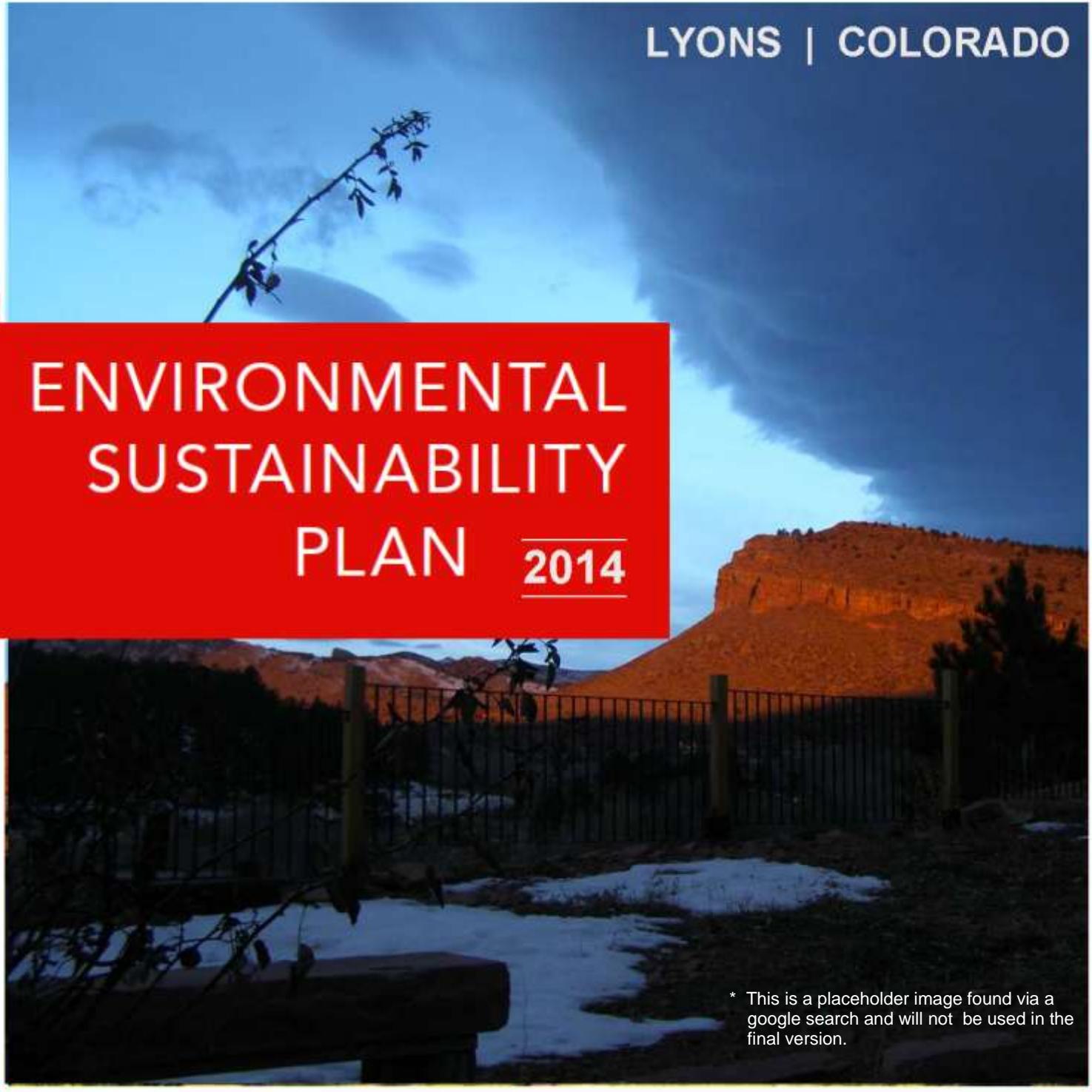


LYONS | COLORADO



# ENVIRONMENTAL SUSTAINABILITY PLAN 2014

\* This is a placeholder image found via a google search and will not be used in the final version.

