

Sustainability Plan



*An Update to the Environmental Stewardship Section of
the 2005 Comprehensive Plan*

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Created by
the Members of the Broomfield Sustainability Task Force*



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Introduction/Background

A. Purpose of the Plan

In September 2008, Broomfield Council requested a status report on the Environmental Stewardship Chapter of the 2005 Comprehensive Plan. Substantial progress has been made towards the 2005 goals. As a result Council directed staff to update the Environmental Stewardship section with respect to the triple bottom line aspects of environmental, economic and social sustainability. An agreement was executed with the National Civic League (NCL) and the University of Colorado Denver (UCD) to assist Broomfield in a rigorous public process to define sustainability and develop a Sustainability Plan specific to Broomfield.

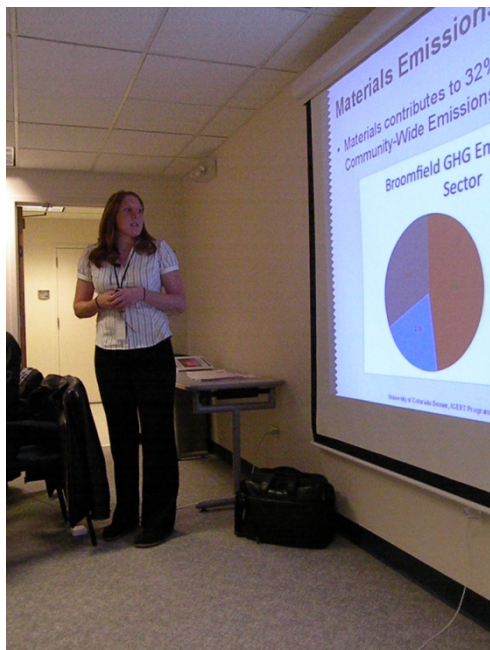
B. Process

With UCD's expertise and guidance, the process began with four focus groups. Residents and local business representatives were brought together in focus groups and surveyed to gauge the public's knowledge of sustainability issues and to begin to identify areas of interest for the community with regard to sustainability. UCD's survey questions were developed to identify not only areas of community interest, but also to identify who should be responsible for providing programs and services, and who should pay for programs and services.

In parallel with the focus group efforts, an extensive community wide recruitment process began to solicit residents and representatives from the local business community for a Sustainable Community Task Force. The recruitment included newspaper and web solicitations, as well as letters to many sectors of the community including service groups, health professionals, academia, the faith community, and students from Broomfield High

School and Legacy High School. Members were also solicited from small, medium and large local businesses. The Broomfield Economic Development Corporation and Broomfield Chamber of Commerce were asked to help recruit business representatives and also to provide representatives for their organizations. Broomfield's standing advisory committees including Health and Human Services Advisory Committee, Senior Resources, Open Space and Trails Advisory Committee, Land Use Review Committee, Parks and Recreation Advisory Committee, and the Library Board were each asked to select a representative from their respective committee or board to serve on the Task Force. Council was asked to designate two official members to the Task Force and all members were encouraged to participate in the process. In addition to the Mayor and two councilmember representatives, each councilmember was asked to appoint a representative from their ward.

After the application process and interviews in March 2009, a 30 member Sustainable Community Task Force was convened to participate in an eighteen month public process to the update of the Environmental Stewardship section of the 2005 Comprehensive Plan. The National Civic League provided assistance to the Task Force by facilitating the



meetings and setting them on the right track to write the plan. The University of Colorado Denver's Center for Sustainable Urban Infrastructure provided technical assistance on definitions of sustainability, the meaning of greenhouse gases and climate change, conducted greenhouse gas accounting of the community, and provided options and recommendations of possible action steps to the Task Force. UCD also summarized and provided the focus group and survey results to inform the Task Force. The Task Force goal was to define sustainability, develop a Sustainability Plan with goals, policies and actions steps to address sustainability in the community, and submit the Plan to City Council for adoption.

A Sustainability web page was created to inform Broomfield residents about the progress of the Task Force. The web page encouraged residents to register to participate on-line as virtual committee members. Approximately 30 virtual members participated by taking surveys and providing email comments.

The public process was documented in video segments that are aired frequently on the local government access channel each month. All of the videos will be dovetailed into a final video at the conclusion of the project. The videos include interviews with Task Force members, focus group members, staff, and members of the public who attended the Open House.

C. Plan Organization

The Sustainability Plan contains the following sections

- Introduction/Background
- Vision
- Description of Rating System for Implementation Matrix
- Resource Conservation-Goals, Policies and Action Steps
- Energy Efficiency/Alternative Energy-Goals, Policies and Action Steps
- Community Education-Goals, Policies and Action Steps
- Economic Development-Goals, Policies and Action Steps
- Transportation-Goals, Policies and Action Steps
- Appendices A - Implementation Matrix sorted from Highest to Lowest priority
- Glossary of Terms

D. Relationship to Comprehensive Plan

The 2005 Comprehensive Plan is the official statement of Broomfield's vision and is intended to serve as the principal planning document addressing Broomfield's goals and policies for key community issues. The Sustainability Plan is an update of the Environmental Stewardship Chapter of the 2005 Comprehensive Plan. The Sustainable Community Task Force reviewed the status of each of the previous Goals, Policies and Action Steps in the Environmental Stewardship Chapter at the beginning of the public process. They brainstormed what a "Sustainable Broomfield" would look like and developed recommendations for the City Council to consider in the areas of Environmental Sustainability, Energy, Alternative Energy, Community Education, Transportation and Economic Development. The Sustainability Plan is a significant re-write of the Environmental Stewardship Chapter and will replace that chapter of the Comprehensive Plan. The language in the Environmental Stewardship Chapter, including goals, policies and action steps, that remain relevant and applicable, was carried forward in the Sustainability Plan.

