1. INFORMATION ITEMS

A. Proposed next steps regarding initial implementation actions for revisions to the Blue Line
   This item requires your attention by March 21, 2017. If council members have any questions or concerns, contact Chris Meschuk by March 21, 2017.
   - This memo outlines the proposed next steps to implement the voter approved changes to the Blue Line.
   - The initial phase includes project goals, and proposed changes to the BVCP policies, amendment procedures, and maps.
   - Planning Board reviewed these recommendations on Feb 16, 2017 and unanimously recommended incorporation of these changes into the upcoming draft BVCP, with minor clarification of the wording for consistency.
   - These policy and map changes are intended to be included in the 2015 Update to the BVCP to be presented in May and June for adoption.

B. 2015 Community Greenhouse Gas Inventory
   - Results of the 2015 GHG inventory
   - Results of the re-calculated 2012 GHG inventory
   - Community GHG emissions trends and progress since 2005 baseline

C. Background on the Declaration to Acknowledge and Celebrate the NoBo Art District
   - Details and background on the declaration acknowledging the NoBo Art District.
   - Next steps for a Resolution to officially recognize the creative district in North Boulder as is recommended in the Community Cultural Plan.
   - Next steps on collaborative governance of the creative district between the Office of Art and Culture, the Community Vitality Department, the NoBo Art District Organization, and other community leaders in order to align the programs, place-making, and communications efforts of all these groups.
2. **BOARDS & COMMISSIONS**
   A. Board of Zoning Adjustments – February 9, 2017
   B. Design Advisory Board – February 8, 2017
   C. Library Commission – February 1, 2017
   D. Open Space Board of Trustees – March 8, 2017

3. **DECLARATIONS**
   A. Declaration to Acknowledge and Celebrate the NoBo Art District
INFORMATION PACKET
MEMORANDUM

To: Mayor and Members of Council

From: Jane S. Brautigam, City Manager
Susan Richstone, Interim Executive Director of Planning, Housing + Sustainability
Lesli Ellis, Comprehensive Planning Manager
Chris Meschuk, Senior Planner

Date: March 16, 2017

Subject: Proposed next steps regarding initial implementation actions for revisions to the Blue Line.

EXECUTIVE SUMMARY
The purpose of this item is to present to Council the next steps to implement changes to the Blue Line along the western edge of the city limits. Ultimately, this work will result in making up to 140 private properties eligible for annexation and an annexation package to encourage voluntary annexation.

The proposed next steps include three phases:
   Phase 1: Project Goals, and BVCP Policy & Map Changes
   Phase 2: Annexation guidelines and package development
   Phase 3: Accept annexation applications

The initial phase was presented and supported by the Planning Board in a public hearing on February 16, 2017, and includes the following:
   1. Proposed project goals, and
   2. Proposed Boulder Valley Comprehensive Plan (BVCP) policy, amendment procedure and planning area map changes. These policy and map changes are intended to be included in the 2015 Update to the BVCP to be presented in May and June for adoption.

If Council has any questions or concerns please contact Chris Meschuk, Senior Planner at 303-441-4293 or meschukc@bouldercolorado.gov.
Planning Board reviewed these recommendations on Feb 16, 2017 and unanimously recommended incorporation of these changes into the upcoming draft BVCP, with minor clarification of the wording for consistency and clarity that this is specific to the western edge. These changes have been incorporated into the proposed language in this memorandum.

Staff is seeking comments from council members prior to incorporation of these policy, procedure and map changes into the draft BVCP in April.

BACKGROUND

In November 2016, Boulder voters passed a ballot item in the municipal election to clarify the location of the Blue Line in the city charter. The Blue Line is a designation on a map, west of which city water may not be provided and has been an effective growth management tool for the city and county for over 50 years. The passage of the ballot measure in November 2016 has made approximately 140 properties (90 properties in BVCP Planning Area III and 35 properties outside the BVCP Planning Area) eligible for city water service (Attachment A). The purpose of the Blue Line implementation project is to reconcile changes to the Blue Line with the BVCP and to develop strategies and incentives to promote voluntary annexation of properties along the western edge of the city, while balancing the desire to not increase the existing development potential (number of housing units and house size) along the western edge.

The City of Boulder and Boulder County have had a longstanding goal of protecting the natural qualities of the mountain backdrop by limiting growth and development along the western edge of the city. The primary planning and regulatory tools for protecting the mountain backdrop have been: 1) BVCP planning area map and policies, and 2) the Blue Line restrictions as written into the city charter, 3) county zoning restrictions and 4) open space acquisitions.

The city and county goal of protecting the mountain backdrop is outlined in the city’s framework for annexation and urban service provision as outlined in BVCP and reflected in the Area I, II, III map (Attachment A). According to BVCP Policy 1.20 (Definition of Comprehensive Planning Areas I, II and III), the city’s planning area is divided into three major areas:

1. Area I is that area within the City of Boulder, which has adequate urban facilities and services and is expected to continue to accommodate urban development.
2. Area II is the area now under county jurisdiction, where annexation to the city can be considered consistent with the BVCP, and
3. Area III is the remaining area in the Boulder Valley, generally under county jurisdiction where the city and county intend to preserve existing rural land uses and character.

The prohibition against extending city water west of a certain line that was adopted in 1959 was an ingenious and very successful way to protect the foothills backdrop of the city. The prohibition was adopted as Section 128A of the charter and is commonly referred to as the “Blue Line.” As more and more infill development has happened, the precise location of the Blue Line has become an issue. The description in the charter was a compilation of measurements by metes and bounds, elevations, ditches and distances from the center of streets. All properties in the city boundaries or that had water taps in 1959 were allowed to receive water, regardless of where
they were located in relation to the line. As a result, while the general location of the blue line was clear, when examined at an individual property level near the boundaries, it was not clear.

Clarifying the location of the Blue Line had been discussed over the years, but was not pursued until last year as part of the city’s municipalization effort. For municipalization, the Public Utilities Commission has ordered that the city must construct separate electric facilities for Xcel to continue serving unincorporated properties while the city serves annexed properties with different electrical facilities. In analyzing the city maps, staff discovered that this requirement will create unnecessary and expensive additional construction and electric facilities unless more properties along the western edge are annexed into the city.

In order to resolve these problems, Boulder voters passed an amendment to the city charter in November 2016 to clarify the location of the Blue Line and to move it above several properties currently receiving city water, to recognize the existing subdivisions of Knollwood, Spring Valley Estates and Canon Park (Attachment A), and to move city acquired Open Space above the Blue Line. As a result of the changes to the location of the Blue Line, approximately 90 properties in Area III-Rural Preservation and 35 properties outside the BVCP Planning Area are now eligible for city water service. These properties, however, are ineligible for annexation because of their BVCP Planning Area designation. The majority of these parcels are mostly developed for single family residential use while two parcels are multifamily uses and five are commercial properties.

Annexation of Area II properties along the western edge has also been a long-standing city goal. Annexation of these properties offers many benefits to the city in addition to reducing the costs of the electrical separation plan, including implementing BVCP policies, unifying the application of laws and streamlining the provision of urban services.

**ANALYSIS**

**Project Goals**
Staff has initiated a project to reconcile the BVCP policies and maps with the changes to the Blue Line and to develop an annexation package that may be offered to property owners along the western edge. The project will result in making these properties eligible for annexation and development of a strategy for working with 140 property owners to voluntarily annex to the city over time.

Staff is proposing to proceed with the project with the following goals:

1. Create a rational service area boundary for efficiency in the provision of a full range of urban services, including the potential for municipalization.
2. Encourage voluntary annexation of a maximum number of properties along the western edge consistent with BVCP growth, annexation and environmental protection policies, including not increasing the existing development potential (number of housing units and house size).

Implementing these project goals will involve several actions including the following:

1. Make appropriate changes to BVCP policies, amendment procedures and maps.
2. Clarify annexation policies and develop an annexation package which appropriately balances city goals and property owner incentives.
3. Develop and implement a strategy for working with property owners to annex.

Phase 1: BVCP Procedure and Policy Changes

135 of the 140 properties are now below the Blue Line as a result of the ballot item passage but remain in Area III (e.g.: Knollwood) or outside the current BVCP planning area (e.g.: Spring Valley Estates). In order to make these properties eligible for annexation, the BVCP planning area map must be revised to move the properties into Area II. BVCP Policy 1.24 provides the direction to the city on annexation (Attachment B). This policy, however, does not provide necessary direction for changing the planning area map for these properties. The current policy simply states that the city will actively pursue annexation of Area II properties along the western boundary. Staff is recommending that the Policy 1.24 be amended as follows to more broadly promote annexation of mostly developed properties along the western edge:

1.24 Annexation
  a) Annexation will be required before adequate facilities and services are furnished.
  b) The city will actively pursue annexation of county enclaves, Area II substantially developed properties along the western boundary below the Blue Line, and other fully mostly developed Area II properties.

The BVCP allows for three types of Service Area expansions: 1) Minor adjustments, 2) Area III-Rural Preservation Area to Area III-Planning Reserve change, and 3) Area III-Planning Reserve to Area II change (See Attachment C). Service Area expansions as outlined in items 2 and 3 are intended for large undeveloped tracts of land which may provide a long-term community need. The 135 properties along the western edge are mostly developed and do not meet those criteria. Changes to the Service Area for these properties would most logically be considered minor adjustments to the Service Area. However, to meet the criteria for a “Minor Adjustments to the Service Area Boundary” the maximum size of the area may be no larger than ten acres. Staff is considering a Service Area boundary adjustment for three neighborhoods (Knollwood, Spring Valley Estates and Canon Park) which are well over 10 acres each.

Staff is proposing to amend the BVCP Amendment Procedures (Section II) to qualify substantially developed residential areas larger than 10 acres for a Minor Adjustment to the Service Area boundary (Area III-Rural Preservation to Area II change). The proposed change is as shown below:

b. Criteria for minor service area boundary changes and Boulder Valley Planning Area expansion and contractions.
   (1) Minor adjustments to the service area boundary

   Minor adjustments to the service area boundary are small, incremental service area expansions that create more logical service area boundaries. Changes in designation of land from Area III to Area II may be eligible to be approved as a minor service area boundary based on the following criteria:
   (a) Maximum size: The total size of the area must be no larger than ten acres. Residential areas larger than ten acres may be considered if the area consists
Following the above policy and amendment procedure changes, staff is proposing to change the Planning Area map to move the Spring Valley Estates neighborhood into the Planning Area and then to move a total of 125 properties from Area III to Area II, making them all eligible for annexation. If these procedural changes are endorsed by the board and City Council, they will be included in the upcoming proposed changes in the Major Update to the BVCP.

After making the appropriate BVCP policy, amendment procedure and planning area map changes, staff will develop an annexation package and strategy to promote voluntary annexation of private properties along the western edge of the city.

**PUBLIC COMMENT AND PROCESS**

After receiving policy input from Planning Board and City Council, staff will notify property owners about the proposed changes to the BVCP and a timeline and scope for any potential annexation offers.

The Planning Board held a public hearing regarding this item on Feb. 16, 2017. One person spoke against the changes. The board made the following motion:

> On a motion by **L. Payton** seconded by **C. Gray** the Planning Board voted 7-0 to recommend to City Council to support the policy and amendment procedure changes recommended by staff with language changes to reconcile the minor amendment to the service area language with the annexation policy and be limited to apply to the western side of the city.

**NEXT STEPS**

If council has any questions or comments, please direct them to Chris Meschuk, Senior Planner at 303-441-4293 or meschukc@bouldercolorado.gov by March 21, 2017. The proposed policy revisions are proposed to be included in the draft BVCP to be released on March 24. The map changes to implement these changes are proposed be included in BVCP for adoption beginning in May 2017.

**ATTACHMENTS:**

- A  BVCP Planning Areas
- B  BVCP Annexation Policy 1.24
- C  BVCP Amendment Procedures
Boulder Valley Comprehensive Plan Planning Areas

Information Item
Blue Line Implementation
Boulder Valley Comprehensive Plan Annexation Policy

1.24 Annexation

The policies in regard to annexation to be pursued by the city are:

a) Annexation will be required before adequate facilities and services are furnished.

b) The city will actively pursue annexation of county enclaves, Area II properties along the western boundary, and other fully developed Area II properties. County enclave means an unincorporated area of land entirely contained within the outer boundary of the city. Terms of annexation will be based on the amount of development potential as described in (c), (d), and (e) of this policy. Applications made to the county for development of enclaves and Area II lands in lieu of annexation will be referred to the city for review and comment. The county will attach great weight to the city’s response and may require that the landowner conform to one or more of the city’s development standards so that any future annexation into the city will be consistent and compatible with the city’s requirements.

c) Annexation of existing substantially developed areas will be offered in a manner and on terms and conditions that respect existing lifestyles and densities. The city will expect these areas to be brought to city standards only where necessary to protect the health and safety of the residents of the subject area or of the city. The city, in developing annexation plans of reasonable cost, may phase new facilities and services. The county, which now has jurisdiction over these areas, will be a supportive partner with the city in annexation efforts to the extent the county supports the terms and conditions being proposed.

d) In order to reduce the negative impacts of new development in the Boulder Valley, the city will annex Area II land with significant development or redevelopment potential only if the annexation provides a special opportunity or benefit to the city. For annexation considerations, emphasis will be given to the benefits achieved from the creation of permanently affordable housing. Provision of the following may also be considered a special opportunity or benefit: receiving sites for transferable development rights (TDRs), reduction of future employment projections, land and/or facilities for public purposes over and above that required by the city’s land use regulations, environmental preservation, or other amenities determined by the city to be a special opportunity or benefit. Parcels that are proposed for annexation that are already developed and which are seeking no greater density or building size would not be required to assume and provide that same level of community benefit as vacant parcels unless and until such time as an application for greater development is submitted.

e) Annexation of substantially developed properties that allows for some additional residential units or commercial square footage will be required to demonstrate community benefit commensurate with their impacts. Further, annexations that resolve an issue of public health without creating additional development impacts should be encouraged.
f) There will be no annexation of areas outside the boundaries of the Boulder Valley Planning Area, with the possible exception of annexation of acquired open space.

g) Publicly owned property located in Area III and intended to remain in Area III may be annexed to the city if the property requires less than a full range of urban services or requires inclusion under city jurisdiction for health, welfare and safety reasons.

h) The Gunbarrel Subcommunity is unique because the majority of residents live in the unincorporated area and because of the shared jurisdiction for planning and service provision among the county, the city, the Gunbarrel Public Improvement District and other special districts. Although interest in voluntary annexation has been limited, the city and county continue to support the eventual annexation of Gunbarrel. If resident interest in annexation does occur in the future, the city and county will negotiate new terms of annexation with the residents.
Boulder Valley Comprehensive Plan
Section II. Amendment Procedures

The Boulder Valley Comprehensive Plan is a joint policy document that is adopted by the City of Boulder and Boulder County in their legislative capacities. Any amendment to the plan is also legislative in nature. The plan is updated periodically to respond to changed circumstances or community needs. Changes to the comprehensive plan fall into three categories:

- Changes that may be considered at any time
- Changes that may be considered during a mid-term review
- Changes that may only be considered during the five-year update

For changes to the plan:
- Where the “county” alone is referred to in the policy, the policy may be amended by the county, after referral to the city.
- Where the “city” alone is referred to in the policy, the policy may be amended by the city, after referral to the county.
- All other policies will be construed to be joint city and county statements of policy, and are to be amended by joint action.
- Where a particular “area” is not specified in the policy text, the policy will apply to all areas.

This section describes the different types of changes, the process for making changes, the criteria for determining which process to follow, and the procedures for approving proposed changes. The types of changes, when they may be considered, and whether they are subject to approval by the city (Planning Board and City Council), the county (County Planning Commission and County Commissioners), or the city and county (Planning Board, City Council, County Planning Commission, and County Commissioners) is summarized in the following table:

1. Changes that may be considered at any time
The following changes may be considered at any time and require approval by the city Planning Board and City Council.

a. Types of changes that may be considered at any time if they meet the criteria in Subsection b below:
   1. Land Use Map changes
   2. Changes to the Master Plan and Program summaries
   3. Changes to the Urban Service Criteria and Standards
   4. Changes to the Subcommunity and Area Plan section
   5. Changes in designation of land from Area IIB to Area IIA

b. Criteria for eligibility for changes that may be considered at any time:
(1) Land Use Map changes:
The Land Use Map is not intended to be a zoning map. It is intended to provide policy direction and definition for future land uses in the Boulder Valley. Thus, a change to the land use designations may be considered at any time if it is related to a proposed change in zoning or proposed annexation and meets all of the following criteria:

(a) The proposed change is consistent with the policies and overall intent of the comprehensive plan.
(b) The proposed change would not have significant cross-jurisdictional impacts that may affect residents, properties or facilities outside the city.
(c) The proposed change would not materially affect the land use and growth projections that were the basis of the comprehensive plan.
(d) The proposed change does not materially affect the adequacy or availability of urban facilities and services to the immediate area or to the overall service area of the City of Boulder.
(e) The proposed change would not materially affect the adopted Capital Improvements Program of the City of Boulder.
(f) The proposed change would not affect the Area II/Area III boundaries in the comprehensive plan.

(2) Criteria for changes in designation of land from Area IIB to Area IIA:

(a) The proposed change is compatible with the city’s existing and planned urban facilities and service systems, as demonstrated by such factors as:
   (i) The full range of urban facilities and services are available, or will be available within three years, as specified in the urban service standards to be provided through city capital improvements and private investment.
   (ii) The timing, design and operation of required facility and service improvements are consistent with the city’s Capital Improvements Program, master plans and urban service standards in the comprehensive plan.
   (iii) Off-site improvements that are provided by developers ahead of scheduled capital improvements will not result in premature demand for additional city-provided improvements.
   (iv) City off-site capital facility costs to serve the property can be recovered by development excise taxes and development exactions.

(b) The proposed change would be consistent with the city’s ability to annex within three years, as demonstrated by such factors as:
   (i) The property is currently contiguous to the city or there is a reasonable expectation of contiguity within three years, based on expected development trends and patterns.
   (ii) The public costs of annexation and development of Area IIA properties can be accommodated within the city’s Capital Improvements Program and operating budget.

(b) The proposed change would be consistent with a logical expansion of city boundaries, as demonstrated by such factors as: encouraging a contiguous and compact development pattern; encouraging infill and redevelopment or a desired opening of a new growth area; enhancing neighborhood boundaries or edges.

c. Procedures for changes that may be considered at any time:

(1) Requests for changes may be initiated by the city or the property owner:
A request initiated by the property owner must be submitted in writing to the city’s Planning Department and must address the criteria for processing the request separately from a mid-term or five-year review.
(2) The city will make a referral with preliminary comments to the county Land Use Department for comment:
For land use changes and changes from Area IIB to IIA, the county will have 30 days after receipt of the referral to provide written notice to the city as to whether the proposed change meets the criteria. If the county determines that the proposed change does not meet the criteria, then the requested change will be processed at the time of the next mid-term or five-year review and will require four body review and approval.

