

**Exhibit B - Addendum****I. Background**

At a work session on October 28, 2008 to review the draft Climate Action Plan, City Council asked staff to prepare an alternate plan that would fully meet the 2012 and 2020 greenhouse gas reduction objectives adopted in May 2008. The greenhouse gas reduction measures contained in the original draft plan, plus the additional measures identified here, if fully implemented, would meet the 2012 and 2020 reduction objectives. If this addendum is adopted, it will be merged with the draft Climate Action Plan to create the final Fort Collins Climate Action Plan.

**II. Proposed New Quantified Strategies**

<b>ADDITIONAL BENEFIT of Proposed Strategies</b>	<b>2012 Tons CO2e</b>	<b>2020 Tons CO2e</b>
<b>1. Purchase Carbon Offsets</b>	<b>77,000</b>	<b>81,000</b>
<b>2. Construction &amp; Demolition Debris Deposit</b>	<b>20,000</b>	<b>44,000</b>
<b>3. Long-Term VMT Reduction</b>		<b>28,000</b>
<b>4. Increase participation targets for Community Climate Challenge</b>	<b>3,000</b>	<b>3,000</b>
<b>5. Increase participation targets Colorado Carbon Fund</b>	<b>7,000</b>	<b>7,000</b>
<b>Sub-total Additional Strategies</b>	<b>107,000</b>	<b>163,000</b>
<b>Existing and New Measures in draft Plan</b>	<b>268,000 - 378,000</b>	<b>1,212,000</b>
<b>TOTAL (After double-counting)</b>	<b>375,000 - 485,000</b>	<b>1,375,000</b>

**1. ADD: Purchase carbon offsets (avoids 77,000 tons in 2012 and 81,000 tons in 2020)**

In order to meet the 2012 reduction intent, it is likely that Fort Collins will need to acquire carbon offsets or carbon-certified renewable energy certificates. This strategy should be considered only after local emissions reduction programs have been maximized. It should be considered as a last strategy to implement if a gap still exists in 2011 and City Council wishes to achieve the 2012 reduction intent.

Cost Estimates:

\$770,000 if purchase carbon offsets at \$10/ton CO<sub>2</sub>  
 \$1.5M/yr if purchase carbon offsets at \$20/tonCO<sub>2</sub>  
 - or - \$1.1M/yr if purchase RECs at \$10/MWh

**2. ADD: Construction & Demolition Debris Deposit (avoids 20,000 tons in 2012 and 44,000 tons in 2020)**

Add one additional strategy from the list of strategies identified in the Fort Collins report “*Advancing Climate Protection Planning Through Municipal Solid Waste Programs*” (June 2007). This measure proposes to create a refundable C&D deposit system, potentially based on square footage of a project, type of building, and type of work (new construction vs. remodel), or some comparable criterion; including an exclusion for roofing jobs and potentially excluding the smallest 25% of projects. The total deposit would be refunded upon certification of appropriate level recycling i.e. materials brought to a certified C&D sorting MRF, or demonstrating recycling of at least 50% of materials. Implementation of this strategy would logically follow

the C&D strategy already included in the draft Climate Action Plan to create a city-sponsored C&D drop-off site. Even if the new construction market falls off for a period of time, recycling of demolition debris will remain as a key opportunity.

2012 GHG Benefit: 20,000 tons CO<sub>2</sub>e

2012 Cost Estimate to City: \$9,000/yr\*

2012 Cost Estimate to Users: \$282,000/yr\*

(\* Cost estimates modeled in 2006)

2020 GHG Benefit: 44,000 tons CO<sub>2</sub>e

**3. ADD: Long-term Vehicle Miles of Travel Reduction (avoids 28,000 tons in 2020)**

The City of Fort Collins has an adopted policy to “continually reduce the growth rate in vehicle miles of travel by implementing a comprehensive VMT reduction program that strives to meet or exceed VMT reduction in comparable cities.” (City Plan Policy T-9.1). City Plan and the Transportation Master Plan lay out a number of strategies for reducing VMT. In combination with these plans and the other long-term strategies identified in this Climate Action Plan (LEED for Neighborhoods, Promote Infill and Refill Development, Promote Transit -Oriented Development, Parking Management, Partnerships to Reduce VMT, and most importantly Seeking Funds to Implement Existing Plan) VMT reductions can increase by 2020.