As used previously in the 2005 Comprehensive Plan and for the purposes of this Sustainability Plan the following concepts and terminology apply:

Goal: A goal is an end toward which efforts is directed and that provides the community with direction. A goal is a desired ideal and a value to be sought.

Policy: A policy is a statement of principle or a course of action that provides a broad framework for guiding governmental action and decision making.

Action Step: Action Steps are specific actions necessary to implement or support the specific, identified policy.

Vision

In order for the Task Force to make recommendations for community sustainability, the group needed to agree on the definition of sustainability and develop a vision statement of what their ideal community would look like. UCD provided technical information to the Task Force from the focus groups and surveys conducted in the community, as well as, many examples of definitions of sustainability from cities all across the country. UCD also prepared Broomfield's greenhouse gas accounting. This accounting is a typical factor in measuring progress towards sustainability. A summary of the greenhouse gas accounting was presented to the Task Force as Broomfield's baseline to compare against other cities and counties of the same size, and to measure progress into the future.

Based on the information provided, sustainability for Broomfield was defined as *“Integrating the economic, social and environmental objectives of society in order to maximize well-being in the present while ensuring the ability of future generations to meet their own needs.”* With this definition and after deliberating on what issues the members find important in their community, the following vision statement was developed:

Vision Statement for a Sustainable Broomfield:

Broomfield enjoys prosperity as an environmentally, economically, and socially sustainable community. We protect and preserve our social and physical environment and ecosystems through education, community engagement, conservation, and cultural opportunities supported by economic strength and diversity.

The vision statement makes reference to environmental, economic and social sustainability. The Sustainability Task Force discussed and felt it necessary to address all three legs of a sustainability model in the Vision Statement. It is hoped that the Vision Statement will guide future efforts in sustainability planning to address all three legs of the model.

The charge from the City Council to the Sustainability Task Force was to update the Environmental Stewardship Chapter of the 2005 Broomfield Comprehensive Plan. Remaining true to the City Council's charge, the Task Force focused mainly on the environmental area of sustainability. Recognizing that it was impossible and not necessarily advisable to totally separate the three legs, the Task Force did include some recommendations regarding economic and social sustainability in this proposed plan amendment. For example, green jobs and enhancing community education about the environment are included.

It should be noted that the 2005 Comprehensive Plan does address and include many goals and action statements regarding social and economic sustainability. These are titled throughout the document under a variety of headings.

Future sustainability efforts should update and enhance the Comprehensive Plan for economic and social initiatives for the community's future success.

Implementation Rankings

The measure of the success of the Sustainability Plan is the ability to implement the Plan's vision, goals, and policies. One way to accomplish this aim is through the implementation of the Plan's Action Steps. The Task Force utilized a ranking system to prioritize the Action Steps. The action steps with the highest overall score are considered potential early action items for implementation. The recommended early action steps are highlighted in green in the Plan.

Implementation Considerations

The Sustainability Plan includes specific action items that were discussed and proposed by those that participated in the Task Force. These action items are not mandates. Broomfield has a legacy of implementing its plans in partnership with its residents, businesses and institutions. In furthering the partnership, the Plan places substantial importance on community education.

This amendment to the Broomfield Comprehensive Plan is, as is the entirety of the Plan, a policy document that serves as a guideline for decision making. Implementation of the Plan, will remain, as it does for the entirety of the Comprehensive Plan, the purview of the Broomfield City Council. In exercising its purview, the City Council must approve any action item before it is implemented. In considering implementation proposals, the City Council will receive additional analysis and presentation, including cost/benefit analysis that shows direct and indirect costs, as well as maintenance costs and to the extent possible, an estimate of "cascading costs". The City and County of Broomfield government will lead by example in implementing this Plan.

The CITY and COUNTY OF BROOMFIELD SUSTAINABILITY PLAN

CURRENT SITUATION AND FUTURE TRENDS

While there is much debate about global and national environmental issues, on a regional and local scale people express concerns over resource conservation, including the loss of habitat for a variety of plant and animal species, the increasing demand for water in a semiarid climate, and the need for energy conservation and development of renewable energy alternatives. Other concerns are the impacts of air and water pollution, municipal solid waste and toxins in the environment. Having an action plan to address these environmental elements is important to facilitate Broomfield becoming a more sustainable community.

Broomfield defines sustainability as *“Integrating the economic, social and environmental objectives of society in order to maximize well-being in the present while ensuring the ability of future generations to meet their own needs.”*

Residents of Broomfield, like many other Coloradans, value their natural environment as a primary factor contributing to their quality of life. Historically, Broomfield has developed a strong record of environmental compliance with national, state and regional environmental laws and policies. Broomfield prides itself in its compliance efforts. Broomfield is active in national and state pollution prevention programs, stormwater and air quality programs, watershed protection efforts and the monitoring of Rocky Flats remediation efforts. Broomfield has developed local recycling and environmental education programs to promote environmental stewardship among its citizens.