(3) Requests for land use changes and changes from Area IIB to IIA will be considered based on the criteria in Section 1.b.(2) above at a public hearing of the city Planning Board.
If there is an accompanying rezoning application or annexation petition, this review may be concurrent with consideration of those matters. Changes determined to meet the criteria in this section may still be deferred by the city Planning Board or City Council to the mid-term or five-year review upon a finding of good cause.

2. Mid-term review changes
Changes to the comprehensive plan may be proposed in a mid-term review. A mid-term review may be initiated at some point between five-year major updates as needed. The purposes of the mid-term review are to address objectives identified in the last major update and progress made in meeting those objectives, provide an opportunity for the public to request changes to the plan that do not involve significant city and county resources to evaluate, make minor additions or clarifications to the policy section and to make minor adjustments to the service area boundary. The mid-term review is not intended to be a time to consider major policy changes.

a. Types of changes that may be considered as part of the mid-term review:
The following changes to the Boulder Valley Comprehensive Plan may be considered at the midterm review:

(1) Changes that require approval by the city Planning Board and City Council:
  • Land Use Map changes located in Area I subject to the criteria in Section 1.b.(1) above
  • Changes to the Master Plan and Program summaries
  • Changes to the Urban Service Criteria and Standards
  • Changes to the Subcommunity and Area Plan section
  • Changes in designation of land from Area IIB to Area IIA subject to the criteria in Section 1.b.(2) above

(2) Changes that require approval by the city Planning Board, City Council, County Planning Commission and County Commissioners:
  • Changes to the Land Use Map (other than those allowed by city approval in Section 2.a.(1) above)
  • Changes to the Plan Amendments section
  • Changes to the Land Use Map Description section
  • Minor additions or clarifications to the policy section
  • Minor Service Area boundary changes subject to the criteria set forth below
Boulder Valley Planning Area expansions and contractions, i.e., changes to the Area III outer boundary subject to the criteria set forth below.

**b. Criteria for minor service area boundary changes and Boulder Valley Planning Area expansions and contractions:**

(1) Minor adjustments to the service area boundary

Minor adjustments to the service area boundary are small, incremental service area expansions that create more logical service area boundaries. Changes in designation of land from Area III to Area II may be eligible to be approved as a minor service area boundary adjustment based on the following criteria:

(a) Maximum size: The total size of the area must be no larger than ten acres.

(b) Minimum contiguity: The area must have a minimum contiguity with the existing service area of at least 1/6 of the total perimeter of the area.

(c) Logical Service Area boundary: The resulting Service Area boundary must provide a more logical Service Area boundary (Area III/II), as determined by factors such as more efficient service provision, a more identifiable edge to the urbanized area or neighborhood, a more functional boundary based on property ownership parcel lines or defining natural features.

(d) Compatibility with the surrounding area and the comprehensive plan: The proposed change of Area III to II must be compatible with the surrounding area as well as the policies and overall intent of the comprehensive plan.

(e) No major negative impacts: It must be demonstrated that no major negative impacts on transportation, environment, services, facilities, or budget will result from an expansion of the Service Area.

(f) Minimal effect on land use and growth projections: The proposed change of Area III to II change does not materially affect the land use and growth projections that were the basis of the Comprehensive Plan.

(g) Minimal effect on service provision: The proposed change of Area III to II does not materially affect the adequacy or availability of urban facilities and services to the immediate area or the overall Service Area of the City of Boulder.

(h) Minimal effect on the city’s Capital Improvements Program: The proposed Area III to II change does not materially affect the adopted Capital Improvements Program of the City of Boulder.

(i) Appropriate timing: The proposed Area III to II change will not prematurely open up development potential for land that logically should be considered as part of a larger Service Area expansion.
(2) Boulder Valley Planning Area expansions or contractions:
An Area III outer boundary change may be initiated by the city or the county and will be approved only if it is demonstrated that either expansion or contraction of the planning area is needed due to changed circumstances or past error in determining the boundary.

c. Procedures for changes that may be considered as part of the mid-term review:

(1) Prior to the beginning of the mid-term review, the city Planning Department and county Land Use Department will establish a process and schedule for the update. This will include an opportunity for landowners and the general public to submit request for changes to the plan. The schedule and process will be revised as needed during the review process.

(2) For those changes eligible for approval by the city Planning Board and City Council, the city Planning Department will make a referral to the county Land Use Department for comment. For changes to the Land Use Map located in Area I, and changes from Area IIB to Area IIA, the county will have 30 days from the date of receipt of the city’s referral to provide written notice to the city if the county finds that the proposed change does not meet the applicable criteria for eligibility. Such finding on the part of the county will require that the requested change be subject to approval by each of the four bodies.

(3) All four approval bodies will hold initial meetings with their staffs to identify changes they wish to be considered as part of the mid-term review. Public attendance is welcomed, but review of public applications will not occur at this time.

(4) Proposed changes from the public, staff and approval bodies will be reviewed by the city Planning Department, which will prepare a recommendation in consultation with the county Land Use Department on whether to include each proposed change in the mid-term review. Determination of whether to include a proposed change will be made based upon:
   (a) consistency with the purposes of the midterm review as described in 3. above,
   (b) available resources to evaluate the proposed change (city and county staffing and budget priorities),
   (c) consistency with current BVCP policies and
   (d) compatibility with adjacent land uses and neighborhood context.

(5) The city Planning Board will consider all requests for changes together with the staff recommendations at a public hearing and will compile a list of proposed changes to be considered during the mid-term review.

(6) Requests for changes to the comprehensive plan that affect an area designated Open Space will be reviewed by the city Open Space Board of Trustees and the county Parks and Open Space Advisory Committee. The board of trustees will make a recommendation prior to any action on that change.
(7) After a list of proposed changes to be considered during that year’s review has been determined, the city Planning Department and county Land Use Department will study, seek appropriate public input, and make recommendations concerning proposed changes. The city Planning Board will then initiate the hearings on whether to approve, modify or deny any of the proposed changes.

3. The five-year review
The comprehensive plan will be reviewed at least every five years for possible amendments to reflect changes in circumstances and community desires.

a. Types of changes that may be considered at the five-year review:
Any change to the comprehensive plan may be considered at the five-year review including those that may be considered at other times pursuant to the provisions set forth above. However, certain kinds of changes will be considered only at the five-year review and must be approved by each of the four signatory bodies: the city Planning Board, City Council, County Planning Commission and County Commissioners. Those include:

- Service area expansions or contractions (changes in the Area II/III boundary) that do not satisfy the criteria for consideration as part of a mid-term review
- Area III-Rural Preservation Area expansions or contractions
- Major changes to policy sections

b. Criteria for approval for Service Area and Area III expansions or contractions:

(1) Service Area expansions (Area III-Planning Reserve to Area II changes)
Following preparation of a service area expansion plan (see Sections 3.c.3 below), the city and county must determine that the proposed change from Area III - Planning Reserve to Area II meets the following criteria:

(a) Provision of a community need: Taking into consideration an identified range of desired community needs, the proposed change must provide for a priority need that cannot be met within the existing service area.

(b) Minimum size: In order to cohesively plan and eventually annex by neighborhoods and to build logical increments for infrastructure, it is encouraged that the minimum size of the parcel or combined parcels for Service Area expansion be at least forty acres.

(c) Minimum contiguity: The parcel or combined parcels for Service Area expansion must have a minimum contiguity with the existing service area of at least 1/6 of the total perimeter of the area.

(d) Logical extension of the service area: The resulting service area boundary must be a logical extension of the service area. Factors used in making this determination include but are not limited to an efficient increment for extending urban services; a desirable community edge and neighborhood boundary; and a location that contributes to the desired compact urban form.
(e) Compatibility with the surrounding area and comprehensive plan: The proposed Area III-Planning Reserve area to Area II change must be compatible with the surrounding area and the policies and overall intent of the comprehensive plan.

(f) No major negative impacts: The Service Area Expansion Plan must demonstrate that community benefits outweigh development costs and negative impacts from new development and that negative impacts are avoided or adequately mitigated. To this end, the Service Area Expansion Plan will set conditions for new development, and it will specify the respective roles of the city and the private sector in adequately dealing with development impacts.

(g) Appropriate timing for annexation and development: A reasonable time frame for annexation is projected within the planning period after Area III-Planning Reserve area land is brought into the service area.

(2) Service Area contractions (changes from Area II to Area III-Rural Preservation Area)

Proposed changes from Area II to Area III-Rural Preservation Area must meet the following criteria:

(a) Changed circumstances indicate either that the development of the area is no longer in the public interest, the land has or will be purchased for open space, or, for utility-related reasons, the City of Boulder can no longer expect to extend adequate urban facilities and services to the area within 15 years;

(b) Any changes in proposed land use are compatible with the surrounding area and the policies and overall intent of the comprehensive plan.

(3) Area III-Rural Preservation Area expansions: Expansion of the Area III-Rural Preservation Area must meet the following criteria:

(a) There is a desire and demonstrated need for expansion of the Area III-Rural Preservation Area due to changed circumstances, community needs, or new information on land use suitability (e.g., environmental resource or hazard constraints, feasibility of efficient extension of urban services, and compact and efficient urban form).

(4) Area III-Rural Preservation Area to Area III – Planning Reserve

Changes of land from the Area III-Rural Preservation Area to the Area III-Planning Reserve Area must meet the following criteria: There is a demonstrated need for contraction of the Area III-Rural Preservation Area due to changed circumstances, community needs, or new information on land use suitability (e.g., environmental resource or hazard constraints, feasibility of efficient extension of urban services, and compact and efficient urban form); and land to be considered for a change from Area III-Rural Preservation Area to Area III-Planning Reserve must have a minimum contiguity with the Area III-Planning Reserve area or the existing service area (Area I or Area II) of at least 1/6 of the total perimeter of the area.
c. Procedures for the five-year review:

(1) Process and schedule
Prior to the beginning of the five-year review, the city Planning Department and the county Land Use Department will establish a process and schedule for the update. The schedule and process will be revised as needed during the review process. The process will include an opportunity for landowners and the general public to submit requests for changes to the plan. All submittals for proposed changes will be reviewed at initial public hearings. Staff will provide recommendations and the approval bodies will provide direction on which proposals should go forward and which proposals should receive no further consideration. During each five-year review, the city and the county will assess whether or not the service area or the Area III-Rural Preservation Area should be expanded or contracted.

(2) Expansions or contractions of Area III – Rural Preservation Area
Prior to consideration of an expansion of the Area III– Rural Preservation Area or a change from Area III- Rural Preservation Area to Area III Planning Reserve Area, a study will be completed by the city and county demonstrating compliance with the criteria applicable to the proposed change. The city or the county will decide whether to authorize a study of the proposed change after a public hearing is held.

(3) Changes from Area III-Planning Reserve to Area II
During each five-year review, the city and county may assess whether or not merit exists to authorize a service area expansion plan. The determination of merit will be based on demonstration that a desired community need cannot be met within the existing service area. If the city and county find that sufficient merit exists, the city and county may authorize a planning effort to develop a joint city county service area expansion plan for the area proposed to be brought into the service area in consultation with Area III property owners and the public. The Service Area Expansion Plan must address the following:

(a) the types of development needed to meet long term community needs;
(b) key requirements to ensure compliance with community goals and policies, and to ensure compatibility with the existing development context and surrounding area;
(c) conceptual land use and infrastructure plan components;
(d) requirements for development impact mitigation and offsets (both on-site and off-site); and
(e) development phasing.

(4) Reinstatement of Area III – Rural Preservation Area back to Area II – Service Area
A property owner that has been moved from Area II to Area III may request that the change be reevaluated under the same procedures and criteria that were used to make such a change for a period ten years after the change was made. Thereafter, such properties will be subject to all of the procedural requirements of this section.

4. Notification
a. Any property owner whose property would be affected by a proposed change in land use designation or by service area expansions, contractions or boundary changes will receive timely written notice that such change or changes will be considered. Planning staff will exert its best
efforts to provide such notice within 30 days of receiving a request that is to be considered. However, no hearing to approve or deny any such proposal will be held unless the affected property owner was provided with this written notice at least 30 days prior to the date set for the hearing on the proposed change.

b. General public notice of all proposed changes will be provided in the following manner. The city Planning Department will publish a Comprehensive Plan map indicating where the proposed changes are located and a description of each change in the newspaper at least ten days prior to the first public hearing to consider the proposed changes.

5. Errors
If a discrepancy is found to exist within the Boulder Valley Comprehensive Plan that is clearly a drafting error or a clerical mistake, either the city or the county, after a referral request to the other agency, may correct such error.
INFORMATION PACKET
MEMORANDUM

To: Mayor and Members of Council

From: Jane S. Brautigam, City Manager
       Susan Richstone, Interim Executive Director of Planning, Housing + Sustainability
       Kendra Tupper, Energy Services Manager
       Kimberlee Rankin, Sustainability Specialist II

Date: March 16, 2017

Subject: Information Item: 2015 Community Greenhouse Gas Inventory

EXECUTIVE SUMMARY
This information packet outlines the results of the City of Boulder’s 2015 community greenhouse gas (GHG) inventory and the recalculation of the 2012 community GHG inventory. Please contact Kimberlee Rankin, Sustainability Specialist II, (rankink@bouldercolorado.gov; 303-441-4227) with any comments or questions.

In 2016, the City of Boulder contracted with Lotus Engineering and Sustainability, LLC (Lotus) to complete a community 2015 greenhouse gas (GHG) inventory and revise the existing 2012 GHG inventory. The outcomes of these inventories showed that in 2012, the city achieved a 4.1% reduction in emissions from the 2005 baseline, and in 2015, the city achieved a 5.2% reduction in emissions from the baseline, despite continued economic and population growth.

In 2015, the City of Boulder committed to the global Compact of Mayors (Compact), a worldwide effort to highlight the leadership of cities in addressing climate change and demonstrate the collective impact of city efforts. One of the requirements of the Compact is the completion of a GHG inventory that complies with the Global Protocol for Community-Scale GHG Emissions (GPC). Therefore, following the City of Boulder’s commitment to the Compact in 2015, this 2015 GHG inventory was completed to the Compact’s GPC-compliant requirements, which was a new methodology from previous inventories.

Due to inconsistencies in data sources and methodologies between the 2005, 2012, and 2015 inventory, city staff elected to revise the 2012 inventory in 2016. This revision provides consistency with the 2015 GHG inventory decision to use the GPC methodology.
The community GHG inventories will fulfill the Compact requirements and determine how well Boulder is achieving its climate goals. Further, tracking annual GHG emissions will also allow the city to provide regular updates to the community, and measure progress towards goals, via the citywide dashboard Boulder Measures.

The GHG inventory results, trends, and further detail on the methodology are provided in the City of Boulder 2015 Greenhouse Gas Emissions Inventory Summary Report, Attachment A.

FISCAL IMPACT

- Consultant: The City of Boulder has hired an external consultant to complete the GHG inventory annually at a fee not to exceed $10,000 per year.

- Staff time: Leveraging the consultant expertise will significantly reduce the amount of staff time required to collect the data, calculate emissions, and analyze data trends. Existing Climate + Sustainability staff will manage the consultant, and continue to manage the overall project and report.

COMMUNITY SUSTAINABILITY ASSESSMENTS AND IMPACTS

- Economic: Tracking and measuring GHG emissions on an annual basis allows staff to better design programs to reduce energy consumption, which will result in less money flowing to energy costs over time, and more household and business income available for other uses. Further, communicating the emissions trends and success of Boulder’s sustainability efforts allow further recognition of Boulder as a highly desirable place to work, live, and play, particularly for new business potential in efforts to promote a diverse and sustainable economy.

- Environmental: On Dec. 6, 2016, council adopted climate commitment goals for the city, including an overall target of an 80 percent reduction in GHG emission by 2050. The annual GHG inventory will provide an update to the GHG emissions generated from energy, transportation, waste, etc. in the community, and will also measure and analyze trends in emissions, and energy source and consumption, which is key to tracking the success of the city towards its Climate Commitment goals.

- Social: Tracking and measuring GHG emissions on an annual basis allows staff to better design programs to serve the community’s needs and further reduce harmful emissions. The net outcome of decreased greenhouse gas emissions supports the community's strong value of protecting the environment and living in a sustainable way.

BACKGROUND AND ANALYSIS

In 2016, the City of Boulder contracted with Lotus Engineering and Sustainability, LLC (Lotus) to complete a community 2015 greenhouse gas (GHG) inventory and revise the existing 2012 GHG inventory. The summary report, Attachment A, describes the results of each inventory and compares results against the city’s 2005 baseline year.
NEXT STEPS
Now that the GHG inventory results are final, there are several next steps for city staff:

- Report results to the Environmental Advisor Board and collect any feedback to implement in the next inventory.
- Publish the final GHG emissions data on the city website, update the visual infographics, and ensure all emission data is updated on the dashboard, Boulder Measures.
- Staff will review the results as part of overall program evaluation and will use these results to inform future program design.
- Staff will work with the consultant to begin data collection for the 2016 GHG inventory.

ATTACHMENTS
A: City of Boulder 2015 Greenhouse Gas Emissions Inventory Summary Report
FIGURES

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Figure 2. Emissions Breakout Over Time by End Use ............................................. 12
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I. EXECUTIVE SUMMARY

The 2015 City of Boulder Greenhouse Gas (GHG) inventory shows a total emission value of 1,848,741 metric tons of carbon dioxide equivalent (MT CO\textsubscript{2}e). Since the baseline year of 2005, total community emissions have decreased by 5.2 percent, despite economic growth. In fact, after normalizing for various growth factors, significant savings are revealed: 37 percent reduction in emissions per retail sales and 32 percent reduction in emission per gross domestic product (GDP), to name a few.

Most, nearly 99 percent, of Boulder’s GHG emissions come from energy use, in the form of buildings, vehicles and air travel. As has been the case historically, commercial and industrial (C&I) building energy use were the largest contributors to Boulder’s emissions in 2015. These comprised 53 percent of the overall emissions, as shown in Figure ES.1. percent

**Figure ES.1. 2015 EMISSIONS BY CATEGORY**

- Commercial and industrial, 53%
- Residential buildings, 15%
- Vehicle travel, 23%
- Aviation, 8%
- Fugitive emissions, 0.5%
- Solid waste, 1%
- Refrigerants, 0.01%
- Wastewater, 0.04%
The leading sources of emissions in Boulder’s 2015 inventory, shown in Figure ES.2, were electricity, representing 50 percent of emissions by source; fossil fuels used for transportation; and natural gas used in buildings.