The Colorado Climate Action Panel has recommended a strategy to reduce light-duty urban VMT 6% from the projected “business as usual” VMT growth rates in 2020, primarily through expanded transit opportunities. Using this goal as a guideline, if Fort Collins reduced VMT 6% below projected business as usual levels in 2020, that would avoid an additional 28,000 tons CO<sub>2</sub>e in 2020 above the other measure in the Plan that is seeking to reduce VMT.

**4. MODIFY: Increase Reduction Goals for the Community Climate Challenge (avoids an additional 3,000 tons after 90% double-counting is removed)**

This modification recommends increasing the per capita carbon reduction goal for a Community Climate Challenge from 1% per person to 2% per person. Two percent reduction is much more closely aligned with the overall communitywide goal to achieve a 20% reduction by 2020, and could inspire citizens and businesses towards greater action if the community climate challenge goal is aligned with the communitywide goal.

**5. MODIFY: Increase participation goals in Colorado Carbon Fund (avoids an additional 7,000 tons in 2012)**

This addition recommends promotion of the Colorado Carbon Fund to local citizens such that 12,000 tons of offsets would be purchased by the year 2012, instead of 5,000 as proposed in the draft Climate Action plan. 12,000 tons of offsets could be accomplished if 5% of the population (~ 6,500 citizens) each offset one roundtrip airline flight from Fort Collins to New York, at a cost of \$34/RT flight). The draft Climate Action Plan is based on an effort to achieve only 5,000 tons of offset purchases from the Fort Collins community, or 2% of the population offsetting a RT flight from Denver to New York City.

### **III. Proposed Changes to Qualitative, Long-term Strategies**

#### **6. REPLACE: “Time of Sale Energy Conservation Ordinance” with “Explore Additional Opportunities to Increase Efficiency of Existing Buildings”**

Replace:

*“Time of Sale Energy Conservation Ordinance*

*Many communities have established requirements that buildings (rental properties, residential, and/or commercial) be upgraded at time-of-sale to meet some minimum level of energy efficiency. This measure recommends bringing inefficient buildings up to some minimum level of energy efficiency. It would require energy efficiency upgrades at the time of sale for residential and commercial structures that do not meet a certain level of energy efficiency, as determined by an energy audit. Utility demand-side management (DSM) programs could be designed in a way that helps customers comply with the requirement.”*

With:

Explore Additional Opportunities to Increase Efficiency of Existing Buildings

Existing buildings (residential, commercial and industrial) represent 67% of Fort Collins’ community-wide emissions. A range of tools exists to increase efficiency of existing buildings, including incentives and regulations. This strategy calls for exploring additional cost-effective tools to increase existing building efficiency that have not already been explored through other measures in the plan such as the Energy Policy and green building measures. The toolbox of potential approaches includes:

##### Financing and Incentives

- Private loan funds/low interest loans
- Energy efficient mortgages
- Add the cost of upgrades into property taxes
- Publicly funded-green building revolving loan fund
- Energy efficiency local improvement districts
- Revenue bond issue
- Energy efficient tax credits

##### Mandates

- Mandatory disclosure of historical building energy use or building energy performance
- Mandatory upgrades at time of sale, using either prescriptive or performance requirements
- Carbon feebates (fee for buildings not meeting minimum performance standards, rebate for building exceeding performance standards)

(These tools were included in an RFP released by Seattle City Light to analyze a range of policy options to achieve and increase of 20% in the efficiency of Seattle’s existing buildings.)

#### **7. ADD: Integrated Waste Optimization / Recovery Goal**

The City should take leadership to help shape the direction of local/regional solid waste management policies. In partnership with the County, the City could manage and control the waste stream so that, 1) the maximum amount of commodities are recovered for appropriate reuse and recycling opportunities, and 2) the remainder of the waste stream (residuals), is harvested as a feedstock for generating energy using conversion technology. This approach

reduces the direct methane emissions of the landfill by diverting trash through reuse and recycling and then converting the embodied energy in the residual waste stream into useable energy through non-combustion “conversion technologies”.