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## WELCOME

The Town of Lyons, Colorado is a small and dynamic community at the edge of Boulder County. Lyons is where the plains meet the Rocky Mountains, where historic tradition meets entrepreneurial innovation, where hard work meets celebration, and where adventure meets relaxation. Lyons is a truly special place to live and it embraces visitors with open arms inviting them to enjoy all the things that make the community great from the wide range of dining options, diverse shops, and world class music, to its abundant parks and open space.

Lyons' unique style and can-do attitude spreads even to its civic process. In addition to a very capable town staff and elected Board of Trustees there are several volunteer bodies that guide and mobilize an involved and active population.

In a survey to Lyons residents not one single respondent said that sustainability was not important, moreover everyone involved in providing feedback on the initial recommendations contributed their own valuable insights and ideas. The purpose of this plan has been to capture the most relevant and impactful ideas, look for synergies, and prioritize recommendations for the town and its active residents in order to build a sustainable community.

In implementing this plan the community of Lyons shows an intrinsic desire to support and sustain the environment in which they live while simultaneously supporting its people, values, and economy. Furthermore, the enthusiasm generated around this plan in the wake of the devastating 2013 flood was inspiring and this plan can be credited to all of those involved.

Welcome to the Lyons Environmental Sustainability Action Plan!

## HOW THE PLAN WAS CREATED

In August of 2013 the Town of Lyons hired Natural Capitalism Solutions (NCS), a Hygiene based non-profit (paid in part by a Boulder County grant) to support the creation of an Environmental Sustainability Plan. This effort was focused primarily on creating environmental recommendations for Lyons—social and economic sustainable practices are not included in this plan.

In September of 2013 a 500-year flood tore through the town of Lyons and everything changed; problems became more severe and focus shifted to flood recovery. After the completion of the long-term flood recovery plan NCS got back to work on the Lyons Sustainability Plan. The plan's scope was expanded to address the town's need for resilient and sustainable solutions in the aftermath of the flood.

The recommendations contained within The Lyons Environmental Sustainability Action Plan were drawn from several sources including:

- **The Comprehensive Plan:** In 2010 Lyons updated their comprehensive plan and, unlike many small towns, actively used it to help prioritize and guide decision-making. There are many references to the town's environmental aspirations and detailed sustainability goals and actions incorporated into this plan. To view the comprehensive plan visit [www.TownofLyons.com](http://www.TownofLyons.com)
- **The Recovery Plan:** Three months after the 2013 September floods Lyons conducted an intense community planning process. Hundreds of citizens engaged in the process to develop and refine objectives and project ideas. There was a strong focus on resilience and sustainability in the recovery plan and elements were transferred over to this plan. To view the recovery plan visit [www.LyonsRecovery.com](http://www.LyonsRecovery.com)
- **Sustainability Survey:** In September 2013 and again in June 2014, NCS, on behalf of the Town of Lyons, created a survey for the town residents. The summary of these surveys was evaluated, and the insights gained have been incorporated into the creation of this plan. To view the results and analysis of this survey visit [www.LyonsSustainability.com](http://www.LyonsSustainability.com)
- **Best Sustainability Practices Report:** As part of this process NCS created a report summarizing the environmental commitments and actions of 14 leading communities across the country. The goal of this report was to highlight key takeaways that could feed directly into this sustainability plan. To view the best practices report visit [www.LyonsSustainability.com](http://www.LyonsSustainability.com)

- **Group and Individual Stakeholder Meetings:** NCS met with working groups in the following areas: business, planning, utilities, transit, and agriculture. The projects advisory team identified members of these groups as well as individuals to meet with. NCS held over 20 individual meetings over the course of three months.
- **River Corridor Action Plan:** After the flood the Lyons' Ecology Board engaged with multiple stakeholders to create The Sustainable River Corridor Action Plan, which provides a vision for sustainably rebuilding the Lyons river corridor. Many of their recommendations have been rolled into the ecology section of this plan. To view the river corridor action plan visit [www.LyonsRecovery.com](http://www.LyonsRecovery.com)
- **Boulder County Sustainability Plan:** When resources are limited it is important to integrate with other local efforts. Boulder County's Environmental Sustainability Plan was not only a great inspiration it, along with support from County staff, helped ensure that we were utilizing existing efforts and resources available to Lyons. In addition some of the goals in this plan align to the County's goals. To view the Boulder County's sustainability plan visit [www.BoulderCounty.org](http://www.BoulderCounty.org)
- **STAR Community Rating System:** The STAR Community Rating System (STAR) is the first national certification program to recognize sustainable communities. The Lyons Environmental Sustainability Action Plan was built in such a way that it will allow Lyons to easily attain STARS certification in the future. STAR has also worked with communities and national experts to document best practices for a sustainable community—many of their goals and recommendations were incorporated into Lyons' plan. To view the STAR Community Rating System visit [www.StarCommunities.org](http://www.StarCommunities.org)

