PLANNING COMMISSION & RESOURCE CONSERVATION ADVISORY BOARD  
Docket #BCCP-16-0001: Boulder County Comprehensive Plan Sustainable Materials  
Management Element Joint Study Session  
March 22, 2017 – 5:00 PM  
Commissioners Hearing Room, Third Floor  
Boulder County Courthouse

JOINT STUDY SESSION: No Action Requested

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INTRODUCTION

The purpose of this study session is to elicit feedback from both the Planning Commission and the Resource Conservation Advisory Board on updates made to the Sustainable Materials Management Element (SMME), formerly known as the Solid Waste Element. Staff will take comments and feedback from this study session and combine it with comments from the county referral process. Pending feedback that is received at the study session, staff will either continue to seek feedback from the advisory boards or bring the SMME back to Planning Commission for final approval as early as May 2017.

BACKGROUND: SMME Update Process to Date

A team of staff from the Resource Conservation Division, the Commissioner’s Office of Sustainability and the Land Use Department began working on the Sustainable Materials Management Element (SMME) update in 2016. The last full update for this element was in 1987 and much has changed in the county in the last 30 years including, for example, the advent of single stream recycling and curbside compost pick up.

Goals for updating SMME include:
• Update and broaden the goals and policies to reflect changes in the range of programs and services provided by the Resource Conservation Division, their facilities and their partners, and to reflect changes in technology and the state the market
• Eliminate redundancies and references to specific programs
• Streamline and simplify the document narrative
• Provide a forward-looking focus to help navigate future opportunities and challenges

PUBLIC PROCESS TO DATE

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Purpose</th>
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<tbody>
<tr>
<td>8/28/2016</td>
<td>RCAB Kick Off</td>
<td>Introduced and discussed the upcoming SMME update</td>
</tr>
<tr>
<td>9/28/2016</td>
<td>RCAB Meeting</td>
<td>Introduced and discussed the upcoming SMME update, this time with Land Use staff present to discuss roles, plans, and goals</td>
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<tr>
<td>1/23/2017</td>
<td>SMME Open House</td>
<td>Introduced and solicited feedback from members of the public</td>
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SUMMARY

The updated SMME includes a new structure, organizing the document into goals and associated policies. This structure is similar to that used in the recently updated BCCP Open Space Element. As noted, staff sought to remove redundancies, streamline the document, and reflect new themes, such as E-Waste, Zero Waste principles, and other conceptual/philosophical shifts in the markets and methods and technologies.

One of the most notable changes is the focus on Sustainable Materials Management (SMM), which is:

“a systemic approach to using and reusing materials more productively over their entire lifecycles. It represents a change in how our society thinks about the use of natural resources and environmental protection. By looking at a product’s entire lifecycle we can find new opportunities to reduce environmental impacts, conserve resources, and reduce costs.”

SMM encourages the use of materials throughout their full life cycle, from manufacture, to use, reuse, and end of life.

Staff also focused on creating higher-level policy language. This allows greater flexibility at the management and department level to determine the appropriate partnerships and actions for a given situation.

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Changes in the element’s organizational framework are summarized in the following table.

<table>
<thead>
<tr>
<th>Current Policy Framework</th>
<th>New Policy Framework</th>
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<tr>
<td>Environmental</td>
<td>Promote and Uphold SMM Values</td>
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<tr>
<td>Public Involvement</td>
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<td>Government Regulations</td>
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<td>Solid Waste Management</td>
<td>Gather Public Input</td>
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<td>Resource Recovery and</td>
<td>Collaborate</td>
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<td>Recycling</td>
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An observation of note is that some of the policies from the existing Solid Waste Element were broken down into multiple policies in order to more appropriately address each of the topics covered in the previous policy. For example, Policy SW 2.01 of the old Solid Waste Element states:

“Public participation in the decision making process shall be encouraged through ample notice of meetings where major solid waste management and planning issues are being considered”

This old policy is now encompassed in two new policies, Policy 4.2 (Resource Conservation Advisory Board) and 4.3 (Public Input on SMM) of the SMME.

**DISCUSSION QUESTIONS**

1. Should there be changes to policy language to better reflect the goals of the county and the county’s strategies and guiding principles?
2. Are there policies that should be added or removed to better capture the county’s sustainable materials management-related activities and objectives?
3. Can policies 2.5 (Promotion of Awareness of SMM) and 2.6. (Education and Outreach) be combined into a single policy?
4. Any other feedback, comments, changes?

**ACTION REQUEST**

No action is requested at this time. For this study session, staff requests feedback on the revised draft element.

**NEXT STEPS**

Staff will make further revisions to the SMME based on feedback from the study session and circulate the revised draft for comment and feedback from other county departments, other planning departments throughout the region, other standard referral agencies for land use dockets, as well as other stakeholders and agencies that could provide valuable input to inform the update. Staff will work with that additional feedback to prepare a revised draft to take back to RCAB. Depending on the amount of additional feedback received, staff intends to bring this to Planning Commission in May or June with a recommendation for final approval.
ATTACHMENTS
   A. Existing Solid Waste Element
   B. DRAFT Sustainable Materials Management Element
   D. Summary of Public Comments received to date
Boulder County Comprehensive Plan

SOLID WASTE

Goals, Policies, & Maps Element

The development and adoption of objectives to guide the Boulder County Solid Waste Management Plan was a significant undertaking. Program objectives were established so that the planning could proceed in a direction identified by the goals. Special effort was spent in establishing the proper relationship between the “Solid Waste Element” and the overall Boulder County Comprehensive Plan.

It was clearly established that the Solid Waste Element should be simply one of the many urban services provided and planned for in the overall comprehensive planning process, and that the solid waste program should be subordinate to and guided by the overall planning efforts of the county. The original Solid Waste Element of the Boulder County Comprehensive Plan was adopted in 1978. The general planning objectives which were adopted at that time following extensive public comment were utilized together with new information to develop the 1982 Solid Waste Plan. The Goals and Policies set forth in the following sections are the result of the 1987 update of the Solid Waste Element.

