AGENDA
COMMUNITY SUSTAINABILITY ADVISORY BOARD
CITY OF GOLDEN, COLORADO

Regular Meeting
October 27, 2010
6:30 PM

City Hall Council Chambers
911 10th Street

1. Roll Call
2. Approval of the Agenda
3. Approval of the Minutes from October 11, 2010
4. Staff Update
5. Board Updates
6. Public Comment
7. Action Items
   A. CSAB Mission Statement Review 6:45 – 7:15 pm
      The Board will discuss and make changes to the current Mission Statement prior to the City Council review of the Sustainability Strategic Plan.
   B. Sustainability Projects 7:15 – 7:45 pm
      The Board will review and approve several draft Scopes of Work for residential energy efficiency and sustainability education consulting projects.
   C. Community Solar Garden project 7:45 – 8:15 pm
      As part of an effort to create a solar photovoltaic cooperative for Golden residents and businesses, the Board will review a proposal to provide professional consultation for the program.
8. New Business
   A. Agenda topics for next meeting November 8th 8:15 – 8:30 pm
9. Adjourn
CALL TO ORDER – BUSINESS MEETING:

Karen Smith, Vice Chair, called the business meeting to order at 6:30.

APPROVAL OF AGENDA:

Agenda was approved as written.

APPROVAL OF MINUTES FROM SEPTEMBER 22, 2010:

With a motion from Chuck and a 2nd from Karen, the minutes were unanimously approved.

PUBLIC COMMENT:

Matt Burde – Gave a brief update on the Community Gardens, everything is going great and they are full. Shade structures are being built and the company is using all reclaimed building materials.
STAFF UPDATE:

Discussion:
- Colorado Environmental Film Festival – November 4-6; electronics recycling will be at the event. More information will be in the next Informer.
- PAYT - 1/3 of the people have received their first bills and there are some minor glitches that are being worked out. October 25th, EDS will pick up unwanted trash cans from customers of the new program. Early November dates are planned for the fall yard waste collection.
- Cemetery remodel – because of budget constraints and HPB wanting to stay with historic preservation, most of the sustainability issues have been put on hold. Mayor Smith would like comments from the Sustainability Board.
  - Gunter had 2 comments:
    - Use sustainable building materials or recycled materials, where possible,
    - New design should not require more energy than the existing building,
    - Required construction site recycling, and
    - Look at wind source as an option to solar.

BOARD UPDATES:

Hillary – Invite for possible alternative school – There is definitely a need for a nature based school. Thursday, October 14, 9am to Noon at the Foothills Art Center. Any resources or hear of someone interested, let Hillary know.

Chuck – Recycle program and PAYT program, there are too many people leaving their trash cans in their front yards and the street.

ACTION ITEMS:

A. Community Solar Gardens

The Board met with Elliot Brown and discussed next steps toward developing community interest in a jointly-owned solar photovoltaic cooperative.

Golden recently hosted a regional meeting of about 40 or so people, consisting of people who want to participate. Elliot described how the program works with Xcel and how fast things will work once this moves forward. He has recently formed a Board and registered the name of Golden Community Solar Gardens with the Secretary of State. (Confirmed members of the Board: Elliot Brown, Matt Burde, Tom Atkins, Marcie Miller, Mike Tamny, Mike Richard, John Roth). Will need financing, regulatory advice, legal advice and have been talking with consultants from Boulder and Golden. They have done a Scope of Work to give to the Consultants. He formally requested $7,500 from the Sustainability Board. Would also like the City to become involved as a partner and donate the land to become a 3rd party entity. Theresa has been asked to give thought to property that the City may have available. Susan would also like to see an outreach of this program for low-income housing.
Karen would like to see the Scope of Work distributed to all CSAB members, which Theresa will email to everyone. Identify and submit comments to Theresa, who will forward questions to Elliott and try to have answered prior to the meeting. Theresa will talk to City Attorney to see about the legalities of Tom Atkins sitting on both Boards; conflict of interest by Tom? Theresa said McKinstry could help with site assessments and keep in mind that whatever you select, we need to make sure that EVERYONE is able to join. This will need to be very transparent and Community meetings will be a must. Scott thought possibly the $7400 should be used for finding out if a Community Solar Garden would work in general and not provide money to an LLC.

B. Education Strategy Scope of Work

The Board considered details of additional consultant work toward sustainability education and evaluation.

Susan Lynds’ Education and Communication Evaluation was distributed, along with the Evaluation Matrix. Cindy Hanna joined the meeting and she was more than happy to have the opportunity to work with Susan Lynds on the 6 strategies. She suggested we build behind our brand, that way the community will understand that this is all connected.