Multiple other stakeholders were involved in helping to support and guide the process:

- **Advisory Committee:** NCS met regularly with an advisory committee consisting of the steering committee chair (Kathy Carol), town staff lead (Jeremy Matsen) and Boulder County liaison (David Hatchimonji).
- **Steering Committee:** NCS met with key liaisons from different commissions to guide the beginning process and review the draft plan before it was finalized.
- **Sustainable Futures Commission (SFC):** NCS attended most of the SFC monthly meetings to provide updates on the plan and gain insights from its members.

## BUILT ENVIRONMENT

The Town of Lyons is a highly desirable place to live. It manages to succeed in the delicate balancing act of retaining the families that have been here for generations while also attracting new people to take an active role in the community and embrace its culture. Lyons provides a family friendly environment where people like to work hard and play hard. Due to its unique geography, being surrounded on three sides by mountains and open space, Lyons is limited in how much it can expand, putting real estate at a premium. The town offers a mixed housing stock that includes single-family homes, townhouses, multi-unit apartment buildings, mobile homes, and cooperative housing.

In both of the towns major planning documents, the *Comprehensive Plan* and *Recovery Plan*, the community has highlighted the importance of developing in a way that promotes stable, sustainable and diverse neighborhoods.

### **Flood Impact:**

With more than 20 percent of homes damaged or destroyed in the flood, lack of replacement housing is one of the larger issues confronting the town of Lyons. Limited developable land and the disproportionate number of affordable homes lost to the flood have created massive difficulties around sourcing funds and identifying sites for new development.

### **Opportunities:**

While the solutions presented in this plan do not intend to address the complex challenges of replacement housing they do highlight some best practices to ensure that as Lyons rebuilds, it does so in a way that is resilient to the next flood, minimizes environmental impact, and decreases utility overheads for residents and business owners. In addition, there are recommendations in this plan to help reduce the impact of the built environment on the community and nature. These recommendations include updating residential and commercial building codes, and supporting developments that have a positive social impact on the community.

## Goals:

- Promote safe, stable, diverse neighborhoods throughout Lyons that provide a range of housing options and link residents to destinations to learn, work, shop and recreate
- Move toward net-zero energy use in all new buildings
- Promote energy efficiency in new and existing buildings

## Recommendations:

**Bu-1:** Create working group to draft a plan to update residential and commercial building standards to incorporate criteria in most recent building codes, and third-party green home/business certifications (eg. LEED, EnergyStar) ensuring that new and renovated buildings are more water and energy efficient, and to identify and address challenges for building in floodplains/hazardous zones.

*Score: 7.2 | Priority: First Wave*

**Bu-2:** Support the creation of a hotel to accommodate visitors and encourage alternative uses such as events, education, music, and arts. Ensure building conforms to a minimum of LEED Silver standards.

*Score: 6.7 | Priority: As Appropriate*

**Bu-3:** Encourage denser housing (more homes per acre) near the center of Town and other amenities. Promote mixed-use development such as live/work.

*Score: 6.7 | Priority: First Wave*

**Bu-4:** Support the creation of a library space for events and education and encourage alternative uses such as music, and arts. Ensure building conforms to standards set out by the Building Codes working group addressed in Bu-1.

*Score: 6.5 | Priority: First Wave*

**Bu-5:** Renovate local government buildings to improve energy and water efficiency. Add solar when feasible. Consider LEED certification whenever possible.

*Score: 6.4 | Priority: Second Wave*

**Bu-6a:** Create working group to consider updating commercial building permitting to require new buildings to conform to standards set out by the Building Codes working group addressed in Bu-1.

*Score: 5.6 | Priority: First Wave*

**Bu-6b:** Ensure any new town building/facilities conform to standards set out by the Building Codes working group addressed in Bu-1.