- Boulder County’s Role

Boulder County’s role in providing for the proper management of solid wastes shall be as set forth in the following sections. The intent is to differentiate between the respective responsibilities of the private sector and other levels of government so as to concentrate limited resources on those areas of involvement where the county is likely to be most effective.

- Primary Concentration

Primary concentration of solid waste occurs at the generation source and is primarily the responsibility of municipalities and private haulers who provide individual collection services or the state and federal government where hazardous or radiological wastes are concerned. Boulder County’s responsibility with such matters as container sizing, container types, container locations, types of wastes allowed and pick up frequency for the primary concentration of solid waste is directed to aid the regulation of land use proposals where these matters become a local land use concern, the requiring or encouraging of source separation to assist reuse activities, and waste generation.

AMENDMENT STATUS

<table>
<thead>
<tr>
<th>Goals &amp; Policies</th>
<th>Associated Maps</th>
<th>Background Element</th>
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<tbody>
<tr>
<td>Amended</td>
<td>N/A</td>
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Solid waste management is primarily a function of municipalities.
Goals, Policies, and Maps Element

reduction through means that may be effective on a local level.

- **Transportation**

Transportation of solid waste consists of the hauling of wastes from the primary concentration point to a disposal facility or to a transfer facility. This function is primarily the responsibility of those municipalities and private haulers who provide individual collection services or to state and federal government where hazardous or radiological wastes are concerned. Boulder County’s responsibility with the transportation of solid waste is directed toward the alleviation of adverse environmental impacts in the unincorporated areas of the county and on public roadways and toward the designation of exclusive disposal or processing sites for the more efficient and effective routing of the solid waste stream and the possible encouragement of reuse opportunities.

- **Secondary Concentration**

Secondary concentration of solid waste occurs at transfer facilities which are utilized to minimize hauling and to improve environmental control. This function is a direct responsibility of Boulder County insofar as it relates to the mountain compactor or green box program and to land use proposals where such facilities are to be owned or operated by others.

- **Processing**

Processing solid waste consists of shredding, grinding, baling, incineration and similar processes that are used to alter the character of the solid waste stream to facilitate handling. These functions are of particular concern to those who own or operate solid waste disposal or reuse facilities. Boulder County’s responsibility relating to these processes is directed toward the encouragement of reuse opportunities, improved site environment and the prolonging of landfill life in order to reduce land requirements for final disposal purposes.

- **Resource Recovery and Recycling**

Resource recovery and recycling consists of diverting potentially reusable materials from the solid waste stream and redirecting them toward a useful purpose. Resource recovery and recycling is considered to be in the best public interest and as such is deemed not only a responsibility of Boulder County but of the private sector, other levels of government and individual citizens as well.

- **Final Disposal**

Final disposal consists of the burial, dispersal, incineration, or other methods that are used to dispose of unwanted wastes and is a primary responsibility of Boulder County for non-hazardous or non-radiological wastes. It is recognized that sanitary landfills will be needed for most wastes until resource conservation and recovery practices are successful. It is also recognized that landfills and rubble fills will still be needed thereafter for the disposal of irreducible residues.

- **Regulation**

Regulation consists of the promulgation of standards and requirements for the collection, transportation, disposal, processing and resource conservation activities for the general public health and welfare. This function is a responsibility of all levels of government and a primary responsibility of Boulder County in those areas defined herein as a Boulder County role. It is assumed that the State of Colorado views the management of normal solid wastes as distinguished from radiological or hazardous wastes as a local government responsibility with the state providing direct management responsibility for radiological...
and hazardous wastes. It is also assumed that the main impetus of federal requirements is aimed at the state level of government in that states are required to develop and implement solid waste management programs particularly in the area of hazardous wastes and local government agencies are responsible for securing compliance with state and federal regulations relating to solid waste facilities owned, operated or permitted by the local government. In that states are required to develop and implement solid waste management programs, particularly in the area of hazardous wastes, and local government agencies are responsible for securing compliance with state and federal regulations relating to solid waste facilities owned, operated, or permitted by the local government.

- **Services Fees and Charges**

  This function consists of the recovery of economic, social, and environmental costs incurred in providing either private or public solid waste services and it is a responsibility of Boulder County insofar as it relates to the effective and fair implementation of Boulder County’s solid waste management plan.

  The following policies will be Boulder County’s official position on the management of solid waste and shall guide staff, appointed committees and commissions as well as the Board of County Commissioners in reaching decisions on solid waste management for at least the next three to five years.

**Solid Waste Policies**

- **Environmental**

  SW 1.01 Solid waste facilities in Boulder County shall be planned, located, designed and operated to prevent unacceptable air, water, noise and visual pollution, and in consideration of the inventory, goals and policies of the Environmental Resources Element of the Boulder County Comprehensive Plan.

  SW 1.02 Solid waste facilities that are to be operated in Boulder County shall be designed and operated in conformance with all applicable federal, state, and local regulations.

  SW 1.03 The county’s criteria for the planning, design, location, operation and enforcement for new or expanded solid waste sanitary landfill facilities shall be updated by the Transportation Department in cooperation with the Land Use Department and county Health Department and shall include provisions for assigning long term responsibility for abandoned facilities.

  SW 1.04 The county shall monitor the remedial actions undertaken by responsible parties at the Marshall Landfill under the direction of EPA and the State Health Department.

  SW 1.05 The county’s municipalities and sanitation districts shall be encouraged to seek and develop means of utilizing sludge for possible public benefits including land application of digested sludge for crop production or methane production.

  SW 1.06 The Land Use Department, in cooperation with the county Health Department, shall continue to secure agreements from the large municipalities and sanitation districts to provide adequate drop-off facilities for septic wastes so that they can be properly treated.

The Solid Waste Division is housed within the Land Use Department.
Goals, Policies, and Maps Element

SW 1.07 The county shall utilize regulations developed by the Water Quality Control Division of the State Health Department for the management of sludge, septic wastes, and the unlawful disposal of hazardous and radioactive wastes received at facilities designed for normal wastes.