**Figure ES.2. 2015 Emissions by Source**

These 2015 emissions category and source results are consistent with previous inventories. Since the 2005 baseline, total community emissions have decreased by 5.2 percent, as shown in Table ES.1, despite economic growth, which typically drives higher energy demand, and increases in some areas of tracked activity (e.g. fuel consumption).

**Table ES.1. Overall Community Emissions Trend**

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2012</th>
<th>2015</th>
<th>Overall Reduction since 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Emissions</strong></td>
<td>1,949,796</td>
<td>1,870,346</td>
<td>1,848,741</td>
<td>-5.2%</td>
</tr>
</tbody>
</table>

Information Item
2015 Community Greenhouse Gas Inventory

1B Page 9
In addition to reducing total community GHG emissions, Boulder continues to be a climate action leader with the city’s programs and efforts resulting in emissions reductions in key areas such as electricity, as shown Figure ES.3. Analysis of the emission increases and decreases by source is discussed in section **V. Factors Influencing Emissions**.

**Figure ES.3. GHG Emissions Trends by Source**
While Boulder has achieved an overall emissions reduction of 5.2 percent between 2005 and 2015, the normalized metrics \(^1\) over time indicate even greater emission reductions achievements, as shown in Table ES.2.

**Table ES.2. Normalized Emissions Metrics**

<table>
<thead>
<tr>
<th>Emissions Metrics</th>
<th>Units</th>
<th>2005 (Baseline)</th>
<th>2015</th>
<th>Change since 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total emissions per retail sales</td>
<td>MT CO(_2)e /$</td>
<td>0.00111</td>
<td>0.00070</td>
<td>-37.2%</td>
</tr>
<tr>
<td>Total emissions per collected tax(^2)</td>
<td>MT CO(_2)e /$</td>
<td>0.01746</td>
<td>0.00975</td>
<td>-44.2%</td>
</tr>
<tr>
<td>Total emissions per Gross Domestic Product (GDP)</td>
<td>MT CO(_2)e /$</td>
<td>0.00012</td>
<td>0.00008</td>
<td>-31.6%</td>
</tr>
<tr>
<td>Residential electricity per person</td>
<td>kWh/person</td>
<td>2,483</td>
<td>2,263</td>
<td>-8.9%</td>
</tr>
<tr>
<td>C&amp;I electricity per GDP</td>
<td>kWh/$</td>
<td>0.059</td>
<td>0.049</td>
<td>-16.4%</td>
</tr>
<tr>
<td>C&amp;I electricity per C&amp;I building floor space (sq. ft.)</td>
<td>kWh/sqft</td>
<td>23</td>
<td>24</td>
<td>5.2%</td>
</tr>
<tr>
<td>Residential natural gas per person</td>
<td>dTh/person</td>
<td>18.98</td>
<td>19.22</td>
<td>1.2%</td>
</tr>
<tr>
<td>C&amp;I natural gas per building floor space</td>
<td>dTh/sqft</td>
<td>0.097</td>
<td>0.083</td>
<td>-14.1%</td>
</tr>
<tr>
<td>C&amp;I natural gas per GDP</td>
<td>dTh/$</td>
<td>0.00025</td>
<td>0.00017</td>
<td>-31.8%</td>
</tr>
<tr>
<td>Transportation emissions per resident</td>
<td>MT CO(_2)e/resident</td>
<td>5.98</td>
<td>5.55</td>
<td>-7.3%</td>
</tr>
<tr>
<td>VMT per resident</td>
<td>VMT/resident</td>
<td>9,699</td>
<td>8,379</td>
<td>-13.6%</td>
</tr>
<tr>
<td>Landfill tons per resident</td>
<td>Tons/resident</td>
<td>1.11</td>
<td>0.89</td>
<td>-19.3%</td>
</tr>
</tbody>
</table>

Additional normalized metrics and are identified in section **V. Factors Influencing Emissions**.

---

\(^1\) Normalized metrics are intensity ratios that can be used in GHG emissions accounting to scale the net generated emissions by business metrics or other financial or community indicators.

\(^2\) Note: Collected tax includes sales and use tax, property tax, Climate Action Plan tax, and other tax.
To understand how Boulder is performing relative to other communities, Boulder’s 2015 per capita emissions were compared to other cities, with the results depicted in Table ES.3.

**TABLE ES.3. PER CAPITA EMISSIONS CITY COMPARISON**

<table>
<thead>
<tr>
<th>City</th>
<th>Per capita emissions (MT CO₂e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boulder, CO (2015)</td>
<td>17</td>
</tr>
<tr>
<td>Denver, CO (2013)</td>
<td>20</td>
</tr>
<tr>
<td>Fort Collins, CO (2014)</td>
<td>15</td>
</tr>
<tr>
<td>New York, NY (2014)</td>
<td>5.8</td>
</tr>
<tr>
<td>Boulder, CO (2050 Climate Goal)</td>
<td>3 (Anticipated)</td>
</tr>
</tbody>
</table>

Boulder has long understood the importance of local climate action, as shown by Boulder’s decreasing trend in community emissions. Boulder’s residents and businesses were among the first in the country to support and participate in programs like the Climate Action Plan Tax (CAP Tax) and a host of other energy efficiency and conservation programs. Some of these, including EnergySmart, SmartRegs and the Building Performance Ordinance, are being replicated elsewhere as they begin to achieve the full benefits of their implementation locally. Others, like a local carbon offset fund and changing our energy supply from fossil fuels to renewable sources through the possible creation of a local electric utility, are still taking shape.

Further, in December 2016, City Council unanimously approved the adoption of Boulder’s Climate Commitment goal to reduce community greenhouse gas emissions by 80 percent below 2005 levels by 2050.

This annual GHG inventory serves as a vital component of the Climate Commitment for tracking program performance and the city’s progress towards its overall climate goal.
II. INTRODUCTION

In 2016, the City of Boulder contracted with Lotus Engineering and Sustainability, LLC (Lotus) to complete a community 2015 greenhouse gas (GHG) inventory and revise the existing 2012 GHG inventory to better align best practices and methodologies. This report describes the results of each inventory and compares results against the city’s 2005 baseline year.

A. Why a GHG Emissions Inventory Matters

The GHG emissions inventory described in this document is a critical step in maintaining Boulder’s long-time leadership in local climate action.

Naturally occurring gases dispersed in the atmosphere trap solar radiation, and help determine the Earth’s climate; this phenomenon is known as the greenhouse effect. Overwhelming scientific evidence shows that human activities are increasing the concentration of GHGs and changing the global climate. The most significant contributor to climate change is the burning of fossil fuels for transportation and energy, which introduce significant amounts of carbon dioxide (CO₂) and other GHGs into the atmosphere. Collectively, these gases intensify the natural greenhouse effect, increasing temperatures on the Earth’s surface and lower atmosphere.

Colorado has already experienced impacts due to climate change, but recent studies detail potentially severe effects of climate change, such as:

- average temperature increases ranging from 1.5 degrees Fahrenheit to 4.5 degrees Fahrenheit;
- seasonal shifts in precipitation;
- reductions in available water;
- increases in the number of days with temperatures that exceed 90 degrees Fahrenheit and 100 degrees Fahrenheit;\(^5\)
- more severe storms and more extreme fires;
- increases in heat-related illnesses; and
- increases in pine beetle outbreaks.\(^6\)

Climate change threatens the health of Colorado’s ecosystems, the health and safety of its residents, and the viability of the state’s economy (particularly tourism and agriculture

\(^3\) The six GHGs include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.
\(^6\) For more information, see: [http://csfs.colostate.edu/forest-management/common-forest-insects-diseases/mountain-pine-beetle](http://csfs.colostate.edu/forest-management/common-forest-insects-diseases/mountain-pine-beetle).
industries); there is no question that Colorado residents, businesses, and municipal operations will be impacted.

An annual GHG inventory assesses a community’s contribution to global climate change and informs community policies and programs that will reduce GHG emissions, minimizing impacts and potentially reversing current trends.

B. What We Can Learn from a GHG Inventory

The United Nations Environment Programme estimates that cities produce 60 percent to 80 percent of all GHG emissions, making cities a critical participant and partner in the sustainability movement. Boulder’s GHG inventory provides a picture of emissions created by the activities of Boulder residents, businesses, institutions, and industries. By comparing inventories over time, Boulder can track the success of existing and future climate change-related policies and programs. These comparisons create a dynamic feedback loop that can inform and shape future improvement strategies.

Reductions in emissions are a direct result of cleaner fuels and reduced energy consumption and waste generation, which result in a series of additional benefits to the community. Decreased fossil fuel consumption will save residents money on utility and transportation costs and create local jobs focused on energy-efficiency retrofits and the generation of renewable energy. Money not spent on energy is more likely to be spent locally, contributing to the local economy. Reducing the use of fossil fuels improves air quality, which also improves Boulder residents’ quality of life. Given the fact that low-income housing is often located near utility operations and/or industrial areas, and the fact that rising energy costs have a bigger impact on the poor, advancements in efficiency can also further environmental justice.

C. Practicing Accountability and Leadership

In 2002, Boulder City Council passed Resolution 906, committing the community to reducing GHG emissions to the target established by the Kyoto Protocol, a 1997 international agreement to combat global climate change. Boulder then launched a series of climate-change initiatives to support this goal.

In 2015, the City of Boulder committed to the global Compact of Mayors (Compact), a worldwide effort to highlight the leadership of cities in addressing climate change and demonstrate the collective impact of city efforts. One of the requirements of the Compact is the completion of a

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GHG inventory that complies with the *Global Protocol for Community-Scale GHG Emissions* (GPC). Boulder’s 2015 GHG inventory is GPC-compliant and fulfills the inventory requirement Boulder has committed to under the Compact.

To further efforts and maintain consistency with other leading cities, in 2016 Boulder City Council adopted the Climate Commitment goals, which included a community emissions goal to reduce emissions 80 percent based on 2005 levels by 2050. Related to this goal, Boulder also committed to providing 100 percent of the community’s electricity needs with renewable energy by 2030.

The community GHG inventories will fulfill the Compact requirements and determine how well Boulder is achieving its climate goals. Further, by completing a GPC-compliant inventory, Boulder can report emissions to the Carbon Disclosure Project (CDP) and the carbon Climate Registry (cCR), which will demonstrate Boulder’s climate-change commitments to a global audience. Tracking annual GHG emissions will also allow the city to provide regular updates to the community, and measure progress towards goals, via the citywide dashboard *Boulder Measures*.

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9 For more information see [https://bouldercolorado.gov/climate](https://bouldercolorado.gov/climate)
III. INVENTORY METHODOLOGY

The GPC is the official protocol specified by the Compact of Mayors. It defines what emissions must be reported and how. Therefore, following the City of Boulder’s commitment to the Compact in 2015, this 2015 GHG inventory was completed to the Compact’s GPC-compliant requirements, which was a new methodology from previous inventories. In addition, this 2015 inventory draws on methods from ICLEI-Local Governments for Sustainability’s (ICLEI) *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions*, which provides more detailed methodology specific to U.S. communities.

A. Previous Inventory Methodologies

Boulder developed annual inventories from 2005 through 2010 using the Greenhouse Gas Protocol Initiative’s *GHG Protocol Corporate Standard*. Results from the 2010 inventory were published in a comprehensive report titled *Community Guide to Boulder’s Climate Action Plan, 2010/2011 Progress Report*[^10]. From 2011 to 2014, Boulder had limited access to energy consumption data for the community and was unable to complete annual GHG inventories. However, in 2015 Boulder was able to collect 2012 energy consumption for the community and developed a 2012 GHG inventory using ICLEI’s *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions, Version 1.0*, from October 2012.

In 2015, Boulder partnered with other cities to successfully lobby the Colorado Public Utilities Commission to require regulated utilities to provide cities with an annual Community Energy Report containing data necessary for a GHG inventory. Because of this, Boulder obtained the recently developed Community Energy Report from the local utility Xcel Energy and developed the 2015 GHG inventory. However, because data sources and methodologies between the 2005 to 2010 inventories, the 2012 inventory, and the 2015 inventory were inconsistent, Boulder elected to revise the 2012 inventory in 2016 to be consistent with the 2015 GHG inventory decision to use the GPC methodology. This report reflects the revised 2012 inventory numbers. For more information on the various methodologies, please see Appendix A: Inventory Methodologies.

As part of its Climate Commitment, Boulder selected the 2005 inventory as the GHG baseline to which all future inventories are compared. Please refer to the July 30, 2015 council memo reference about why this was chosen as the baseline year. This report compares 2005, 2012 and 2015 emissions.

[^10]: Results from the 2010 inventory are not included in the analysis presented in this report.
IV. EMISSIONS ANALYSIS

A. Key Findings from 2015 Inventory

The 2015 City of Boulder GHG inventory shows a total emission value of 1,848,741 metric tons of carbon dioxide equivalent (MT CO₂e).

Commercial and industrial (C&I) building energy use were the largest contributors to Boulder’s emissions in 2015, contributing 53 percent of overall emissions. On-road transportation (which includes gasoline and diesel-powered vehicles and public transit), and energy use in residential buildings follow closely behind at 23 percent and 15 percent of overall emissions, respectively. Emissions for all sectors are shown in Figure 1. Altogether, buildings and vehicles account for approximately 91 percent of Boulder’s total emissions. When air travel is included, energy use from buildings and transportation make up nearly 99 percent of all of Boulder’s GHG emissions. This data is consistent with previous inventories.

FIGURE 1. 2015 EMISSIONS BY CATEGORY
B. Comparison Between Inventories

The 2015 inventory showed an overall 5.2 percent decline in emissions since the baseline, and a decline of 1.2 percent since 2012. As seen in Table 1, notable decreases in emissions as compared to the baseline are seen from residential electricity, C&I electricity, vehicle travel, landfilling, and wastewater treatment processes.

**TABLE 1. EMISSIONS BY CATEGORY OVER TIME**

<table>
<thead>
<tr>
<th>EMISIONS</th>
<th>Units</th>
<th>2005 (Baseline)</th>
<th>2012</th>
<th>2015</th>
<th>% Change Between Baseline and 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Electric</td>
<td>MT CO$_2$e</td>
<td>201,710</td>
<td>174,506</td>
<td>164,759</td>
<td>-18.3%</td>
</tr>
<tr>
<td>Residential Natural Gas</td>
<td>MT CO$_2$e</td>
<td>109,717</td>
<td>99,457</td>
<td>109,554</td>
<td>-0.1%</td>
</tr>
<tr>
<td>C&amp;I Electric</td>
<td>MT CO$_2$e</td>
<td>812,849</td>
<td>790,966</td>
<td>748,651</td>
<td>-7.9%</td>
</tr>
<tr>
<td>C&amp;I Natural Gas</td>
<td>MT CO$_2$e</td>
<td>164,371</td>
<td>196,634</td>
<td>198,786</td>
<td>20.9%</td>
</tr>
<tr>
<td>Fugitive Emissions$^1$</td>
<td>MT CO$_2$e</td>
<td>-</td>
<td>9,237</td>
<td>9,619</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Buildings</strong></td>
<td>MT CO$_2$e</td>
<td>1,288,647</td>
<td>1,270,800</td>
<td>1,231,369</td>
<td>-4.4%</td>
</tr>
<tr>
<td>Vehicle Travel</td>
<td>MT CO$_2$e</td>
<td>501,358</td>
<td>423,892</td>
<td>446,797</td>
<td>-10.9%</td>
</tr>
<tr>
<td>Air Travel</td>
<td>MT CO$_2$e</td>
<td>88,142</td>
<td>158,681</td>
<td>147,660</td>
<td>67.5%</td>
</tr>
<tr>
<td><strong>Total Transportation</strong></td>
<td>MT CO$_2$e</td>
<td>589,500</td>
<td>582,573</td>
<td>594,457</td>
<td>0.8%</td>
</tr>
<tr>
<td>Landfill</td>
<td>MT CO$_2$e</td>
<td>69,849</td>
<td>14,920</td>
<td>19,932</td>
<td>-71.5%</td>
</tr>
<tr>
<td>Composting$^1$</td>
<td>MT CO$_2$e</td>
<td>-</td>
<td>1,257</td>
<td>2,129</td>
<td>-</td>
</tr>
<tr>
<td>Wastewater Treatment</td>
<td>MT CO$_2$e</td>
<td>1,800</td>
<td>697</td>
<td>671</td>
<td>-62.7%</td>
</tr>
<tr>
<td><strong>Total Waste</strong></td>
<td>MT CO$_2$e</td>
<td>71,649</td>
<td>16,874</td>
<td>22,732</td>
<td>-68.3%</td>
</tr>
<tr>
<td>Refrigerants$^1$</td>
<td>MT CO$_2$e</td>
<td>-</td>
<td>99</td>
<td>184</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Industrial Product Use</strong></td>
<td></td>
<td>99</td>
<td>184</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>MT CO$_2$e</td>
<td>1,949,796</td>
<td>1,870,346</td>
<td>1,848,741</td>
<td>-5.2%</td>
</tr>
</tbody>
</table>

$^1$Data was not collected for 2005 inventory.

Table 1 also shows an increase in C&I natural gas and air travel emissions since 2005. The increase in natural gas emissions is largely attributable to changes in emissions factors due to the University of Colorado at Boulder (CU Boulder) cogeneration facility. The increase in air travel emissions is attributed to a significant increase in air travel at Denver International Airport. These increases, as well as detailed comparison of normalized emission data (e.g. emissions per capita) and activity data (e.g. energy consumption, vehicle miles traveled, etc.), are further discussed in section V. Factors Influencing Emissions.
The contribution from each emissions category has remained relatively consistent over the years, as shown in Figure 2. Emissions from C&I buildings comprise the majority of total emissions, while on-road transportation emissions are second, and residential buildings emissions are third.

**Figure 2. Emissions Breakout Over Time by End Use**
The leading sources of emissions in Boulder’s 2015 inventory remain consistent with the 2012 inventory and the 2005 baseline inventory. As shown in Figure 3, these leading sources include electricity and natural gas used in buildings and fuel used for transportation, including on-road transportation and airline travel.

**Figure 3. 2015 Emissions By Source**
V. FACTORS INFLUENCING EMISSIONS

Emissions are a product of emission factors and activity data. Activity data refers to the units measured for the purpose of the GHG inventory calculations, such as fuel consumption (e.g. kilowatt hours of electricity consumed), tons of waste generated, vehicle miles traveled, etc. Activity data is influenced by community indicators (i.e., population, economic growth, etc.), and energy consumption and generation behaviors. Changes in emissions result from the interplay of these factors. Boulder can influence positive changes in emissions through various programs, policies, and outreach and education efforts. A review of emission changes and the factors that influence those changes inform how well Boulder’s climate-change initiatives are working and may inform where the city should focus future efforts.