*Score: 6.7 | Priority: Second Wave*

**Bu-7:** Conduct solution based education and outreach activities to raise awareness about light pollution.

*Score: 4.1 | Priority: Second Wave*

**Bu-8:** Establish a program to identify and eliminate existing sources of light and noise pollution coming from municipally owned entities.

*Score: 3.7 | Priority: Second Wave*

**Case Study:**

To increase the availability of affordable housing in Lyons, without a large capital investment in new infrastructure the town passed the Accessory Dwelling Unit Ordinance in April 2014. This ordinance allows homeowners to rent out their extra living space.

Newly designated living spaces must meet specified requirements to ensure that they are acceptable as a separate living space for a new resident in the building. By supporting solutions that address the constraint on new housing construction, Lyons can reduce its environmental footprint by maximizing the space within existing properties.

The ordinance has the added benefit of creating a close-knit town with greater neighbor and community interactions.

## ENERGY

Lyons' has had a long and personal relationship with energy and energy production. The current Town Hall building was originally created to house diesel generators. Now the town manages its own municipal electricity utility from that same building, sourcing its power from the Municipal Energy Agency of Nebraska. While Lyons' energy mix is much cleaner than the days of the diesel generators, with 5 percent coming from wind and 8 percent from hydro, the majority of its energy (77 percent) comes from coal. Producing energy with coal causes a plethora of environmental issues including: air pollution; intensive water use and pollution; and greenhouse gas emissions that contribute to global warming.

### **Flood Recovery:**

The 2013 flood exposed the vulnerability of Lyons energy supply when the river tore through electric and gas lines causing massive amounts of damage. The town and their partners made herculean efforts to get them back online within two months but the sheer magnitude of damage to the town's utilities was humbling. The sustainability survey was sent out before and after the flood. Energy was one of two topics that residents viewed as more important after the flood—highlighting how the flood has brought sustainability and resiliency to the forefront of the conversation about energy.

### **Opportunities:**

As Lyons runs its own municipal energy utility it has the opportunity to think more creatively in terms of its energy supply. Lyons has the opportunity to create local renewable energy solutions that supplement our existing energy supply and would make Lyons more resilient to future disasters. Finding the right partners and funding for these kinds of solutions is vital. In addition to energy production, addressing efficiency is an effective way to cut the town's energy use and save residents and businesses money.

**Goals:**

- Increase the use of clean energy and transition away from fossil fuels
- Improve energy and water efficiency of the community's residential, commercial, and institutional building stock

**Recommendations:**

**En-1a:** Conduct a feasibility study for an applicable renewable solution(s) (e.g. micro-grid/distributed generation) that could provide power for the town and offset peak loads.

*Score: 8.3 | Priority: First Wave*

**En-1b:** When conducting a feasibility study for renewable solutions consider solar hubs/gardens on each "island" of town that feed into the grid and could be easily converted to charging stations during a future disaster.

*Score: 8.0 | Priority: As Appropriate*

**En-2:** If evaluating new energy providers maximize renewable energy and efficiency rebates find ways to increase sub-metering, resources and incentives.

*Score: 7.2 | Priority: As Appropriate*

**En-3a:** Create a list of the energy efficiency resources and incentives available to residents and businesses through existing partners. Identify gaps and consider supplementing programs directly or through partnerships.

*Score: 7.1 | Priority: First Wave*

**En-3b:** Create a public education campaign to inform residents and businesses about efficiency and renewable programs.

*Score: 7.3 | Priority: Second Wave*

**En-4:** Develop training programs for town staff on energy and water efficiency techniques.

*Score: 7.0 | Priority: First Wave*

**En-5:** Consider updating asset management & maintenance systems to a GIS solution.

*Score: 6.2 | Priority: Second Wave*

**En-6:** Following the main street lighting project seek funding to retrofit other city-operated lights to incorporate more efficient technologies.