SW 1.08 Hazardous waste disposal facilities shall not be located in Boulder County because of the populous nature of the county and the potential for damage to life, health and the environment from a permanent disposal site. Transfer facilities for the handling of small quantities of hazardous waste may be allowed if such facilities can meet all federal, state, and local requirements for the handling of hazardous wastes.

The Household Hazardous Waste program is an important aspect of environmentally sound disposal of commonplace hazardous substances.

SW 1.09 The county shall cooperate with the state and federal agencies to assure that hazardous and special wastes generated within the county are properly recycled, neutralized or disposed of at authorized facilities as prescribed by the 1976 Resource Conservation and Recovery Act and any amendments.

SW 1.10 The county Health Department, in cooperation with the Land Use Department, shall encourage the proper management of household hazardous waste through public education and environmentally sound disposal methods.

● Public Involvement

SW 2.01 Public participation in the decision making process shall be encouraged through ample notice of meetings where major solid waste management and planning issues are being considered.

● Governmental Relations

SW 3.01 The county Land Use Department shall provide a sufficient level of communication between all known public agencies and special interest groups that are actively engaged in solid waste activities and issues involving Boulder County.

SW 3.02 The county shall cooperate actively with existing intergovernmental agencies on efforts to develop regional approaches and necessary legislation to meet current and anticipated solid and hazardous waste problems.

SW 3.03 The county shall encourage a cooperative effort in the implementation and continuation of a local hazardous materials response plan and action.

● Solid Waste Management

SW 4.01 The county shall continue the mountain transfer station program in the Nederland and Allenspark/Ward areas as a county-owned, operated and partially user-fee financed program.

SW 4.02 The private sector shall be encouraged to provide trash collection services in the plains and in the mountain areas not served by the mountain transfer station program, and the county shall regulate private haulers for safety and health reasons through the issuance of trash haulers’ licenses.
SW 4.03 Since the Landfill Siting Study did not identify suitable land disposal sites in Boulder County, the county should assure that sites are available for land disposal in adjacent counties, as needed, through intergovernmental agreements or governmental acquisition of a site, if needed. Further, the county shall continue to explore a region-wide approach to solid waste management.

SW 4.04 The county shall monitor performance goals and requirements for any proposed new or expanded disposal facilities leaving the actual design to competent engineers and geologists and the operations and management of the facilities to appropriately qualified contractors or similarly qualified public personnel.

SW 4.05 The planning and design of solid waste facilities shall be based on normal waste generation in Boulder County using the latest and most reliable population, land use and waste generation types and projections consistent with the Boulder County Comprehensive Plan.

SW 4.06 The private sector may be allowed opportunities to participate in any publicly owned solid waste facility. Quality control shall be maintained through contractual arrangements containing appropriate operations, inspections and enforcement provisions.

SW 4.07 The county shall continue to utilize a combination of general property tax revenues (Solid Waste Mill Levy) and user fees to support the planning, construction, and operation of solid waste facilities and funding of public education on the ways of proper disposal of waste.

SW 4.08 In order to provide appropriate administration for the successful implementation of the solid waste management plan, the county shall provide adequate technical staff and the Boulder County Solid Waste Advisory Committee shall continue to serve as the county’s citizen advisory body.

**Resource Recovery and Recycling**

SW 5.01 Efforts shall be made to reduce the amount of solid waste disposed of in landfills by 20 percent by 2000 through the diversion of rubble and sludge to more useful purposes and through the implementation of effective resource recovery and recycling activities.

SW 5.02 Efforts shall be made to recover 30 percent of the reusable components of solid waste by 2000 through the provision of economic incentives for recycling operations and by the promulgation of new local regulations. New state and federal legislation shall be sought as required.

SW 5.03 Solid waste collection, transportation, disposal, and processing facilities shall be planned, operated and encouraged to promote the development of resource recovery and recycling opportunities.

SW 5.04 Funds from the approved Resource Recovery and Recy-


Goals, Policies, and Maps Element

Feeling Fee levied at the Marshall Landfill or other regulated solid waste facilities shall be used by the county or by other public or private organizations for resource recovery and recycling activities. The Board of County Commissioners upon recommendation of the Solid Waste Advisory Committee shall distribute these funds based upon the amount of waste diverted; ability to perform; integration with existing solid waste management activities; environmental and ecological soundness; public education/support value; potential for long-term viability and the targeted audience.

The county maintains transfer stations for disposal of solid waste in the mountains.

SW 5.05 Household separation, collection centers, and similar small scale resource recovery and recycling activities shall be encouraged and may be financially aided, until such time as they are replaced with more effective, self-supporting programs. The integration and coordination of resource recovery and recycling activities, collection services and disposal facilities shall be encouraged and required, if possible, to minimize overall recovery costs. The county shall cooperate with the staff of involved municipalities to encourage the most cost-efficient means of collection.

SW 5.06 The county shall set performance goals and requirements for any proposed privately-owned transfer stations in order to assure that comprehensive recycling is implemented and to preserve the option of converting transfer stations to waste-to-energy facilities in the long-term. The county shall pursue adopting an ordinance which would give regulatory authority to the appropriate departments to oversee operations of all transfer stations in Boulder County.

SW 5.07 The county shall encourage activities which educate the citizenry in the values, methods and techniques of recycling, resource recovery and waste reduction.

SW 5.08 The county shall actively encourage and pursue the reduction of waste generation.

SW 5.09 The county shall pursue long-term financing solutions to solid waste management.
I. Purpose and Background

The Sustainable Materials Management Element (SMME) sets forth the goals and policies that will guide related regulations and management plans adopted by the county. The county’s zero waste, environmental sustainability, and related plans will carry out the goals and policies of this element, and will define...
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detailed objectives, metrics for success, and related tools to support the county’s actions. The scope of the SMME includes:

▪ The management and use of discarded materials with emphasis on sustainable practices and resource conservation, including full life-cycle management of materials;
▪ Upstream influence on end-of-life design for materials; and
▪ Waste reduction and reuse.

