



Sustainability Plan

2019

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“Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.” - Margaret Mead

Envision a Sustainable Edgewater

Incorporated as a city in 1904, Edgewater reflects a small town feel within an urban landscape. The town's colorful history has included a working class, diverse population. In recent years, demographics have begun to change and a desire to hold onto our roots, while considering future challenges, is important to many residents, including those on this Committee.



Despite being one of the smallest cities in the metro area, Edgewater has taken early efforts to care for the environment and community. The development of a Sustainability Plan to identify goals and actionable tasks is a natural next step towards valuing and serving residents, businesses and local organizations. By improving our efforts within the City we will demonstrate support not only of Edgewater, but for the shared global society and planet.

"Live local, think global"
- Survey Respondent

Holding up the most basic aspects of life, including the quality of our air, water, and land is the fundamental start to our plan. In addition, as a society, we rely heavily on energy and material consumption to benefit our daily life. The dependence on all of these, has led to an increase in pollution, degradation of ecosystems, and a strain on natural resources. Our health, well-being and way of life will not be sustained and available for future residents if we do not value the critical importance of the air we breathe, the water we consume and the land we depend upon.



“Sustainability is the future of a functional society.”

- Survey Respondent

By definition, to sustain is to strengthen and support. Taking steps now to reduce consumption of natural resources, energy and materials will reduce pollution and financially benefit the City as well as improve current and future residents’ health, vitality and way of life.

Creating a robust natural ecosystem within Edgewater will combat poor air quality, reduce the urban island heat effect, absorb water run-off and enhance quality of life. Continuing to sustain our community requires immediate actionable strategies to improve infrastructure and programming, provide education of best practices and foster outreach opportunities.

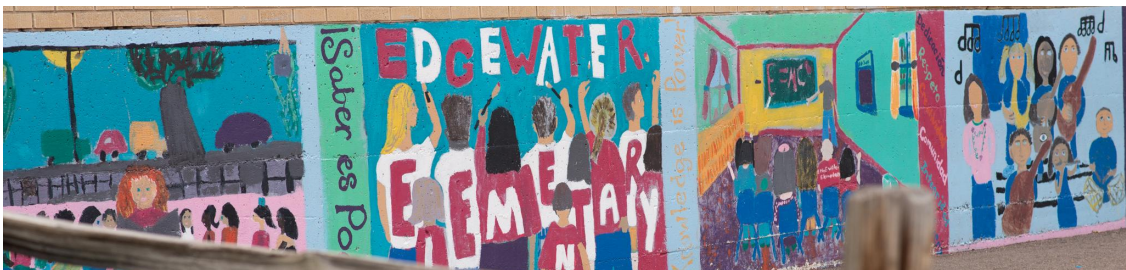
Concerns about ever changing climate patterns, pollution, and extinction of myriad species are global. In addition to these effects, in our own state of Colorado we have had recent years with decreases in mountain snowpack, drought concerns, pine and bark beetle infestations, and longer fire seasons.

Locally, we have had an increase in ozone days with unsafe air quality, hotter summers, bomb cyclones, and damaging hail storms that are [predicted to increase.](#)