Since Broomfield became a County in 2001, additional resources have been allocated to County functions, thus allowing the community to become more proactive in environmental health efforts aimed at pollution prevention, pollution monitoring and hazardous chemical clean-up. Efforts also are under way to create a “wellness collaboration” promoting “healthy community initiatives” and an overall active community life for Broomfield residents and employees.

The Broomfield Open Space, Parks, Recreation and Trails Master Plan (OSPRT) establishes a vision for acquiring, developing and managing open lands (parks and open space). The Comprehensive Plan has a separate chapter dedicated to these issues. The OSPRT plan dedicates its efforts to the public (and publicly accessed) land resources that Broomfield owns or will obtain in the future; this section on Sustainability focuses on the other aspects of the physical community and its natural environmental health.

Broomfield has made many strides in protecting its environment. However, as the community continues to grow, efforts to be good stewards of environmental, social and economic resources will continue to be challenging. The creation of Broomfield City and County has established finite boundaries and, therefore, a finite set of natural resources that Broomfield can shelter, protect and enjoy. Development, however, will place increasing pressure on these natural resources. Growing residential and business populations will require greater resources and efforts to educate these populations regarding sustainability goals and challenges. The purpose of the Sustainability Plan is to establish a vision with a series of goals, policies and action steps that will help guide Broomfield to become a great steward of its environmental, social and economic resources.

The Sustainability Plan is grouped into five major focus areas: Resource Conservation, Renewable and Alternative Energy, Community Education, Economic and Financial Sustainability and Transportation. The plan defines and presents a vision, goals, policies and action steps for each of the focus areas. The ratings shown in the table's four right hand columns are defined in the introduction and described in detail in Appendix A. The ratings were used at the end of the process to help prioritize items for implementation. A three is the highest, and a one is the lowest achievable score. The ratings are provided for comparison within each subject group. Please see Appendix A for a full explanation of the rating system and a sorted list of the highest priority action items.

SECTION A: RESOURCE CONSERVATION

Resource Conservation Vision

Broomfield is developed in a manner that limits demands and impacts on the quality of natural resources and wildlife. Land usage is planned and land is developed to protect it from contamination and degradation. All resources, wildlife and air and water quality are managed in a manner that preserves the ability of future generations to use and enjoy them for their own needs.

GOAL S-A.I: RESOURCE CONSERVATION

Protect the environment through the preservation of wildlife, reduction of waste, conservation of water, and enhancement of land, water and air quality

Policy S-A.1: Establish and use standards, policies and practices that encourage and support the protection of wildlife.



Reference No.	Action Steps
1	Action Step S-A.1.1: Whenever feasible, humanely relocate displaced wildlife during the development of undeveloped property. When relocation is not an option, then euthanasia should be done humanely whenever possible.
2	Action Step S-A.1.2: Consider revision of the Municipal Code to establish requirements for a Wildlife/Environmental Analysis and methods to mitigate wildlife impacts for proposed development projects.
3	Action Step S-A.1.3: Implement the OSPRT Master Plan’s baseline management plan for each open space property to assess the quality of vegetation, wetlands, wildlife habitat and waterways for potential enhancement and restoration. Plans address critical habitat areas and steps to protect these areas.
4	Action Step S-A.1.4: Define and implement open space maintenance requirements.

Policy S-A.2: Establish and use standards, policies and practices that encourage and support the reduction of waste.



5	Action Step S-A.2.1: Maintain and strengthen household hazardous waste pickup programs in Broomfield. Ensure that the program expands as households in Broomfield grow.
6	Action Step S-A.2.2: All licensed trash haulers in Broomfield will be encouraged to provide curbside recycling programs to residents and businesses.
7	Action Step S-A.2.3: Continue to improve operations of the Broomfield Recycling Center. Ensure that the Center’s capacity grows proportionate to Broomfield’s population and business community.
8	Action Step S-A.2.4: Periodically review the Broomfield Recycling Ordinance for new development projects (Chapter 17-34-060 Broomfield Municipal Code) to determine its effectiveness in encouraging increased recycling efforts, and institute changes to strengthen its effectiveness as necessary.
9	Action Step S-A.2.5: Explore partnering with local retailers and advocacy groups to encourage businesses to reduce the use of plastic shopping bags and other non-recyclable, non-compostable, and non-reusable containers.

10	Action Step S-A.2.6: Investigate alternatives for reducing waste.
11	Action Step S-A.2.7: The City and County of Broomfield will request data from the licensed trash haulers to evaluate the effectiveness of waste reduction policies and programs and establish a baseline for waste and recyclables collected in Broomfield.
12	Action Step S-A.2.8: Maintain and strengthen Broomfield City and County government recycling efforts to act as a role model for the rest of the community.
13	Action Step S-A.2.9: For all planned construction or demolition of structures, encourage contractors to reuse or recycle as much construction and demolition debris as practical in order to divert materials from the landfill.
14	Action Step S-A.2.10: Encourage builders of new construction and renovations to utilize concrete made with recycled concrete aggregate, fly ash or other industry best practice.

Policy S-A.3: Establish and use standards, policies and practices that encourage and support water conservation.