Hanna Designs will get together with Theresa to work out scope of work, milestone dates, etc. One suggestion; use Golden Bucks as incentive for participation in surveys.

C. Residential Energy Efficiency Scope of Work

The Residential Energy Efficiency project is intended to assist Golden homeowners with specific energy efficiency improvements to homes. The Board defined the additional work that is needed on this project.

Theresa met with Peter Ewers recently to make it broader than just net-zero; but make it the path to net-zero. Would also include what to look for in products, installation, contractors, etc. 2 of the components could be; what does my house need and what can I pick from?

Possibly have incentives – if you use this guide, we give incentives for permits, in exchange for them giving us information on their remodel.

Peter is drafting a statement of work and will get to Theresa.

ADJOURN:

Meeting was adjourned at 8:35.

NEXT MEETING:

Wednesday, October 27th, Council Chambers, at 6:30pm
### Community Sustainability Advisory Board

#### Six Month Schedule - 2010

**October 2010**

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### Meeting Date
- **10/27** Mission Statement review
- **11/8** city-wide PAYT policy direction
- **11/17** Action Plan for 2011
- **12/13** 2011 Annual Report

### Agenda Item 1
- Consultant Scopes of Work
- Community Solar Garden review
- Community Compost Options
- Local Living Economy (Hillary)
- Central Collection site/partnership
- Review of CSAB 13 priorities
- Housing Study
- Recyling pilot program for downtown park

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Memorandum

To: Community Sustainability Advisory Board
From: Theresa Worsham, Sustainability Coordinator
Through: City Manager, Mike Bestor
Date: October 22, 2010
Re: Review of CSAB Mission Statement

Purpose of Agenda Item: To take a second look at the Board’s adopted Mission Statement, to ensure that the Statement accurately reflects the Board’s mission.

Background: After review of the final draft of the Sustainability Strategic Plan, the Mayor provided comment on various parts of the draft, as well as the Mission Statement section of the Plan. While the Mission Statement was crafted by the Board many months ago, it has not been adopted in any formal document by Council. The current version states:

*The mission of the Community Sustainability Advisory Board is to lead, encourage, enable, and empower the citizens, visitors, and people who work in Golden, to live in a sustainable manner and to provide recommendations to the City’s sustainability initiatives, while facilitating implementation of the specific sustainability goals adopted by City Council in Resolution 1793.*

Mayor Smith is encouraging the Board to review the statement to ensure that the duties and responsibilities as outlined in the Board’s charter are appropriately reflected in the Mission Statement. His comments to the Board include:

- Actions by the Board should be evaluated in terms of the Initiative goals (e.g. How much does this move us toward accomplishing those goals at what cost and compared to all the other things we could do?).

- Having a broad sustainability mission may not ensure that the goals are met. Rather than having a loose interpretation of the mission, the Board could provide focused direction on how the city can best achieve the goals.

- The mission might more explicitly state the Board’s responsibilities: to identify what policies we need to adopt, evaluate our progress (the community's broadly and the city's), and prioritizing projects and efforts. The Board should be driving the process toward goal achievement.
To this end, there have been a few suggestions for revising the Mission Statement. Karen’s suggestion attempts to retain the Board’s vision of who we are impacting but keep the task focused on the City’s goals:

The mission of the Community Sustainability Advisory Board is to lead, encourage, enable, and empower the citizens, visitors, and people who work in Golden, to live in a sustainable manner by providing recommendations for and about the City’s sustainability initiatives to facilitate implementation of the specific sustainability goals adopted by City Council in Resolution 1793.

Tom’s suggestion keeps the ten-year goals central to the mission by placing them first in the statement:

The mission of the Community Sustainability Advisory Board is to assist the City of Golden in achieving its ten-year sustainability goals as adopted in Resolution 1793. In order to facilitate achievement of these goals, the Board will lead, encourage, enable, and empower the citizens, visitors, and people who work in Golden, to live in a sustainable manner.

A third option cites Board actions more specifically:

The mission of the Community Sustainability Advisory Board is to lead, encourage, enable, and empower the citizens, visitors, and people who work in Golden, to live in a sustainable manner and to focus specifically on how the city can achieve the ten-year sustainability goals through policy recommendations, program implementation and evaluation, and prioritizing efforts.

Recommendations:

The Board should discuss and decide on final language of the Mission Statement for inclusion in the Sustainability Strategic Plan draft. The Plan draft is scheduled to be reviewed by City Council on November 4th, at a public hearing. For your review, the following is the Board’s current roles and responsibilities, as per the charter.