The SMME shall help inform county policies and decisions related to growth and development that pertain to waste, including recycling, composting, discards, disposal, reuse, and waste reduction/repair facilities, programs, and operations. The terms ‘discards, recyclables, and waste’ as used in the SMME excludes radiological, biohazardous, medical, and industrial hazardous waste streams.

a) History
Boulder County has had a commitment to responsible and sustainable management of its waste streams since the mid-1970s, with several important milestones occurring since that time:

▪ The original Solid Waste Element\(^1\) of the Boulder County Comprehensive Plan was adopted in 1978.
▪ The general planning objectives which were adopted in 1978 and extensive public comment, were the basis of the county’s 1982 Solid Waste Plan.
▪ The 1987 update of the Solid Waste Element included new goals and policies.
▪ The 2010 Boulder County Zero Waste Action Plan which set forth “a vision for attaining Zero Waste ‘or darn near’ throughout Boulder County, including unincorporated area as well as municipalities, by 2025.”
▪ The 2012 Environmental Sustainability Plan which outlines many specific zero waste goals.

b) Definitions
Sustainable Materials Management - The EPA describes Sustainable Materials Management (SMM) as “a systemic approach to using and reusing materials more productively over their entire life cycles. It represents a change in how our society thinks about the use of natural resources and environmental protection... By looking at a product's entire life cycle— from materials extraction to end-of-life management—we can find new opportunities to reduce environmental impacts, conserve resources, and reduce costs.”\(^2\)  

Energy Recovery - Energy recovery from waste is the conversion of non-recyclable waste materials into usable heat, electricity, or fuel through a variety of processes, including combustion, gasification, pyrolyzation, anaerobic digestion and landfill gas recovery. This process is often called waste to energy.\(^3\) Any energy recovery projects should be focused on those discards still remaining after other source separation efforts have been maximized.

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1 Re-named as the Sustainable Materials Management Element (SMME) in 2017 to reflect the broader scope and intent of the county’s approach to waste and materials management.
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EPA’s Waste Management Hierarchy - The county’s commitment to SMM follows the EPA’s waste management hierarchy. This hierarchy maps the most preferred strategies as, in order: source reduction and reuse, recycling and composting, energy recovery, and waste treatment and disposal.4

II. Goals and Policies

1. Goal 1. Promote and Uphold the County’s SMM Values. Boulder County promotes SMM in its actions and decision making. The county values SMM for its environmental protection, including greenhouse gas emission mitigation, its economic soundness, and its contribution to community vitality and quality of life.

Policies

1.1. Support for SMM Efforts. Boulder County supports efforts that promote SMM (consistent with adopted plans and agreements) in the following areas: environmental stewardship, product stewardship, resource conservation, pollution prevention, mitigation of adverse climate impacts, and protection of public health. The county will strive to support initiatives that align with SMM including those related to facilities, programs, granting mechanisms, policy mechanisms, education and outreach.

1.1.1. To the extent possible, the county shall support land use decisions that align with SMM while balancing other regulatory and policy priorities, e.g., zoning amendments, and/or property acquisitions in suitable locations. SMM values, functions, and impacts to county lands shall be considered in the review of development proposals submitted through the Land Use department.

1.1.2. To the extent possible, the county shall support SMM from public, private, and non-profit sector organizations, including end-market development.

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1.1.3. Boulder County may acquire real estate interests in land for SMM functions, if periodic feasibility research and planning studies indicate the need for county-owned land for viable SMM facilities or operations.

1.2. SMM in County Operations. Boulder County shall implement SMM practices in its own operations for its facilities, purchasing, and generation of waste and discards. Furthermore, the activities of county departments shall promote and reflect the values of SMM.

2. Goal 2. Facilitate SMM. Boulder County purposefully facilitates SMM activities taking place across the county through county-wide planning, management and education functions, including its active role in providing zero waste services.

Policies

2.1. Facilitation of SMM Activities. Boulder County supports various types of materials processing, management, and diversion-related technologies, processes, and activities to reach its zero waste and SMM goals. These include but are not limited to, in no particular order:
   a. Composting and waste organics management (e.g., widely accessible composting facilities with related operations for organics diversion, on-farm composting, food waste management strategies, biogas technologies, other organic waste management, biomass processing, wood waste processing, and biochar processing technologies);
   b. Recycling of traditional and hard-to-recycle materials;
   c. Construction and demolition waste reduction, reuse, and processing options;
   d. Energy recovery facilities: any energy recovery projects should be focused on those discards still remaining after other source separation efforts have been maximized;
   e. Local secondary processing and end market options for recyclable and compostable materials;
   f. Responsible management of hazardous materials throughout their life cycle;
   g. Responsible end-market solutions for diverse material types;
   h. Reuse, repurposing, repair facilities, workshops and/or services.
   i. Responsible end-of-life management of hard-to-recycle materials (e.g., electronics, mattresses, or other complex engineered materials/products emerging in the waste stream);
   j. Siting of disaster debris management sites in alignment with the Boulder County Operational Disaster Debris Management Plan and related county and state emergency planning policies;
   k. Forward-thinking technologies and processes for viability in service to SMM goals;
   l. Local, regional, and national policy strategies that further product stewardship and other values of SMM;
   m. Harmonization of SMM data collection and reporting, across jurisdictions; and
   n. Private, public and nonprofit efforts to advance SMM and zero waste goals throughout the county.

2.2. Scope of County Plans and Policies. Boulder County prepares management plans and policies as appropriate for SMM facilities, programs, education, and activities and uses the plans and policies to manage SMM resources and assets. The scope of planning and policies shall
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encompass:

a. The establishment, maintenance, responsible stewardship, and needed improvement of all current and future County-owned, leased and/or operated facilities that relate to SMM, including but not limited to the Mountain Transfer Stations & Recycling Centers, Drop-off Centers, Boulder County Recycling Center, construction and demolition facility, debris management site, and Hazardous Materials Management Facility;

b. Planning for both short- and long-range forecasting of capacity needs for capital, expansion, and operation and maintenance needs, as well as address criteria in Goal 3;

c. Forecasting ownership and operation scenarios and compensation formulas for all facilities to optimize environmental stewardship and materials recovery, operational efficiencies and ensure fiscal stability;

d. Establishing relationships and providing oversight and regulation of private, public, and non-profit sector collection, processing, management, and end-marketing of discarded, recyclable, compostable, and reusable materials;

e. Convening parties to consider and develop intergovernmental agreements (IGA) for SMM initiatives;

f. Setting performance goals and/or level-of-service standards for all county-owned SMM facilities, programs, or operations;

g. Planning for zero waste and SMM using applicable criteria (see Goal 3 for criteria), data on waste generation, population and waste trends; land use constraints; and in the context of the Comprehensive Plan and the county’s goals and values (e.g., addressing the use of landfills in adjacent counties – monitoring lifespan and status of these landfills);

h. Structuring responsible financing mechanisms for SMM (see SMM Policy 2.4);

i. Clearly defining the management and operational roles of county staff and the guidance and input roles of the county’s Resource Conservation Advisory Board (see Goal 5).