The following is an overview of the drivers that affected the GHG emissions throughout the years.

A. Emission Factor Trends

Colorado’s Renewable Energy Standard\(^{11}\) and the state’s Clean Air Clean Jobs Act\(^{12}\) requires Xcel Energy to increase the efficiency of its operations and procure increasing amounts of energy from low- to zero-carbon sources (i.e., renewable energy, recycled energy, etc.). As a result, the mix of energy sources that supplies Xcel Energy’s electric grid changes every year and the resulting electricity emission factor decreases every year. Based on data from Xcel Energy, electricity emission factors decreased nearly 18 percent from 2005 to 2015 and nearly 3 percent from 2012 to 2015; although Xcel Energy publishes a natural gas emission factor, it is not expected to change significantly.

**Table 2. Changes in Emission Factors**

<table>
<thead>
<tr>
<th>Energy</th>
<th>Units</th>
<th>2005 (Baseline)</th>
<th>2012</th>
<th>2015</th>
<th>Change since 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity Emissions</td>
<td>MT CO(_2)/MWh</td>
<td>0.82449</td>
<td>0.70023</td>
<td>0.67977</td>
<td>-17.6%</td>
</tr>
</tbody>
</table>

A significant portion of reductions in electricity-generated emissions is attributable to the reduced emission factor. The reduced emission factor may result in reductions in electricity-generated emissions, even when electricity activity data (i.e. electricity consumption) increases.

---

\(^{11}\) For more information, see: [https://www.xcelenergy.com/staticfiles/xe/Corporate/CRR2013/environment/renewable-energy.html](https://www.xcelenergy.com/staticfiles/xe/Corporate/CRR2013/environment/renewable-energy.html).

\(^{12}\) For more information, see: [https://www.xcelenergy.com/environment/system_improvements/colorado_clean_air_clean_jobs](https://www.xcelenergy.com/environment/system_improvements/colorado_clean_air_clean_jobs).
**B. Community Indicator Trends**

Between 2005 and 2015, Boulder experienced growth across all community indicators except for the number of heating degree days (HDD) and cooling degree days (CDD)\(^{13}\) (see Table 3). In these 10 years, the city has seen a 9 percent increase in population and a 51 percent increase in retail sales. In this same time period, the city has seen a 70 percent increase in taxes collected\(^{14}\) and a 39 percent increase in overall Gross Domestic Product (GDP).

<table>
<thead>
<tr>
<th>TABLE 3. CHANGES IN COMMUNITY INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Item</td>
</tr>
<tr>
<td>City of Boulder Population</td>
</tr>
<tr>
<td>Number of Households</td>
</tr>
<tr>
<td>Number of Housing Units</td>
</tr>
<tr>
<td>Taxes (dollars)</td>
</tr>
<tr>
<td>GDP (dollars)</td>
</tr>
<tr>
<td>Number of Jobs</td>
</tr>
<tr>
<td>C&amp;I Building Floor Space (sq. ft.)</td>
</tr>
<tr>
<td>C&amp;I Floor Space Excluding CU Boulder (sq. ft.)</td>
</tr>
<tr>
<td>CU Boulder Floor Space (sq. ft.)</td>
</tr>
<tr>
<td>Retail Sales (dollars)</td>
</tr>
<tr>
<td>Heating Degree Days</td>
</tr>
<tr>
<td>Cooling Degree Days</td>
</tr>
</tbody>
</table>

Although growth can benefit the community financially, it makes the task of achieving significant reductions in energy use and GHG emissions more challenging. Fortunately, Boulder is reducing overall GHG emissions in the face of growth, and in some cases normalized metrics present drastic reductions.

---

\(^{13}\) A Heating Degree Day (HDD) and Cooling Degree Day (CDD) are roughly proportional to the energy used for heating and cooling a building. They are calculated by taking the difference between the average daily temperature and the balance point temperature. The balance point temperature is the average daily outside temperature at which a building maintains a comfortable indoor temperature without heating or cooling. When the average daily temperature is above the balance point temperature, the result is cooling degree days (i.e., a building must be cooled to maintain the balance point temperature). When the average daily temperature is below the balance point temperature the result is heating degree days (i.e., the building must be heated to maintain the balance point temperature). HDD and CDD were taken from: http://www.weatherdatadepot.com/ using at 65 deg F balance point.

\(^{14}\) 87 percent of taxes reported represent sales and use, and property tax.
Overall 2015 emissions have decreased by 5.2 percent since the baseline year (and 1.2 percent since 2012), but when normalized by community indicators (i.e., population, households, employees, GDP, etc.), we see more dramatic emission reductions, from 10 percent to over 40 percent (see Table 4). This data shows that Boulder is successfully reducing emissions when considering community and economic growth.

**TABLE 4. NORMALIZED EMISSIONS DATA**

<table>
<thead>
<tr>
<th>EMISSIONS METRICS</th>
<th>Units</th>
<th>2005 (Baseline)</th>
<th>2012</th>
<th>2015</th>
<th>Change since 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Emissions per household</td>
<td>MT CO2e/HH</td>
<td>7.82</td>
<td>6.74</td>
<td>6.58</td>
<td>-15.9%</td>
</tr>
<tr>
<td>Residential Emissions per person</td>
<td>MT CO2e/person</td>
<td>3.10</td>
<td>2.73</td>
<td>2.56</td>
<td>-17.5%</td>
</tr>
<tr>
<td>C&amp;I Emissions per employee</td>
<td>MT CO2e/FTE</td>
<td>10.10</td>
<td>10.60</td>
<td>9.09</td>
<td>-10.0%</td>
</tr>
<tr>
<td>C&amp;I Emissions per SF</td>
<td>MT CO2e/SF</td>
<td>0.024</td>
<td>0.023</td>
<td>0.021</td>
<td>-12.0%</td>
</tr>
<tr>
<td>Emissions per retail sales</td>
<td>MT CO2e/$</td>
<td>0.00111</td>
<td>0.00082</td>
<td>0.00070</td>
<td>-37.2%</td>
</tr>
<tr>
<td>Emissions per collected tax(^{15})</td>
<td>MT CO2e/$</td>
<td>0.01746</td>
<td>0.01246</td>
<td>0.00975</td>
<td>-44.2%</td>
</tr>
<tr>
<td>Emissions per jobs</td>
<td>MT CO2e/FTE</td>
<td>20.2</td>
<td>20.1</td>
<td>17.7</td>
<td>-12.0%</td>
</tr>
<tr>
<td>Emissions per GDP</td>
<td>MT CO2e/$</td>
<td>0.00012</td>
<td>0.00009</td>
<td>0.00008</td>
<td>-31.6%</td>
</tr>
</tbody>
</table>

\(^{15}\) Note: Collected tax includes sales and use tax, property tax, and other tax.
C. Energy Trends

As shown in Table 5, total electricity emissions decreased 10 percent between 2005 and 2015, while total natural gas emissions increased by 12 percent. However, energy consumption shows contrasting trends when compared to emissions: Between 2005 and 2015, total electricity usage increased and total natural gas usage decreased (see Table 5).

**Table 5. Changes in Energy Activity Data**

<table>
<thead>
<tr>
<th>ENERGY TYPE</th>
<th>Units</th>
<th>2005 (Baseline)</th>
<th>2012</th>
<th>2015</th>
<th>% Change Between Baseline and 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activity Data</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential Electricity</td>
<td>kWh</td>
<td>244,648,421</td>
<td>247,876,097</td>
<td>242,467,229</td>
<td>-0.9%</td>
</tr>
<tr>
<td>Residential Natural Gas</td>
<td>dTh</td>
<td>2,078,322</td>
<td>1,869,965</td>
<td>2,059,802</td>
<td>-0.9%</td>
</tr>
<tr>
<td>C&amp;I Electricity</td>
<td>kWh</td>
<td>946,243,999</td>
<td>1,123,525,805</td>
<td>1,096,654,834</td>
<td>15.9%</td>
</tr>
<tr>
<td>C&amp;I Natural Gas</td>
<td>dTh</td>
<td>3,952,523</td>
<td>3,697,071</td>
<td>3,737,522</td>
<td>-5.4%</td>
</tr>
<tr>
<td><strong>Total Electricity Usage</strong></td>
<td>kWh</td>
<td>1,190,892,420</td>
<td>1,371,401,902</td>
<td>1,339,122,063</td>
<td>12.4%</td>
</tr>
<tr>
<td><strong>Total Natural Gas Usage</strong></td>
<td>dTh</td>
<td>6,030,845</td>
<td>5,567,036</td>
<td>5,797,324</td>
<td>-3.9%</td>
</tr>
<tr>
<td><strong>Emissions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Electricity Emissions</td>
<td>MT CO2e</td>
<td>1,014,559</td>
<td>965,472</td>
<td>913,410</td>
<td>-10%</td>
</tr>
<tr>
<td>Total Natural Gas Emissions</td>
<td>MT CO2e</td>
<td>274,088</td>
<td>296,091</td>
<td>308,340</td>
<td>12%</td>
</tr>
</tbody>
</table>

For electricity, this shows that lower grid emission factors offset the increases in consumption, and resulted in lower overall emissions values.

In contrast, a higher natural gas emissions factor increased natural gas emissions despite reduced consumption. In the baseline year (2005), the University of Colorado’s cogeneration16 facility was operating, which reduced the overall community natural gas emission factor by approximately 15 percent. The cogeneration plant was offline in the following 2012 and 2015 GHG inventories, which resulted in a higher natural gas emission factor and therefore, an increase in reported emissions despite a decrease in natural gas consumption.

1. **Electricity Usage**

Total community electricity usage increased over 12 percent since the baseline year of 2005 (see Table 5). However, when normalizing consumption for growth factors, Table 6 shows residential

---

16 Cogeneration, also known as combined heat and power, is the simultaneous production of electricity and heat from a single fuel source, such as natural gas.
electricity usage decreased by 7 percent per household and nearly 9 percent per person since the baseline year. In comparison, C&I electricity increased per employee by nearly 8 percent and per square foot by 5 percent. However, it also shows C&I electricity decreased over 16 percent per GDP since the baseline year.

**TABLE 6. NORMALIZED ELECTRICITY DATA**

<table>
<thead>
<tr>
<th>ELECTRICITY METRICS</th>
<th>Units</th>
<th>2005 (Baseline)</th>
<th>2012</th>
<th>2015</th>
<th>% Change Between Baseline and 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential electricity per household</td>
<td>kWh/HH</td>
<td>6,263</td>
<td>6,035</td>
<td>5,816</td>
<td>-7.1%</td>
</tr>
<tr>
<td>Residential electricity per person</td>
<td>kWh/person</td>
<td>2,483</td>
<td>2,450</td>
<td>2,263</td>
<td>-8.9%</td>
</tr>
<tr>
<td>C&amp;I electricity per employee</td>
<td>kWh/FTE</td>
<td>9,780</td>
<td>12,061</td>
<td>10,518</td>
<td>7.6%</td>
</tr>
<tr>
<td>C&amp;I electricity per C&amp;I building floor space (sq. ft.)</td>
<td>kWh/sqft</td>
<td>23</td>
<td>26</td>
<td>24</td>
<td>5.2%</td>
</tr>
<tr>
<td>C&amp;I electricity per GDP</td>
<td>kWh/$</td>
<td>0.059</td>
<td>0.055</td>
<td>0.049</td>
<td>-16.4%</td>
</tr>
</tbody>
</table>

Per capita and per household residential electricity reductions occurred despite an increase of 9 percent in population and 7 percent in number of households (see Table 3). The decrease in normalized residential electricity shows that Boulder residents are using less electricity to perform the same tasks, even while total electricity consumption remains relatively flat due to population increases. The reduction in normalized residential electricity usage is largely attributed to growing end-user awareness as well as demand side management programs from the city, the county and the energy utility, including Boulder’s EnergySmart Program, SmartRegs, and solar incentive programs.

The reduction in the electricity emission factor was not enough to offset the total C&I electricity usage in 2015, which significantly increased (see Table 5). Increases in overall C&I electricity are a function of growth (e.g. jobs increased by 8 percent and GDP rose by 39 percent) and the CU Boulder cogeneration facility going offline. Growth in some of the normalized C&I electricity metrics (per employee and per square foot) is due to the recent addition of high energy density buildings such as marijuana grow facilities and data centers, as well as increased plug loads and space density (see below for more information). The high energy density buildings consume significant amounts of energy within small footprints, and with few employees, so they can sked the typical normalized metrics for the C&I sector. Because of this, the most accurate metric for the C&I sector is electricity use per GDP, which has decreased significantly since 2005.

**a) Energy Intensive Industries**

Beyond typical economic growth, the period between 2005 and 2015 encompassed the development of new, highly energy-intensive facilities in Boulder, such as International Business
Machine’s (IBM) addition of a large data center\(^{17}\) and medical and recreational marijuana facilities. The City of Boulder began accepting Medical Marijuana Business (MMB) license applications in August 2010, resulting in 75 approved licenses by September 2011. In 2013, State Constitutional Amendment 64 was approved by the voters of the State of Colorado for Recreational Marijuana. As such, Recreational Marijuana Business (RMB) license applications began to be accepted by City Licensing as of January 2014. Of the current 83 marijuana facility licenses, 63 percent are RMB licenses.

Because MMB and RMB facilities can be 20 to 100 times more energy intensive than office buildings, the addition of new marijuana facilities is partially responsible for the increase in C&I electricity use, and C&I electricity per square foot, since 2005.

Per Boulder’s municipal code, Chapter 6-14 and Chapter 6-16, marijuana facilities must report annual energy consumption to the city and offset 100 percent of electricity consumption through the purchase of renewable energy or carbon offsets. Based on the initial 2015 energy consumption data reported to the city in 2016, the marijuana sector consumed an estimated 26,221,000 kWh/year (approximately 2 percent of the total electricity consumption in 2015 and 2.4 percent of the C&I electricity consumption).

\(b\)  University of Colorado Cogeneration Facility

In 2004, CU Boulder began to phase out the operation of its cogeneration facility due to the increased cost of natural gas, cutting back its usage the most between 2005 and 2012. Taking the cogeneration system offline resulted in a corresponding drop in natural gas consumption, a significant increase in the amount of grid electricity consumed, and a marked increase in the university’s overall emissions, which significantly impacted the 2012 community GHG inventory.

Since shutting down its aging cogeneration system, the university designed and built a new $91 million campus utility system, which became fully operational in 2016. This new campus utility system includes:

- a new heating and cooling plant;
- renovation of the existing 103-year-old campus utility system, including expansion of cogeneration capabilities; and
- interconnection of the two plants with new and upgraded distribution.

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\(^{17}\) While IBM’s new data center was constructed to be extremely energy efficient, data centers are energy intensive by nature and this still represents a large new electric load.
Although CU Boulder and the city expect that this new system will reduce total emissions for the campus in tandem with other efforts at CU, these reductions will not be evident for several inventories.

c) Increased Plug Loads and Space Density

The rapid proliferation of electronic devices had also led to increased electricity use in the C&I sector. Plug loads are among the fastest-growing drivers of energy consumption in C&I buildings, typically accounting for 30 to 35 percent of the total electricity used in any given office building.

At the same time, C&I office buildings are starting to make more efficient use of space. New companies are adopting open-office floor plans, which should result in lower energy use per employee, but higher energy use per square foot. Also, the typical workday has lengthened over time, meaning that C&I buildings are operating for more hours than ever before – this would contribute to an increase in energy use per square foot and per employee. Though direct impacts of technology and plug-load growth on energy use cannot be measured without installed energy-management technology, understanding these factors and trends will help the city design future programs that better address the evolving workplace. The recently adopted Building Performance Ordinance aims to better understand and address energy consumption in these C&I office buildings.

2. Natural Gas Usage

Natural gas consumption decreased nearly 4 percent overall in the community since the baseline (see Table 5). However, when normalizing natural gas consumption, Table 7 shows residential natural gas usage increased by 3.2 percent per household and by 1.2 percent per person since the baseline year, whereas C&I natural gas usage per employee decreased by more than 12 percent and per building floor area by 14 percent.

**Table 7. Normalized Natural Gas Data**

<table>
<thead>
<tr>
<th>Natural Gas Metrics</th>
<th>Units</th>
<th>2005 (Baseline)</th>
<th>2012</th>
<th>2015</th>
<th>% Change Between Baseline and 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential natural gas per household</td>
<td>dTh/HH</td>
<td>47.88</td>
<td>45.52</td>
<td>49.41</td>
<td>3.2%</td>
</tr>
<tr>
<td>Residential natural gas per person</td>
<td>dTh/person</td>
<td>18.98</td>
<td>18.48</td>
<td>19.22</td>
<td>1.2%</td>
</tr>
<tr>
<td>C&amp;I natural gas per employee</td>
<td>dTh/FTE</td>
<td>40.85</td>
<td>39.69</td>
<td>35.85</td>
<td>-12.2%</td>
</tr>
<tr>
<td>C&amp;I natural gas per building floor space</td>
<td>dTh/sqft</td>
<td>0.097</td>
<td>0.086</td>
<td>0.083</td>
<td>-14.1%</td>
</tr>
<tr>
<td>C&amp;I natural gas per GDP</td>
<td>dTh/$</td>
<td>0.00025</td>
<td>0.00018</td>
<td>0.00017</td>
<td>-31.8%</td>
</tr>
</tbody>
</table>
Because Heating Degree Days (HDD) decreased between 2005 and 2015 by nearly 2 percent, it would be expected that residential natural gas use would decrease, yet natural gas consumption per HDD increased for both households and individuals as shown in Table 8.

**Table 8. Comparison of Natural Gas Use to HDD**

<table>
<thead>
<tr>
<th>WEATHER NORMALIZED NATURAL GAS METRICS</th>
<th>Units</th>
<th>2005 (Baseline)</th>
<th>2015</th>
<th>% Change Between Baseline and 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heating Degree Days</td>
<td></td>
<td>5,227</td>
<td>5,126</td>
<td>-1.9%</td>
</tr>
<tr>
<td>Residential natural gas per household</td>
<td>dTh/HH/HDD</td>
<td>0.00916</td>
<td>0.00964</td>
<td>5.2%</td>
</tr>
<tr>
<td>Residential natural gas per person</td>
<td>dTh/person/HDD</td>
<td>0.00363</td>
<td>0.00375</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

The data suggests that the residential sector saw an increase in natural gas consumption that may be attributed more closely to behavioral and economic factors than to weather. Unlike electricity use in the residential sector, Boulder residents seem to be using more natural gas to perform the same tasks.