15	Action Step S-A.3.1: Encourage water conservation through program(s) that promote and/or reward citizens to use water-efficient appliances, etc.
16	Action Step S-A.3.2: Encourage water conservation and energy efficiency at Broomfield's wastewater treatment facilities by maximizing the Energy Star rating in the Energy Star Portfolio Manager.
17	Action Step S-A.3.3: Establish minimum water conservation standards for both public and private landscape and irrigation systems to further minimize water usage. Include drought tolerant plant material and efficient irrigation practices. For example, installing rain sensors with irrigation systems.
18	Action Step S-A.3.4: Adopt existing "green building" standards at or above national model codes that encourage water efficiency for all new construction and developments.
19	Action Step S-A.3.5: Encourage proposed developments to utilize Broomfield's reuse water system whenever possible.
20	Action Step S-A.3.6: Continue to review and develop water conservation practices for use during drought conditions, for government residents and businesses, which are implemented either on a voluntary or a mandatory basis, depending on the severity of drought conditions and available water supply.

21	Action Step S-A.3.7: Consider revising the Municipal Code to require, at time of installation, the use of 3 cubic yards of "Class 1 compost" per 1000 square feet of landscaped area for homeowners and government commercial properties, homeowner association common areas, and all other landscaped areas.
22	Action Step S-A.3.8: Encourage water conservation by determining best practices and investigating alternative rate structures.
23	Action Step S-A.3.9: Create incentives for the use of drought resistant grasses in lieu of traditional turf to encourage water conservation.
24	Action Step S-A.3.10: Coordinate with surrounding communities and the region to conserve water.

Policy S-A.4: Establish and use standards, policies and practices that encourage and support the preservation and enhancement of land.

25	Action Step S-A.4.1: Encourage developments to minimize grading by avoiding steep slopes and planning roadways and lots that work within the existing topography.
26	Action Step S-A.4.2: Encourage development to avoid excessive site grading and unnecessary grade changes between new and existing development.
27	Action Step S-A.4.3: Encourage compact development that preserves larger tracts of undeveloped natural areas.
28	Action Step S-A.4.4: Consider requirements for new development to protect mature trees, identify potential impacts on trees and provide implementation measures for protecting existing valuable trees.
29	Action Step S-A.4.5: Prepare and consider an amendment(s) to the Municipal Code to enhance riparian corridor protection by addressing specific setback requirements.
30	Action Step S-A.4.6: Prepare and consider revisions to the Municipal Code to establish requirements for restoring native vegetation in disturbed areas.
31	Action Step S-A.4.7: Encourage quality drought resistant landscaping through the development review process.
32	Action Step S-A.4.8: Encourage the protection and preservation of lands called for in the Land Use Map and OSPRT Master Plan.
33	Action Step S-A.4.9: Adopt guidelines for open space management that encourage integrated chemical, biological and mechanical weed control practices (Integrated Pest Management).
34	Action Step S-A.4.10: Ensure that open space, parks, recreation and trails planning and development consider and are coordinated with similar efforts in adjacent communities to take full advantage of the benefits of integrating these efforts.
35	Action Step S-A.4.11: Use OSPRT Master Plan's suitability criteria for open space and park lands as a guide for land acquisitions.

36	Action Step S-A.4.12: Within the parameters of the DRCOG Urban Growth Boundaries, strive to provide municipal water and sewer service to all citizens in an attempt to discourage long-term use of septic systems, and work in the immediate term to hook up homes within Broomfield's city limits that are on domestic wells whose water quality does not meet drinking water standards.
37	Action Step S-A.4.13: Implement a combined public and private effort and establish annual goals for new drought resistant trees and shrubs to be planted in both established areas of Broomfield and in new development projects. Trees: provide shade that encourages walkability, improve home values, reduce storm flows, lower soil temperature to conserve water and reduce energy consumption.
38	Action Step S-A.4.14: Investigate barriers to community gardening and ways to break down these barriers.

Policy S-A.5: Establish and use standards, policies and practices that encourage and support the enhancement of water quality.

39	Action Step S-A.5.1: Continue to review and develop effective strategies and regulations to address storm-water and water pollution. Explore the use of natural biological and plant systems to treat urban stormwater runoff.
40	Action Step S-A.5.2: Continue to review and develop effective wastewater management strategies, which include treatment of pharmaceutical and oily wastes.
41	Action Step S-A.5.3: Continue to coordinate with neighboring communities and with regional planning forums to develop and implement effective watershed management strategies.
42	Action Step S-A.5.4: Continue to actively participate in regional and state-wide efforts concerning major environmental management issues, such as the development of solid waste disposal sites, wastewater treatment facilities, etc.
43	Action Step S-A.5.5: Continue to coordinate with neighboring communities and with regional agencies to address water quality concerns, with particular focus on Big Dry Creek.
44	Action Step S-A.6.1: Continue to enforce appropriate BMPs for the control of fugitive dust caused by erosion from disturbed sites.
45	Action Step S-A.6.2: Evaluate and implement means to reduce stationary sources of air pollution emissions.
46	Action Step S-A.6.3: Coordinate air-quality planning efforts related to both mobile and stationary air pollution sources and support such regional air-quality efforts as the Regional Air Quality Council.
47	Action Step S-A.6.4: Work with regional boards to achieve air-quality standards and develop local efforts to improve air quality within Broomfield.

48	Action Step S-A.6.5: Create incentives for residential homebuilders doing new construction to install high-efficiency furnaces and water heaters and appliances with the “Energy Star” rating.
49	Action Step S-A.6.6: Work with <u>fleet operators</u> that serve Broomfield to reduce <u>vehicle</u> emissions with an anti-idling campaign, diesel retrofits or other emerging technology.
50	Action Step S-A.6.7: Participate with other communities to mutually minimize carbon emissions measured in <u>the City and County of Broomfield’s</u> greenhouse gas accounting summary <u>completed in 2009</u> .