2.3. Monitoring and Evaluating Innovation in Approaches. Boulder County monitors and evaluates waste, recycling, composting, and related SMM policies and activities both locally and more broadly, to inform management decisions. The county seeks to be innovative in its approaches to SMM, using knowledge of current conditions, latest science, best technologies and best management practices.

2.4. Financing and Planning Mechanisms. Boulder County shall use viable, responsible and legal financing mechanisms and related planning tools for SMM-related initiatives including but not limited to, in no particular order:

a. Capital improvement programming and forecasting;

b. Tax incentives and/or surcharges (e.g., sales tax in the 1990s to generate capital for the Recycling Center);

c. Enterprise funding for facilities and operations;

d. Public and private grants;

e. Multiple use and joint development practices;

f. Fee and less-than-fee acquisition techniques;

g. User fees;

h. Public/private partnerships;
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i. Revenues from sales of recovered/processed materials;

j. Land use controls and ordinances;

k. Boulder County Master Plan;

l. Boulder County Environmental Sustainability Plan;

m. Boulder County Zero Waste Action Plan; and

n. Additional relevant current or future policy or planning documents.

2.5. Promotion of Awareness of SMM. Boulder County shall promote awareness of SMM activities and initiatives taking place across the county through communication methods designed to reach a broad spectrum of the public, including waste generators, residents, stakeholders, organizations, and businesses.

2.6. Education and Outreach. Boulder County shall reach out to the public through educational programs, volunteer opportunities, special events, regular interactions at sustainable materials management facilities, and other appropriate educational venues.


Policies

3.1. Criteria for Evaluating SMM Efforts. Boulder County shall apply the following criteria when evaluating SMM plans, policies, facilities, programs, and initiatives in and by Boulder County. Specifically, any initiatives reviewed shall:

a. Mitigate or reduce waste (e.g., waste prevention and diversion to reduce mining of virgin resources);

b. Ensure that facilities or operations are planned, located, designed and operated to prevent unacceptable air, water, noise and visual pollution, including assessing the positive and negative environmental impacts of the transport of materials, workers, etc. to and from a facility or operation;

c. Measure and seek to reduce climate change (or carbon) footprint for SMM activities by reducing adverse greenhouse gas emissions;

d. Prevent and divert waste; reduce local emissions from mining, materials extraction and processing; and reduce transportation-related emissions during the full life cycle of materials used, reused, and processed at end of life;

e. Use sequestration to reduce carbon impacts where applicable (e.g., using compost to replenish depleted soils);

f. Demonstrate, based on a life-cycle analysis, that the initiative(s) results in the least adverse environmental and human health impact from ‘cradle to grave’ of the options available;

g. Reduce toxic materials used in products and practices, and ensure responsible end-of-life management of hazardous materials;

h. Demonstrate the economic/fiscal and social impacts (e.g., job creation, costs to county, revenue potential, environmental justice, funding mechanism/debt service, etc.) of SMM initiatives and ensure long-term funding mechanisms are viable;

i. Ensure accessibility and affordability to all residents county-wide;
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j. Ensure a public education/outreach mechanism is included in fiscal and operational planning;
k. Demonstrate availability of fiscal and other needed resources for appropriate enforcement; and
l. Seek to manage discards and materials as locally as possible to provide the highest benefit to the local economy.

3.2. SMM and Green Building Practices. SMM and green building practices for both new and retrofit construction must be incorporated into policies, regulations, and requirements for both residential and commercial building design, materials selection, and construction and maintenance practices shall:
a. Ensure building longevity and resilience;
b. Prioritize and provide for safe deconstruction and materials reuse/recycling at end of life;
c. Discourage demolition of otherwise safe and functional structures; and/or
d. Promote other sustainable initiatives such as energy efficiency and water conservation.
e. Align with circular economy principles and practices (e.g., life-cycle asset management analyses, collaborative consumption, products designed for longevity, performance/service systems and incentivized returns, economic vitality for resiliency, and extended producer responsibility);
f. Address issues of ‘new’ materials/products entering the waste stream for which reuse and/or diversion end markets have not yet been developed; and
g. Collect actionable data on SMM activities.


Policies

4.1. Resource Conservation Advisory Board. The county commissioners shall appoint a Resource Conservation Advisory Board (RCAB) to provide a forum for public input and advice to the Board of County Commissioners and the Resource Conservation Division regarding SMM plans, programs, and actions.

4.2. Public Input on SMM. Boulder County shall seek and consider public input about sustainable materials management initiatives and management through a variety of informal and formal engagement tools.

4.2.1. Boulder County will actively seek input from interested members of the public to ensure policies and initiatives are based on a sound understanding of constituents’ and stakeholders’ short- and long-term needs and operational context.

4.3. Public Hearings. County land acquisitions and capital improvement plans for SMM facilities, along with county zero waste management plans and policies, require approval by the Board of County Commissioners, after a public hearing and after review and input by the RCAB

5. Goal 5. Collaborate with Stakeholder and Partners. Boulder County collaborates with stakeholders and partners to promote sustainable materials management values and practices.

Policies
Boulder County Comprehensive Plan  
DRAFT -- Sustainable Materials Management Element

5.1. **Input.** Boulder County shall invite input from a broad spectrum of stakeholders relevant to the policy and management issues under consideration, including RCAB.