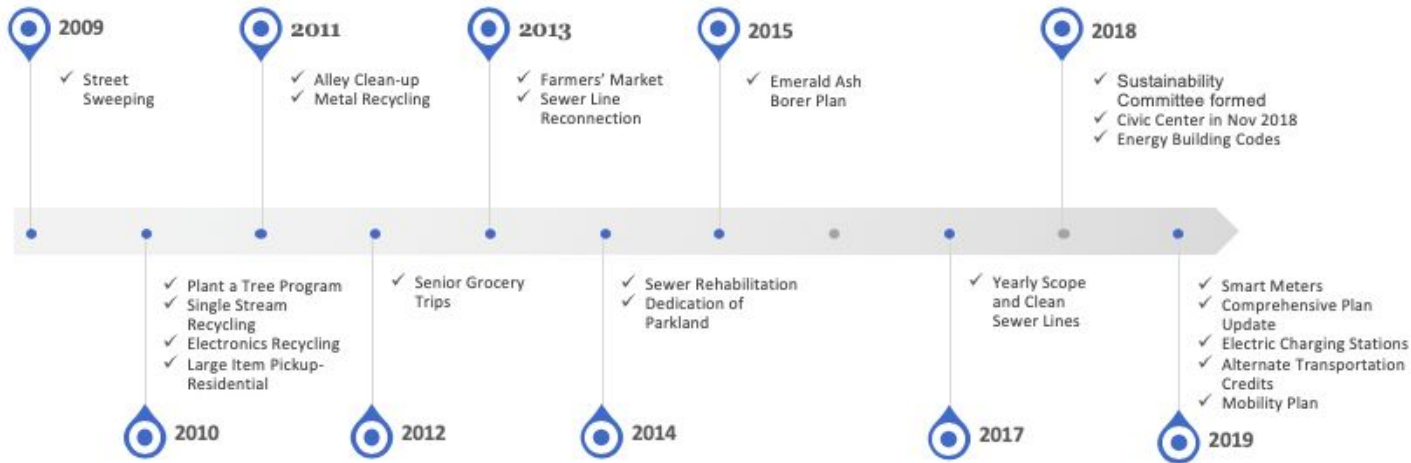
“Sustainability is living so that what we consume does not exceed what we contribute.”

- Survey Respondent



“What is to be sustained in our little town? In a nutshell, it’s Our Way of Life.” - Survey Respondent

Edgewater's Sustainability History



Edgewater has a history of sustainability leadership. In 2010, Edgewater became one of the first cities in the Denver metro area to have a single-hauler recycling program. This has allowed us to track our waste and sets the stage for improvements to our recycling. The same year the Plant a Tree Program was established and continues to expand. Later, the sewer line was rehabilitated and improved.

Despite being less than one square mile, there are two community gardens and a weekly summer farmers' market that has been running since 2013. In 2018, the new Civic Center was built to meet high energy efficiency standards and with infrastructure in place to add solar panels.

Most recently, the City adopted a Mobility Plan that will work to make the area safer and easier for pedestrians and cyclists, while having the potential to reduce pollution. The creation of this Sustainability Plan is a natural next step to formally expand upon existing and new opportunities.



Sustainability Committee Formation

In May 2018, Edgewater City Council passed a resolution to form a Sustainability Committee by the end of the year to research and develop a written plan for potential adoption. Seven members were nominated by Mayor Laura Keegan and they set to work in January 2019. They met at least twice a month until the completion of this Plan. City staff signed up as members of the International Council of Local & Environmental Initiatives (ICLEI) to assist the Committee's efforts.

ICLEI

Following ICLEI's model, the Committee went through three of the five milestones. The pre-milestone to make a commitment and organize a team was completed with City Council's resolution.

The first of the five milestones was to conduct a sustainability assessment. Much of the Committee's time was spent in this initial step. To start, four categories were established. Through the lens of these categories, an assessment process was conducted to engage the community and gather pertinent information to shape this Plan. During the assessment, the community demonstrated strong support for two goals in each category.

The Committee further developed these goals, established them within this Plan, and thus completed the second milestone.

Finally, the third goal is completed with the creation and publication of this Sustainability Plan.

To complete all five milestones, City leadership will need to continue aiding in the development of policies and measures that could be implemented for the fourth milestone. On an annual basis, the best practice would be to evaluate the progress of goals and report to the community. Once the five milestones are complete, continuing the model by conducting an annual sustainability assessment will keep the community on track for success.





Land & Water



Waste & Materials



Energy



Social Vibrancy

The Four Categories

To organize the greater goal of a sustainable community, this Plan is divided into four categories. Within each of these categories, goals are listed with actionable steps to achieve them.