Policy S-A.6: Establish and use standards, policies and practices that encourage and support the enhancement of air quality.

SECTION B: RENEWABLE & ALTERNATIVE ENERGY

Vision Statement:

The City & County of Broomfield is empowered and enlightened. Broomfield ensures an adequate supply of reliable and affordable energy, utilizing new technologies, while minimizing environmental impacts by encouraging conservation and the responsible use of energy.

GOAL S-B.I: CONSERVATION & ENERGY EFFICIENCY

The City & County of Broomfield will utilize technological solutions and provide education/outreach to encourage conservation of energy.

Policy S-B.1: Utilize incentives to encourage awareness and energy conservation efforts of Broomfield citizens and businesses, promote a reduction in consumption and use innovative technological solutions with all energy providers to achieve such reductions through community participation and programs.

51	Action Step S-B.1.1: Encourage energy efficiency through program(s) that encourage and/or reward citizens to use energy-efficient appliances, windows, etc.
52	Action Step S-B.1.2: Compile and distribute a Sustainability section in the “Welcome Packet” given to new residents outlining our commitment to conservation and green initiatives. Make the same information available on the web page for all residents.
53	Action Step S-B.1.3: Create opportunities to make new technologies, such as visible energy meters, available to residents to increase awareness of in-home energy consumption.
54	Action Step S-B.1.4: Investigate methods for showcasing energy efficient homes and periodic walkthroughs for members of the community to create awareness of possible energy upgrades to homes.

55	Action Step S-B.1.5: Provide opportunities for guest speakers from Governor’s Energy Office, Xcel, and other leading energy experts on renewable energy, to address the community on new energy legislation and the latest efficiency concepts for local governments.
56	Action Step S-B.1.6: The City & County of Broomfield will annually review existing programs and propose goals at a local level for energy conservation.
57	Action Step S-B.1.7: Participate in regional partnerships with neighboring municipalities, DRCOG, and the state in order to be included in energy related policies, programs, and legislation updates.
58	Action Step S-B.1.8: Create a bond or other appropriate program for Broomfield residents to receive home energy audits and make home improvements to conserve energy, which may be repaid via property taxes imposed on the benefiting homeowner.

Policy S-B.2: Establish and use standards, policies and practices for new development and redevelopment that encourage and support conservation, use of alternative energy resources, water conservation and pollution prevention/reduction.

59	Action Step S-B.2.1: Broomfield will strive to establish an Energy Star rating on all new City and County construction and significant renovations.
60	Action Step S-B.2.2: Request baseline data for energy use in Broomfield public and private buildings to measure against future buildings energy use data. Preserve anonymity of properties in establishing this baseline.
61	Action Step S-B.2.3: Continue to enforce the International Energy Conservation Code.
62	Action Step S-B.2.6: Prepare and consider developing programs that encourage energy-efficient “green building” practices.
63	Action Step S-B.2.5: Encourage large development projects to participate in energy efficiency and environmental design programs as appropriate.

GOAL S-B.II: DEVELOPMENT of ALTERNATIVE ENERGY TECHNOLOGY

Serve as a role model to the community by evaluating and utilizing alternative energies and emerging technologies.

Policy S-B.3: The City and County of Broomfield will lead by example and serve as a role model by utilizing new and emerging technologies.

64	Action Step S-B.3.1: The City and County of Broomfield will continually review and recommend new energy technologies.
65	Action Step S-B.3.2: The City and County will consider all alternative energy technologies to supplement power.

66	Action Step S-B.3.3: Encourage the use of future monitoring technologies to guide and conserve usage and other practices that allow for conscientious decisions about energy consumption via adjusting and monitoring devices (i.e. Demand Side Management).
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Policy S-B.4: Continue to monitor environmental regulations to assure compliance with all relevant federal, regional and local environmental laws, standards, policies and goals.

67	Action Step S-B.4.1: Maintain compliance with Federal energy mandates/legislation on new technologies; City & County will also advance these mandates to move quickly when feasible.
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GOAL S-B.III: PROVISION of ELECTRICAL SERVICES

The City & County of Broomfield is committed to ensuring that reliable, affordable, and clean energy is available to all residential and commercial structures.

68	Action Step S-B.4.2: Consider the establishment of a municipally owned and operated electric utility service at the time of contract renewal (long-range goal of energy independence).
69	Action Step S-B.4.3: Explore sustainability criteria that should be met in order to be awarded an electrical service franchise or other program as research evolves.
70	Action Step S-B.4.4: Actively participate and engage in the national and statewide energy programs to help establish and reach local level energy efficiency goals.
71	Action Step S-B.4.5: Investigate partnerships and participation in energy related policy with neighboring communities.
72	Action Step S-B.4.6: Encourage new development projects to incorporate distributed generation technology to diversify electricity sources.

SECTION C: COMMUNITY EDUCATION

GOAL S-C.I: COMMUNITY EDUCATION

Broomfield advances sustainability by educating and engaging our community in the implementation of environmentally, economically and socially sound practices.

Policy S-C.1: Community members understand the concept of sustainability and know they play a key role by the choices they make every day.