The term ‘conversion technology’ is used here to describe all technologies that convert waste that are not landfills or incinerators. CT includes gasification, pyrolysis, and plasma arc systems. These processes are rapidly being developed and piloted. Over the next five years, the City should research the best options so that within 10 years, it would be positioned to invest efforts and resources into building new infrastructure using CT technology for, at minimum, all waste generated in the City. Conceivably, a local CT waste system would be designed and built to accept waste from an even broader geographic area, such as Larimer County or Northern Colorado. Ultimately, the Larimer County landfill would no longer be used as a disposal site, although it should be kept in use as a waste transfer facility.

**8. MODIFY ‘City of Fort Collins Leadership’ to add promotion of Fort Collins as Green Community**

Further progress on community carbon reduction activities will provide additional opportunities for Fort Collins to promote itself as a “Green” community. (The Economic Advisory Commission recommended adding this marketing opportunity. )

**9. MODIFY: Promote Action at State, Regional, and Federal Levels**

Append the following to the existing text: “For example, if two of the transportation strategies recommended by the Colorado Climate Action panel (adopt low carbon fuel standards and adopt California GHG emission standards) were implemented in Colorado, the estimated benefit in Fort Collins would be to reduce nearly 30,000 tons CO<sub>2</sub> in 2012 and 150,000 tons CO<sub>2e</sub> in 2020.”

**IV. Proposed Other Additions to the CAP**

**10. Add brief discussion of global warming.**

This is in response to citizens questions at the November 12, 2008 Open House.

**11. Expand the Acknowledgments Section**

Expand the Acknowledgements section to include an explicit recognition of the Climate Task Force members, boards and commissions and the Fort Collins Sustainability Group for their roles in advancing this plan.

**V. Explicit Edits to 2008 Climate Action Plan (draft October 2008)**

The edits outlined below are the changes that would be made to the to 2008 Climate Action Plan (draft October 2008) if City Council adopts this Proposed Addendum. (The editing form calls for remove language that is struck out and adding underlined text.)

➤ **Cover page**

~~Interim Strategic Plan Towards 2020 Goal~~  
~~Draft October 2008~~ Add: December 2008

➤ **ADD: “Acknowledgements” section:**

Our gratitude goes out to members of the 2007/2008 Climate Task Force for their significant contribution to the content of this Plan.

**Fort Collins Climate Task Force**

<u>John Bleem</u>	<u>Platte River Power Authority</u>
<u>William H. Farland, Ph.D.</u>	<u>Colorado State University</u>
<u>William S. Franzen</u>	<u>Poudre School District</u>
<u>Phil Friedman</u>	<u>Fort Collins Sustainability Group</u>
<u>Stephen Gillette</u>	<u>Larimer County</u>
<u>Blue Hovatter</u>	<u>Economic Advisory Commission</u>
<u>Jeff Lebesch</u>	<u>Electric Board</u>
<u>Eric Levine</u>	<u>Air Quality Advisory Board</u>
<u>Liz Pruessner</u>	<u>Natural Resources Advisory Board</u>
<u>Garry W. Steen</u>	<u>Transportation Board</u>
<u>Norm Weaver</u>	<u>City of Fort Collins</u>
<u>Steve Wolley</u>	<u>Climate Wise Steering Committee</u>

**Climate Task Force Consultant and Analyst**

Judy Dorsey, The Brendle Group

**Climate Task Force Facilitator**

Art Bavoso, Third Sector Enterprises

Thanks are also due to many citizens and Board and Commission members for sharing their insights and suggestions along the way, and to the City Manager and city staff who worked in many capacities to support the process. Thank you to the Fort Collins Sustainability Group who raised the need to update Fort Collins’ Climate Action Plan. And thank you especially to Fort Collins City Council for leadership on the issue of climate protection.

➤ **Table of Contents**

Modify to reflect accurate updated page numbers  
Remove: Acknowledgements Box and text

➤ **Executive Summary – page iii**

Replace table with the following:

