Advisory Committee to the city’s Planning Board and Council will be requested at the May 26, 2015 GAC meeting.

- Attachment A: Greenways 2016-2021 Capital Improvement Program Overview
- Attachment B: Greenways 2016-2021 Capital Improvement Program Summary Spreadsheet
- Attachment C: Greenways Program CIP Map

## Greenways

### Program Overview

The City of Boulder Greenways System is comprised of a series of corridors along riparian areas including Boulder Creek and its 14 tributaries, which provide an opportunity to integrate multiple objectives, including habitat protection, water quality enhancement, storm drainage and floodplain management, alternative transportation routes for pedestrians and bicyclists, recreation and cultural resources.

The Greenways CIP follows an opportunistic approach, contributing funding toward projects that are being completed by other departments or private development in order to meet the various objectives of the Greenways Program. The Greenways CIP also looks to leverage funds with outside agencies in order to move projects forward that meet more than one objective of the Greenways Program, but may not be the highest priority when evaluating any one particular objective. Projects included in the Greenways CIP are typically called out in the Greenways Master Plan and are projects that Greenways staff can take the lead in coordinating.

### Funding Overview

The total 2016 Greenways capital budget is \$320,441, with \$105,000 in the operating budget. Greenways projects are funded from the Transportation Fund, Stormwater and Flood Management Utility Fund, and the Lottery Fund. Annual funding distribution for the Greenways Capital Program for 2016 is as follows:

Transportation	-	\$97,500
Flood Utility	-	\$97,500
Lottery Fund	-	\$125,441

Historically the Lottery contribution to the Greenways Program has been \$150,000 per year. As a result of a projected reduction of the city's allocation of Lottery funds, starting in 2015, the Lottery contribution to Greenways is expected to be reduced to \$125,441 (based on Greenways receiving 15% of the city's funding allocation, with a projection of total Lottery proceeds being \$836,275). Should the city's allocation of Lottery funds exceed the projected amount, a budget adjustment will be made to reflect the increase.

## Accomplishments and Highlights

### Projects to be Completed in 2015:

- The Goose Creek Restoration Project includes restoration improvements along Goose Creek between Foothills Highway and 55<sup>th</sup> Street. This project was completed in 2014. However, it was determined that reinforcement of the multi-use path was necessary after several small storm events last summer. This work will be completed this summer. This project is primarily being funded through a Section 206 Restoration grant through the U.S. Army Corps of Engineers. The city's 35% funding match is being met mostly through credits from city owned real estate.
- Flood mapping studies are expected to be completed in 2015 and submitted to FEMA for Boulder Slough, and Upper Goose and Twomile Canyon Creeks and Skunk, Kings Gulch and Bluebell Canyon Creeks.
- Flood mitigation major drainageway plans are anticipated to be completed by the end of 2015 for South Boulder Creek and Gregory Canyon Creek.
- Construction of the Wonderland Creek Foothills to Winding Trail Greenways Improvement Project is anticipated to begin in 2015 and is scheduled to be completed in 2017.
- The Urban Drainage and Flood Control District (UDFCD) also completes maintenance projects along the major drainageways. In 2015 this includes a request for sediment removal along Wonderland Creek from Foothills Parkway to the confluence with Goose Creek. Selective thinning of non-native vegetation is also planned and coordinated through the UDFCD for Bear Canyon Creek. These maintenance projects will help maintain conveyance capacity in these drainageways.

### Projects Expected for Completion in 2016:

- A CEAP for the Fourmile Canyon Creek stream reach upstream of Upland Avenue to west of Broadway is expected to be completed in 2016.
- Flood mitigation plans are anticipated to be completed in 2016 for Boulder Creek and Bear Canyon Creek.
- Stream bank restoration work, which is being funded by the Community Culture and Safety projects November 2014 tax increase is anticipated to be completed in 2016.

### Projects Started in 2016, but Not Completed:

- Fourmile Canyon Creek at 19<sup>th</sup> Street is in preliminary design but was put on hold following the September 2013 flood event. It is anticipated that the design of this

project will be completed in 2015 and the project will be bid in 2016 and completed in 2017.