73	Action Step S-C.1.1: Provide educational activities to accommodate the schedules of community members.
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	(combined with 75)
75	Action Step S-C.1.3: Offer environmental education materials and training to hard to reach and multi-lingual audiences.
76	Action Step S-C.1.4: Create environmentally themed sustainability events, and include sustainability within other organized activities.
77	Action Step S-C.1.5: The City will provide an “Environmental Information Packet” to organizations interested in practicing sustainability for their activities and events. Where feasible, encourage non-profits and other organizations that use city facilities to implement sustainable practices.
78	(combined with 77)
79	Action Step S-C.1.7: Utilize existing media to enhance education efforts regarding sustainability.
80	Action Step S-C.1.8: Connect and cooperate with other Broomfield education programs to integrate best practices of sustainability.

Policy S-C.2: The City and County of Broomfield recognizes individual citizens, businesses and non-profits for outstanding environmental behaviors and practices.

81	Action Step S-C.2.1: Develop citywide Sustainability Awards to inspire and provide models of sustainable practices for the community.
82	Action Step S-C.2.2: Develop a grant program to encourage citizens, businesses and non-profit organizations to participate in sustainable practices.

Policy S-C.3: The City & County will offer training opportunities and work projects to individuals and groups related to environmental stewardship.

Policy S-C.4: The City & County of Broomfield will provide specific resources to sustainability programs.

Policy S-C.5: Consistently monitor and periodically evaluate the progress of Broomfield toward becoming a “Sustainable Community.”

Policy S-C.6: Make additional resources available to local public, private and home-schooled students to promote sustainability education for K-12.

88	Action Step S-C.6.1: Develop a grant program to fund sustainable projects, practices, and programs for students of all ages.
89	Action Step S-C.6.2: Develop programs on sustainability practices for use by students. The city will provide topic expert speakers as resources for the programs.

Policy S-C.7: Articulate the vision and goals of the other subcommittees as they relate to education.

90	Action Step S-C.7.1: Organize projects and events (Bulb-Board at Broomfield Days, Door-to-Door Campaigns, and Low-Income Energy Savings Outreach Program) for energy education of the community.
91	Action Step S-C.7.2: Create a Sustainability Clearinghouse on the City website with links to the Governor's Energy Office, United Power, Xcel, Energy Star, rebate information, etc. so residents can ask questions and get answers.
92	Action Step S-C.7.3: Continue to provide community education on the value and importance of human coexistence with wildlife.
93	Action Step S-C.7.4: Educate the public regarding the benefits of choosing non-motorized transportation.
94	Action Step S-C.7.5: Increase the number of "Walk to School" and "Bike to School" days, utilizing liaisons with the schools and police. Encourage community education. Encourage "walk to school" clubs or similar efforts.
95	Action Step S-C.7.6: Enhance community information and advocacy about the pedestrian, bike and off-street trail systems.
96	Action Step S-C.7.7: Include the Sustainability Impact on all council memos
97	Action Step S-C.7.8: Develop educational programs for residents to use reusable shopping bags.

SECTION D: ECONOMIC & FINANCIAL SUSTAINABILITY

The Economic & Financial Sustainability group reviewed the Economic Development section of the 2005 Comprehensive Plan. The following are additions and/or revisions as pertaining to sustainability.

Vision Statement:

Broomfield promotes economic vitality through attraction, retention and expansion of business activities. This provides economic opportunities for residents to live, work and shop in Broomfield sustaining the quality of Broomfield for future generations.

GOAL S-D.I: ADEQUATE TAX BASE

Provide an adequate property and sales tax base to support quality city services, facilities and amenities as identified within the Long-Range Financial Plan.

Policy S-D.1: Maintain and adjust, as necessary, the balance of land uses within the community to support the fiscal objectives of the Financial Master Plan, as well as the community values (e.g., the provision of open space).

Policy S-D.2: Adopt an industry cluster approach to encourage business growth.

98	Action Step S-D.2.1: Actively recruit new retail and business tenants.
99	Action Step S-D.2.2: Develop marketing materials to promote business attraction and retention that emphasize best and next practices in business development.
100	Action Step S-D.2.3: Attract higher density in-fill development, reducing land consumption, increasing multi-modal transportation use and creating support of local businesses.
101	Action Step S-D.2.4: Develop assistance programs for resource appropriate businesses to encourage the retention, expansion and attraction of businesses. Financial and technical support as well as potential changes to codes and policies should be provided.

GOAL S-D.II: LOCAL & REGIONAL SHOPPING:

Enhance and expand local and regional shopping opportunities in Broomfield.

Policy S-D.3: Actively engage our existing business community through the development of a Broomfield Business Team that meets with Broomfield businesses to better understand practices that help attain sustainability.

Policy S-D.4: Implement a “Hometown Broomfield” branding strategy in partnership with the City and County of Broomfield, the Broomfield Chamber of Commerce and the Broomfield Economic Development Corporation. The branding program should include a buy local component for business to consumers and encourage local business-to-business cooperation to reduce transportation of goods, minimizing the environmental footprint.

Policy S-D.5: Utilize our sub-area planning process in conjunction with market trends to be more responsive to opportunities.

102	Action Step S-D.5.1: Adopt policies and programs that prevent deterioration and when necessary promote rehabilitation and revitalization of “weary” and “dated” shopping areas promoting cluster and other re-investment tools encouraging “in-fill” businesses.
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103	Action Step S-D.5.2: Develop and implement strategies that encourage all businesses to support multimodal transportation strategies.
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GOAL S-D.III: SUSTAINABLE BUSINESS PRACTICES

104	Action Step S-D.5.3: Utilize area research institutes to attract and retain businesses developing clean energy technologies.
105	Action Step S-D.5.4: Encourage local businesses to minimize energy consumption with best and next practices as described by the Renewable and Alternative Energy section of this Sustainability Plan.
106	Action Step S-D.5.5: Promote opportunities for incubator development that encourages sustainable businesses.
107	Action Step S-D.5.6: Evaluate present countywide operating strategies against the Long Range Financial Plan and consider actions to create alternative sustainable revenue generation opportunities.