<b>MEASURE NAME</b>	<b>2012 Estimated Benefit (Tons CO2e)</b>	<b>2020 Estimated Benefit (Tons CO2e)</b>
<b>EXISTING MEASURES</b>	<b>104,000</b>	<b>104,000</b>
<b>New Measures - Menu of Options</b>		
<b>COMMUNITY LEADERSHIP</b>		
Expand Climate Wise	73,000 - 94,000	143,000
Government Organizations Set GHG Goals	42,000	217,000
Community Climate Challenge	59,000	68,000
Colorado Carbon Fund	12,000	12,000
<b>Community Leadership Sub-total</b>	<b>186,000 - 207,000</b>	<b>440,000</b>
<b>RECYCLING-Push Toward 50% Diversion Goal</b>		
Ban cardboard from waste stream	46,000 - 58,000	68,000
Private paper/glass drop-off	5,000 - 7,000	8,000
Increase residential education	4,000 - 5,000	15,000
Larger residential recycling containers	3,000 - 4,000	5,000
Require haulers to provide residential yard waste collection for added cost	1,000	1,000
Enhance residential PAYT(2nd can costs more)	11,000 - 17,000	21,000
Commercial recycling cop-ops	1,000 - 7,000	8,000
Residential yard waste drop-off and ban yard waste	0 - 4000	5,000
Construction and Demolition (C&D) drop-off	0 - 34000	39,000
C&D contract preferences for City contracts	1,000	1,000
By 2020 - commercial recycling fee embedded in rates (Additional benefit above cardboard ban)		81,000
<u>Construction and Demolition Debris Deposit</u>	<u>20,000</u>	<u>44,000</u>
<b>Recycling Sub-total</b>	<b>93,000 - 157,000</b>	<b>297,000</b>
<b>ENERGY</b>		
<b>2008 Energy Policy:</b>		
Efficiency Programs	20,000 - 30,000	214,000
SmartGrid, Advanced Meter Infrastructure, Pricing, Conservation	10,00 - 20,000	246,000
Renewable Energy (Colorado Renewable Portfolio Standard and voluntary programs)	0	190,000
Natural Gas Energy Conservation	5,000 - 10,000	52,000
<u>Purchase Carbon Offsets</u>	<u>77,000</u>	<u>81,000</u>
<b>Energy Sub-total</b>	<b>112,00 - 137,000</b>	<b>784,000</b>
<b>GREEN BUILDING</b>		
Update Residential Building Code	1,000	4,000

<b>Green Building Sub-total</b>	<b>1,000</b>	<b>4,000</b>
<b>TRANSPORTATION</b>		
Reduce Vehicle Miles of Travel	2,000 - 12,000	14,000
Modern Roundabouts	1,000	2,000
<u>Long-Term VMT Reduction</u>	<u>0</u>	<u>28,000</u>
<b>Transportation Sub-total</b>	<b>3,000 - 13,000</b>	<b>44,000</b>
TOTAL (before double-counting removed)	499,00 - 620,000	1,672,000
<b>TOTAL (after double-counting removed)</b>	<b>375,000 - 485,000</b>	<b>1,375,000</b>

➤ **Executive Summary – page iv**

Modify as follows (remove strikeout, add underline)

If fully implemented, measures in the Plan will bring Fort Collins to ~~nearly 80%~~ of the 2012 ~~reduction objective~~ and 90% of the 2020 greenhouse gas reduction objectives goal.

Revise table as follows:

Year	Future Projection (Business As Usual) Tons CO2	Goal Tons CO2	Reduction Needed Tons CO2	Reductions from Climate Action Plan
2012	2,951,000	2,466,000	485,000 tons/yr in 2012	<u>375,000 – 485,000</u> tons/yr in 2012
2020	3,407,000	2,032,000	1,375,000 tons/yr in 2020	<u>1,375,000</u> tons/yr in 2020
2050	Not calculated	508,000	1,524,000/year below 2020 goal level	Not estimated

Revise table of new qualitative measures as follows:

Summary of new Qualitative Measures

<p><b>Community Engagement</b></p> <ul style="list-style-type: none"> <li>• City of Fort Collins Government Leadership</li> </ul>
<p><b>Transportation</b></p> <ul style="list-style-type: none"> <li>• Seek adequate funding to implement transportation plans, with funding for transit as a priority to achieve best practices.</li> <li>• Develop partnerships to reduce vehicle travel</li> <li>• Parking management</li> <li>• Long-term VMT reduction</li> </ul>