The original Ordinance No. 1789 was amended to clarify the Board’s duties and approved by Council through Ordinance No. 1863. The amendments are reflected in the current Municipal Code document available through the city website. The following is the current version, which includes the addition of (e) and the deletion of the Board’s oversight for all city construction projects:

2.50.070 Duties of the board

(a) The primary purpose of the board is to assist the City in achieving the ten-year sustainability goals set by City Council in Resolution No. 1793, as may be amended
from time to time.
   (b) The board shall be responsible for securing commitment and assistance from as many residents, visitors, building owners, and business owners and their employees as possible, and to this end shall:
      i. Conduct all of its proceedings in such a manner as to secure broad public support.
      ii. Plan, organize and sponsor public educational initiatives.
      iii. Consider the need for public support when making recommendations to City Council.
      iv. Develop and monitor a community outreach and communication plan.
   (c) The board shall keep the City Council advised of its progress and submit a written annual report to City Council and the community. The board shall prepare a ten-year plan to meet the goals in Resolution No. 1793.
   (d) The board shall recommend to Council changes to the Golden Municipal Code related to the goals in Resolution No. 1793.
   (e) Periodically review the City’s internal sustainability and environmental programs to track compliance with the city’s energy efficiency, renewable energy, waste, vehicle miles traveled, and water conservation goals. Advise the City Manager on programs to improve current efforts, additional opportunities and their anticipated results.
   (f) Provide leadership, monitoring, advice and reporting for City participation in state, national and international programs related to sustainability and improvement of the environment.  (Ord. 1863 § 1 and 2, 2010; Ord. 1789, 2007).
Ms. Worsham:

I am excited about continuing to work with you and the Community Sustainability Advisory Board to improve the energy efficiency of Golden’s existing homes. This next step of the project will give homeowners specific actions that they can perform to upgrade their homes, with an eye toward making their home closer to, and possibly achieving, Net Zero Energy.

Along with Ewers Architecture, Silvertip Integrated Engineering Consultants continues to partner with us on this project. Michael Haughey of Silvertip Integrated Engineering Consultants has partnered with us to develop the Phase One report.

We envision that this phase of the project will build upon the Phase One report and will culminate with a report that is geared toward homeowners. The report will use language and images that will help the homeowner become more knowledgeable about the potential upgrades, which upgrades may be most beneficial to them, and how to obtain those upgrades. The report will include the following:

1. An overview of upgrade strategies to discuss in a general way many of the possibilities that are available to improve their home’s energy efficiency. These strategies will be broken into three categories:

   - The first tier are the strategies that will most likely create the greatest cost savings, such as exterior wall and roof insulation, heating system, etc.
   - The second tier are the strategies that still can make a significant impact in their energy usage, such as lighting upgrades, pipe and duct insulation, etc.
   - The third tier will not be addressed in this document at this time, but could be included at a later date. This tier could include smaller-scale upgrades such as timers for electronics that have stealth loads; or details that may not be
applicable to all homeowners (eg: insulating details for cantilevered living spaces), or how to make the most of a sunroom addition.

• Note that photovoltaics (PV) will be mentioned in the report, but because on-site electrical generation is so site specific, the report will simply instruct the homeowner to contact a local PV contractor to determine the potential for this system on their home as well as offer a few words of advice.

2. The second portion of the report will include details for each of the strategies mentioned in the first part. These details will include:

• A description of the system, what it does, why it is important, and how it fits into the energy usage of the home.

• For each system there will be multiple possible paths for the energy retrofit. The report will follow two paths through each of the system upgrades:
  o One path will be the path that would be necessary for a Net Zero Energy home – this will be the most energy efficient solution, with the cost being a lesser criterion.
  o A second path will be the path that is probably the most cost effective solution for this system as determined from common current best practices.

• Suggestions of products and methods that are available for each system.

• How to work with a contractor to upgrade this system, with tips on how to ensure the contractor performs the work correctly.

• In rough order of magnitude terms, the relative cost of this type of an upgrade. This information will be based on our experience and market trends, not on actual cost data or a professional opinion of probable cost *(a professional opinion of probable cost may be added in a future phase of this report).*

• *In the future, this portion of the report may also be expanded to reflect the “third tier” items mentioned above.*

3. The third part of the report will include research and data that supports the first two parts of the report. This will include:

• Three-dimensional computer model of a simplified “typical” Golden home. This model will then be used to create a spreadsheet energy analysis of this “typical” Golden home.
The Golden Path to Net Zero Energy Homes

PHASE TWO PROPOSAL

- Perform an introductory analysis of Steve Steven’s home (which is approaching net zero through his own energy retrofits), including an energy audit through Xcel Energy. This analysis will be only for the purpose of calibrating the spreadsheet and will not be included in the report, although preliminary results may be shared with the City of Golden and Steve Stevens.