Natural gas use in the C&I sector, on the other hand, did decrease over time, and this decrease is most significantly attributable to the University of Colorado’s cogeneration facility. In 2004, the CU Boulder began to phase out the operation of its cogeneration facility due to the increased cost of natural gas, with the facility fully offline by 2015. Taking the cogeneration system offline resulted in a corresponding drop in natural-gas consumption (and a significant increase in the amount of grid electricity consumed). The redesigned utility system at the university became fully functional in 2016, with two cogeneration facilities online. Therefore, it is expected that there will be an increase in the C&I sector’s natural gas usage in future GHG inventories attributable to the cogeneration facilities and resulting emissions factor adjustments.

Efforts underway to address both residential and C&I natural gas use are identified in section VI. **Action Plan.**

**D. Transportation Trends**

As shown in Table 9, overall emissions from the transportation sector (including air travel) stayed fairly consistent, increasing by just under 1 percent between 2005 and 2015. However, vehicle travel emissions decreased by over 10 percent from the baseline year, while air travel emissions increased. Though activity data is limited for 2005, Table 9 shows vehicle miles traveled (VMT) decreased by 6 percent between 2005 and 2015. Likewise, transportation emissions per resident and per job have decreased since the baseline year.
TABLE 9. CHANGES IN TRANSPORTATION ACTIVITY DATA

<table>
<thead>
<tr>
<th>Units</th>
<th>2005 (Baseline)</th>
<th>2015</th>
<th>% Change Between Baseline and 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation Activity Data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-road transportation</td>
<td>VMT</td>
<td>955,570,000</td>
<td>897,900,000</td>
</tr>
<tr>
<td>Transportation Emissions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle travel</td>
<td>MT CO$_{2e}$</td>
<td>501,358</td>
<td>446,797</td>
</tr>
<tr>
<td>Air travel</td>
<td>MT CO$_{2e}$</td>
<td>88,142</td>
<td>147,660</td>
</tr>
<tr>
<td>Total Transportation</td>
<td>MT CO$_{2e}$</td>
<td>589,500</td>
<td>594,457</td>
</tr>
<tr>
<td>Transportation Metrics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emissions per resident</td>
<td>MT CO$_{2e}$/ resident</td>
<td>5.98</td>
<td>5.55</td>
</tr>
<tr>
<td>Emissions per job</td>
<td>MT CO$_{2e}$/ job</td>
<td>6.09</td>
<td>5.70</td>
</tr>
<tr>
<td>VMT per resident</td>
<td>VMT/resident</td>
<td>9,699</td>
<td>8,379</td>
</tr>
<tr>
<td>VMT per job</td>
<td>VMT/job</td>
<td>9,876</td>
<td>8,612</td>
</tr>
</tbody>
</table>

Reductions in VMT and vehicle emissions between 2005 and 2015 were expected due to Boulder’s transportation efforts including GO Boulder, expansion and continued improvement of bike lanes, support and incentives for electric vehicles, and transition of city fleet to cleaner fuels. Efforts underway to continue to reduce emissions from the transportation section are identified in section VI. Action Plan.

The proxy measure for air travel of Boulder residents is the percent of total Denver International Airport travel represented by the population of Boulder as a percent of the greater metro-Denver area, which has increased since 2005. This methodology, while consistent with other front range communities including Denver, does not provide an accurate accounting; however, absent better data, it provides a standard by which to account for this sector of emissions until better data becomes available.

E. Waste Trends

As shown in Table 10, overall emissions from waste decreased more than 68 percent between 2005 and 2015 despite the addition of composted waste emissions since the baseline year.

18 Since 1989, GO Boulder has been working to create an innovative and balanced transportation system to sustain the quality of life valued by Boulder residents, employees and visitors. GO Boulder creates and promotes "Great Options" for transportation to increase the travel choices available to our community. [https://bouldercolorado.gov/pages/about-go-boulder](https://bouldercolorado.gov/pages/about-go-boulder)
### Table 10. Changes in Waste Activity Data

<table>
<thead>
<tr>
<th></th>
<th>Units</th>
<th>2005 (Baseline)</th>
<th>2012</th>
<th>2015</th>
<th>% Change Between Baseline and 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Waste Activity Data</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landfilled waste</td>
<td>Tons</td>
<td>108,954</td>
<td>71,573</td>
<td>95,616</td>
<td>-12.2%</td>
</tr>
<tr>
<td>Composted waste(^1)</td>
<td>Tons</td>
<td>-</td>
<td>18,058</td>
<td>30,578</td>
<td>-</td>
</tr>
<tr>
<td>Wastewater (Nitrogen effluent discharge)</td>
<td>lbs/day</td>
<td>2,569</td>
<td>1,557</td>
<td>1,832</td>
<td>-28.7%</td>
</tr>
<tr>
<td><strong>Waste Emissions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landfilled waste</td>
<td>MT CO(_2)e</td>
<td>69,849</td>
<td>14,920</td>
<td>19,932</td>
<td>-71.5%</td>
</tr>
<tr>
<td>Composted waste(^1)</td>
<td>MT CO(_2)e</td>
<td>-</td>
<td>1,257</td>
<td>2,129</td>
<td>-</td>
</tr>
<tr>
<td>Wastewater</td>
<td>MT CO(_2)e</td>
<td>1,800</td>
<td>697</td>
<td>671</td>
<td>-62.7%</td>
</tr>
<tr>
<td><strong>Total Waste</strong></td>
<td>MT CO(_2)e</td>
<td>71,649</td>
<td>16,874</td>
<td>22,732</td>
<td>-68.3%</td>
</tr>
<tr>
<td><strong>Waste Metrics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landfill tons per GDP</td>
<td>Tons/$</td>
<td>0.000007</td>
<td>0.0000035</td>
<td>0.0000043</td>
<td>-36.7%</td>
</tr>
<tr>
<td>Landfill tons per resident</td>
<td>Tons/resident</td>
<td>1.11</td>
<td>0.71</td>
<td>0.89</td>
<td>-19.3%</td>
</tr>
<tr>
<td>Total waste emissions per resident</td>
<td>MT CO(_2)e/resident</td>
<td>0.73</td>
<td>0.17</td>
<td>0.21</td>
<td>-70.8%</td>
</tr>
<tr>
<td>Total waste emissions per job</td>
<td>MT CO(_2)e/job</td>
<td>0.740519</td>
<td>0.181139</td>
<td>0.218023</td>
<td>-70.6%</td>
</tr>
</tbody>
</table>

\(^1\) Compost waste data was not included in the 2005 inventory.

1. **Landfilled and Composted Waste**

Overall the waste diversion rate from landfill has increased from 27 percent in 2005 to 39 percent in 2015. In turn, the amount of waste landfilled has decreased 12 percent from 2005 to 2015 and the amount of waste composted has increased. While emissions reductions were achieved from 2005 to 2015 through reductions in landfilled waste (despite the addition of compost emissions), we see a much larger reduction in emissions than in activity data. This discrepancy is due to changes in the methodology and emission factors for waste between 2005 and 2015. The standard waste emission factors used today are based on waste types and are taken from ICLEI’s *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions*.

Despite an overall reduction in the amount of waste landfilled from 2005 to 2015, there was an increase in landfilled waste from 2012 to 2015. Staff speculates that there may be several reasons for the increase. In addition to a growing population, a growing economy has likely brought more consumption and more waste. The city has also improved waste-data tracking software, which
now reports waste and compost figures more accurately than in previous years. Finally, natural disasters, such as the 2013 flood, contribute to an increase in wasted materials. The city has implemented several sustainability initiatives to help guide our community towards zero waste and therefore reduce landfill emissions, as identified in section **VI. Action Plan**.

2. **Wastewater Treatment**

Table 10 also shows a significant decrease of emissions from the city’s wastewater treatment plants (WWTP) between 2005 and 2015.

The emissions associated with the effluent discharge of the WWTP are impacted by the amount of nitrogen discharged by the community and by the performance of the treatment processes associated with nitrogen removal. Prior to 2006, around 1,000 MT CO2e per year were associated with effluent nitrogen discharge. The $45M Liquid Stream Upgrades Project that occurred between 2005 and 2008 incorporated an activated sludge biological nutrient removal (BNR) system capable of roughly 50 percent nitrogen removal. This upgrade was motivated by new discharge permit limits for ammonia and nitrate. While emissions associated with effluent nitrogen discharge decreased by 300 metric tons CO2e, electricity usage associated with the more advanced treatment increased by 44 percent initially.

From 2010 to 2015, various energy efficiency initiatives have brought emissions associated with electricity usage down by about 1,200 metric tons per year of CO2e. The addition of an ultraviolet disinfection system and digester and headworks upgrades in 2012 and 2013 ($9M HUVDIG Project) included large electric equipment usage from this new equipment, which was offset by continuous improvement in energy efficiency. Progress from the $5M Nitrogen Upgrades Project that began in 2015 is evident in 2016 effluent nitrogen performance, and nitrogen removal performance will improve even more in 2017 and 2018. In 2016, the WWTP boasted both the lowest energy usage since 2007 and the best nitrogen removal performance in history. While clean water regulations will continue to require new facility infrastructure, city staff will continue to reduce greenhouse gas emissions through continual improvement in energy efficiency and the increased use of renewable energy.

**F. Refrigerant Trends**

Per the *Global Protocol for Community-Scale GHG Emissions* BASIC reporting level, refrigerant data is an optional emissions category to report. However, Boulder has chosen to report the limited refrigerant data currently collected under this optional reporting category, with the

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19 The GPC protocol has two reporting levels for the community framework: BASIC and BASIC+. Based on available data, Boulder has chosen the BASIC reporting level, which is consistent with many other cities to date. For more information, see **Appendix A: Inventory Methodologies**.
understanding that this data is not a complete accounting of the community’s refrigerant emissions.

The data reported represents refrigerant deliveries within the city of Boulder by a local mechanical firm, MTech Mechanical. From 2012 to 2015, the refrigerant emissions from this source have increased by nearly 86 percent, as shown in Table 11.20

**Table 11. Refrigerant Emissions Trends**

<table>
<thead>
<tr>
<th>EMISSIONS</th>
<th>Units</th>
<th>2005 (Baseline)</th>
<th>2012</th>
<th>2015</th>
<th>% Change Between Baseline and 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerants</td>
<td>MT CO$_2$e</td>
<td>-</td>
<td>99</td>
<td>184</td>
<td>-</td>
</tr>
</tbody>
</table>

However, it is important to note that despite this emission increase between 2012 and 2015, it is common for refrigerant emission values to vary year-to-year based on equipment leakage. As refrigerants represent only 0.01 percent of the community’s greenhouse gas inventory, this increase has minimal impact on the overall community footprint and will remain an optional category under which the city reports available data until more holistic refrigerant data can be collected.

**VI. ACTION PLAN**

Boulder has long understood the importance of local climate action. Boulder’s residents and businesses were among the first in the country to implement programs like the Climate Action Plan Tax (CAP Tax)21 and a host of other energy efficiency and conservation programs. Some of these, including EnergySmart, SmartRegs and the Building Performance Ordinance, are being replicated elsewhere as they begin to achieve the full benefits of their implementation locally. Others, like a local carbon offset fund and changing our energy supply from fossil fuels to renewable sources through the possible creation of a local electric utility, are still taking shape.

Further, in December 2016, City Council unanimously approved the adoption of Boulder’s Climate Commitment22 goal to reduce community greenhouse gas emissions by 80 percent below 2005 levels by 2050.

To achieve this goal, Boulder’s Climate Commitment focuses on the following action areas: energy, resources, and ecosystems. While the Climate Commitment focuses on a multitude of

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20 Data was not collected in 2005.
21 The CAP Tax first passed in 2007 and was the nation’s first voter-approved tax dedicated to addressing climate change. The CAP tax is levied on city residents and businesses and is based on the amount of electricity they consume.
22 For more information, see [https://bouldercolorado.gov/climate](https://bouldercolorado.gov/climate)
strategies in these areas, from energy sources to urban wildlands to local food production, the action areas focused on energy and waste are those that directly address GHG emissions generation and are required to be reported under GHG inventory best practices. Therefore, the annual GHG inventory serves as a vital component of the Climate Commitment for tracking program success and, most importantly, the city’s progress towards its overall climate goal.

The graphic below shows the high-level strategies in place for these Climate Commitment action areas and identifies which are also reported in the GHG inventory: Electricity source, clean mobility, high-performance buildings, and waste.
BOULDER’S CLIMATE COMMITMENT

Rising to the climate challenge. Powering a vibrant future.

ENERGY

Transforming the whole energy system
- Establish a 100% renewable electric grid supply
- Achieve widespread adoption of resilient, distributed solar energy systems
- Reduce vehicle miles traveled
- Increase travel options for walking, biking and transit
- Encourage adoption of electric vehicles
- Reduce energy demand
- Transition from natural gas systems to electric or other clean energy systems

RESOURCES

Using resources wisely
- Monitor total water use
- Monitor water use per capita
- Consider climate change impacts in water resource planning
- Reduce the overall consumption of disposable materials to minimize total amount of discards that must be landfilled, recycled or composted
- Increase the diversion rate of waste generated to recycling and composting
- Support local food production and consumption, with access for lower income residents

ECOSYSTEMS

Restoring our ecosystems
- Increase urban tree canopy cover and distribution
- Increase diversity and resilience of the urban forest
- Monitor urban forests’ response to climate change
- Maintain, enhance and monitor soil stability and resilience
- Explore soil sequestration of carbon
- Consider and monitor climate change in wildland planning
- Ensure continued vibrant, diverse natural ecosystems in the community

* Required in GHG inventory reporting.
The city’s action plan to address emissions includes a set of aggressive, city-funded programs and services largely funded by the CAP Tax (Appendix B: has more information on how these funds are allocated). These programs and services are designed to reduce local greenhouse gas emissions and mitigate climate change and Table 12 identifies those that are the city’s current focus.

**TABLE 12. CURRENT ACTION AREAS**

<table>
<thead>
<tr>
<th>Climate-Energy Action Areas (2017-2018)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Buildings</strong></td>
</tr>
<tr>
<td>- Building Performance Program: Continue implementation and building owner support for the city’s energy reporting and energy efficiency requirements on C&amp;I buildings (larger than 20,000 sf).</td>
</tr>
<tr>
<td>- SmartRegs: Implementation of strategies to achieve 100 percent compliance with the city’s rental housing efficiency requirements by 2019.</td>
</tr>
<tr>
<td>- Natural Gas Replacement: Launch city-county collaborative implementation of pilot project in residential natural gas appliance replacement program.</td>
</tr>
<tr>
<td>- Voluntary Energy Efficiency: Continue support of Boulder County’s Partners for a Clean Environment (PACE) advising services and program implementation, including EnergySmart.</td>
</tr>
<tr>
<td>- Clean Energy Finance – Work with Boulder County to expand utilization of the Colorado Commercial Property Assessed Clean Energy (C-PACE) financing program.</td>
</tr>
<tr>
<td>- Electricity Offset for Marijuana Facilities: Achieve 100 percent compliance with the city’s requirement for marijuana facilities to offset their electricity usage with renewable energy.</td>
</tr>
<tr>
<td>- Net Zero Energy Codes: Every three years, update energy codes to ensure the city is on pathway to the goal of net zero energy codes for all new buildings by 2031.</td>
</tr>
<tr>
<td>- City Facilities: Continue to retrofit city buildings to reduce emissions, including major redevelopment efforts such as the Alpine-Balsam site, which will demonstrate accelerated energy efficiency and renewable energy adoption.</td>
</tr>
<tr>
<td><strong>Electricity Source Change</strong></td>
</tr>
<tr>
<td>- Renewable Grid Electricity: Either by forming a municipal electric utility, or working with another utility partner, work to ensure that 100 percent of grid electricity that serves in-city customers comes from renewable energy by 2030.</td>
</tr>
<tr>
<td>- Solar/Local Generation Strategy: Contract technical assistance in the development of a community solar adoption strategy designed to achieve the new renewable energy targets adopted in the Climate Commitment (50 MW by 2020).</td>
</tr>
<tr>
<td>- Energy Resilience: Complete implementation of the Department of Energy (DOE) Energy Resilience grant and implementation of resilient energy systems at three critical community service centers.</td>
</tr>
<tr>
<td>- City Facility Solar Energy Development: Continue evaluation and feasibility assessments of solar energy opportunities on city facilities or sites.</td>
</tr>
</tbody>
</table>

23 For more information see: [http://copace.com/](http://copace.com/)
### Community Solar Adoption

Work with both public and private sector partners to utilize the Boulder Solar Tool and other individual and group adoption strategies to foster increased adoption of local solar.

### Mobility

- **Multi-Modal Transportation Options**: Continue work with Transportation Division/GO Boulder to implement multimodal action items from Boulder’s Transportation Master Plan (TMP) to achieve GHG reduction goals as well as broader community sustainability goals.

- **Develop Electric Vehicle (EV) Strategy**: Develop strategy to achieve Climate Commitment emissions reductions targets related to EVs.
  - **Electric Vehicle Adoption**: Continue coordination of the multi-departmental working group on EV and alternative fuels strategy development. Finalize multi-department EV adoption strategy and action plan. Continue to work on accessibility of EV charging.
  - **Electrification of Transit**: Expand cross departmental collaboration and continue working with Via and RTD to explore adoption of transit fleet vehicle electrification options.

- **Emerging Transportation Technologies**: Work with Transportation Division/GO Boulder to research and evaluate emerging mobility options including expanded ride share systems, connected/automated vehicles and new heavy transport options (e.g. renewable natural gas or diesel fleet vehicles).

- **Employee Commute**: Demonstrate city leadership in continuing to advance additional low emission commute options for city employees (e.g. EV adoption, electric van pool, telework, etc.).

### Waste

- **Zero Waste Resolution and Zero Waste Strategic Plan**: Continue implementation strategies to achieve 85 percent waste diversion by the year 2025.

- **Universal Zero Waste Ordinance**: Continued refinement of implementation systems and compliance support for the city’s recycling and composting expansion requirements on homeowners, property managers, and businesses.

- **Public Place Recycling and Composting**: Continued transition of city-owned public space waste receptacles to include zero waste services.

- **Food Waste Reduction**: Increase awareness of food waste and encourage edible food recovery programs.

### Cross Cutting Initiatives

- **Carbon Tax Research**: Begin to investigate future carbon taxes that would discourage the use of natural gas and petroleum, as the city transitions to clean renewable electricity.

- **Energy Impact Offset Fund**: Continue work with Boulder County to create a local energy/carbon offset fund initially funded through the required offsets for the marijuana industry for electricity use.

