



Council Memorandum

To: The Honorable Mayor and City Council
From: Community Sustainability Advisory Board (CSAB)
Date: December 6, 2018
Re: Updates to Golden Sustainability Goals

Purpose of Agenda Item: To review a preliminary draft of new Sustainability Goals proposed by CSAB and to answer Council's questions or concerns before soliciting feedback from Golden citizens and returning to Council at a later date with final recommendations to adopt new sustainability goals for the municipal organization and the community.

Background: Since the original Sustainability goals were adopted in 2007, Golden has achieved many of its targets and implemented much of what citizens recommended through the original Golden Sustainability Initiative. We've seen many changes in the past decade; a brand new way of handling residential waste, a variety of new transportation options, local climate events, a steep drop in solar panel prices, innovative new building technologies and many others. The Board approached this review with a holistic view, looking at the entirety of past efforts, current constraints, public opinion and future possibilities. Systematically, the Board looked at progress made on each of the seven current goals, asked regional experts about what the future holds for various industries, analyzed what other communities do, and solicited input from Golden citizens about new ideas and new goals. CSAB now offers a new, simplified format for goals, condensing seven goals into three new categories: Energy, Water, and Waste. Within these new categories are issues that are universal and inclusive to all three: transportation, economic health, education and communication, and food.

Energy, Water and Waste remain our top priorities, but it is important to summarize how far we've come with the current goals that include the following:

2007 Waste goals: *To reduce our solid waste stream contribution through the expanded use of recycling programs, waste diversion programs, and other tools. Specifically:*

- 1. Reduce our solid waste stream contribution by 25% in ten years.*
- 2. For waste streams that are tracked but cannot be measured as a whole, increase diversion by 10% each year.*

Recycling and opportunities for additional curbside services continue to be a hot topic in Golden. The community has made great strides in certain sectors like low-density residential areas, achieving an average of 32% diversion for the homes in the single hauler program. The current program does not reach all Golden residents, nor does it address businesses. Statewide, the municipal solid waste diversion for residential and commercial was only 20.5% in 2017. The Foothills Landfill located six miles north of Golden on State Highway 93 has an expected lifespan of 30 more years. Upon closure, transportation of Golden's waste to the next closest landfills will result in significantly increased costs to residents and businesses. It is in our community's best interest to minimize our contribution to the landfill and help to keep costs low or affordable for as long as possible. Downtown, multi-family, and commercial sectors make up a majority percentage of Golden's waste sent to

landfills and present a significant opportunity to divert waste. Going forward, several themes emerged from feedback from citizens: additional curbside services, better business recycling, public recycling in downtown and in parks, and targeted efforts to reduce specific waste such as plastic shopping bags and disposable food containers.

2007 Water Goals: *To ensure that Golden sustains a clean, stable water supply into the future, specifically:*

1. *Reduce Golden's per capita water use by 15% in 15 years.*
2. *Maintain better than regulatory water quality from water treatment plant to end-user.*
3. *Increase the efficiency of the water delivery system.*
4. *Improve the health of the ecosystem associated with the Golden waterways.*

Our citizen outreach indicates that conservation remains a high priority and we know that outdoor irrigation use continues to have the best potential for savings. At the same time, the City has solid programs in place to ensure high water quality, waterway protection, and ongoing investment in replacement of infrastructure. Golden is uniquely positioned to provide water to residents now and to accommodate future growth. At the same time, climate change will likely reduce snowpack and water supplies throughout the region and responsible use, plant and infrastructure maintenance, and supply protection remain of key importance to the community. The new goals propose to add targets for resiliency and preparedness in addition to conservation and responsible use.

2007 Energy Goals: *To Increase our community's energy efficiency and our use of renewable sources of energy.*

1. *Reduce the City of Golden's energy usage by 25% and increase to 50% the proportion of its energy use derived from renewable energy sources within 20 years (25 x 50 in 20).*
2. *Reduce overall community energy usage in Golden by 20% and increase to 20% the proportion of its energy use derived from renewable energy sources within 20 years (20 x 20 in 20).*

For the past eleven years, the City has promoted energy efficiency through green building codes and promotion of Xcel rebates for remodels and new construction. During this same time, prices for renewable energy, namely solar, have decreased significantly, resulting in wider adoption. These changes prepare us for a two-pronged approach; leveraging our role as a franchisee while continuing to create new opportunities for onsite investments within the municipal organization and in the community. And, although the Xcel continues to increase its renewable portfolio, the Board strives for investment in distributed generation, that is, onsite renewable energy. The City has made great strides toward the renewable goals (nearly 10% of the municipal power comes from renewables), but the energy reductions and investments in renewable energy for the community remain small.