Note that the items listed in *italics* above will not be included in this phase of the report, but may be added in the future. In addition, the following items may also be incorporated into an expanded report:

- Provide resources to the Golden Building Department for verification of advanced implementation of (beyond code) energy efficiency concepts. This may be increasingly important if financial incentives are given to homeowners employing these concepts.

- Add photo-documentation of some of the options to improve the “look” of the report.

- Create additional studies of “typical” Golden homes. While having one simplified typical home as a part of this study is useful, studying more homes (and perhaps even actual homes) would provide more usable data.

- As homes are actually upgraded through this program, study the actual energy savings. This would require access to the homeowners’ energy bills before and after the upgrades as well as (preferably) periodic observations during critical stages of the improvement construction.

- Conduct a similar study and report for commercial buildings.

- Further analysis and publication of data and results from Steve Stevens’ home.

The proposed fee for the above study is a fixed fee of $10,000. Please let me know if you have any questions about this proposal. I look forward to working with you on the next step of this important project.

Sincerely,

Peter J. Ewers, AIA, LEED AP
Ewers Architecture
HANNAH DESIGN SCOPE OF WORK
EDUCATION CONSULTATION
OCTOBER 20, 2010

DELIVERABLE: IDENTIFY OPPORTUNITIES AND EXISTING INITIATIVES. DEVELOP A CALENDAR CHART OF OPPORTUNITIES.

Identify existing events where the Sustainability Initiative should be a visible sponsor or participant. Prepare an integrated calendar charting activities, timing, relevance, etc. Prioritize involvement based on an even balance between constituent groups identified in the Education section of the strategic plan.

Community-Wide
Community events (existing)
Neighborhood events
Business Events
City awards
K-12 Education
School calendars and initiatives (science fairs, existing curriculum)
Higher Ed
CSM school calendar

First draft of the calendar available for review: 11-30-10
Budget Allocation: $2,350

DELIVERABLE: PREPARE A GUIDEBOOK OF STRATEGIC RECOMMENDATIONS FOR INVOLVEMENT IN COMMUNICATIONS, EVENTS AND PROMOTIONS.

Recommendations will prioritize initiative visibility, community communication and public education to encourage involvement in sustainable practices.

Recommendations will include opportunities for measurement.

Recommendations will include a checklist of best practice steps for developing an ongoing presence in the community.

Recommendations will be organized across a calendar year with repeat events identified for future years (2 years out).

Recommendations will explore emerging opportunities on the city website.

Guidebook available for review: 1-28-11
Budget Allocation: $4,650
SUSTAINABILITY DIVISION

While the Golden Sustainability Initiative encompasses all city departments, the programs are administered through the Sustainability Division of the Public Works department. The Sustainability Coordinator is responsible for implementation of city and community sustainability programs and is the staff liaison to the Community Sustainability Advisory Board (CSAB). The Coordinator facilitates CSAB, internal departments, and community groups to develop a process of programs, investments, and initiatives to assist the City’s achievement of its ten-year sustainability goals.

2009-2010 Accomplishments

Professional Consultation
- Completion of a two-year performance contract with McKinstry, Inc. to upgrade city facilities to improve energy efficiency
- Sustainability branding, including a new logo
- Zero waste event services for the 2009 Mountain Fest
- Annual membership with the U.S. Green Building Council and ICLEI – Local Governments for Sustainability
- A report on a net zero energy strategy for Golden homes

Community Programs
- Energy audit rebates for homeowners who sign up through Xcel Energy’s audit program
- Building Permit fee waivers for solar photovoltaic or solar thermal systems for residential owners.
• An annual Sustainability Awards program, recognizing leaders in the community who demonstrate sustainability best practices.
• Sustainability Workshops – a series of free programs highlighting sustainability topics such as composting, energy efficiency, and reducing waste.

Policy Development
• The Community Sustainability Advisory Board (CSAB) held public meetings twice each month to recommend sustainability policies and programs. The Board forwarded over 15 formal recommendations to City Council to adopt sustainability policies and programs.
• Several new Resolutions and Ordinances were adopted, including green building standards for municipal buildings, a community garden, a MOU with Colorado School of Mines, Department of Energy and NREL, clarifications to the city’s sustainability goals and adopting performance metrics to measure our success, a Sustainability Strategic Plan, and implementation of a city-wide Pay-As-You-Throw residential waste collection and recycling program.