5.2. **Collaboration with Stakeholders.** Boulder County shall collaborate with businesses, organizations, non-profits, educators, and partners to promote the county’s SMM values and practices.

5.3. **Collaboration with Authorities.** Boulder County shall work closely with federal, state, and local authorities to promote and achieve SMM goals (e.g., state-level product stewardship legislation).

5.3.1. Boulder County shall strive for harmonization of goals, policies and initiatives at the local level (e.g., policies regarding discards, waste, diversion, reuse, etc.) to ensure they do not serve as disincentives to one another, but rather complement one another.

5.4. **Input from Stakeholders.** Boulder County shall periodically solicit input from and provide updates to municipalities and stakeholders on SMM priorities.
## Existing Policy vs. New Policy Language

### ENVIRONMENTAL

<table>
<thead>
<tr>
<th>Existing Policy</th>
<th>New Policy Language</th>
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<tbody>
<tr>
<td><strong>1.01 Solid waste facilities in Boulder County shall be planned, located, designed and operated to prevent unacceptable air, water, noise and visual pollution, an in consideration of the inventory, goals and policies of the Environmental Resources Element of the Boulder County Comprehensive Plan.</strong></td>
<td><strong>1.2 Support for Specific SMM Initiatives. The county will strive to support initiatives that align with SMM including those related to facilities, programs, granting mechanisms, policy mechanism, education and outreach</strong></td>
</tr>
<tr>
<td><strong>1.02 Solid waste facilities that are to be operated in Boulder County shall be designed and operated in conformance with all applicable federal, state, and local regulations.</strong></td>
<td><strong>1.2 Support for Specific SMM Initiatives. The county will strive to support initiatives that align with SMM including those related to facilities, programs, granting mechanisms, policy mechanism, education and outreach</strong></td>
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<td><strong>1.03 The county’s criteria for the planning, design, location, operation, and enforcement for new or expanded solid waste sanitary landfills facilities shall be updated by the Transportation Department in cooperation with the Land Use Department and county Health Department and shall include provisions for assigning long term responsibility for abandoned facilities.</strong></td>
<td><strong>1.2 To the extent possible, the county shall support land use decisions that align with SMM while balancing other regulatory and policy priorities, e.g., zoning adjustments or exceptions, and/or property acquisitions in suitable locations. SMM values, functions, and impacts to county lands, shall be considered in the review of development proposals submitted through the Land Use department.</strong></td>
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<td><strong>1.04 The county shall monitor the remedial actions undertaken by responsible parties at the Marshall Landfill under the direction of EPA and the State Health Department.</strong></td>
<td><strong>5.3 Work with Authorities. Boulder county shall work closely with federal, state, and local authorities to promote and achieve SMM goals.</strong></td>
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<td><strong>1.05 The county’s municipalities and sanitation districts shall be encouraged to seek and develop means of utilizing sludge for possible public benefits including land application of digested sludge for crop production or methane production.</strong></td>
<td><strong>1.3 Management in County Operations. Boulder County shall implement SMM practices in its own operations for its facilities, purchasing, and generation of waste and discards. Furthermore, the activities of county departments shall promote and reflect the values of SMM.</strong></td>
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<td><strong>1.2.1 Facilitation of SMM Activities. Boulder County supports various types of materials processing, management, and diversion-related technologies, processes, and activities to reach its zero waste and SMM goals.</strong></td>
<td><strong>2.3 monitoring, Evaluation, and Promoting Innovation in Approaches. Boulder County monitors and evaluates waste, recycling, composting, and related SMM policies and activities both locally and more broadly, to inform management decisions. The county seeks to be innovative in its approaches to SMM, using knowledge of current conditions, latest science, best technologies, and best management practices.</strong></td>
</tr>
<tr>
<td><strong>5.3 Work with Authorities. Boulder county shall work closely with federal, state, and local authorities to promote and achieve SMM goals.</strong></td>
<td><strong>3.1 Criteria for Evaluating SMM Efforts</strong></td>
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</tbody>
</table>
1.06 The Land Use Department, in cooperation with the county Health Department, shall continue to secure agreements from the large municipalities and sanitation districts to provide adequate drop-off facilities for septic wastes so that they can be properly treated.

1.07 The county shall utilized regulations developed by the Water Quality Control Division of the State Health Department for the management of sludge, septic wastes, and the unlawful disposal of hazardous and radioactive wastes received at facilities designed for normal wastes.

1.08 Hazardous waste disposal facilities shall not be located in Boulder County because of the populous nature of the county and the potential for damage to life, health, and the environment from a permanent disposal site. Transfer facilities for the handling of small quantities of hazardous waste may be allowed if such facilities can meet all federal, state, and local requirements for the handling of hazardous wastes.

1.09 The county shall cooperate with the state and federal agencies to assure that hazardous and special wastes generated within the county are properly recycled, neutralized, or disposed of at authorized facilities as prescribed by the 1976 Resource Conservation and Recovery Act and any amendments.

1.10 The county Health Department, in cooperation with the Land Use Department, shall encourage the proper management of household hazardous waste through public education and environmentally sound disposal methods.

PUBLIC INVOLVEMENT

Column1

2.01 Public participation in the decision making process shall be encouraged through ample notice of meetings where major solid waste management and planning issues are being considered.

GOVERNMENTAL RELATIONS

Column1

• 4.2 Public Input on SMM. Boulder County shall seek and consider public input about Sustainable Materials Management initiatives and management through a variety of informal and formal engagement tools.
• 4.3 Public Hearings. Land acquisitions for SMM facilities, capital improvement plans for SMM facilities, and zero waste management plans and policies require approval by the Board of County Commissioners, after a public hearing and after review and input by RCAB.
• 5.1 Input. Boulder County shall invite input from a broad spectrum of stakeholders relevant to the policy and management issues under consideration, including RCAB.
3.01 The county Land Use Department shall provide a sufficient level of communication between all known public agencies and special interest groups that are actively engaged in solid waste activities and issues involving Boulder County.

- 5.3 Work with Authorities. Boulder county shall work closely with federal, state, and local authorities to promote and achieve SMM goals.