#### Highlights of 2016 – 2021 Projects:

The focus of the 2016–2021 Greenways CIP is on flood mitigation, bicycle and pedestrian multi-use paths and underpasses, and habitat and water quality improvements along the Fourmile and Wonderland Creek corridors. In addition to the projects along Fourmile Canyon Creek and Wonderland Creek, possible habitat restoration projects during the next few years include:

- Confluence of Bear Creek and Boulder Creek at Foothills Community Hospital
- Dry Creek habitat improvements through Flatirons Golf Course
- Goose Creek, railroad to 47<sup>th</sup> Street tree plantings
- Fish Passage enhancement projects in association with Fishing is Fun grants
- South Boulder Creek minimum stream flow
- Removal of Russian Olive trees east of 75<sup>th</sup> Street along Boulder Creek

#### **Relationship to Guiding Principles**

##### CIP Guiding Principles:

Greenways projects address many of the CIP guiding principles. Greenways projects are identified in multiple master plans and meet the community sustainability goals. Most of the Greenways projects leverage outside or interdepartmental funding. Greenways habitat improvements seek to be sustainable and are intended to reduce the future maintenance required.

The Greenways CIP has been developed within the context of and is consistent with the Boulder Valley Comprehensive Plan (BVCP), the Transportation Master Plan (TMP), the major drainageway flood mitigation plans, the Comprehensive Flood and Stormwater Master Plan and the Greenways Master Plan. The Greenways Master Plan was updated in 2011 to reflect improvements that had been completed, and adopted changes that have been made in other master plans, city policies and ordinances that affect the Greenways Program since the last Master Plan update in 2001.

##### Prioritization:

Many of the Greenways projects shown in the CIP are being designed and constructed in

coordination with major flood or transportation improvements. The Greenways funding associated with these projects focuses on habitat restoration, water quality improvements and trail connections. In addition to leveraging funding with the Transportation and Flood Utilities budgets, funding for Greenways projects is also available through the Urban Drainage and Flood Control District and Federal Transportation funds.

#### Projects not in Master Plans:

It should be noted that the city experienced a major flood in September 2013 that resulted in extensive flooding along most of the city's major drainageways. Following the flood, additional funds have been allocated in the Flood Utility CIP to reflect an increased interest in pursuing flood mitigation efforts along the city's major drainageways. As a result of updated mapping and the September 2013 flood, flood mitigation plans were initiated for Gregory Creek, Bear Canyon Creek and Boulder Creek to identify economically feasible improvement projects. Flood mitigation plans will be initiated in 2016 for Upper Goose Creek and Twomile Canyon Creek, and Skunk, King's Gulch and Bluebell Creeks after completion of flood mapping updates on these drainageways. Results from these flood mitigation plans will inform future capital improvements. Continued evaluation of potential improvement may result in additional changes to the Flood Utility and Greenways CIP in upcoming years.

#### **New Projects**

The 2016–2021 CIP continues to focus on Fourmile Canyon and Wonderland Creeks. As stated above, flood mitigation plans are currently being developed for several of the drainageways as a result of either flood mapping updates or deficiencies identified during the September 2013 flood. These plans will identify potential economically feasible CIP projects which may provide opportunities for future Greenways improvements.

#### **Operation and Maintenance Impacts**

\$105,000 is budgeted each year for Greenways operations and maintenance. \$80,000 of the operating budget is dedicated to habitat maintenance. The Greenways habitat crew works closely with Parks and Open Space maintenance staff to provide on-going maintenance, as well as on collaborative projects as part of the operations budget. Major drainageway improvements are maintained by the flood maintenance staff and multi-use paths and underpasses are maintained by either Transportation or Parks maintenance, depending upon jurisdiction.

### **Deferred, Eliminated, or Changed Projects**

None

### **Unfunded Projects and Emerging Needs**

Since the Greenways Program is opportunistic, taking advantage of projects that are funded through other departments, there are no unfunded needs.