<p><b>Land Use</b></p> <ul style="list-style-type: none"> <li>• Implement Land Use Code changes that support greenhouse gas emissions reductions.</li> <li>• Promote and pursue infill and refill development.</li> <li>• Promote transit-oriented development.</li> <li>• Consider requirements for new developments to have less travel demand than comparable existing developments.</li> </ul>
<p><b>Green Building</b></p> <ul style="list-style-type: none"> <li>• Regular updates of Building Energy Codes.</li> <li>• Continued support for above Code green building initiatives.</li> <li>• Time of sale Energy Conservation Ordinance</li> <li>• Require Green Building as a prerequisite for public financing</li> <li>• Explore Net Zero Ready homes.</li> <li>• Explore LEED for neighborhoods.</li> </ul>
<p><b>Waste Reduction</b></p> <ul style="list-style-type: none"> <li>• <u>Integrated Waste Optimization / Recovery</u></li> </ul>
<p><b>Urban Forestry</b></p> <ul style="list-style-type: none"> <li>• Promote tree planting.</li> </ul>
<p><b>Support state and federal climate protection actions.</b></p>

➤ **Introduction, page 1**

Insert the following text, taken directly from EPA’s Web site on global warming (<http://www.epa.gov/climatechange/basicinfo.html>) at the beginning of the Introduction Chapter.

**Need for Climate Protection**

The Earth's climate has changed many times during the planet's history, with events ranging from ice ages to long periods of warmth. Historically, natural factors such as volcanic eruptions, changes in the Earth's orbit, and the amount of energy released from the Sun have affected the Earth's climate. Beginning late in the 18th century, human activities associated with the Industrial Revolution have also changed the composition of the atmosphere and therefore very likely are influencing the Earth's climate.

For over the past 200 years, the burning of fossil fuels, such as coal and oil, and deforestation have caused the concentrations of heat-trapping "greenhouse gases" to increase significantly in our atmosphere. These gases prevent heat from escaping to space, somewhat like the glass panels of a greenhouse.

Greenhouse gases are necessary to life as we know it, because they keep the planet's surface warmer than it otherwise would be. But, as the concentrations of these gases continue to increase in the atmosphere, the Earth's temperature is climbing above past levels. According to NOAA and NASA data, the Earth's average surface temperature has increased by about 1.2 to 1.4°F in

the last 100 years. The eight warmest years on record (since 1850) have all occurred since 1998, with the warmest year being 2005. Most of the warming in recent decades is very likely the result of human activities. Other aspects of the climate are also changing such as rainfall patterns, snow and ice cover, and sea level. (Source: EPA November 2008, see <http://www.epa.gov/climatechange/basicinfo.html> )

Widespread consensus now exists that human emissions of greenhouse gases (GHG) are impacting Earth’s climate system, causing the potential for unprecedented large-scale adverse health, social, economic and ecological effects..... (continue with existing text)

➤ **Climate Protection Strategies, New Measures, page 16**

Modify as follows (remove strikeout, add underline)

The strategies listed in Table 4 are identified to help Fort Collins achieve progress towards the 2020 reduction goal. If fully implemented, the existing and new measures combined sum up to ~~1,212,000~~ 1,375,000 tons of CO2e avoided in the year 2020, ~~or approximately 90% of the reductions needed to meet the 2020 goal. The strategies listed would lead Fort Collins to achieve between 55-80% of the 2012 stated reduction intent.~~

➤ **Climate Protection Strategies, New Measures, page 17**

Replace Table 4 – New Measures with the table below

<b><i>MEASURE NAME</i></b>	<b>2012 Estimated Benefit (Tons CO2e)</b>	<b>2020 Estimated Benefit (Tons CO2e)</b>
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Modern Roundabouts	1,000	2,000
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<b>TOTAL (before double-counting removed)</b>	<b>499,00 - 620,000</b>	<b>1,672,000</b>
<b>TOTAL (after double-counting removed)</b>	<b>375,000 - 485,000</b>	<b>1,375,000</b>

\* Double-counting between measures with over-lapping benefits was addressed as follows:

Climate Wise – 50% overlap with other measures

Gov. Orgs Set GHG Goals – 75 % overlap

Community Climate Challenge – 90% overlap

Colorado Carbon Fund – 25% overlap

➤ **Climate Protection Strategies, Community Climate Challenge, page 22**

Revise as follows (remove strikeout, add underline)

**Measure Description**

Develop a local “Community Climate Challenge” for the residential sector, focusing on an educational campaign to promote actions with a goal of reducing ~~1%~~ 2% of per capita GHG emissions. A key component would be youth-focused programs (in-school programs, scouts, youth groups, church groups, services groups, etc.). A two percent reduction is closely aligned with the overall communitywide goal to achieve a 20% reduction by 2020 and could inspire

citizens and businesses towards greater action because it is aligned with the communitywide goal.