*Score: 5.2 | Priority: Second Wave*

### **Case Study:**

In order to encourage local energy generation and reduce energy demands of community residents, the Town of Lyons passed a net-metering ordinance in 2013, which outlines community payback for residential and commercial energy generation. If a resident or non-residential entity generates their own electricity, they may install a net-metering system. A net metering system tells the energy consumer their net energy use at the end of the month. If a consumer's net energy use is negative, meaning they produced more energy than they consumed, the town will credit against future electric bills one kWh for each kWh generated above the customer's consumption. The monthly credits accrue throughout the year. At the end of the year, if the balance is still negative, the customer will be reimbursed at a rate pre-determined in January of that year. The payback for net metering is a simple process and allows for residents to earn money back for generating electricity, money that can then be re-circulated into the local economy. The net-metering system is a sustainability success in the Town of Lyons transitioning the local energy supply toward renewable energy sources, one of the goals spelled out in this sustainability plan.

## WATER USE & WASTEWATER

As a part of the St. Vrain watershed, the water Lyons receives impacts many communities. Responsible use of water the town has access to and protecting that water from storm-water runoff, non-point source pollution, and human septic waste will allow for communities in the lower part of the watershed to enjoy the same water quality that Lyons does.

In the sustainability survey, residents ranked water use as a high priority. This was in part because of the relatively high price of water but also because the Lyons community understands the value of protecting and conserving water for both ecological and human health.

### **Flood Impact:**

The flood had a large impact on all areas of the town's water and wastewater infrastructure. Pipes were ripped apart and the water treatment facility was badly damaged. During months following the flood, while all Lyons residents were evacuated, the already aging sewage treatment plant was repaired and temporary pipes were laid.

### **Opportunities:**

Fortunately a new wastewater treatment plant has been in development since 2009 and broke ground in the summer of 2014. This new facility is expected to cut operating costs by 40 percent, ensure a higher standard of water quality and reduce odor. There is momentum to create a natural living system component to the new plant to convert the end product into compost that can be used to promote local food and agriculture.

Water efficiency improvements suggested in this plan include looking at reducing system wide leaks, identifying efficiency opportunities, and educating the public on how they can protect and conserve the town's water. Finally, Lyons needs to implement green infrastructure solutions that reduces the demands on storm water systems by capturing and utilizing the rain where it lands.

**Goals:**

- Expand water conservation education efforts
- Provide a clean, efficient and secure wastewater treatment facility
- Design and maintain a network of green infrastructure features

**Recommendations:**

**Ww-1:** Manage and upgrade infrastructure to reduce leaks and infiltration in the system and minimize contaminants.

*Score: 7.7 | Priority: First Wave*

**Ww-2a:** Document existing water efficiency tools, resources and incentives for residents and businesses and identify new opportunities. Consider supplementing programs directly or through partnerships.

*Score: 6.0 | Priority: First Wave*

**Ww-2b:** Conduct solution based education and outreach activities to raise awareness about efficient residential water use.

*Score: 6.6 | Priority: Second Wave*

**Ww-3a:** Seek funding to incorporate a natural wastewater treatment component into the new wastewater facility that treats the end product and turns it into useful byproducts.

*Score: 5.6 | Priority: First Wave*

**Ww-3b:** Incorporate a natural wastewater treatment component into the new wastewater facility that treats the end product and turns it into useful byproducts.

*Score: 5.6 | Priority: Second Wave*

**Ww-4:** Investigate non-potable irrigation solutions to reduce reliance on treated water.

*Score: 5.1 | Priority: Second Wave*

**Ww-5:** Create a community-wide green infrastructure plan to capture and infiltrate rain where it falls, thus reducing storm water runoff. Including but not limited to practices such as rain gardens, bioretention, vegetated/dry swales and green roofs.

*Score: 4.6 | Priority: Second Wave*

**Ww-6:** When investing in new storm water infrastructure prioritize green infrastructure practices over traditional methods. Where possible and commercially practical, create demonstration projects to enhance public support.

*Score: 4.6 | Priority: As Appropriate*

**Ww-7:** Consider permeable and high recycled content pavement for new parking lots, roads and repairs.

*Score: 4.3 | Priority: As Appropriate*

## WASTE

Lyons' intimate relationship with natural beauty is in direct opposition to sending commercial and residential waste to a landfill. Around 2010, the Town of Lyons adopted a Zero Waste Resolution. Zero Waste practices have been adopted by several high-profile community entities including Planet Bluegrass, the Lyons Chamber of Commerce, the Lyons Dairy Bar and the Stone Cup. The Parks Department recently procured Zero Waste stations and is beginning to focus on Zero Waste at Town Events.