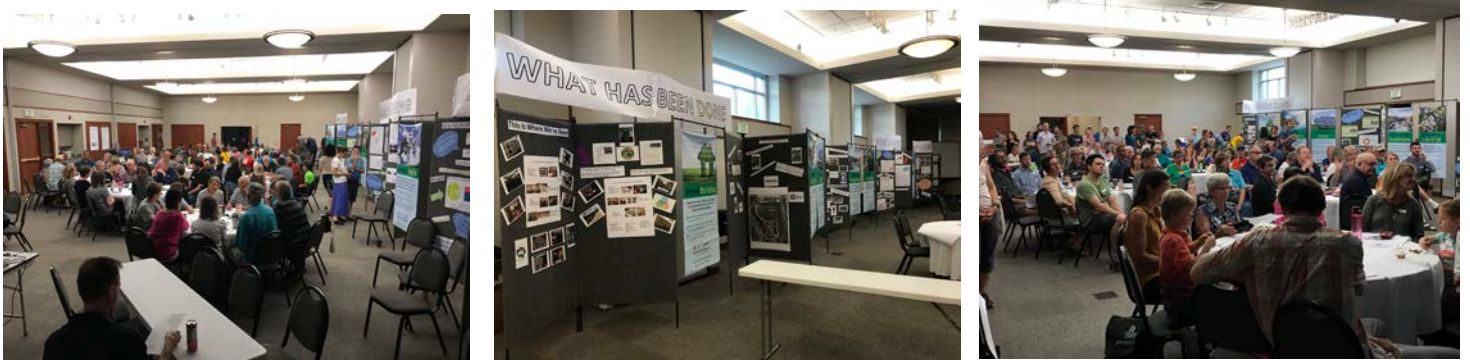
The City should strive toward some level of energy independence to protect Golden residents and businesses against impacts outside our influence. Several Colorado and national studies predict the number of 90 degree+ days will continue to rise and Denver's climate may become akin to Albuquerque and later, Tucson. Brownouts, increased heating and cooling costs, elder health and impacts from potential drought, fires, and floods will put energy supply at risk and cause energy prices to rise significantly. Because energy as a category touches many sustainability issues, the Board would like to develop potential strategies to address the nexus between food, water, energy and transportation.

In addition, the Board believes that adding a greenhouse gas emissions target is appropriate. GHG emissions are broadly acknowledged to be the driver of climate change, which is what the Board is seeking to affect. It makes sense to measure our progress in terms of carbon and GHG emissions reductions; the industry standard already widely used which will allow us to benchmark Golden's progress against other communities.

The input received from our citizens expresses a clear desire for Golden to become a role model community for sustainable living. The Board would like this vision to be put into action by a City leadership that first and foremost embodies and implements the sustainability policies that Council adopts throughout city's organization itself. A City management that embraces "Sustainability In All Actions" sets a convincing example for our citizens in supporting the goals and carries out its commitments to sustainability through visible actions in each individual department. The City's past success with requiring LEED certifications for new construction and work toward a Sustainable Investment Policy illustrates the positive impact public action and leadership can have on our community.

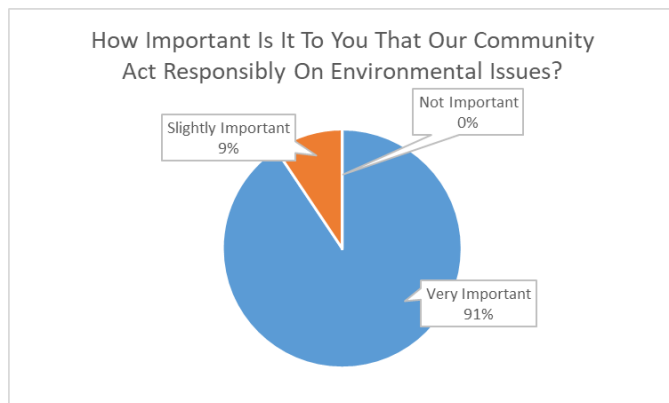
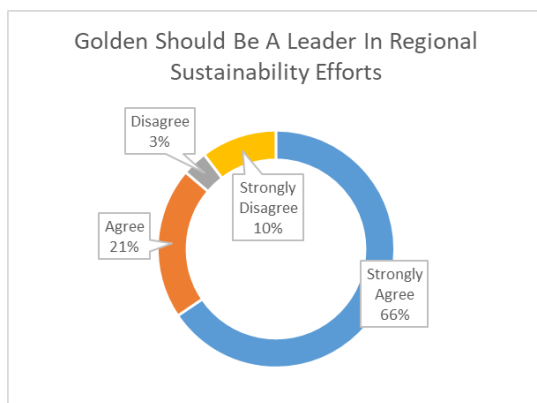
Because environmental leadership at the City's administrative level is such a critical component for broader buy-in and achievement of the goals in our community, the Board encourages the City's political and administrative leadership to reassess daily practices and procedures to align with the City's sustainability goals. The Board will continue to do its part in supporting City's staff in the coming years by proposing specific environmental targets for municipal operations, where relevant, to help realize our common vision

Public Outreach Efforts: The Board held a community-wide event on September 17th, and sent more than 10,000 postcards and invitations to Golden residents, businesses, and interested community organizations. Over the past six months, the Board also solicited input through a survey on the Guiding Golden webpage, through email, and collected comments during the board's regular public meetings and extra study sessions.