GOAL S-D.IV: EMPLOYMENT

Build a strong and diversified employment base in Broomfield that minimizes cyclical impacts of market changes and that provides job opportunities for Broomfield residents of all skills.

Policy S-D.6: Encourage and support partnerships with institutions involved in the ongoing education/reeducation and ongoing training/retraining of Broomfield’s youth and workforce to support evolving business needs and best and next practices in sustainability.

Policy S-D.7: In cooperation with BEDC, encourage the retention and the attraction of entrepreneurial firms, including nonprofits, through an array of financial and regulatory incentives and strategies that provide flexibility and access to capital and facilities. Create additional incentives to promote sustainable and environmentally friendly business ventures as well as sustainable improvement efforts for existing businesses.

Policy S-D.8: Create a quality, working atmosphere to include amenities such as urban villages, telecommunications and transportation infrastructure, mobility options, urban agriculture gardens, open space and recreational opportunities.

Policy S-D.9: Maintain and promote effective commerce by assisting new and existing green and clean businesses with governmental regulations, reviews and approvals. An emphasis will be placed on customer service and a business-friendly attitude.

Policy S-D.9: Ensure an adequate supply of appropriately zoned land for a diversified mix of manufacturing, services and business support services.

108	Action Step S-D.9.1: Use zoning and land use controls to maintain existing industrially zoned properties, and discourage the conversion of such land to other uses while promoting sustainable use of the land.
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Action Step S-D.9.2: Investigate methods, such as land banking or restrictive zoning, to provide an adequate supply of industrial land.

GOAL S-D.V: COMMERCIAL VITALITY

Maintain and enhance the vitality of existing neighborhoods and commercial areas.

Policy S-D.10: Encourage private investment through continued public investment in facilities, infrastructure and services, such as parks, roadways and improved police patrols. Develop policies and programs to direct capital funds and improvements into targeted residential and commercial areas.

Policy S-D.11: Encourage and create incentives for redevelopment opportunities in existing older residential neighborhoods that reinvent neighborhoods and apply mixed-use development strategies that utilize next and best sustainability practices.

Policy S-D.12: Encourage a mix of densities, types and cost of housing in or near older commercial and residential areas to allow residents to walk to services and provide additional customers to the commercial areas. Promote the application of mixed-use sustainable development strategies for enhancing tax base both commercial and residential.

Policy S-D.13: Develop policies that encourage reinvestments and redevelopment of older residential neighborhoods and that respect and maintain the physical character of those areas.

Policy S-D.14: Actively recruit, in cooperation with the BEDC, appropriate users, new and/or existing, to locate in and revitalize older or underutilized commercial centers.

SECTION E: TRANSPORTATION

The Transportation group reviewed the Transportation section of the 2005 Comprehensive Plan and recommended the following additions and/or revisions that pertain to sustainability. The full Transportation Master Plan is available at www.broomfield.org.

Vision Statement:

Provide an efficient and well-maintained multi-modal transportation system that serves all segments of the population, effectively accommodates the demands of growth, facilitates convenient internal and regional accessibility, minimizing environmental impacts, and reduces dependence on the automobile. Supply multiple modes of educational materials to inform public concerning the diversity of transportation options. Encourage use of

telecommuting and other electronic systems to deliver information, goods, and services, thus reducing the load on the physical transportation network.

GOAL S-E.I: ROADWAY CAPACITY:

Provide additional multimodal transportation capacity on roadways and trails to handle existing and projected traffic.

Policy S-E.1: Seek regional and state funding for multimodal transportation capacity improvements. (Including car, bike, bus, pedestrian, and other modal capacity improvements).

109	Action Step S-E.1.1: Continue to seek regional funding to upgrade 144 th between Zuni and the Northwest Parkway at Highway 287 as a multimodal corridor.
110	Action Step S-E.1.2: Encourage carpool and ride share programs such as provided by DRCOG or private sector.

GOAL S-E.II: ALTERNATIVE MODES:

Promote and develop practical transportation alternatives to reduce dependence on the automobile. Ensure that multimodal and alternative transportation solutions make it easier for people to move around and within Broomfield. Ensure that Broomfield’s multimodal and alternative transportation systems are efficiently connected to regional transit and multimodal systems.

111	Action Step E.1.3: Continue relationships the city has made with regional and national transportation bodies and encourage Broomfield staff and officials to take even more leadership roles in regional transportation issues.
112	Action Step E.1.4: Evaluate opportunities to improve efficiencies and use of local transit systems.
112a	Action Step E.1.5: Evaluate opportunities to encourage the use of alternative vehicles such as electric neighborhood vehicles, electric bicycles and other technologies

GOAL S-E.III: INTERCONNECTED BIKE and PEDESTRIAN SYSTEM

Policy S-E.2: Complete “missing links” in the bike and pedestrian infrastructure. Enhance and maintain the bike and pedestrian infrastructure

113	Action Step S-E.2.1: Advance increased local funding for alternative vehicles and transportation improvements.
114	Action Step S-E.2.2: Pursue grant and/or other outside funding for the alternative transportation improvements.
115	Action Step S-E.2.3: Enhance regional trail connectivity.