Partnerships
• The City was awarded a grant from CML and Walmart to work with the CU-Denver sustainability infrastructure program to create a greenhouse gas emissions inventory analysis and provide prioritized recommendations to guide future efforts.
• Each semester, the city partners with the Colorado School of Mines for student research into innovative sustainability projects, including measuring VMT, creating a bike library program, performing cost-benefit analyses of small wind turbines for local businesses, and a commercial re-skinning project for energy efficiency.

2011/2012 Goals
• Look to the Sustainability Strategic Plan to guide future efforts and address high priority sustainability policies and projects.
• Publish the annual Sustainability Report and include year-over-year data to measure our progress toward achieving the city’s ten-year goals.
• Update the GHG Emissions Inventory on an annual basis and analyze additional GHG reduction measures.
• Implement a Home Energy Meter program to assist residents in understanding their energy consumption and using the information to make energy efficiency improvements.
• Create a Residential Energy Efficiency guide, explaining the path to Net Zero and helping homeowners prioritize energy upgrades.
• Establish a Commercial & Industrial Awards program, connecting high energy users with available resources and promoting businesses who make sustainability achievements.
• Create a Community Solar Garden, offering investment in renewable energy for residents and businesses that may not be able to invest in otherwise.
• Adopt an Education Strategy to increase sustainability awareness, through a baseline evaluation and targeting specific community groups identified in the Sustainability Strategic Plan.
• Analyze initial waste consumption data from the city-wide PAYT program; identify opportunities to increase service within the existing contract, and ongoing advocacy for resident needs through the existing waste hauler agreement.
- Publish a handbook on best practices for zero-waste for community events and provide technical assistance to event organizers to adopt waste reduction measures.
- Support established sustainability programs that serve the community, such as the Golden Community Garden, sustainability workshops,

### SUSTAINABILITY

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Salaries &amp; Benefits</td>
<td>$33,187</td>
<td>$88,445</td>
<td>$92,762</td>
<td>$94,190</td>
<td>$97,710</td>
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<tr>
<td>Supplies &amp; Services</td>
<td>$17,620</td>
<td>$35,178</td>
<td>$59,200</td>
<td>$61,450</td>
<td>$61,550</td>
</tr>
<tr>
<td>Office Furn/Equipment</td>
<td>--</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$50,806</strong></td>
<td><strong>$123,623</strong></td>
<td><strong>$151,962</strong></td>
<td><strong>$155,640</strong></td>
<td><strong>$159,260</strong></td>
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</tbody>
</table>

### Performance Measures

As adopted through Resolution No. 2047 in May 2010, the following performance measures will be used to assess the effectiveness of future programs. These measures will be reported annually, through the Community Sustainability Report.

| Green Buildings              | Percent of new buildings meeting the green building standard.
|------------------------------|------------------------------------------------------------------
|                              | Percent of remodeling projects meeting the green building standard.
|                              | Number of annual sustainability-related amendments to the Municipal Code.
| Economic Health              | Number of outreach efforts to provide information, resources, and assistance to encourage sustainability.
|                              | Percent of employment in sustainability sectors.
| Education & Communication    | Percent change in level of knowledge of community efforts and city actions taken through community surveys.
|                              | Percent of Community Working Group recommendations that have been adopted.
| Energy Reduction & Renewables| For municipal energy consumption - Percent change in consumption of electricity (kilowatts), natural gas (therms), and gallons of fuel (gas & diesel) from the base level. For municipal use of renewables - Total percent of energy derived from renewables.
|                              | For community energy consumption - Percent change in consumption of electricity (kilowatts), natural gas (therms), and fuel efficiency (average mpg for privately-owned vehicles) from the base level. For community use of renewables - Percent of energy derived from sum total of all private solar installations captured by the building permit system, other renewable energy.
<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid Waste &amp; Recycling</td>
<td>Percent change in volume (in tons) of garbage, recyclable, and green waste materials.</td>
</tr>
<tr>
<td>Alternative Transportation</td>
<td>Change in modeled VMT.</td>
</tr>
<tr>
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<td>Percent change in gallons, annually, in total consumption.</td>
</tr>
<tr>
<td>Water Quality and Conservation</td>
<td>Compliance with Clean Water Act (CWA) regulations, A Partnership Through Clean Water Agreement, daily water sampling procedures, and water monitoring station results, and the efforts toward emerging contaminant education.</td>
</tr>
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<td>Percent change in overall system efficiency.</td>
</tr>
<tr>
<td></td>
<td>Percent change in an overall metric to assess the following, but not limited to: the number of projects shown to promote the health of the Golden waterway ecosystem, number of stream or ditch restoration projects, channel maintenance programs, and erosion control plans for in-city locations and adjacent to city reservoirs.</td>
</tr>
</tbody>
</table>