The September 17th Community Sustainability Event was attended by more than 150 adults and youth

The Board heard recommendations of both aspirational and realistic goals from residents. Keeping in mind the citizen input, the proposed goals have a tangible, but aspirational quality to them. Through meticulous examination by Board members, the research indicates that they are both ambitious and attainable. Regional support for more aggressive goals has also shown the Board compelling reasons why Golden should also position ourselves as leaders in the Front Range through both a commitment to action and in a clear statement of vision.



Guiding Golden survey results

Over the next several years, the Board is going to focus on communication, messaging, and education about the current efforts and new initiatives. Previously, the task force concept to bring together industry professionals and local experts to advise the Board has worked well. CSAB would like to continue to seek advice and partnerships with NREL, DOE, CSM, and from residents who can provide technical and directional guidance. Professional guidance is even more important moving forward since in the early days of the Sustainability Initiative, we started with basic knowledge and now have compiled over ten years of data and metrics that can help inform our recommendations. Over the past six months, more than 100 citizens have committed to volunteer, participate or support the sustainability initiative. The Board intends to use these citizens and regional experts to inform and prioritize projects and bring forward the most viable proposals to Council.

Fiscal Impact: Since 2017, the costs of the Sustainability Initiative programs have ranged from low to high:

Low	Medium	High
Climate group associations Legislative advocacy Communications: flyers, branding, social media Sustainability Awards Municipal code adoptions	Waived permit fees Sustainability Events Consultant reports Bike Library program Electric Vehicle charging Community Pride Days Low Waste events PAYT administration	Solar on 9 city buildings Circulator Bus funding Light Rail financial support

Most of the “low hanging fruit” opportunities have been completed. The costs to achieve some of the new projects and goals will be higher. For example, adoption of a 100% renewable energy target will mean significant investment by the city in terms of costs, political investment, and in its own facilities. Investment of city resources to achieve the energy goals will be needed to in combination with potential rebates, incentives, assistance and regulations for retrofits of existing homes. Some strategies will first require scenario planning to identify costs and impacts associated with achieving the new goals.

Why can't we identify all of the costs that it will require to meet these new goals?

Markets and technologies in the sustainability industries change frequently by nature, and the Board revisits its Strategic Plan annually to select optimal strategies given current market conditions. For example, since the Initiative began, the cost of solar panels have come down 70%, the commodities market for recyclables has shifted from overseas to domestic entities, and the energy efficiency of new building codes has increased more than 40% while at the same time, prices of innovative green building materials continue to decrease. The Board has been deliberate and thoughtful in the recommendation to decline certain opportunities that weren't favorable, but would also like to poise the City to be ready when opportunities become available. Some examples of this include investing in battery storage or waiting for an optimal community solar package.

Recommendations: Our citizen feedback has very clearly shown that the City should encourage a comprehensive vision of sustainability rather than looking at separate pieces. The Board will begin to tie the sustainability goals into a broader framework of a climate resiliency and adaptation plan, a direction echoed by many other communities.

For the near term, the Board would like to introduce these draft goals to the community over the next several weeks, solicit feedback, refine as necessary, and return to Council at a future date with a recommendation for adoption.

The attached draft goals include key messages that the Board would like to begin promoting to the community:

- A stated need that describes the pressing issues and future demands that Golden will need to address and prepare for.
- Clear proposed goals that aim to be bold, but easy to understand by citizens, businesses, and youth alike.
- A list of current policies and initiatives already offered by the City.
- Graphics that show baselines, progress, metrics and the expected outcome of achieving the new goals.
- Potential strategies that citizens and the Board have compiled over the past year. The Board will research these concepts, thoroughly incorporate public input, and make recommendations to City Council concerning feasibility, costs & benefits, and indication of public support. In making future recommendations, the Board will recommend cost-effective solutions and offer choices for Council to consider.
- A comparison list of what other sustainability goals have been adopted by nearby communities.

The Board is seeking Council's preliminary direction to begin publishing the draft goals, asking for public comment and promotion of dates and times of upcoming meetings with Council for potential adoption. At this meeting, Board members will be present to discuss and answer any questions of Council.

encl: Draft goals for Energy, Water, and Waste
Resolution No. 2330 (current goals)