3.02 The county shall cooperate actively with existing intergovernmental agencies on efforts to develop regional approaches and necessary legislation to meet current and anticipated solid and hazardous waste problems.

- 2.2e convening parties to consider and develop intergovernmental agreements (IGA) for SMM initiatives;
- 5.3 Work with Authorities. Boulder county shall work closely with federal, state, and local authorities to promote and achieve SMM goals.

3.03 The county shall encourage a cooperative effort in the implementation and continuation of a local hazard materials response plan and action.

- 2.1e Responsible Management of hazardous materials throughout their life cycle.
- 5.2 Collaborate with Stakeholders. Boulder County shall collaborate with businesses, organizations, non-profits, educators, and partners to promote the county’s SMM values and practices.

### SOLID WASTE MANAGEMENT

<table>
<thead>
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<th>Column1</th>
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<tr>
<td>4.01 The county shall continue the mountain transfer station program in the Nederland and Allenspark/Ward areas as a county-owned, operated and partially user-fee financed program.</td>
</tr>
<tr>
<td>4.02 The private sector shall be encouraged to provide trash collection services in the plains and in the mountain areas not served by the mountain transfer station programs, and the county shall regulate private haulers for safety and health reasons through the issuance of trash haulers' licenses.</td>
</tr>
<tr>
<td>4.03 Since the Landfill Siting Study did not identify suitable land disposal sites in Boulder County, the county should assure that sites are available for land disposal in adjacent counties, as needed, through intergovernmental agreements or governmental acquisitions of a site, if needed. Further, the county shall continue to explore a region-wide approach to solid waste management.</td>
</tr>
<tr>
<td>4.04 The county shall monitor performance goals and requirements for any proposed new or expanded disposal facilities leaving the actual design to competent engineers and geologists and the operations and management of the facilities to appropriately qualified contractors or similarly qualified public personnel.</td>
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</table>
4.05 The planning and design of solid waste facilities shall be based on normal waste generation in Boulder County using the latest and most reliable population, land use, and waste generation types and projections consistent with the Boulder County Comprehensive Plan.

• 1.2c Boulder County may acquire real estate interests in land for SMM functions, if periodic feasibility research and planning studies indicate the need for county-owned land for viable SMM facilities or operations.
• 2.1 Boulder County supports various types of materials processing, management, and diversion-related technologies, processes, and activities to reach its zero waste and SMM goals.
• 2.1b Recycling of traditional and hard to recycle materials
• 2.1l harmonization of SMM data collection and reporting, across jurisdictions
• 2.2q Planning for zero waste and SMM using sustainability criteria; data on waste generation, population and waste trends and land use. This shall be done in the context of the Comprehensive Plan and the county's goals and values
• 3.2g Collection actionable data on SMM activities.

4.06 The private sector may be allowed opportunities to participate in any publicly owned solid waste facility. Quality control shall be maintained through contractual arrangements containing appropriate operations, inspections, and enforcement provisions.

• 2.1m Private, public and nonprofit efforts to advance SMM and zero waste goals throughout the county.
• 2.2j attracting and expanding private businesses and organizations that collect, process or remanufacture recycled or reused materials and develop local and regional end markets for these materials.
• 5.2 Collaborate with Stakeholders. Boulder County shall collaborate with businesses, organizations, non-profits, educators, and partners to promote the county's SMM values and practices.

4.07 The county shall continue to utilize a combination of general property tax revenues (Solid Waste Mill Levy) and user fees to support the planning, constructions, and operations of solid waste facilities and funding of public education on the ways of proper disposal of waste.

• 2.4 Financing and Planning Mechanisms. Boulder County shall use viable, responsible and legal financing mechanisms and related planning tools for SMM-related initiatives
• 2.6 Education and Outreach. Boulder County shall reach out to the public through educational programs, volunteer opportunities, special events, regular interactions at sustainable materials management facilities, and other appropriate educational venues.

4.08 In order to provide appropriate administration for the successful implementation of the solid waste management plan, the county shall provide adequate technical staff and the Boulder County Solid Waste Advisory Committee shall continue to serve as the county's citizen advisory body.

• 4.1 Resource Conservation Advisory Board. The county commissioners shall appoint a Resource Conservation Advisory Board
• 4.2 Public Input on SMM. Boulder County shall seek and consider public input about Sustainable Materials Management initiatives and management through a variety of informal and formal engagement tools.

<table>
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<tr>
<th>RESOURCE RECOVERY AND RECYCLING</th>
<th>Column1</th>
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| 5.01 Efforts shall be made to reduce the amount of solid waste disposed of in landfills by 20 percent by 2000 through the diversion of rubble and sludge to more useful purposes and through the implementation of effective resources recovery and recycling activities. | • 2.1. Facilitation of SMM Activities. Boulder County supports various types of materials processing, management, and diversion-related technologies, processes, and activities to reach its zero waste and SMM goals.
• 2.2q Planning for zero waste and SMM using sustainability criteria; data on waste generation, population and waste trends and land use. This shall be done in the context of the Comprehensive Plan and the county's goals and values |
| 5.02 Efforts shall be made to recover 30 percent of the reusable components of solid water by 2000 through the provision of economic incentives for recycling operations and by the promulgation of new local regulations. New state and federal legislation shall be sought as required. | • 3.1 Criteria for Evaluating SMM Efforts. Boulder County shall apply the following criteria when evaluating SM plans, policies, facilities, programs, and initiatives in and by Boulder County. |
| 5.03 Solid waste collection, transportation, disposal, and processing facilities shall be planned, operated and encourage to promote and develop of resource recovery and recycling opportunities. | • 2.1 Various SMM Activities. Boulder County supports various types of materials processing management, and diversion related technologies, processes and activities to reach its zero and SMM goals. |
### 5.04 Funds from the approved Resource Recovery and Recycling Fee levied at the Marshall landfill or other regulated solid waste facilities shall be used by the county or by other public or private organizations for resource recovery and recycling activities. The Board of County Commissioners upon recommendation of the Solid Waste Advisory Committee shall distribute these funds based upon the amount of waste diverted; ability to perform; integration with existing solid waste management activities; environmental and ecological soundness; public education/support value; potential for long term viability and the targeted audience.