### **Flood Recovery:**

Large sections of the town infrastructure were destroyed in the flood, including the town public works building and surrounding land. This area had traditionally been used for yearly spring cleanups for trash, recycle, yard waste, appliances, and E-scrap.

### **Opportunities:**

While Lyons has made progress in the area of Resource Recovery and Conservation there is a lot of room for improvement. Before moving too far down any particular path it is important to first identify the largest inefficiencies in the waste stream and develop tangible waste reduction goals.

Major areas that must be addressed include reinstituting yard waste collection, expanding the recycling facilities, and creating solutions for individual, commercial, and community composting. In addition to this, providing education and outreach to the community about what waste can be recycled and composted will generate increased public participation in the zero-waste goals. Finally, the town itself does not have a policy, nor does it practice, consistent strategies relative to internal waste diversion—the town needs to be perceived as a leader in this area to encourage broader buy in.

**Goals:**

- Reduce the amount of solid waste sent to landfills
- Support recycling and composting programs
- Strive towards zero waste and manage resources responsibly and effectively

**Recommendations:**

**Wa-1a:** Identify sources, components and volumes of residential, commercial and municipal waste streams.

*Score: 5.7 | Priority: First Wave*

**Wa-1b:** Set reduction/diversion goals and identify policy and program opportunities to support those goals

*Score: 6.1 | Priority: First Wave*

**Wa-2:** Re-institute community yard waste collection.

*Score: 6.6 | Priority: First Wave*

**Wa-3:** Continue and expand public space recycling.

*Score: 5.7 | Priority: Second Wave*

**Wa-4:** Identify and support opportunities for individual, commercial and community composting

*Score: 5.7 | Priority: Second Wave*

**Wa-5:** Explore ways to implement the zero-waste resolution for events held on Town property

*Score: 5.1 | Priority: First Wave*

**Wa-6:** Encourage Town government to lead and be a model in waste reduction by increasing diversion at Town facilities.

*Score: 4.7 | Priority: First Wave*

**Wa-7:** Educate and increase public awareness of locally available waste diversion and conservation resources.

*Score: 4.7 | Priority: Second Wave*

**Case Study:**

In 2014, the Town of Lyons hosted the annual Outdoor Games. For the first time ever, with the help of numerous sponsors, they were able to make the event zero-waste. Zero-waste is a long-term sustainability goal for the town. This was the first step to making sure large-scale events held in Lyons will not impact the waste diversion goals set by the town. CAN'd Aid Foundation partnered with the Town of Lyons to donate Zero Hero recycling stations for Lyons' events. They also supplied guidance to implement a recycling program for the Outdoor Games.

## PARKS & OPEN SPACE

The Town of Lyons has 110 acres of open space and 87 acres of recreational park space serving its 2,000 residents. This means Lyons has more parks and open space land per capita than any other town in Colorado! Lyons' parks, trails, recreational areas, and open spaces have been considered treasures for our residents and visitors alike. The park system is critical to the Lyons community, attracting thousands of visitors to Lyons each season and stimulating the local economy.

Parks and open space are extremely important to the residents of Lyons. In the sustainability survey, residents ranked open space management as the second most important priority for this sustainability plan.

### **Flood Impact:**

Meadow and Bohn Park were popular destinations for residents and visitors prior to the flood. Both of these parks were destroyed in the flood and the overall damages to Lyons' parks and open space totaled approximately \$16 million.

### **Opportunities:**

While the flood has forced the redevelopment of town parks, this has in turn created a unique opportunity to rebuild the right way. This plan highlights some opportunities that, if followed will help Lyons build a healthy, vibrant environment for residents, visitors, and local ecosystems. Increasing the efficiencies of the parks facilities, insuring events meet zero waste standards, and implementing 'leave no trace' practices will further reduce the impact of using the parks.

## Goals:

- Ensure parks are developed in a way that supports local eco-systems
- Increase the connectivity of the parks to provide convenient access for residents throughout the community
- Minimize the impact of park use by incorporating efficiencies and waste reduction strategies

## Recommendations:

**Pa-1:** Develop a trail system along the river corridor and throughout Lyons Parks and Open Space land. Trails should incorporate wayfinding and integrate with the rest of the towns pedestrian and bicycle environment.