- **Program Tracking and Reporting**: Continue city organization and community wide emissions tracking and reporting, as well as program level tracking and reporting. Work to integrate into the city dashboard and centralized data management systems.

- **Climate Action Plan Strategy Development**: Develop the Climate Action Plan to achieve the recently adopted Climate Commitment goals. This plan should include 5 and 10-year action plans under the key areas (electricity source change, high performance buildings, clean mobility, resource use, and ecosystems).
- **Climate Commitment Community Engagement**: Continue community engagement around development of a coordinated climate action strategy and implementation plan with special focus in 2017 on the business community, faith community, neighborhoods, and Latino/lower income segments of the community.

- **Boulder Energy Challenge**: Launch the second Boulder Energy Challenge, to provide funding to support the development and commercialization of innovative GHG emission reducing technologies and strategies in Boulder.

- **Research Internal Carbon Valuation**: Conduct best practices research with other cities, public institutions and businesses to identify mechanisms to effectively internalize the cost of carbon in city operations.

- **City Organization Climate Preparation**: Support implementation of priority actions to make the city organization (facilities, fleet, operations, procurement etc.) more sustainable and better prepared for climate change.
APPENDIX A: INVENTORY METHODOLOGIES

A. 2012 and 2015 Methodologies
The GPC protocol was released in 2014 and provides a transparent GHG accounting methodology for reporting community GHG emissions, and unlike many other protocols, provides a consistent structure that will enable better comparisons among different cities.

There are two reporting levels for the community framework:

- **BASIC**: The BASIC methodology covers stationary energy, in-boundary transportation, and community-generated waste.
- **BASIC+**: The BASIC+ level includes BASIC emission sources, as well as trans-boundary transportation; energy transmission and distribution losses; industrial processes and product use; and agriculture, forestry and other land uses.

Based on available data, Boulder has chosen the BASIC reporting level, which is consistent with many other cities to date. To ensure consistency with previous inventories, the 2015 inventory includes additional BASIC+ sources including trans-boundary airline travel from Denver International Airport, trans-boundary airline travel from Boulder Municipal Airport, and refrigerant use. Although the GPC protocol excludes avoided emissions from renewable energy offsets, recycling, and renewable energy, Lotus calculated avoided emissions as information-only items to ensure consistency with previous inventories.

GPC categorizes emission scopes as within city boundaries or outside city boundaries, whereas BASIC emission scopes are defined as follows:

- **Scope 1**: GHG emissions from sources located within the city boundaries, including:
  - Energy and transportation fuel combustion.
  - Fugitive emissions.
  - Solid waste treated within the city.
  - Wastewater treated within the city.
- **Scope 2**: GHG emissions occurring as a consequence of the use of grid-supplied electricity, heat, steam and/or cooling within the city boundary.
- **Scope 3**: GHG emissions that occur outside the city boundary as a result of activities taking place within the city boundaries, including:
  - Solid waste treated outside the city.

24 The GPC protocol was a joint effort between ICLEI-Local Governments for Sustainability (ICLEI), the World Resources Institute (WRI) and C40 Cities Climate Leadership Group (C40). Additional collaboration was provided by the World Bank, UNEP, and UN-Habitat.

Wastewater treated outside the city.

Whereas BASIC+ emission scopes specific to Boulder are defined as follows:

- **Scope 1**: Emissions from industrial product uses occurring inside the city.
- **Scope 3**: Trans-boundary airline travel outside the city.

Electricity and natural gas emission factors are sourced from Xcel Energy’s *City of Boulder’s 2015 Annual Community Report*. All other emission factors are based on ICLEI’s *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions, Version 1.0, July 2013* and ICLEI’s *Local Government Operations Protocol*.

Activity data from 2015 was provided by the sources listed in Table 13.

### Table 13. Activity Data Sources

<table>
<thead>
<tr>
<th>Activity Data</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>Xcel Energy's 2015 Annual Community Report</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>Xcel Energy's 2015 Annual Community Report</td>
</tr>
<tr>
<td>On-road transportation</td>
<td>City of Boulder staff and Southwest Energy Efficiency Project (SWEEP)</td>
</tr>
<tr>
<td>Public transit</td>
<td>RTD and city of Boulder staff</td>
</tr>
<tr>
<td>Aviation</td>
<td>City and County of Denver (on behalf of Denver International Airport) and Boulder Municipal Airport</td>
</tr>
<tr>
<td>Solid waste</td>
<td>City of Boulder staff</td>
</tr>
<tr>
<td>Wastewater treatment</td>
<td>Boulder Wastewater Treatment Plant staff</td>
</tr>
<tr>
<td>Refrigerants</td>
<td>MTech Mechanical</td>
</tr>
<tr>
<td>Recycling</td>
<td>City of Boulder staff</td>
</tr>
<tr>
<td>Renewable energy credits</td>
<td>Renewable Choice Energy</td>
</tr>
<tr>
<td>Renewable energy</td>
<td>Xcel Energy’s 2015 Annual Community Report</td>
</tr>
</tbody>
</table>

Xcel Energy includes industrial energy data with the commercial and institutional sector, therefore this sector is reported as combined. Boulder can expect to receive this data each year in updated Xcel Energy reports.

Supplemental information was provided by various online resources and is noted, along with specific contact information, in the *Master Workbook-GPC_Inventory_2015 Boulder inventory tool*.

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26 For more information see: [https://www.xcelenergy.com/working_with_us/municipalities/community_energy_reports](https://www.xcelenergy.com/working_with_us/municipalities/community_energy_reports).
B. Differences Between Inventory Methodologies

Calculation methodologies between the different protocols follow the same logic: Emissions are a product of emission factors and activity data. Although many themes stay consistent between protocols, different protocols may use different emission factors, lump emissions together differently, and require different emission sources.

Today, emission factors from the most current version of ICLEI’s *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions* and ICLEI’s *Local Government Operations Protocol* are the most widely used and accepted. A majority of these factors stays relatively constant over time, with the exception of electricity emission factors that are sourced directly from Xcel Energy.

Most of the factors between all three inventory years are similar with a few notable exceptions, as shown in Table 14.

<table>
<thead>
<tr>
<th>Data Source</th>
<th>2005</th>
<th>2012 and 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity emission factor source</td>
<td>EPA’s eGRID</td>
<td>Xcel Energy</td>
</tr>
<tr>
<td>Natural gas emission factor source</td>
<td>EPA’s Climate Leaders</td>
<td>Xcel Energy</td>
</tr>
<tr>
<td>Vehicle type distribution source</td>
<td>Colorado Department of Public Health and Environment Air Pollution Control Division</td>
<td>SWEEP</td>
</tr>
<tr>
<td>Waste types</td>
<td>Landfilled waste</td>
<td>Landfilled and composted waste</td>
</tr>
<tr>
<td>Waste characterization source</td>
<td>Not required</td>
<td>Boulder County’s 2010 Waste Characterization Study</td>
</tr>
</tbody>
</table>

Stationary emissions are calculated using electricity and natural gas emission factors. The 2012 and 2015 inventories used emission factors provided by Xcel Energy in the *City of Boulder’s 2015 Annual Community Report*. Assuming that the 2005 inventory was performed with the same methodology as the 2010 inventory, the Environmental Protection Agency’s eGRID electricity emission factors for the Rocky Mountain Region were used in the 2005 inventory. Emission factors from eGRID are consistently greater than electricity emission factors provided by Xcel Energy, since eGRID factors combine individual electricity emission factors from a variety of utilities. The 2005 natural gas emission factors were based on values from the Environmental Protection Agency’s Climate Leaders.

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27 For more information see: [https://www.xcelenergy.com/working_with_us/municipalities/community_energy_reports](https://www.xcelenergy.com/working_with_us/municipalities/community_energy_reports).
28 For more information see: [https://www.epa.gov/energy/egrid](https://www.epa.gov/energy/egrid).
Transportation emissions are calculated using several variables: type of transportation, emission factors, fuel efficiencies, vehicle miles traveled, and vehicle type distribution. The 2012 and 2015 inventories used Boulder-specific vehicle type distribution data from a Southwest Energy Efficiency Project (SWEEP) transportation study. The vehicle type distribution data used in the 2005 inventory was based on information provided by the Colorado Department of Public Health and the Environment’s Air Pollution Control Division.

Waste emissions are calculated using several variables: emission factors, types of waste treated, and waste characterization. The 2012 and 2015 inventories included landfilled waste and composted waste. Emission factors are taken from ICLEI’s U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions. The 2005 inventory includes landfilled waste, but does not include composting waste. It is not clear which waste-emission factors were used in 2005. Waste characterization values from Boulder County’s 2010 Waste Characterization Study\(^{29}\) were used to estimate the types of waste landfilled in the 2012 and 2015 inventories; this information was not required for the 2005 inventory.

In the 2005 inventory, grid loss emissions were reported. Because grid loss emissions are not required by the GPC, Lotus did not calculate these emissions in the 2012 or 2015 inventories. And for consistency, Lotus removed the grid loss value from the 2005 inventory total. Unlike the protocol used in the 2005 inventory, the GPC protocol requires inventories to include fugitive emissions from natural gas systems and emissions from composting. And the 2012 and 2015 inventories include refrigerant emissions, whereas the 2005 inventory does not.

The categories by which protocols lump emissions together may also change. The GPC protocol categorizes emissions by where they occur and places slightly less emphasis on emission scope than other inventory methodologies.

Other differences may occur as part of the calculation methodology and may or may not be specific to the inventory protocol. For instance, vehicle distribution and solid waste characterization could be different year-to-year based on original data sets, data assumptions, and/or calculation methodologies.

APPENDIX B: CLIMATE ACTION PLAN (CAP) TAX BUDGET

The 2017 budget for CAP tax energy and climate initiatives allocates programmatic funds by the approximate percentages council agreed to in 2012. The annual estimated CAP tax revenue for 2017 is $1.8 million, and will be allocated as follows:

2017 CAP TAX ALLOCATION

Commercial and Industrial DSM, 43%
Residential DSM, 15%
Overarching Climate Efforts, 31%
Admin & Communications, 11%

Commercial and Industrial (C&I) Demand Side Management (DSM)

- Commercial EnergySmart: provides business and commercial building owners energy advising services and rebates
- Building Performance Program: Requires large commercial and industrial buildings to report energy use and implement efficiency over time

Residential DSM

- SmartRegs: energy efficiency requirements for rental housing units
- Residential EnergySmart: provides homeowners with energy advising services and rebates

Overarching Climate Efforts

- Program tracking and evaluation (including annual Greenhouse Gas Inventories)
- Climate Commitment implementation (community engagement and implementation within city organization)
- Local solar and electric vehicle programs
• Boulder Energy Challenge – grant program funding innovative solutions from the community to reduce emissions

Admin & Communications

• Cost allocation and other administrative costs
• External communications to the community and other key stakeholders
INFORMATION PACKET
MEMORANDUM

To: Mayor and Members of Council

From: Jane S. Brautigam, City Manager
Molly Winter, Community Vitality Department Director
David Farnan, Library & Arts Department Director
Matthew Chasansky, Office of Arts and Culture Manager

Date: March 16, 2017

Subject: Background on the Declaration to Acknowledge and Celebrate the NoBo Art District

EXECUTIVE SUMMARY
This declaration will serve as an acknowledgement by the City of Boulder of the creative district of North Boulder, an area of the business corridor on North Broadway in the North Boulder Subcommunity. Known as the “NoBo Art District,” the area has a concentration of artists who live and work there. And, these artists have influence: on a neighborhood character focused on culture; a community with a unique set of economic conditions; social networks that rely on the arts; and other distinct features.

Celebrating the creative district in North Boulder, in the form of this declaration, acknowledges the grassroots effort of artists to positively affect this area of Boulder. The effort is captured by the formation eight years ago of the “NoBo Night Out,” which grew to become the NoBo Art District Organization and First Friday Art Walks, a nonprofit group whose mission is to “Enrich and advance the arts in Boulder through educational activities and engagement that promote the role of artists and creatives in our community.” Building on what the NoBo Art District Organization has already accomplished, this declaration is intended to trigger action that will be brought forth on April 4th as a Resolution on the following goals:

1. To officially recognize the creative district in north Boulder, on either side of Broadway north of Violet Street and the adjacent properties as a place where the vibrancy and identity of the area rely on: a) a concentration of practicing artists, b) businesses that draw their success in part from the activities of these artists, and c) a track record of lively cultural programming.

2. To begin a collaboration on governance which will sustain and increase the cultural assets of the area.
Upon adoption of the declaration, a “NoBo Art District Coordination Committee” will be formed by the City of Boulder Office of Arts and Culture, the city’s Community Vitality Department, the NoBo Art District Organization, and other key leaders.

**FISCAL IMPACT**

Funding for the efforts supporting the NoBo Art District Coordination Committee in 2017 is already in place. An assessment of needs for 2018 will be conducted with the coordinating team and, should it be recommended, brought as a proposal for one-time funding to the Executive Budget Team. Future phases of the creative district may include options for budgetary impacts in the form of expanded district initiatives such as a business improvement district or other mechanisms for sustainably funding the creative district activity.

Staff time – For this first phase, existing staff from the Office of Arts and Culture will assume the tasks necessary to facilitate the work. Staff from the Community Vitality Department will provide support. It is also important to note that the proposed work plan includes strong collaboration with the NoBo Art District Organization whose staff, board members, and volunteers will be adding to the capacity that is required.

**COMMUNITY SUSTAINABILITY ASSESSMENTS AND IMPACTS**

The 2015 Community Cultural Plan describes several ways that acknowledging the NoBo Art District may positively impact each of the components of the Sustainability Framework, including:

- **Livable Community** - Practicing artists, like those who live and work in the NoBo Art District, add vibrancy to the social offerings that are critical infrastructures for city life. This creative expression in the community directly contributes to social cohesion, equitable civic dialog, and the actual programs, events, and conversations that spring from the activity of our cultural leaders. Also, based on findings from the Cultural Plan, our community clearly desires more cultural experiences in their neighborhoods and among underserved communities. The NoBo Art District can be a platform for the city and community leaders to deliver on this priority.

- **Environmentally Sustainable Community** – Critical to what the Knight Soul of the Community Study calls “Attachment,” cultural investments, like in the NoBo Art District, have the potential to both narrate the priorities for environmental sustainability and motivate the community at the neighborhood level to take important actions on climate.¹

- **Economically Vital Community** – The Community Cultural Plan describes how the “Creative Sector” represents 9% of our workforce. Further, the National Endowment for the Arts’ Creativity Connects study shows that Boulder has the third-highest concentration of professional artists in our workforce as compared to metropolitan areas nationally. The concentration of artists in north Boulder is representative of an important economic sector citywide, both in direct impact and in the perception of Boulder as a center for innovation and creative enterprise.

¹ *Soul of the Community* (Knight Foundation, 2012) [https://www.knightfoundation.org/sotc/](https://www.knightfoundation.org/sotc/)
BACKGROUND
The NoBo Art District Organization was formed in 2009 as a support network for the many artists who live and work in the area. On their website, the organization notes:

The NoBo Art District [Organization] is a grassroots, artist-run organization dedicated to promoting the 200+ artists and creative businesses located along Broadway and the adjoining neighborhoods in north Boulder, Colorado. Characterized by upscale, mixed-use new urbanism, high-end restaurants and shops, and a mix of funky, artist-friendly warehouses. The NoBo Art District creates opportunities for artists to connect with each other and the broader community promoting engagement through art, education and events.

What we do:
- Create a dynamic and supportive environment for Boulder’s artists by sponsoring First Friday events, host open meetings and connect with artists outside our area.
- Fulfill the need for a sense of community, and connection by hosting art projects like the PLACE Project and NoBo Little Libraries in our neighborhoods.
- Initiate [an art-in-public-places] program through place-making and public engagement, creating a vital street-scape enlivened by sculpture, lighting and other art installations.

The mission of the NoBo Art District [Organization] is to enrich and advance the arts in Boulder through educational activities and engagement that promote the role of artists and creatives in our community.²

The 2015 Community Cultural Plan asked the community to describe the most critical priorities for culture. Among these priorities are calls-to-action that relate to the NoBo Art District:

Create a supportive environment for artists and creative professionals, while fostering innovative thinking and leadership among them.

Focus on the expression of culture and creativity in the public realm through public art, the urban landscape, culture in the neighborhoods, and serendipitous encounters with the arts.

Amplify the vibrancy of Boulder’s cultural destinations: the lively mix of museums, performance venues, events, districts, studios, maker spaces, and other facilities that make Boulder an enticing place to visit, live, play, and work.³

With these priorities as a foundation, the Community Cultural Plan goes on to make specific recommendations for the recognition of the NoBo Art District.

The origins of arts, gallery, or creative districts are generally organic, springing from leadership among the businesses and artists they serve. In recent years, the districting concept has been formalized; a process that has, in large part, been championed by Colorado Creative Industries (CCI), the state arts agency. Useful to the Community Cultural Plan are CCI’s “purposes” of a creative district, here modified for circumstances in Boulder.

Creative Districts are:

² NoBo Art District Website (http://noboartdistrict.org/about, February 2017)
³ Community Cultural Plan, page 14
- Attracting artists and creative entrepreneurs to a community, infusing new energy and innovation, which in turn will enhance the economic and civic capital of the community;

- Creating hubs of economic activity, thereby enhancing the area as an appealing place to live, visit, and conduct business, as well as create new economic activity;

- Attracting visitors;

- Revitalizing and beautifying communities;

- Providing a focal point for celebrating and strengthening a community’s unique identity;

- Showcasing cultural and artistic organizations, events and amenities;

- Contributing to the development of healthy communities; and

- Improving Boulder’s quality of life.

For these reasons, it is vital that the Office of Arts and Culture work with city agencies to build creative districts, and also to consider creative components in other types of districts. From this perspective, districts can be defined as a relationship between the city government, businesses, and neighborhoods to achieve the mutual benefits listed above.

Creative District in North Boulder – The creative district in North Boulder is a grass-roots effort in which the critical concentration of artists in the district has galvanized a community effort to focus on the arts as an anchor to business and place-making. The primary organization that has played a leadership role in this effort is the NoBo Art District [Organization]. Other organizations, including the Boulder Metalsmithing Guild, First Congregational Church of Boulder, and Boulder Art Matrix, are active in programming. A partnership with the NoBo Art District [Organization], and convening of all organizations and interested stakeholders, should be the first step in a formal relationship designed as a cornerstone of the successful operation of a flourishing creative district. The structure and governance of this relationship should be described in a separate strategic document, one that provides official municipal designation of the district. However, the conversation and collaboration can begin immediately. The ultimate goal is to create the conditions by which the city and partners can align their efforts around the success of the business of fine art. This can be done through efforts in the built environment, programming, the regulatory environment, economic tools, shared promotional marketing, and place-making initiatives.4

This declaration will celebrate the efforts of the community to organize the NoBo Art District. And, it will trigger a proposed Resolution in a future city council meeting by which, if approved, council will take action to support future phases to enhance the effectiveness of the district.