The four categories were narrowed down from an extensive list of problems and possible solutions identified by the Committee for sustainability in Edgewater.

The assessment process, goals and actionable steps of the four focus categories were each led by one Committee member.

The focus categories are:

- **Land & Water** encompasses the need to enhance and retain a robust natural ecosystem within the community including water, trees, plants, and animal health.
- **Waste & Materials** examines the need to reduce consumption and increase recycling of materials including organics.

- **Energy** focuses on increasing energy efficiency while moving towards more renewable resources in order to reduce toxic emissions and greenhouse gases.
- **Social Vibrancy** supports the continuous engagement, safety, and vitality of community life including walkability and sustaining our local economy.

While breaking the goals into four categories is helpful to create actionable and measurable steps, many of Edgewater’s greater environmental problems will only be solved by taking steps in each category.

Specifically, the air quality in our City is of grave concern. The air we breath as a community is directly connected to pollution, ground ozone levels, and greenhouse gas output. Tracking these numbers is helpful, but finding our way to cleaner air and emissions requires efforts within each category.

Over 80% of survey respondents want Edgewater to have happier and healthier environments for residents and employees.

Reducing our dependence on fossil fuel energy and vehicle transportation is one step. By planting native species and trees for shade, air quality will also improve. Reducing our waste production, dependence on single use products and effectively reusing materials will put less greenhouse gases into the atmosphere. Through the new Mobility Plan we are hopeful to see a reduction in vehicle transportation needs within the City. Once the immediate area is safer and easier for travel, the transportation challenges of the final mile to the lightrail could aid in taking more drivers and gas-vehicles off the road. As we detail the actionable steps in the four categories and throughout the Plan, take note that each goal will have a direct impact on the air we breathe.



Resident Jason Bump has adult onset asthma from the poor air quality he has been breathing when biking to work daily.



Edgewater's Greenhouse Gas Emissions

In 2017, the city of Edgewater was responsible for 45,526 metric tonnes of carbon dioxide equivalents (CO₂e).



(Carbon Visuals Ltd., 2015)

To the left is a visual representation of a single metric ton which is the equivalent of a 27 cubic foot block. Based on Edgewater's annual CO₂e emissions, each resident creates 8.5 of these each year!

Per capita, Edgewater generates less than many comparable communities in Colorado, largely due to the lack of industry within the community, but it exceeds that of New York City residents in greenhouse gas creation. Broadly, the three scope categories of GHG emissions are:

Scope 1 - Direct emissions created in the community i.e. stationery fuel-fired heating and transportation

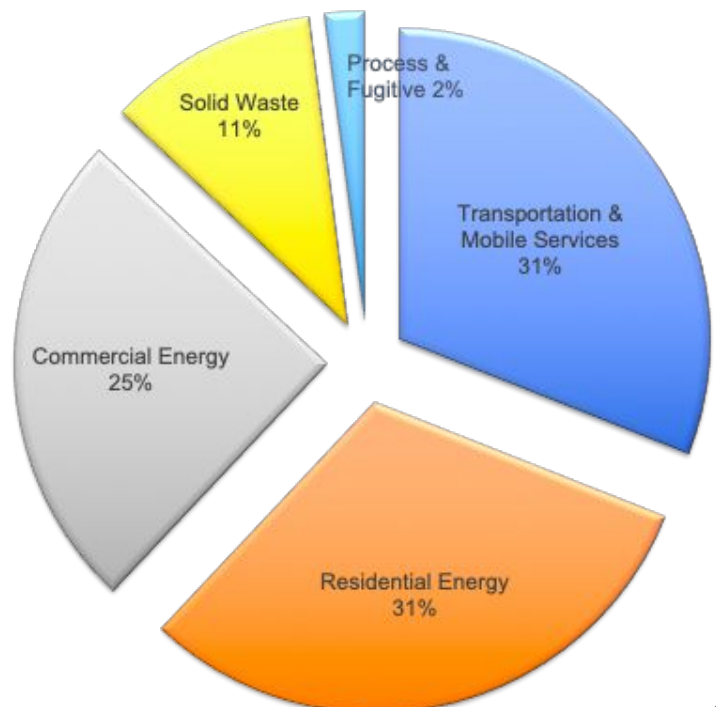
Scope 2 - Indirect emissions associated with consumption or acquired energy i.e. electricity