*Score: 7.9 | Priority: First Wave*

**Pa-2:** Promote natural ecosystems when restoring and developing parks. Choose balanced solutions that have lowest possible impact while still meeting the needs of residents and generating income to support the maintenance.

*Score: 7.5 | Priority: First Wave*

**Pa-3:** Consider adopting "Pack It In, Pack It Out" or "Leave no trace" as alternatives to providing regular trash services in our parks.

*Score: 7.2 | Priority: First Wave*

**Pa-4:** Incorporating sustainable design such as mixed use and natural barriers into recreational structures and other park amenities.

*Score: 6.8 | Priority: First Wave*

**Pa-5:** Minimize the use of grass and encourage more drought resistant habitat. When necessary ensure water irrigation systems are well maintained and operated in such a way that prevents water loss due to evaporation.

*Score: 6.8 | Priority: First Wave*

**Pa-6:** Participate in and support regional efforts to improve and expand the regional park and trail systems (e.g. Saint Vrain Greenway Project).

*Score: 6.6 | Priority: As Appropriate*

**Pa-7:** Ensure as many as possible of the natural byproducts, from the park and open space restoration and maintenance, are composted or repurposed.

*Score: 6.4 | Priority: First Wave*

**Pa-8:** Ensure park and open space maintenance practices strive to use non-toxic treatments.

*Score: 6.1 | Priority: Second Wave*

## LOCAL FOOD & AGRICULTURE

Lyons has developed a strong relationship with local food. The first Community Supported Agriculture (CSA) in Boulder County opened in 1992 just a few miles from Lyons at Stonebridge Farms. The Farmette provides many educational workshops and also runs a seed library that will help to guarantee future generations have access to the same wide variety of plants as we do today. More and more local businesses are sourcing local ingredients including LOCAL, The Fork, Saint Vrain Market, Spirit Hound Distillery, Steamboat Mountain Natural Food, and The Stone Cup. In addition farm-to-table catering solutions are becoming commonplace at weddings and events.

### **Flood Recovery:**

Fortunately, the 2013 flood hit at the end of the growing season and the impacts on local agricultural producers was not as dramatic as it could have been. The flood did wreck havoc on some of the irrigation ditches throughout town limiting the availability of ditch water to community gardens and other private properties that would have otherwise been land dedicated to growing. In the sustainability survey that was sent out before and after the flood, Local Food and Agriculture was one of two topics that residents viewed as more important post flood—highlighting how residents understand the isolating effects of floodwaters.

### **Opportunities:**

Lyons could learn more from the wonderful agricultural resources it has. This can happen through educational events at farms, the redevelopment of the community gardens, and outreach efforts. If more citizens grow their own food, the community would be more resilient in the case of future flood events.

**Goals:**

- Support locally grown products and maximize the amount of food, fiber and forage that gets used locally
- Expand education and outreach on local food and agriculture

**Recommendations:**

**Ag-1:** Find new location(s) for the community gardens that are accessible to residents.

*Score: 7.3 | Priority: First Wave*

**Ag-2:** Use community gardens to provide a space for education opportunities that demonstrate gardening methods along with what types of plants that are most efficiently grown in the area.

*Score: 6.7 | Priority: Second Wave*

**Ag-3:** Develop outreach and education programs that encourage urban food production. Include information about pesticide/herbicide use that has been associated with bee colony collapse, human health risks and groundwater pollution.

*Score: 6.0 | Priority: Second Wave*

**Ag-4:** Work with HOA's to relax their policies about allowing vegetable gardens, bee keeping and small livestock.

*Score: 7.3 | Priority: Second Wave*

## ECOLOGICAL HEALTH

Lyons prides itself on its relationship with nature. Nestled in the foothills of the Rocky Mountains it is home to a diverse wildlife population and natural habitat. The St. Vrain River, a defining feature of the town provides storm mitigation and flood control as well as vegetation to support aquatic and terrestrial biodiversity, water filtration, and sediment control. The river serves as the water supply for local agriculture and hosts a broad array of human activities such as kayaking, fishing, and bird watching.