**Estimated CO2 Savings in 2012**                      ~~28,000~~ 59,000 Tons CO2e  
**Estimated CO2 savings in 2020:**                ~~34,000~~ 68,000 Tons CO2e

➤ **Climate Protection Strategies, Colorado Carbon Fund, page 23**

Revise as follows (remove strikeout, add underline)

**Estimated CO2 Savings in 2012**                      ~~5,000~~ 12,000 Tons CO2e  
**Estimated CO2 savings in 2020:**                ~~7,000~~ 12,000 Tons CO2e

Revise green call-out box text as follows:

If ~~two~~ five percent of For Collins citizens (~~2,600~~-6,500 people) offset one roundtrip airline flight from Denver to New York City each year, it would cost them \$34/year and would collectively avoid ~~5,000~~ 12,000 tons CO2e and would lead to reinvestment revenue of ~~\$8,000—\$334,000~~ \$22,000 - \$87,000 to support additional local programs.

**Climate Protection Strategies, Push Towards 50% Waste Diversion Goal, pages 24-25**

Revise as follows (remove strikeout, add underline)

**Commercial Customers**

- Help form recycling cooperatives for small businesses.
- Implement a refundable C&D deposit system where the total deposit would be refunded upon certification of appropriate recycling levels.

**Estimated Cost to the City**

~~\$106,000 - \$133,000 /year by 2010~~ for strategies recommended for early consideration  
~~\$ 235,000/year by 2010 for full suite of measures~~  
~~\$ 270,000 - \$524,000/year by 2015~~ for full suite of measures

**Estimated CO2 Savings in 2012**                      ~~46,000—137,000~~ 93,000 – 157,000 Tons CO2e  
**Estimated CO2 savings in 2020:**                ~~253,000~~ 297,000 Tons CO2e

➤ **Climate Protection Strategies, insert after page 27**

**Measure Name**    **Purchase Carbon Offsets**

**Estimated CO2 Savings in 2012**                      77,000 Tons CO2e  
**Estimated CO2 savings in 2020:**                81,000 Tons CO2e

**Supporting City Polices**

Budgeting for Outcomes Environmental Health – Seek reductions in greenhouse gas emissions that puts the City on track to meet the...policy objectives...”

**Measure Description**

In order to meet the intent to reduce community-wide emission to a level not to exceed 2.466 million tons CO2e by the end of 2012, it is likely that Fort Collins will need to acquire carbon offsets or carbon-certified renewable energy certificates. This strategy should be considered only after local emissions reduction programs have been maximized. It should be considered as a last strategy to implement if a gap still exists in 2011 and City Council wishes to achieve the 2012 reduction intent.

**Lead Implementing Department**

Purchasing

**Recommended Approach for Implementation**

Upon completion of the 2011 biennial progress report for the year 2010, if a large gap exists between the City’s projected emissions reduction by the end of 2012 from local carbon-reducing programs and the 2012 reduction intent, the concept of investing in carbon offsets could be explored with City Council. This evaluation could also be performed in 2012, upon completion of reduction activities in the year 2011.

**Recommended Timeframe for Completion**

by 2013

**Estimated Cost to the City**

- \$770,000 if purchase carbon offsets at \$10/ton CO2
- or- \$1.5M/yr if purchase carbon offsets at \$20/tonCO2
- or- \$1.1M/yr if purchase RECs at \$10/MWh

**Potential Funding Source(s)**

City General Fund

**Other Benefits**

- Voluntary carbon offset markets can contribute to emissions mitigation and sustainable development objectives while government-mandated schemes are under development.
- Voluntary markets can also foster innovation through new technologies and project types still under evaluation by compliance emission markets.

**CALL OUT BOX:**

**What is a carbon offset?**

Actions such as driving, flying, and heating buildings directly emit carbon dioxide. Carbon offsets counteract these activities by investing in projects that reduce emission at another source to compensate for these direct emissions. Carbon offsets help to fund projects that reduce the amount of carbon dioxide in the atmosphere. Offsets should be sought after efforts to reduce emission right at their source have been implemented.