Scope 3 - All emissions from the upstream and downstream value chain i.e. waste, extraction and production of acquired materials

The three largest contributor categories, and focus areas for reduction, at approximately 87%, are:

1. Transportation & Mobile Sources
2. Residential Energy
3. Commercial Energy

The 45,526 annual metric tonnes will be used as the baseline, in part, to be compared to on an annual basis to assess the success of the sustainability practices put in place to reduce Edgewater's contributions to the current climate crisis, emissions and air quality.



Assessment Process

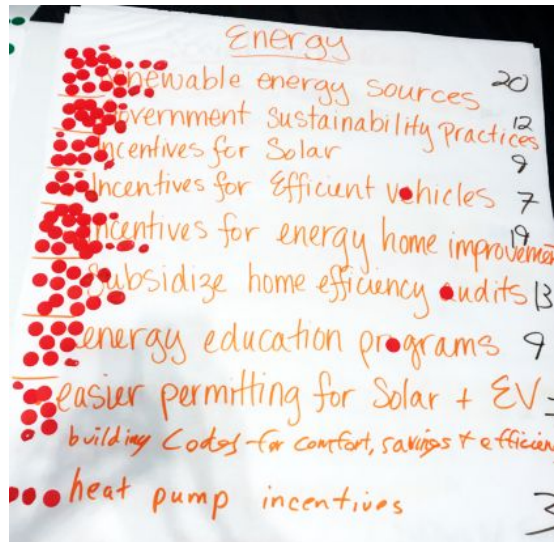
It is important for this Plan to be driven by and for the community. To facilitate this, the Committee developed a several month process that included a public survey, a charrette-style open house, meetings with several key stakeholder groups, and presentations from the City of Edgewater's neighbors and current partners. Through each of these efforts the Sustainability Committee collected hundreds of points of feedback and developed important community connections that will help aid in the implementation of this strategy for years to come.



The main goals of the assessment and engagement period were to understand everything already happening in Edgewater in the realm of 'Sustainability', educate as many interested individuals as we could that this process was taking place, and gather feedback. Through working closely with members of City staff, the Committee was able to develop a broad understanding of all ongoing projects that could fit within traditional 'sustainability plans'.



Community gathered at the April 9th Sustainability Open House, pictured here & above right.



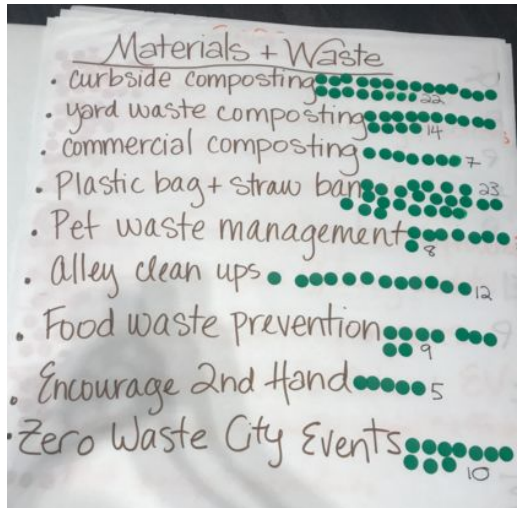
Charette document from the Open House

An initial method the Committee used to garner feedback was to launch an online and paper survey as well as running an open house. There were over a hundred responses to the survey and respondents self identified across every demographic group represented in Edgewater.

Importantly this data was not collected through a scientifically valid survey and does include response bias from the participants - this was a survey run by the Committee through the tools available and was considered more as a litmus test that validated interest in sustainability and broadly provided themes to organize around.