Policy S-E.3: Alternative transportation improvements (i.e., trails and bike lanes) should be designed to connect to other improvements to form a coherent alternative transportation network (rather than “simply” recreational trails). Those who build new roads (including developers) shall be encouraged to plan and construct alternative transportation improvements in addition to the new roads. The city shall consider alternative transportation improvements and project feasibility as the infrastructure requirements are established.

Glossary of Terms

Alternative Modes of Transportation: Any and all transportation types other than the single-occupant motor vehicle. Alternative modes of transportation include bicycles, buses, car pools, vanpools, pedestrians and passenger railroads.

Build out: The point at which a community's land has been fully developed with desired uses (including open space).

Cluster Development: A method of land development designed to preserve open space. Given a fixed number of dwelling units allowed on a specific property, cluster development allows the fixed number of dwelling units to be concentrated in one area of the property as opposed to evenly distributed, creating a separate larger public space rather than a group of small private spaces within individual lots.

Commercial areas: In this plan, commercial areas include areas with various types of businesses as well as industrial areas.

Compost: A combination of decomposed plant and animal and other organic materials that are being decomposed largely through aerobic decomposition into a rich black soil. Compost can be used as a fertilizer on home gardens and can have larger industrial applications.

Comprehensive Plan: A comprehensive long-range plan intended to guide the growth and development of a community that includes analysis, recommendations and proposals for such topics as the community's population, economy, land use, housing, transportation and community facilities. Such plans may also be referred to as Master Plans.

Density: The ratio of residential units on an acre of land. Thus, a permitted density of eight (8) dwelling units per acre for a property that has an area of two (2) acres would allow 16 dwelling units.

Denver Regional Council of Governments (DRCOG): A nonprofit organization of 52 cities and nine counties around the Denver region. DRCOG functions as the Metropolitan Planning Organization for the Denver region, among other planning responsibilities.

Distributed generation technology: The term is used to refer to generation units that are connected to the distribution network rather than to the high voltage transmission grid. There is not yet a well recognized definition of the term, but it usually refers to small scale electricity generation such as photovoltaic, fuel cells, wind power, bio-fuels, micro-generation, energy storage, etc.

Energy Star Rating: Energy Star is a government-backed labeling program that helps people and organizations save money and reduce greenhouse gas emissions by identifying factories, office equipment, home appliances and electronics that have superior energy efficiency. The standards themselves are set by governmental agencies. Energy Star labels, for instance, are only awarded to homes that have been independently verified to be at least 15% more efficient than the standard mandated by the relevant state or local energy codes in a given area.

FasTracks: A comprehensive plan by the Regional Transportation District (RTD) for expanded rail and bus transit throughout the Denver region.

Green house gases (GHG): Any of the atmospheric gases that contribute to the greenhouse effect by absorbing infrared radiation produced by solar warming of the Earth's surface. They include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (NO₂), and water vapor. Although greenhouse gases occur naturally in the atmosphere, the elevated levels especially of carbon dioxide and methane that have been observed in recent decades are directly related, at least in part, to human activities such as the burning of fossil fuels and the deforestation of tropical forests.

Household Hazardous Waste (HHW): HHW are common household chemicals and substances for which the owner no longer has a use. These substances exhibit many of the same dangerous characteristics as fully regulated hazardous waste due to their potential for reactivity, ignitability, corrosivity, toxicity, and persistence. Examples include drain cleaners, oil point, motor oil, antifreeze, fuel, poisons, pesticides, herbicides and rodenticides, fluorescent lamps, smoke detectors, medical waste, some types of cleaning chemicals, and consumer electronics (such as televisions, computers, and cell phones).

Business incubators (Incubator development): are programs designed to accelerate the successful development of entrepreneurial companies through an array of business support resources and services, developed and orchestrated by incubator management and offered both in the incubator and through its network of contacts. Incubators vary in the way they deliver their services, in their organizational structure, and in the types of clients they serve. Successful completion of a business incubation program increases the likelihood that a start-up company will stay in business for the long term: Historically, 87% of incubator graduates stay in business.

Industry Cluster: A geographic concentration of interconnected businesses, suppliers, and associated institutions in a particular field. Industry clusters help to perpetuate innovation and collaboration to drive competition and long-term economic vitality.

International Energy Conservation Code (IECC): a building code created by the International Code Council in 2006. It is a model code adopted by many state and municipal

governments in the United States for the establishment of minimum design and construction requirements for energy efficiency.

Leadership on Energy and Environmental Design (LEED): A voluntary, consensus-based national standard for developing high-performance, sustainable buildings.

Multimodal Transportation: The availability of transportation options using different modes within one system or corridor.

Reuse Water System: The use of “grey” water on public parks and golf courses as a way to conserve limited water resources. Grey water comes from the wastewater treatment process and some of it is put back into the system to be used only as irrigation in the summer months.

Sustainability: “Integrating the economic, social and environmental objectives of society in order to maximize well-being in the present while ensuring the ability of future generations to meet their own needs” – Adapted from the Organization for Economic Cooperation Development.

Telecommuting: In a telecommuting arrangement, the employee works from a home office for either a portion of or all of the workweek. He or she maintains a presence in the office electronically via phone, fax, pager and e-mail and is usually, at a minimum, required to participate in some quarterly, monthly or weekly meetings at the work location.

Vehicle miles traveled (VMT): This is a measurement of the number of miles that residential vehicles are driven. This may be expressed as a total number or as an average per household.