In order to be sure the offset is providing a true benefit to the environment, every offset project must be held to the highest quality standards.

High quality offset projects:

Provide new or additional benefits: A high quality offset project is one that would not have happened without the specific funding provided by the purchase of carbon offsets.

Are rigorously measured and verified: The benefits of the offset project must be measured and verified by an independent third party over the entire length of the project.

Have lasting benefits: The effects of the offset project must be long-lasting, not temporary.

In 2007, the voluntary “over the counter” market for carbon offsets grew 200% to 23.7 million metric tons of CO<sub>2</sub>e transacted.

➤ **Climate Protection Strategies, insert after page 32**

<b><u>Measure Name</u></b>	<b><u>Long-Term Reduction in Vehicle Miles of Travel</u></b>
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<b><u>Estimated CO<sub>2</sub> savings in 2020:</u></b>	<b><u>28,000 Tons CO<sub>2</sub>e</u></b>
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**Supporting City Policies**

Policy ENV-2.1 Actions on Vehicle Miles Traveled. The City will slow the growth of vehicle-miles of travel by employing strategies that reduce vehicle trip rates, reduce vehicle trip length, and increase vehicle occupancy.

PRINCIPLE T-1. The physical organization of the City will be supported by a framework of transportation alternatives that balances access, mobility, safety and emergency response throughout the city, while working towards reducing the rate of growth of vehicle miles of travel and dependence on the private automobile.

PRINCIPLE T-2. Mass transit will be an integral part of the city’s overall transportation system.

PRINCIPLE T-3. City transportation programs shall address themselves to reduce vehicle miles of travel through strategies that reduce trip generation, reduce trip length, and increase vehicle occupancy.

Policy T 9.1 Vehicle Miles Traveled (VMT): The City will continually strive to reduce the growth rate in VMT by implementing a VMT reduction program that strives to meet or exceed the performance of similar programs in comparable cities.

**Measure Description**

The City of Fort Collins has an adopted policy to “continually reduce the growth rate in vehicle miles of travel by implementing a comprehensive VMT reduction program that strives to meet or

exceed VMT reduction in comparable cities.” City Plan and the Transportation Master Plan lay out a number of strategies for reducing VMT. In combination with these plans and the other long-term strategies identified in the Climate Action Plan (Explore LEED for Neighborhoods, Promote Infill and Refill Development, Promote Transit-Oriented Development, Parking Management, Partnerships to Reduce VMT, and most importantly Seeking Funds to Implement Existing Plan) VMT reductions can increase by 2020.

The Colorado Climate Action Panel has recommended a strategy to reduce light-duty urban VMT 6% from the projected “business as usual’ VMT growth rates in 2020, primarily through expanded transit opportunities. Using this goal as a guideline, if Fort Collins reduced VMT 6% below projected business as usual levels in 2020, that would avoid an additional 28,000 tons CO2e in 2020 above the other measure in the Plan that is seeking to reduce VMT.

**Lead Implementing Department**                      Planning, Development and Transportation

**Recommended Approach for Implementation**

- Seek funding to implement the VMT-reducing strategies in transportation plans.
- Consider carbon reduction goals as transportation-related plans are updated.

**Estimated Cost to the City**    Not estimated at this time.

**Potential Funding Source(s)**    General fund, state and federal grants, other grants

**Cost Savings**    Fuel and vehicle maintenance savings to participants in VMT-reduction programs.

**Other Benefits**

- Economic development benefits through the expansion of alternative modes
- Improve mobility in Fort Collins
- Reduce dependence on foreign fuel sources
- Reduce vulnerability to energy prices increases and volatility
- Reduce air pollution emissions including ozone precursors and fine particles
- Improve public health
- Improve local visibility

➤ **Climate Protection Strategies, Qualitative Measures, page 33**

Revise as follows (remove strikeout, add underlined text)

**City of Fort Collins Government Leadership**

The City government is well positioned to influence a community’s carbon footprint through modeling best practices for the internal organization and establishing policies that support greenhouse gas reduction within the community.

This strategy recommends that the City of Fort Collins identify and communicate overarching organizations goals that will support greenhouse gas reduction, not only for the municipal government but for the community. It is also recommended that the City adopt a standard management framework such as ISO14001, an Environmental Management System or a Sustainability Management System to implement and track progress on these over-arching goals.