Once the categories were identified, individual Committee members were assigned to each topic based on expertise and interest. Those individuals then developed lists of potential projects, policies, and objectives that fit within that category. The lists were used to focus conversations at the open house where roughly fifty community members joined the Committee to provide feedback on specific ideas.

The outcome of this event was a narrowing down of key topics within each category. The feedback received through the survey, open house and presentations during the Committee's meetings influenced the recommended projects within this Plan.



Sustainability Committee members speaking at the Edgewater Business Association meeting.



The April 9th Open House was Zero-Waste.

**“Continue to ask for
input from
community.”
- Survey Respondent**

Goals & Actions

“Set achievable goals and adhere to a plan.” - Survey Respondent

Through the assessment process, the community demonstrated strong support for two elements in each category that they desire be addressed in this Plan. The Committee shaped each goal based on the community’s feedback and then researched and developed actionable strategies for each.

To achieve these goals, City Staff, Council and the community will need to come together to strategize and take action. While our aim was to have the goals be measurable and time bound, some actionable steps will be ongoing, others would be difficult or impossible to effectively track and for others we did not have enough time to set a proper benchmark.

As a Committee, while we are confident in our initial efforts, the time was limited. By continuing a community group of volunteers focused on sustainability, these actionable steps are more likely to get the attention they deserve. A future Sustainability Board could help take strategic actions on these goals, start ongoing projects, develop stronger benchmarks and increase community participation.

In addition, a Board would assist three key stakeholders by researching and developing policies for Council to consider, assist City Staff with strategies, grants, and program implementation and engage the community through education and outreach.

“Create a Sustainability Board to support the Plan into the future.”
- Survey Respondent