### **Board Action**

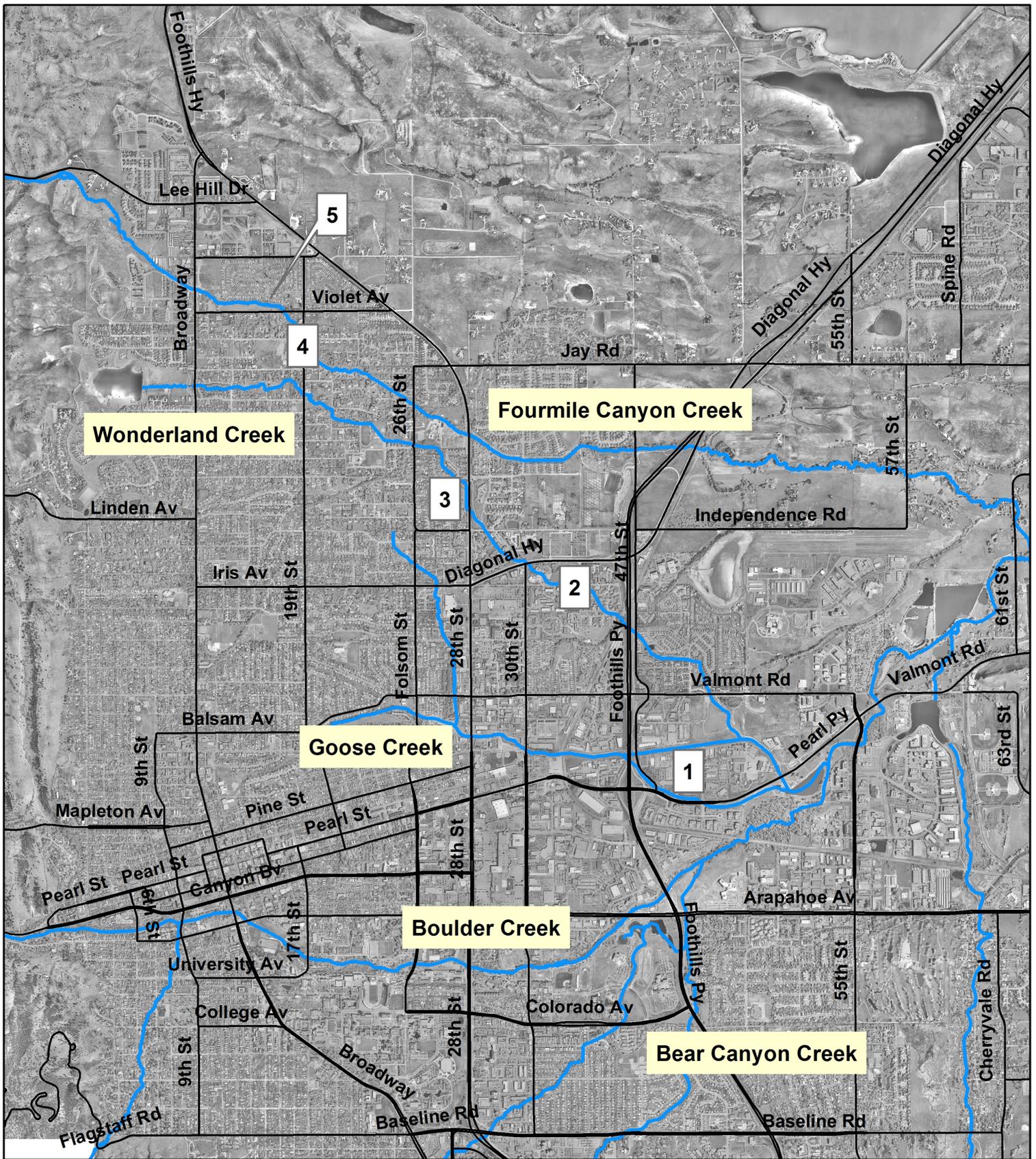
The Greenways Advisory Committee will meet on May 26, 2015 to make a recommendation on the 2016–2021 Greenways Program CIP to Planning Board and City Council.