4 Community Cultural Plan, pages 67-68
Feedback from the Boulder Arts Commission – At their meeting on March 15, 2017, the members of the Boulder Arts Commission voted unanimously to join City Council in support of this declaration, and also to recommend that Council adopts the subsequent resolution, to celebrate and officially recognize the NoBo Art District.

Public Feedback – Inquiry with the community about the creative district in north Boulder has taken place in many ways and over several years:

1. North Boulder Subcommunity Plan Update – During the 2013-2014 listening sessions, the city heard strong support for the growing arts scene in north Boulder. The community recognized the concentration of creative industries and the creative district concept. Thus, the Action Plan (completed Oct. 2014), includes strategies to support the idea of an official creative district. It included arts-oriented, place-making strategies and called for city support of the creative district.

2. 2015 Update of the Boulder Valley Comprehensive Plan – The strong support for arts and culture in north Boulder has carried through the Boulder Valley Comprehensive Plan (BVCP) update process: at meetings and in written correspondence. Residents of north Boulder have supported adding new policies to the BVCP regarding arts and culture, appreciating that new site review criteria to achieve community benefits unique to the arts and place-making would be consistent with the emphasis on the arts and the official recognition of the NoBo Art District. While the BVCP is not complete, it will have new policies to align with the Community Cultural Plan and inclusion of arts and culture.

3. Community Cultural Plan – In reaching out to more than 2,000 people, the Community Cultural Plan articulates a clear interest across the entire community for the city to recognize and support the activities of a creative district in north Boulder. In the Cultural Plan survey, the NoBo Art District is ranked third for responses to the question “What is your favorite cultural place or activity in Boulder.” Further, when asked what was the most important priority for cultural leaders and the city to address, 51% of respondents to the full survey and a remarkable 62% of those taking the random intercept survey identified “supporting artists in Boulder” as a critical priority for culture. The recognition of the NoBo Art District is one of the primary strategies that was developed to support the community in addressing that priority.

4. Neighborhood Initiatives – The NoBo Art District Organization has been holding First Friday events for several years, drawing hundreds of people each month. Attendance by people in the north Boulder neighborhoods continues to be strong. In addition, the recipients of a recent Neighborhood Enhancement Grant held an event called “North Boulder Celebrates.” About 600 people attended the event and expressed support for the NoBo Art District.

5. Boulder Arts Commission General Operating Support (GOS) Grant – During the 2016 cycle of cultural grants, the NoBo Art District Organization was awarded one of the 18 GOS grants.

DEFINITIONS

Creative district – an area in which the concentration of artists and creative professionals drives social and economic vitality. With the creative output of artists at the center, the social and economic health is reciprocated by the presence of cultural destinations, associated businesses such as restaurants and retail, art-in-public-places, streetscape decorations, and programming and
events. For the purposes of this memo, the term “creative district” should be considered synonymous with “art district” or “cultural district.”

NoBo Art District – the area of north Boulder, roughly along Broadway north of Violet Street and south of Foothills Highway (US 36), that has the characteristics of a creative district, as described above. In this memo, this term is interchangeable with “the creative district in north Boulder.”

NoBo Art District Organization – A nonprofit cultural organization that was established at a grassroots level to represent the artists in the creative district in North Boulder, and to program First Fridays and other district events. The full name of the organization is “NoBo Art District Organization and First Friday Art Walks.”

NoBo Art District Coordination Committee – A voluntary, collaborative working group made up of a key leaders of city departments, organizations, and businesses in the area of the NoBo Art District that will meet regularly to align their separate activities around the mission and goals of the creative district.

Influence Area – the area in which the high concentration of artists, especially working in home studios, is acknowledged as a critical component of the success of the NoBo Art District. Also important to the influence area is the high numbers of residents who use the creative district and support the activity of artists in their neighborhoods. The borders of the North Boulder Subcommunity can be used to define this influence area.
North Boulder Art District

Since its founding, Boulder has attracted visual artists, poets, performers, writers, musicians, designers, and creative people of all kinds as a beautiful, inspiring, and supportive place to live, practice their craft, and prosper in the business of their art.

Boulder’s Community Cultural Plan, adopted by City Council on November 17, 2015, articulates a vision for culture in which the community calls on the city government and all cultural leaders to “craft Boulder’s social, physical, and cultural environment to include creativity as an essential ingredient for the well-being, prosperity, and joy of everyone in the community.”

The Community Cultural Plan also recognizes that the use of “creative districts” by municipalities across the United States has proven to be an effective tool to support creative workers and businesses and the special role they play in the economic and social resiliency of a community.

In times of uncertainty when the value of the arts may be called into question or the livelihood of artists stands to be challenged by national events, local government can act, through initiatives like this creative district designation, to declare the fact that the values of the people of Boulder support the arts and the importance of artists in our community.

The residents, workers, and business owners of the neighborhoods of north Boulder have consistently demonstrated support for the activities and impacts of a creative district, the recommendations for culture in the North Boulder Subcommunity Plan and the Community Cultural Plan.

The artists of north Boulder have organized themselves and formed the “NoBo Art District Organization” that has been programming events, advocacy, and place-making activities, which already give the area the character and substance of a creative district, founded in the grassroots efforts of those artists.

The City Council of the city of Boulder, Colorado, celebrates the efforts of the community to organize itself into a creative district known as the North Boulder Art District in the business area generally along North Broadway in the North Boulder Subcommunity. And, that the NoBo Art District has an influence area in the neighborhoods adjacent to the creative district itself.

Also, that City Council further supports the value of all city departments working together on projects in the NoBo Art District that will support and promote the purposes of a creative district as described in the 2015 Community Cultural Plan.

___________________________
Suzanne Jones, Mayor
CITY OF BOULDER
BOARD OF ZONING ADJUSTMENT
ACTION MINUTES
February 9, 2017, 5 p.m.
1777 Broadway, Council Chambers

Board Members Present: David Schafer (Chair), Jill Grano (V. Chair),
Jill Lester, Michael Hirsch

Board Members Absent: Ellen McCready

City Attorney Representing Board: Erin Poe

Staff Members Present: Robbie Wyler, Cindy Spence

1. CALL TO ORDER:

D. Schafer called the meeting to order at 5:03 p.m.

2. BOARD HEARINGS:

A. Docket No.: BOZ2017-03
   Address: 2003 Walnut Street
   Applicant: Martin Pankove
   Setback Variance: As part of a proposal to modify an existing nonstandard detached
two-story single-vehicle garage/studio and turn it into a detached two-story two-vehicle
garage/studio, the applicant is requesting a variance to the side (west) yard setback in
order to meet the minimum setback requirements of the RH-2 zoning district. The
subject side yard is adjacent to a street (20th) and requires a 25-foot setback because of
the adjacency rule which requires a front yard setback when an adjacent property fronts
the same street. The resulting side (west) yard setback will be approximately 20 feet
where 25 feet is required and where approximately 20.1 feet exists today. Section of the
Land Use Code to be modified: Sections 9-7-1, BRC 1981.

Staff Presentation:
R. Wyler presented the item to the board.

Board Questions:
R. Wyler answered questions from the Board.

Applicant’s Presentation:
Paul Hunnicutt, with ASONE Architecture, presented the item to the board.

Board Questions:
Paul Hunnicutt, representing the applicant, answered questions from the Board.
Public Hearing:
No one from the public addressed the board.

Board Discussion:
• M. Hirsh said that the current neighborhood has some very large buildings. Keeping the home as a single-family with a studio is an appropriate use.
• D. Schafer clarified that the entire proposed studio space is by-right. Therefore, the only pertinent discussion should be about the garage extension on the southwest corner. The neighborhood would benefit from taking one more car off street by extending the garage.
• J. Lester stated that she does not find the proposal as problematic. She expressed concern that a future OAU (Owners Accessory Unit) may be incorporated. Currently the code states that the studio could not be rented separately if it were in fact an OAU.
• J. Grano said that she has no issue with the proposal as the upper studio would be conforming. There is no real issue regarding an OAU and the setbacks will not really change from what they currently are.
• D. Schafer clarified that the entire project would be by-right including the upstairs except for the small portion on the southwest corner.
• M. Hirsh reasoned that there is very little chance that the applicant would make it the studio an OAU. In fact, it would require a BOZA application if he did. He asked staff if a “sleeping room” ordinance still existed within the city’s code, but it was determined that it would not apply in this instance or may trigger a “Declaration of Use”.

Motion:
On a motion by J. Lester, seconded by J. Grano, the Board of Zoning Adjustment approved (4-0, E. McCready absent) the application (Docket 2017-03) as submitted.

3. GENERAL DISCUSSION:

A. Approval of Minutes
On a motion by J. Lester, seconded by J. Grano, the Board of Zoning Adjustments voted 4-0 (E. McCready absent) to approve the January 12, 2017 minutes.

B. Matters from the Board
There were no matters from the Board.

C. Matters from the City Attorney
There were no matters from the City Attorney.

D. Matters from Planning and Development Services
• R. Wyler informed the board that he anticipates at least four to five items for the March 9, 2017 BOZA meeting. J. Grano stated she would not be in attendance.
• R. Wyler reminded the board that the deadline for Boards and Commissions applications is February 13, 2017. Currently, BOZA may have three applicants for the one vacancy. M. Hirsh’s term will be ending this year.
4. **ADJOINTMENT:**
   There being no further business to come before the board at this time, **BY MOTION REGULARLY ADOPTED, THE MEETING WAS ADJOURNED AT 5:35 P.M**
CITY OF BOULDER  
DESIGN ADVISORY BOARD MINUTES  
February 8, 2017  
1777 Broadway, 1777 West Conference Room  

A permanent set of these minutes and a tape recording (maintained for a period of seven years) are retained in Central Records (telephone: 303-441-3043). Minutes and streaming audio are also available on the web at: http://www.bouldercolorado.gov/  

DAB MEMBERS PRESENT:  
Jamison Brown, Chair  
Michelle Lee  
David McInerney  
Jeff Dawson  
Jim Baily  
Bryan Bowen, Planning Board Ex-Officio Member  

DAB MEMBERS ABSENT:  
N/A  

STAFF PRESENT:  
Jim Robertson, Senior Urban Designer  
Kalani Pahoa, Urban Designer  
Cindy Spence, Administrative Assistant III  
Charles Ferro, Development Review Manager  
Karl Guiler, Senior Planner  

1. CALL TO ORDER  
Chair, J. Brown, declared a quorum at 4:03 p.m. and the following business was conducted.  

2. APPROVAL OF MINUTES  
The board approved the December 14, 2016 Design Advisory Board minutes.  

3. PUBLIC PARTICIPATION  
   • John Driver spoke regarding the Attention Homes project concerning the proposed massing, the proposed height limit and suggested masonry cladding.  
   • Carole Driver spoke regarding the Attention Homes project concerning the three-story west wing and suggested that it be reduced.  

4. DISCUSSION ITEMS  
   A. PROJECT REVIEW: Attention Homes (LUR2017-00006), 1440 Pine Street within the block between 14th and 15th Pine and Spruce.  

   J. Dawson and J. Brown recused themselves.
Staff Presentation:
K. Guiler provided a summary of the Attention Homes project. He reminded the board that DAB had previously discussed this project at the December 14, 2016 meeting. Staff would like DAB to review and provide feedback on the project again prior to the applicant submitting their site review. Staff feels the massing and materials are consistent with the Downtown Design Guidelines. The Attention Homes project is tentatively scheduled for Planning Board for May 18, 2017.

Applicant Presentation:
J. Dawson, with Studio Architecture, J. Brown, with JB Fieldworks, and Shannon Cox Baker, with SCB Consulting, LLC, representing the applicant, presented the item to the board and discussed changes that had been implemented since they had last presented this project to DAB on December 14, 2016.

Board Comments:
• D. McInerney stated that the changes in the design where 15th Street meets the alley are a big improvement, especially at the stairwell.
• M. Lee approved of the pitched roof presented at the Pine Street entry.
• B. Bowen stated that the bay window elements or bump outs may not be necessary. He suggested making the bay a darker color to emphasize the brick.
• J. Baily felt the bump out could give more dimension and break up the façade and give a more pedestrian scale.
• B. Bowen said that if the bump outs were removed, it would give the brick feel more authentic. He approved of them on the east elevation more than the north. He liked the porch elements and the gable at the entry has been nicely resolved. The gable needs to go back a little farther than proposed.
• J. Baily agreed that taking the gable back farther would be a good idea. He recommended removing the box bay at the entry on Pine Street.
• B. Bowen agreed.
• M. Lee, regarding the backside of the three-story building, stated that the different materials at the cornice are hurting the façade and she suggested perhaps pulling back on the number of different materials. The detailed cornice should be seen from Pine Street. As proposed, it is flat and thin. She recommended simplifying the highly detailed cornice all the way around and then simplifying the materials below it. This would help the building feel integrated with the buildings on Pine Street.
• J. Baily added that the proposed ventilator ports are the most troublesome aspect of the elevations.
• B. Bowen suggested sliding the ventilator ports to a secondary façade, off Pine Street. The solution for the brick wall needs to be a texture that as an angle with some three dimensional reliefs to hide the louvres. He agrees with the applicant’s proposal.
• D. McInerney agreed with the proposed relief surrounding the louvered area.
• B. Bowen mentioned the parapet detailing could be improved. He added that the overall design is well done.
• J. Baily stated that in regards to the P-tac units, he would like to have the applicant pay attention to the noise level. He approved of the two-story facades which face the streets. Regarding the alley facade, he said the stairwell has been handled well and he agreed
with M. Lee’s comments regarding the parapet. He noted that DAB does not review parking ratios or building uses.

- **B. Bowen** suggested that the surface east of the courtyard could be more creative.
- **D. McInerney** declared the board believes the five urban objectives have been met as identified in the Discussion Template.
- All board members agreed.

B. PROJECT REVIEW: Frasier Meadows (LUR2016-00071), 350 Ponca Place

**Staff Presentation:**
- **C. Ferro** provided a summary of the Frasier Meadows project. He informed the board that the applicant is proposing a new independent living building, a wellness center and an arts and education center.

**Applicant Presentation:**
Gregory Dehne, Chad Bederka, Robyn Bartling and Dan Ritter, with Hord, Coplan and Macht Architecture, presented the item to the board and discussed each new proposed element.

**Board Comments:**

**Key Issue #1: Residential Buildings:**
- **J. Brown** stated the proposed project is an elegant composition. He agreed with bringing down the overall mass of the buildings. It is a simple design and the material palette makes sense. He said there are a lots of vertical moves in the design and they all of them may not be needed.
- **B. Bowen** liked that the narrow ends of the buildings face the street and the expansiveness of the courtyards. The materials look simple and well done and the window proportions work well.
- **J. Dawson** approved of the material colors and the parapet. He suggested exploring vertically proportioned windows since square proportions are not as elegant. This proposal ties in with the campus at Colorado University. He has a concern regarding the parking in this location and the accommodation for pedestrians. He recommended the applicants look at treatments of stairwells to break down the fenestration.
- **B. Bowen** stated that they could become an artistic element.
- **J. Dawson** agreed that there could be elegant ways to treat the parking and stairwells. The stone base proposed is successful.
- **J. Brown** reminded the applicants that while this street side of the project may not be very pedestrian friendly, the courtyard side will be walkable.
- **J. Baily** stated that the challenging element of the project will be the flood wall and parking. Landscaping, materials and grills will be important to make it a good pedestrian experience. The project will need to have materials that work with the flood wall and the building together. He mentioned that he is having trouble seeing the entry experience of the building for people that would not be coming in from the parking garage.
• D. McInerney added that there are some locations in the area that will likely attract pedestrians to the north of the proposed project. He recommended strengthen the connection to the north due to pedestrian traffic to the site.
• J. Brown would like to see the relief band be a material something other than stucco. He proposed a cast stone or brick course detail.
• B. Bowen added that the texture of stucco, if it is allowed to be one surface, it can read as plastic or pre-cast panels. He recommended that stucco would be better with control joints.
• J. Dawson suggested a water course at the base of the stone that would mimic the proposed stone might be an interesting way to tie them together. He liked how the base of the building is extended to second floor to resemble a high ceiling. He suggested doing the same thing at the public level so that the parking structure will not be emphasized. In addition, the banding above the second floor is more successful than where the stone ends on the first floor. Having some vertical elements to break it apart would be appropriate. It will help to integrate the parking.
• D. McInerney stated that the proposed materials and massing are attractive.
• M. Lee stated that the project hits the guidelines. She appreciates the upper level which hides the mechanical units. She agreed with J. Dawson’s comments.

Key Issue #2: Wellness Center and Arts and Education Center
• J. Dawson stated that he approves of how the Arts and Education Center building extends outwards and creates a sense of enclosure. It is a very comfortable entrance to the site. The proposal integrates well with the existing building.
• J. Brown agreed.
• J. Baily stated the proposed building appears more contemporary by pulling it out and lowering the level and it will be much more pedestrian friendly.
• J. Dawson questioned the rough stone and suggested a smooth lime stone and refined in the vertical entry.
• In regards to the Wellness Center and Arts and Education Center, all board members approved of the project.

5. BOARD MATTERS
• K. Pahoa updated the board that staff will be looking at dates in April for a DAB Retreat and they will inform the board when a final date has been decided.