Land & Water

Water saving strategies
Green spaces and parks

Waste & Materials

Waste prevention
Curbside composting

Energy

Energy efficiency
Renewable energy

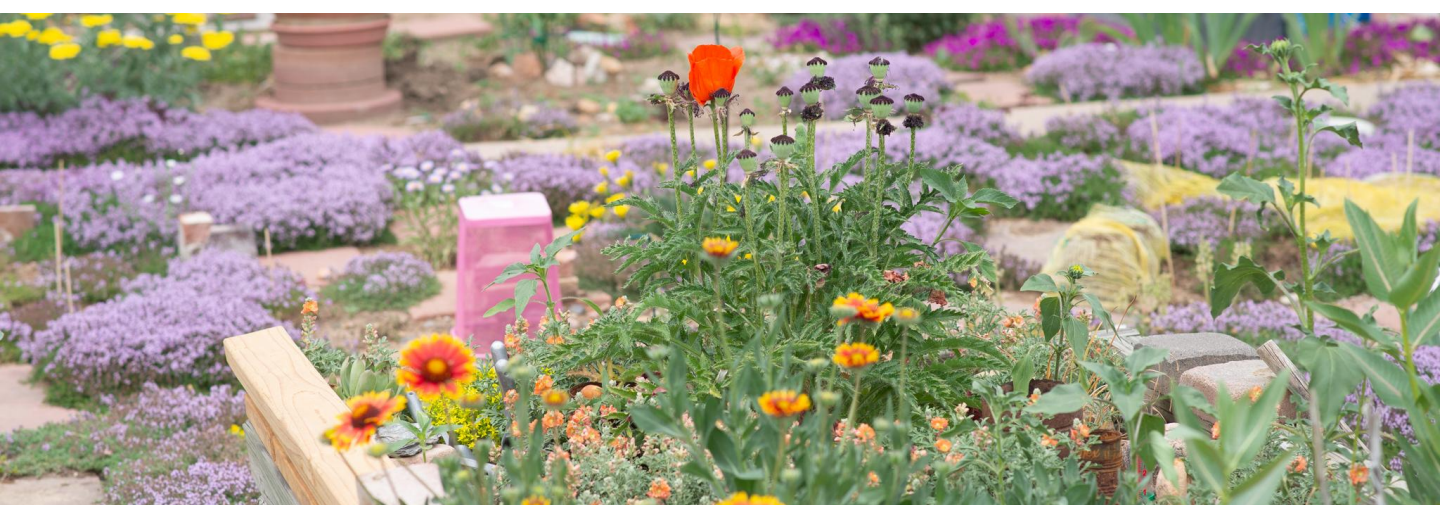
Social Vibrancy

Walkable neighborhoods
Supporting local businesses

Land & Water

First Goal: Save and protect our water for current and future residents.

- Expand the mulching program to include residents; educate & encourage residents to keep ground mulched as a way to save water and money.
- Establish water audit program for businesses and homes.
- Encourage water saving strategies through outreach and classes in xeriscaping, mulching, and drip irrigation to reduce potable and non-potable water use; track with Denver Water statistics.
- Hold workshops and classes on home rain barrel construction and use.
- Hold workshops and classes with a grey water system expert to educate and strategize for grey water use by residents and businesses.



Second Goal: Create, protect and sustain a robust natural ecosystem for a healthy community and its residents.

- Expand the tree program in Edgewater; track the increase/decrease by counting number of trees planted verses the number cut down and track the canopy cover.
- Reduce the amount of chemical pesticide and fertilizers used; track this by observing a reduction in purchase/use by City staff; educate the public on alternatives and reasons for removal of harmful toxins from our environment.
- Plant rain gardens in runoff areas in public spaces to use the rain in place, and reduce runoff damage.
- Expand edible gardens and create a food forest on public property to help educate the residents and create a local food initiative.
- Create a healthy, thriving local food and cottage services economy by educating & encouraging our residents to grow and make their own food and goods.

Waste & Materials

First Goal: Increase residential waste diversion from 17% to national average of 34% by 2025 and to 60% by 2030

- By 2020, conduct waste audit to better understand what is in our residential waste stream.
- In 2020, incorporate curbside composting services into the new residential hauling contract. To assess all options, seek proposals for composting embedded in contract for landfill and recycling services, as well as stand-alone composting service.
- Inquire about providing recycling and composting services to multi-family dwellings, as part of the new hauling contract process and as stand-alone services.



Second Goal: Develop a plan to reduce commercial waste.

- Explore waste reduction strategies for single use bag fees, straws, utensils and food containers.
- Research how other communities implemented fee-based waste reduction programs being mindful of economic impact of fees, particularly for lower income residents.
- Research the recently passed Front Range Waste Diversion Enterprise Grant Program, which provides funding for Front Range municipalities to reduce waste.
- Include commitment to waste reduction with each business license renewal every year.
- Create a pilot business composting program with the hope of expanding business composting in the future.
- Research construction & demolition recycling by measuring the impact of this stream in Edgewater. Benchmark other communities' efforts in this space. Engage and educate contractors on this issue; develop a pilot to gather data and feedback.

Third Goal: Develop a plan to reduce public sector waste.

- By 2020, provide recycling, composting, and landfill disposal options at the Civic Center. Develop helpful signage and train all staff. Achieve zero waste at the Civic Center.
- By 2022, provide recycling, composting, and landfill disposal options at all permitted events.
- By 2025, require zero waste efforts for all event vendors.
- Research providing additional recycling and compost bins in public spaces, taking into consideration that contamination could be a concern.
- Work with Edgewater schools to assist in improving recycling and composting at schools.

Over 76% of survey respondents would pay at least \$5 per month for curbside composting.

Energy

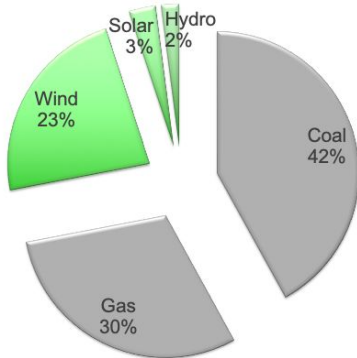
First Goal: Increase energy efficiency opportunities for homes, businesses, government and transportation.