**CITY OF BOULDER  
CAPITAL IMPROVEMENTS PROGRAM**

<b>GREENWAYS PROGRAM 2016-2021 SUMMARY SHEET with Carry Overs from 2014 to 2015</b>												
<b>CAPITAL IMPROVEMENTS PROGRAM</b>		<b>Total Greenways</b>	<b>Expended in Prior Years</b>	<b>2014 Carry Over</b>	<b>2015 Budget</b>	<b>2015 Budget + Carry Over</b>	<b>2016 Projected</b>	<b>2017 Projected</b>	<b>2018 Projected</b>	<b>2019 Projected</b>	<b>2020 Projected</b>	<b>2021 Projected</b>
1	Goose Creek Restoration	\$170,566	\$170,566	\$0	\$0	\$0						
2	Wonderland Foothills to 30th Street	\$391,716	\$42,689	\$349,027	\$0	\$349,027						
3	Wonderland 28th Street Underpass	\$565,441	\$0	\$295,000	\$270,441	\$565,441						
4	Fourmile 19th to 22nd	\$747,900	\$29,072	\$718,828	\$0	\$718,828						
5	Fourmile Upland to Violet	\$1,622,646	\$0	\$0	\$0	\$0	\$270,441	\$270,441	\$270,441	\$270,441	\$270,441	\$270,441
6	Restoration, Water Quality and Trail Improvements		\$0	\$102,439	\$50,000	\$152,439	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
7	CU Bike/Ped Bridge Replacement	\$200,000	\$0	\$200,000	\$0	\$200,000						
<b>TOTAL GREENWAYS BUDGET</b>				<b>\$1,665,294</b>	<b>\$320,441</b>	<b>\$1,985,735</b>	<b>\$320,441</b>	<b>\$320,441</b>	<b>\$320,441</b>	<b>\$320,441</b>	<b>\$320,441</b>	<b>\$320,441</b>

<b>FLOOD FUNDING BY YEAR</b>										
<b>CAPITAL IMPROVEMENTS PROGRAM</b>	<b>Expended in Prior Years</b>	<b>2015 Budget + Unencumbered Carry Over</b>	<b>2016 Projected</b>	<b>2017 Projected</b>	<b>2018 Projected</b>	<b>2019 Projected</b>	<b>2020 Projected</b>	<b>2021 Projected</b>	<b>Total</b>	
1	Goose Creek Restoration	\$0	\$0							\$0
2	Wonderland Foothills to 30th		\$23,337,000							\$23,337,000
3	Wonderland 28th Street Underpass		\$0							\$0
4	Fourmile 19th to 22nd		\$2,000,000							\$2,000,000
5	Fourmile Upland to Violet	\$0		\$500,000	\$500,000	\$1,000,000	\$1,500,000	\$1,250,000	\$500,000	\$5,250,000
6	Bear Canyon Creek	\$0	\$100,000	\$500,000						\$600,000
7	Gregory Canyon Creek	\$0	\$100,000	\$500,000						\$600,000
8	Boulder Creek	\$0	\$600,000		\$2,500,000	\$2,250,000				\$5,350,000
9	Boulder Slough	\$788,164	\$0							\$788,164
10	Twomile Canyon Creek	\$0			\$100,000	\$500,000				\$600,000
11	Bluebell Canyon / Kings Gulch Creek	\$0			\$100,000	\$500,000				\$600,000
12	Skunk Creek	\$0			\$100,000	\$500,000				\$600,000

<b>TOTAL PROJECT FUNDING</b>					
<b>CAPITAL IMPROVEMENTS PROGRAM</b>	<b>All Years Greenways</b>	<b>Pre-flood Funds</b>	<b>Flood Funds</b>	<b>TIP</b>	<b>Project Total</b>
1	Goose Creek Restoration	\$170,566	\$0		\$170,566
2	Wonderland Foothills to 30th Street	\$391,716	\$23,337,000	\$2,000,000	\$25,728,716
3	Wonderland 28th Street Underpass	\$565,441	\$0	\$900,000	\$1,465,441
4	Fourmile 19th to 22nd	\$747,900	\$2,000,000		\$2,747,900
5	Fourmile Upland to Violet	\$1,622,646	\$5,250,000		\$6,872,646



- Projects
- 1 Goose Creek Restoration
  - 2 Wonderland Foothills to 30th Street/
  - 3 Wonderland 28th Street Underpass
  - 4 Fourmile - 19th to 22nd
  - 5 Fourmile - Upland to Violet

2016-2021  
**Greenways Program CIP**  
**Attachment C**