- 2.2h Structuring responsible financing mechanisms for SMM
- 2.4 Financing and Planning Mechanisms. Boulder County shall use viable, responsible and legal financing mechanisms and related planning tools for SMM-related initiatives

### 5.05 Households separation, collection centers, and similar small scale resource recovery and recycling activities shall be encouraged and may be financially aided, until such time as they are replaced with more effective, self-supporting programs. The integration and coordination of resource recovery and recycling activates, collection services and disposal facilities shall be encouraged and required, if possible, to minimize overall recovery costs. The county shall cooperate with the staff of involved municipalities to encourage the most cost efficient means of collection.

- 1.2 Support for Specific SMM Initiatives. The county will strive to support initiatives that align with SMM including those related to facilities, programs, granting mechanisms, policy mechanisms, education and outreach.
- 2.2j Attracting and expanding private businesses and organizations that collect, process or remanufacture recycled or reused materials and developing local and regional end markets for these materials.
- 2.5 Promotion of Awareness of SMM. Boulder County shall promote awareness of SMM activities and initiatives taking place across the county through communication methods designed to reach a broad spectrum of the public, including waste generators, resident, stakeholders, organizations, and businesses. These activates will be inclusive of all members of the community.
- 2.6 Education and Outreach. Boulder County shall reach out to the public through educational programs, volunteer opportunities, special events, regular interactions at sustainable materials management facilities, and other appropriate education venues.

### 5.06 The county shall set performance goals and requirements for any proposed privately owned transfer stations in order to assure that comprehensive recycling is implemented and to preserve the option of converting transfer stations to waste to energy facilities in the long term. The county shall pursue adopting an ordinance which would give regulatory authority to the appropriate departments to oversee operations of all transfer stations in Boulder County.

- 2.2a The establishment, maintenance, responsible stewardship, and needed improvement of all current and future county owned and/or operated facilities that related to SMM, including but not limited to Mountain Transfer Stations & Recycling Centers, Drop-off Centers, Boulder County Recycling Center, and Hazardous Materials Management Facility
- 2.3 Monitoring and Evaluate Innovation in Approaches. Boulder County monitors and evaluates waste, recycling, composting, and related SMM policies and activities both locally and more broadly, to inform management decisions. The county seeks to be innovative in its approaches to SMM, using knowledge of current conditions, latest science, best technologies and best management practices.
- 3.1 Criteria for Evaluating SMM Efforts. Boulder County shall apply the following criteria when evaluating SMM plans, policies, facilities, programs, and initiatives in and by Boulder County.

### 5.07 The county shall encourage activities which educate the citizenry in the values, methods and techniques of recycling, resource recovery and waste reduction.

- 2.6 Education and Outreach. Boulder County shall reach out to the public through educational programs, volunteer opportunities, special events, regular interaction at sustainable materials management facilities, and other appropriate education venues.
5.08 The county shall actively encourage and pursue the reduction of waste generation.

- 2.1c Construction and demolition waste reduction, reuse and processing options.
- 2.1h Responsible end of life management of hard to recycle materials (e.g. electronics, mattresses, or other complex engineered materials/products emerging in the waste stream)
- 2.1m Private, public, and non profit efforts to advance SMM and zero waste goals throughout the county.
- 2.5 Promotion of Awareness of SMM. Boulder County shall promote awareness of SMM activities and initiatives taking place across the county through communication methods designed to reach a broad spectrum of the public, including waste generators, resident, stakeholders, organizations, and businesses. These activities will be inclusive of all members of the community.
  - 3.1b Mitigate or reduce waste (e.g., waste prevention and diversion to reduce mining of virgin minerals)
  - 3.1d Prevent and divert waste; to reduce both local and global emissions from mining, materials extraction and processing; and to reduce transportation-related emissions during the full life cycle of materials used, reused, and processed at the end of life.
  - 3.2f Address issues of ‘new’ materials/products entering the waste stream for which reuse and/or diversion end markets have not yet been developed.

5.09 The county shall pursue long term financing solutions to solid waste management.

- 2.4 Financing and Planning Mechanisms. Boulder County shall use viable, responsible and legal financing mechanisms and related planning tools for SMM-related initiatives
Listed below are the public comments that were received at the Open House on Jan. 23, 2017 and comments that were received through the online form. At the Open House, staff posted the 5 goals and their policies around a room and members of the public were encouraged to provide comments via sticky notes on these posters. There were no comments on Goals 1 and 2 from members of the public at the open house.

Goal #2:

- Ensure diversity of backgrounds on RCAB

Goal #3:

- Not sure where exactly this fits, but ensuring facilities, programs, resources, etc. are accessible & affordable to all residents across the County.
- More educational activities (these might be organized via nextdoor.com per 2.6)
  - Neighborhood ambassadors/liasons to share/distribute info repeatedly
  - What can go in city compost?
- I’d like to see a simple feel good “how to” for the average citizen
- How does funding keep up with the plan?
- How are you enforcing new haulers rules?

Goal #4

- Ensure policies for haulers are workable for changing business models
- Outreach, understand needs of all different haulers
- Need for harmonization in data reporting, across jurisdictions
- Explain why demolition is not a sustainable approach
Comment: * Just a quick request to include environmental justice issues/analysis when siting any new facilities and in the overall impacts of SMM efforts.

Please check box below * I acknowledge receipt of the Open Records Notification
From: Wufoo
To: #LandUsePlanner
Subject: Public Comment - Docket BCCP-16-0001 [#2]
Date: Thursday, February 16, 2017 12:29:37 PM

Name * Kate Bailey

Email * kate@ecocycle.org

Phone Number (optional) (303) 444–6634

Address (optional) PO Box 19006 Boulder, CO 80308 United States

Comment: * This is a great revision and Eco-Cycle looks forward to continuing our partnership with Boulder County in advancing sustainable materials management. Attached are a few minor suggestions on the SMM section. Thanks for your leadership!

Attach a File (optional) boco_comp_plan_smm_section_ec_suggestions.pdf

Please check box below * I acknowledge receipt of the Open Records Notification