- Encourage and track energy audits.
- Implement an LED swapping program, including street lights.
- Develop a policy to automatically update building codes with no more than a three year lag.
- Leverage rebate and discount energy efficiency programs for homes, businesses and efficient vehicles.
- Publicize Edgewater efficiency data monthly or annually through outreach channels.
- Develop benchmark for all commercial properties with the help of ENERGY STAR Portfolio Manager.
- Join Xcel's PIE (Partners in Energy) program to take advantage of their free offerings to implement tailored energy strategies for our community.



“Opt in for renewable energy sources for powering the civic center”
- Survey respondent

Second Goal: Increase the use of clean renewable energy from the current 28% level to 40% by 2025, 70% by 2030 and 100% by 2035.



- Develop policies to support City led solar installations.
- Establish Edgewater solar group-buy program to ease the purchase of community solar.
- Streamline permitting for solar systems and electric vehicle charge controllers.
- Publicize Xcel renewable energy programs.
- Be designated as a Department of Energy SolSmart City by removing obstacles to solar energy development.

edgewater | CIVIC CENTER



Social Vibrancy

First Goal: Facilitate the expansion of small businesses to foster a culture of economic, social and environmental success for all parties.

- Work with the Edgewater Redevelopment Authority and staff to map out and track key economic corridors, business segments, and licenses.
- Establish a Green Business Program wherein businesses can have a shared pool of optional resources such as composting and green infrastructure upgrades, and to share sustainable business practices.
- Evaluate fees from the City that may have a disparate impact on low-income residents and small businesses.
- Increase transportation safety and accessibility to encourage buying local products and services.



Second Goal: Expand communication and outreach to better engage the community.



- Increase City communication to residents and businesses through multiple platforms.
- Establish and implement a communication strategy for new residents and homeowners. Include a welcome packet for new residents and a comprehensive calendar for continuing residents in order to serve as a relevant portal for civic engagement.
- Continue to drive community engagement through block parties and community events.
- Prioritize sustainable education presence at relevant community events.
- Reach out to community groups to increase engagement with residents, businesses and community members.¹⁷

Did you know?
When a community is more walkable, local, small businesses are more likely to thrive.

Outreach and Education

Residents in Edgewater are eager to participate. Engaging those motivated will support our success. While evaluating sustainability in Edgewater, it became apparent there are opportunities being missed by the community and new possibilities to be promoted.

Several methods for outreach overlap all four categories as we seek to encourage and educate the community on sustainable opportunities, often with the City's assistance. Community volunteers, experts and a potential future board will be critical for the implementation of the majority of these suggestions.



“Engage the people of the neighborhood”
- Survey Respondent



There are existing platforms, including the Town Cryer, NextDoor, Edgewater Echo, and mailers, especially within the City water and waste bill, that could be expanded upon and better utilized. City events are an excellent opportunity for a Sustainability Board's presence to educate and share information about programs and opportunities. The Neighborhood Gazette or other outlets could have a Sustainability Column, written by volunteer resident experts and Sustainability Board members.

In addition, the City website could offer a dedicated Sustainability page to be the digital home for environmental data, opportunities residents can take advantage of and up to date information on ways the City is leading in sustainability efforts. Events such as the Sustainability open house, talks, seminars, tours, and contests can also stimulate community engagement and dialogue between stakeholders.

Outreach in Each Category

In addition to the ways that sustainability can be shared broadly within the community, each category has unique strategies for further engagement as well:

For **Land & Water**,

tours of organic gardens, yards with rainbarrels, homes with greywater, and xeriscape yards would be helpful to share how others live sustainably in our neighborhoods. A booklet or online resource of local cottage foods and a place to share best practices could help revitalize traditional methods such as mulch gardening, canning, and crafting food and resources from scratch.