In addition, further progress on community carbon reduction activities will provide additional opportunities for Fort Collins to promote itself as a “Green” community.

➤ **Climate Protection Strategies, Qualitative Measures, page 37**

Revise as follows (remove strikeout, add underline)

Time of Sale Energy Conservation Ordinance

~~Many communities have established requirements that buildings (rental properties, residential, and/or commercial) be upgraded at time of sale to meet some minimum level of energy efficiency. This measure recommends bringing inefficient buildings up to some minimum level of energy efficiency. It would require energy efficiency upgrades at the time of sale for residential and commercial structures that do not meet a certain level of energy efficiency, as determined by an energy audit. Utility demand side management (DSM) programs could be designed in a way that helps customers comply with the requirement.~~

Explore Additional Opportunities to Increase Efficiency of Existing Buildings

Existing buildings (residential, commercial and industrial) represent 67% of Fort Collins’ community-wide emissions. A range of tools exists to increase efficiency of existing buildings, including incentives and regulations. This strategy calls for exploring additional cost-effective tools to increase existing building efficiency that have not already been explored through other measures in the plan such as the Energy Policy and green building measures. The toolbox of potential approaches includes:

Financing and Incentives

- Private loan funds/low interest loans
- Energy efficient mortgages
- Add the cost of upgrades into property taxes
- Publicly funded-green building revolving loan fund
- Energy efficiency local improvement districts
- Revenue bond issue
- Energy efficient tax credits

Mandates

- Mandatory disclosure of historical building energy use or building energy performance
- Mandatory upgrades at time of sale, using either prescriptive or performance requirements
- Carbon feebates (fee for buildings not meeting minimum performance standards, rebate for building exceeding performance standards)

(These tools were included in an RFP released by Seattle City Light in 2008 to analyze a range of policy options to achieve and increase of 20% in the efficiency of Seattle’s existing buildings.)

➤ **Climate Protection Strategies, Qualitative Measures, page 38**

Insert before Urban Tree Planting:

**Integrated Waste Optimization / Recovery Goal**

The City should take leadership to help shape the direction of local/regional solid waste management policies. In partnership with the County, the City could manage and control the waste stream so that, 1) the maximum amount of commodities are recovered for appropriate reuse and recycling opportunities, and 2) the remainder of the waste stream (residuals), is harvested as a feedstock for generating energy using conversion technology. This approach reduces the direct methane emissions of the landfill by diverting trash through reuse and recycling and then converting the embodied energy in the residual waste stream into useable energy through non-combustion “conversion technologies”.

The term ‘conversion technology’ is used here to describe all technologies that convert waste that are not landfills or incinerators. CT includes gasification, pyrolysis, and plasma arc systems. These processes are rapidly being developed and piloted. Over the next five years, the City should research the best options so that within 10 years, it would be positioned to invest efforts and resources into building new infrastructure using CT technology for, at minimum, all waste generated in the City. Conceivably, a local CT waste system would be designed and built to accept waste from an even broader geographic area, such as Larimer County or Northern Colorado. Ultimately, the Larimer County landfill would no longer be used as a disposal site, although it should be kept in use as a waste transfer facility.

➤ **Climate Protection Strategies, Qualitative Measures, page 38**

Revise as follows (remove strikeout, add underlined text)

**Promote Climate Protection and Adaptation Strategies at State, Regional and Federal Levels**

While Fort Collins’ climate protection efforts should not be unduly reliant on actions at other levels of government to reach its stated goals, local progress could be greatly advanced by passage of climate protection programs at the state and federal levels. Fort Collins should support or lobby for legislation that cost-effectively reduces greenhouse gas emission. Some programs are better addressed at high levels of government. Examples include regulations to reduce the greenhouse gas intensity of transportation fuels and/or establish greenhouse gas emissions standards for new vehicles. As a specific example, if two of the transportation strategies recommended by the Colorado Climate Action Panel (adopt low carbon fuel standards and adopt California GHG emission standards) were implemented in Colorado, the estimated benefit in Fort Collins would be to reduce nearly 30,000 tons CO<sub>2</sub> in 2012 and 150,000 tons CO<sub>2</sub>e in 2020.