6. ADJOURNMENT
The Design Advisory Board adjourned the meeting at 5:46 p.m.

APPROVED BY:

Board Chair

DATE
**CITY OF BOULDER**  
**BOULDER, COLORADO**  
**BOARDS AND COMMISSIONS MEETING**  
**MINUTES**

<table>
<thead>
<tr>
<th>Name of Board/ Commission:</th>
<th>Library Commission</th>
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<tbody>
<tr>
<td>Date of Meeting:</td>
<td>Feb. 1, 2017 at the Main Boulder Public Library, 1001 Arapahoe Ave.</td>
</tr>
<tr>
<td>Contact information preparing summary:</td>
<td>Maureen Malone, 303-441-3106</td>
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<tr>
<td>Commission members present:</td>
<td>Joni Teter, Alicia Gibb, Juana Gomez, Joel Koenig, Tim O'Shea</td>
</tr>
</tbody>
</table>
| Library staff present:     | David Farna, Director of Library & Arts  
                            Jennifer Phares, Deputy Library Director  
                            Kate Kelsch, Volunteer Services Coordinator  
                            Maureen Malone, Administrative Specialist II  
                            Tim McClelland, Patron Services Manager |
| City Staff Present:        | Michele Crane, Facilities Design and Construction Manager |
| Others present:            | Aaron Schonhoff, Joining Vision and Action (JVA)  
                            Rick Epstein, re : architecture |
| Members of the public present: | None |
| Type of Meeting:           | Regular |
| Agenda Item 1: Call to order and approval of agenda | [6:02 p.m., 0:00:00 Audio min.] |
| Agenda Item 2: Public comment | [6:03 p.m., 0:00:22 Audio min.] |
| Agenda Item 3: Consent agenda | [6:03 p.m., 0:00:38 Audio min.] |
| Item 3A, Approval of Jan. 4, 2017 Meeting Minutes | Gibb moved to approve the minutes, and Koenig seconded. Vote 5-0, unanimous. |
| Agenda Item 4: Meet Kate Kelsch, BPL volunteer services coordinator | [6:03 p.m., 0:00:57 Audio min.] |
| Commission discussion, questions, and comments included: | O'Shea commented that it would be interesting to see how many active volunteers the library currently has.  
                                                        Teter encouraged Kelsch to draft some messaging about the volunteer program to use in the Master Plan community engagement process to start educating the community about opportunities at the library. |
| Agenda Item 5: Main Library north building assessment updates – Michele Crane, facilities design and construction manager, Facilities and Asset Management division of Public Works | [6:14 p.m., 0:12:00 Audio min.] |
| Commission discussion, questions, and comments included: | Teter asked if, from a valuation standpoint, the regulatory trigger is a proportion of the building rather than the total value. Crane replied that certain codes are triggered if the proposed renovation is more than 50% of the value of the building. If you use the value of the entire library, as opposed to just the north building, you have more money to work with, but the entire building is subject to whatever regulations you have to bring the building up to. Epstein added that renovation costs are restricted to 50% of the value of the building since it is touched by the high hazard flood zone. |
Teter asked whether all the codes are triggered when renovation costs exceed 50% of the value of the building. Epstein replied that the codes have been misaligned in this respect. Crane stated that there is an energy code update coming out that will base it on 50% of the value of the building, whereas it is currently based on whether you renovate more than 50% of the area.

Gomez commented that at the joint meeting with the Landmarks Board, the development review manager stated that the threshold of the front door is 4 feet below where it should be, and asked for confirmation that no work can be done below that 4-foot threshold. Crane responded that it will be necessary to flood protect up to that threshold, and no additions will be allowed. Crane will get the value of the building this month, which will be used to inform Epstein’s study.

Crane commented that one reason a phased approach was used for the concept drawings is that code allows renovations of up to 50% of value of the building per year.

Koenig asked how the valuation of the north building will be determined. Crane responded that the property agent has stated that the value of the north building will be calculated based on its percentage of the total square footage of the library.

O’Shea asked what the capacity of a theater with telescoping seating would be, and Epstein replied that it would be around 275 depending on the size of the stage, and closer to 350 if the proposed removable wall were opened up into the gallery space.

Gomez wondered whether it is necessary to determine the programming of the space before moving forward with the study. Phares commented that the purpose of the concept drawings was to get an idea of a very basic renovation. Crane added that the goal of this study will be to understand the constraints on the renovation and the cost associated with any major changes, such as flattening the floor or moving the stairs and restrooms.

Farnan asked where the assessor’s value is derived from, and Crane responded that she will follow up with the assessor to find out how that number is calculated.

Teter stated that the objective is to have a budget in place to do a feasibility study this year and have results by the fall to use with feedback from the Master Plan to determine a direction in which to move forward. Phares clarified that the plan is to get the money in the budget to do the study in 2018, unless it turns out that the library has the money to do it this year.

Agenda Item 6: All-gender restroom plan – Michele Crane

Teter read aloud an email from patron Kai McKenzie (see handouts).

Commission discussion, questions, and comments included:

- Phares commented that one of the reasons that the female restroom was put on the first floor in option A is that staff did counts and found that a larger number of men use the second floor restroom than women; additionally the first floor’s adjacency to the children’s area would likely lead to more moms using the first floor restrooms.
- Gibb asked whether Crane has looked at any studies to see if people care whether there are still normative restrooms. Crane responded that she has not, but commented that option A deemphasizes the traditional restroom design.
- Gibb asked whether the gender neutral restrooms are part of the existing plans to renovate the restrooms. Phares replied that staff is combining the renovation with introducing gender neutral restrooms, and Farnan added that the library has money set aside to renovate the restrooms, but not enough to cover the plans for the gender neutral restrooms.
- Koenig asked when the restrooms will be completed. Phares stated that the earliest the library will have the funding would be 2018, and it would be later in the year before construction started, so the earliest the restrooms will be completed would be 2019.
- Commission agreed that option A (p. 21 of packet) is their preferred design.
- Teter recalled from previous discussions about gender neutral restrooms at the branch locations that Meadows is a leased space and could not be configured, Reynolds already has an all-gender restroom and NoBo only has one restroom, which is by definition an all-gender restroom.
- Crane stated that she will have a cost estimate for the restroom renovation by the end of February.
- Teter asked if there has been any feedback from the city about Library Commission’s request that gender neutral restrooms be a citywide initiative. Farnan replied that city council did not address this issue at their retreat. Crane stated that the city is having conversations about wellness rooms and similar types of spaces, and the design presented tonight is an intent to surface this kind of solution.
Commission shared their initial feedback on the Master Plan draft survey outline (pp. 25-28 of packet) with Aaron Schonhoff from JVA.

**Commission discussion, questions, and comments included:**

- Koenig commented that there aren’t any points in the demographics portion of the survey concerning people with physical challenges.
- Koenig stated that a reasonable percentage of library users include the homeless population and suggested adding a question asking whether the survey participant is currently housed.
- Gomez commented that race and ethnicity are often lumped together in surveys, and Schonhoff replied that he will follow the census guidelines for breaking out race from ethnicity.
- Gomez asked what the language at home question is getting at, and stated that this can be more complex that checking just one box. Schonhoff responded that this question can be used to see if the survey is hitting the some of the recent immigrant groups in a community, and can provide feedback as to whether the library needs to provide more services for a particular language.
- For question 2g on library usage moving forward, Gomez commented that 10 years seems like an enormous amount of time to predict in terms of technology usage. Schonhoff replied that the question aims at finding out what people anticipate needing more or less of in the future. Phares suggested shortening the view on this question and using question 5, which is open-ended, to cover the long-term look.
- Teter recalled a prior discussion about using the survey as a way to educate as well as get feedback, and suggested that staff consider how the survey questions present the library to the community.
- Teter recommended that staff consider the variety of demographics being targeted when framing the survey questions and deciding how to reach out to people. Phares stated that one way to get at the groups not reached through the survey is through focus groups.
- Gibb commented that from her experience, people often stop at the annual income question because it can seem too personal, and suggested that that question be put at the end of the survey or be optional. Farnan replied that all of the demographic information can be put at the end and be optional; Farnan added that typically, people in upper income brackets are not heavy library users, but that’s not necessarily true in Boulder.
- Gibb questioned whether it’s necessary to ask about frequency of visits and website usage in question 2 since staff already monitors this information. Farnan explained that it is important for staff to understand what percent of the population uses the library, which can’t be discerned from the door count. Teter wondered whether frequency of visit and usage should be separated out because they’re getting at two different things from a Master Plan perspective, and added that what people use now versus what they think they will use in the future is critical for the Master Plan discussion.
- Gibb expressed her concern that the survey data might be skewed if, by trying to get a good demographic, we end up getting a lot of people that don’t actually use the library and missing the frequent library users.
- Teter commented that what people use and what they think is important to the community are two different lines of thought and suggested adding a question to get an idea of whether the public is aware of the variety of services the library offers.
- Koenig stated that the survey seems too long, and commission discussed ways to compact the survey.
- O’Shea suggested that staff think about the primary take aways they hope to get from the survey results when reviewing the questions, and whether there is a possibility for follow-up interactions with survey participants. O’Shea added that he would like to see the survey touch on the community’s interaction with library staff and the physical space in the library.

**Commission took at 10-minute break**

**Agenda Item 8: Approve updates to Library Commission Handbook**

Teter emailed her suggested edits ahead of the meeting (see handouts).

In response to a question posed by commission at the January meeting, Farnan explained that the City Attorney has always interpreted the city code to say that proxy vote is not allowed for boards and commissions, nor is participating and voting in a meeting by phone. [0:11:27 Audio min.]

O’Shea moved to approve the handbook with the suggested edits. Koenig seconded. All in favor.

**Agenda Item 9: Library policy review**

a. Proposed schedule for reviewing policies in 2017

b. Materials Donations Guidelines review and approval (pp. 47-48 of packet)
Under the heading “What can I do with materials the library cannot accept?”, O’Shea suggested including used book stores in addition to thrift stores, and recommending that patrons call ahead for information on what materials are accepted.

O’Shea moved to approve the guidelines with the suggested changes, and Gomez seconded. All in favor.

### Agenda Item 10: Library Commission Update

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<tr>
<th>Section</th>
<th>Description</th>
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<tbody>
<tr>
<td>a.</td>
<td>Matters from the Commission</td>
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<tr>
<td>i.</td>
<td>Report out on meetings with City Council members</td>
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<td>ii.</td>
<td>Report out on CAL CATS Winter Workshop</td>
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<td>iii.</td>
<td>Financial impact of Boulder as a sanctuary city Koenig asked whether the library will be impacted if Boulder is designated as a sanctuary city and the feds cut back on city funding. Farnan replied that the city estimates that they could lose up to $8M in revenue; the library does not receive federal grants and would not be directly impacted, but city council will decide how to allocate the general fund for the city budget. Teter asked what the overall city budget is for perspective, and Farnan estimated it to be around $430M.</td>
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<td>b.</td>
<td>Boulder Library Foundation update Gibb stated that the foundation has raised around $10k by setting up a table at the library to recruit Library League members, and added that the foundation is concerned about keeping the existing membership base through renewals, while continuing to grow it.</td>
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<td>c.</td>
<td>City project representative update</td>
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<tr>
<td>i.</td>
<td>Boulder Valley Comprehensive Plan</td>
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<td>ii.</td>
<td>Boulder’s Civic Area</td>
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<td>iii.</td>
<td>Canyon Complete Streets</td>
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<td>iv.</td>
<td>EcoDistricts</td>
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<td>d.</td>
<td>Responses to patron emails from the Library Commission</td>
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### Agenda Item 11: Library and Arts Director’s Report

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<tbody>
<tr>
<td>a.</td>
<td>2016 door count</td>
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<td>b.</td>
<td>Current issues around transient population</td>
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<td>c.</td>
<td>Boulder Historical Society &amp; Carnegie Library Farnan stated that since the packet went out, he has heard back from Boulder Historical Society, and withdrew his questions to commission for the moment. Teter recommended that commission make a statement that the library owns the digital collection, and it should remain open to the public. Gomez asked what the City Attorney’s Office (CAO) has said on the matter. Farnan responded that the CAO is looking for legal precedence, and added that he is hopeful he can negotiate a reasonable deal with Boulder Historical Society. Farnan stated that he will speak to Boulder Historical Society to determine their motivation for trying to assert ownership rights over the collection, and report back to commission to inform their recommendation. Teter commented that the policies for the Carnegie Branch may be tied to the timing of the resolution of this matter.</td>
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<td>d.</td>
<td>Report out on City Council retreat</td>
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<td>e.</td>
<td>Applications for boards and commissions</td>
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<td>f.</td>
<td>Some good news, some sad news</td>
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Farnan commented that tonight’s report on the Main Library north building may be the basis for a joint meeting with the Boulder Arts Commission.
Agenda Item 12: Adjournment
[8:36 p.m., 2:29:28 Audio min.]
There being no further business to come before the commission at this time, the meeting was adjourned at 8:36 p.m.

Date, time, and location of next meeting:
The next Library Commission meeting will be at 6 p.m. on Wednesday, March 1, 2017, at the Meadows Branch Library, 4800 Baseline Rd., Boulder, CO 80303.

Commissioner Teter approved these minutes on March 13, 2017; and Maureen Malone attested to it.

An audio recording of the full meeting for which these minutes are a summary, is available on the Library Commission web page at http://boulderlibrary.org/about/commission.html
**NAME OF COMMISSION:** Open Space Board of Trustees  

**DATE OF MEETING:** March 8, 2017  

**NAME/EXTENSION OF PERSON PREPARING SUMMARY:** Leah Case x2025  

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

**MEMBERS:** Frances Hartogh, Molly Davis, Kevin Bracy Knight, Tom Isaacson, Curt Brown  

**STAFF:** Tracy Winfree, John Potter, Mark Davison, Jim Reeder, Brian Anacker, Steve Armstead, Dan Burke, Mark Gershman, Jennelle Freeston, Keri Davies, Deryn Wagner, Leah Case, Bethany Collins, Alyssa Frideres, Ana Sutherland, Dan Burke, Phil Yates, Lisa Dierauf, Kristin Weinberger  

**GUESTS:** Susan Connelly, Deputy Director, Community Vitality Department; Bill Cowern, Principal Traffic Engineer, Transportation Division of Public Works; Joe Taddeucci, Water Resources Manager, Public Works/Utilities; Sandra Llanes, Senior Assistant City Attorney Office  

**TYPE OF MEETING:** REGULAR CONTINUATION SPECIAL  

**SUMMATION:**  

**AGENDA ITEM 1 – Proclamation**  
Molly Davis read a proclamation for Frances Hartogh, the exiting Board Chair, acknowledging her years of service as an Open Space Board of Trustee.  

**AGENDA ITEM 2 – Approval of the Minutes**  
Frances Hartogh moved that the Open Space Board of Trustees approve the minutes from Feb. 8, 2017. Curt Brown seconded. This motion passed unanimously.  

**AGENDA ITEM 3 – Public Participation for Items not Identified for Public Hearing**  
Several members from the public spoke expressing their concern about the CU South land designation.  

**AGENDA ITEM 4 – Matters from the Department**  
Brian Anacker, Science Manager, presented on the Boulder County Carbon Study as well as the Funded Research Program.  

**AGENDA ITEM 5 – Matters from the Board**  
None.
Jennelle Freeston, Coordinator of Volunteer Services, and Kristin Weinberger, Coordinator of Group Volunteer Projects, presented this item.

Frances Hartoght read the following declaration: The Open Space Board of Trustees joins the staff of the City of Boulder Open Space and Mountain Parks Department in recognizing all our volunteers during National Volunteer Week 2017. We salute the hundreds of Open Space and Mountain Parks volunteers who contributed their talents and efforts in helping the department carry out its mission. These individuals are an inspiration as they help to protect the resources that make Boulder’s Open Space and Mountain Parks so special.

AGENDA ITEM 7 – Consideration of a motion to approve and recommend that City Council approves the disposal of an interest in Open Space lands through the grant of non-exclusive perpetual utility and access easements to Northern Colorado Water Conservancy District for a water pipeline over the IMEL and IBM-Monarch Open Space properties pursuant to the disposal procedures of Article XII, Section 177, of the Boulder City Charter and the conveyance of temporary and perpetual utility and access easements over the Lynch and Suitts conservation easement properties pursuant to the requirements of the conservation easement agreements.
Bethany Collins, Property Agent, presented this item.

This item stemmed one motion:
Tom Isaacson moved the Open Space Board of Trustees approve and recommend that City Council approve the conveyance of permanent utility and access easements to Northern Colorado Water Conservancy District as approved by OSMP and Boulder County staff, Northern Water staff and the City Attorney’s Office, for a water pipeline over the IMEL and IBM-Monarch Open Space properties pursuant to the disposal procedures of Article XII, Section 177, of the Boulder City Charter and consent to and recommend that City Council approve the conveyance of temporary and perpetual utility and access easements over the Lynch and Suitts conservation easement properties pursuant to the requirements of the conservation easement agreements. Curt Brown seconded. This motion passed unanimously.

AGENDA ITEM 8 – Request for Open Space Board of Trustees (OSBT) recommendation that City Council adopt temporary ordinance changes to allow implementation of a pilot transportation program at Chautauqua in the summer of 2017.
Deryn Wagner, Environmental Planner, presented this item.

This item stemmed one motion:
Frances Hartoght moved the Open Space Board of Trustees recommend that City Council adopt a temporary ordinance amending the Boulder Revised Code concerning paid parking at Open Space and Mountain Parks trailheads to support a June through August 2017 pilot transportation program at Chautauqua, said amendment to sunset December 31, 2017. Curt Brown seconded. This motion passed unanimously.

ADJOURNMENT: The meeting adjourned at 8:37 p.m.

ATTACH BRIEF DETAILS OF ANY PUBLIC COMMENTS:
Several members from the public expressed their concerns about parking in relation to the Chautauqua Pilot Transportation Program.
TIME AND LOCATION OF ANY FUTURE MEETINGS, COMMITTEES OR SPECIAL HEARINGS:
The next OSBT meeting will be Wed. April 12 at 6 p.m. at 1777 Broadway in the Council Chambers.
North Boulder Art District

Since its founding, Boulder has attracted visual artists, poets, performers, writers, musicians, designers, and creative people of all kinds as a beautiful, inspiring, and supportive place to live, practice their craft, and prosper in the business of their art.

Boulder’s Community Cultural Plan, adopted by City Council on November 17, 2015, articulates a vision for culture in which the community calls on the city government and all cultural leaders to “craft Boulder’s social, physical, and cultural environment to include creativity as an essential ingredient for the well-being, prosperity, and joy of everyone in the community.”

The Community Cultural Plan also recognizes that the use of “creative districts” by municipalities across the United States has proven to be an effective tool to support creative workers and businesses and the special role they play in the economic and social resiliency of a community.

In times of uncertainty when the value of the arts may be called into question or the livelihood of artists stands to be challenged by national events, local government can act, through initiatives like this creative district designation, to declare the fact that the values of the people of Boulder support the arts and the importance of artists in our community.

The residents, workers, and business owners of the neighborhoods of north Boulder have consistently demonstrated support for the activities and impacts of a creative district, the recommendations for culture in the North Boulder Subcommunity Plan and the Community Cultural Plan.

The artists of north Boulder have organized themselves and formed the “NoBo Art District Organization” that has been programming events, advocacy, and place-making activities, which already give the area the character and substance of a creative district, founded in the grassroots efforts of those artists.

The City Council of the city of Boulder, Colorado, celebrates the efforts of the community to organize itself into a creative district known as the North Boulder Art District in the business area generally along North Broadway in the North Boulder Subcommunity. And, that the NoBo Art District has an influence area in the neighborhoods adjacent to the creative district itself.

Also, that City Council further supports the value of all city departments working together on projects in the NoBo Art District that will support and promote the purposes of a creative district as described in the 2015 Community Cultural Plan.

Suzanne Jones, Mayor