For **Waste & Materials**,

it would be beneficial to create a program to identify, recognize, and promote “waste diversion champions” as a way to inspire and model behavior for others. Developing a formal platform to promote the sharing economy would help residents borrow large items from each other to save both money and resources.



“A Sustainable Edgewater... Learns what is & what isn't recyclable.”
- Resident, **Jeannette Papp**



For **Energy**, publicizing information from Xcel about the City's energy use, renewable energy data for Edgewater and daily air quality reports could better inform residents on our actual use, ways to help and the need to improve. Sharing ways to save energy through rebate or discount programs, how to join Xcel's renewable energy programs, sign up for community solar programs, and how to set up an energy home audit are all opportunities that many of our residents are not aware could help them save money and will put less strain on finite energy.

“...it'd be great if there was hands-on education about energy and water systems...” - Survey respondent



Social Vibrancy sets the goal for the overall need to have a stronger communications program within the City operations. Detailed in the second goal in this category are actionable tasks to further outreach and the expansion of existing communication programs. Having a presence at community events to promote opportunities will also allow residents to sign up for classes, email lists, volunteer to lead classes and discuss City programs.

Conclusion

This Plan creates a framework for future success with community led goals, identifying quick wins, and developing key partnerships. This requires the support and collaboration of existing and new stakeholder groups to be successful in each category. Stakeholders and collaborations change from category to category and project to project.

Throughout this process, the Committee focused on leveraging existing partnerships with City Council, City staff, Edgewater schools, community members, non-profit groups, the Edgewater Business Association, and neighboring jurisdictions including Lakewood, Wheat Ridge, Golden, and Arvada.

In addition to these collaborations, for our community to transition from this Plan into action, all community members, regardless of income level, ethnicity, political affiliation or group of identification, must be welcome and able to participate in reaching the goals.

There will be power in numbers when it comes to developing grants, programs, and policies with key partners and for the benefit of all community members. A future Sustainability Board will be tasked with expanding all of these relationships and keeping stakeholders focused on achieving community led goals and actions. Most importantly as this is a community led initiative continuing to focus on involvement, including the entire community, will be crucial to the future success of this Plan.



Over 60% of survey respondents want Edgewater to set an example to other communities through our sustainability efforts.



The Committee's final recommendation is to create a Sustainability Board to lead the following:

- Evaluate, refine and report annually on the Sustainability Plan
- Implement goals and actions
- Develop outreach and education strategies
- Publicize City sustainability data
- Work with neighboring cities and organizations for the benefit and inclusion of all community members

In conclusion, with these recommendations this inaugural Sustainability Plan is simply the next step on a journey that will evolve with the City of Edgewater. The formation of a permanent Sustainability Board will ensure this Plan will become a living document as a group of nominated citizens move each actionable step forward with considerations for changes that will be inevitable in the future.

As ecosystems degrade, climate patterns shift and our basic necessities, such as air quality, reach dangerous levels, the time to act is now. While individuals can change behavior voluntarily in their daily lives, when a community comes together, motivation to make small, consistent and actionable changes accelerates. When the City leads by example, residents and businesses will proudly work to make our community more sustainable. We are in this together.



Resources

City of Edgewater, Colorado 2017 Inventory of Community and Government Operations Greenhouse Gas Emissions. Produced by Melissa Baldrige with assistance from ICLEI.

ICLEI <http://icleiusa.org/>

The Footprint Blog, Retrieved May 3, 2019,
<https://www.terrapass.com/one-ton-carbon-emissions-look-like>

Edgewater Energy Data
https://www.xcelenergy.com/working_with_us/municipalities/community_energy_reports

Republic Waste, monthly waste diversion data, Edgewater City Records.

The changing hail threat over North America in response to anthropogenic climate change by Brimelow, Burrows and Hanesiak published in *Nature Climate Change*, vol. 7, p516-523, 2017.