Residents understand that Lyons' natural resources make it an attractive place to live and enhance their quality of life. In a survey of the town, ecological health was ranked as the number one priority to address in the sustainability plan.

### **Flood Impact:**

The massive flooding in 2013 caused unimaginable damage along the river corridor and changed the geomorphology of incoming streambeds. The course of the St. Vrain River was altered dramatically in some areas, most critically inside the town limits.

### **Opportunities:**

Determining a final flow path is a crucial first step prior to any restorations and improvements. The wish is to not only restore the river corridor and riparian habitat, but to improve the recreational amenities that bring visitors to Lyons, such as kayaking and fishing. The projects outlined in this plan aim to make river-related infrastructure robust and resilient to future flood events, while sustaining the beautiful natural ecosystem that is vital to the health of the community. In addition to river restoration, revising the invasive species list post flood would be advisable to ensure there are no new threats to the ecosystem.

## Goals:

- Protect, enhance and restore natural ecosystems and cultural landscapes to confer resilience and support clean water and air, food supply, and public safety
- Ensure healthy and vibrant ecosystems that sustain all naturally occurring species, along with our human population

## Recommendations:

**Ec-1:** Designate areas for permanent and temporary (ephemeral) wetlands.

*Score: 7.6 | Priority: First Wave*

**Ec-2:** Re-establish intentional flood plain area to allow for overflow from the river channel during flood events.

*Score: 6.7 | Priority: First Wave*

**Ec-3:** Conserve and enhance the natural habitat along the river.

*Score: 6.7 | Priority: First Wave*

**Ec-4:** Promote healthy aquatic habitat in river restoration.

*Score: 6.4 | Priority: First Wave*

**Ec-5:** Encourage use of natural materials in restoring the river channel.

*Score: 6.2 | Priority: First Wave*

**Ec-6:** Prioritize the preservation of high-value conservation areas. Indicators could include such areas as: distance to rivers and wetland; diversity of flora; presence of threatened species; and unique geologic features.

*Score: 6.1 | Priority: First Wave*

**Ec-7:** Develop a community-monitoring program for species of interest and restoration.

*Score: 6.1 | Priority: Second Wave*

**Ec-8:** Promote the predominant use of native species and xeriscaping techniques for all town-controlled sites especially those in the flood zone.

*Score: 6.1 | Priority: First Wave*

**Ec-9a:** Update invasive species list post flood.

*Score: 5.3 | Priority: Second Wave*

**Ec-9b:** Conduct education and outreach activities to raise awareness about native plants and non-invasive species.

*Score: 6.2 | Priority: Second Wave*

## TRANSPORTATION

Lyons has and always will have a percentage of the population working in the larger hubs of Boulder and Denver. Additionally, there is a high volume of vehicles that drive through Lyons to visit the Rocky Mountain National Park. On a busy summer day in Lyons the impact of vehicles is notable. This is one of the many reasons looking into alternative transportation solutions is important.

As outlined in the Town of Lyons Comprehensive Plan, it is a goal to decrease the average citizen's vehicle miles traveled by increasing community accessibility to public transportation and creating a safer environment for walkers and bikers.

### **Flood Recovery:**

Maybe the most immediate and obvious result of the September flood was learning firsthand the vulnerability of the community's infrastructure to a natural disaster. More than a mile of local roads and alleyways were washed out or damaged, including two town bridges. There is an opportunity while repairing these roadways and bridges to meet some of the transportation goals by adding bike lanes and increasing the walkability.

### **Opportunities:**

Expanding bus services and continuing to offer free bus passes for Lyons residents is one alternative to having commuters driving their own vehicles. By encouraging alternate forms of transportation, like carpooling and car sharing, the Town of Lyons can significantly reduce air pollution, cut its carbon footprint, and create a healthier environment for its citizens.

## Goals:

- Encourage sustainable transportation choices to decrease the single occupancy vehicle (SOV) share of local and regional trips and reduce average vehicle miles travelled
- Maintain and create new infrastructure that supports healthy, active lifestyles for Lyons residents

**Tr-1:** Improve the pedestrian and bicycle environment throughout town. Look into way-finding systems and/or creating connectivity plan as part of the solution.

*Score: 8.6 | Priority: Second Wave*

**Tr-2:** Find ways to increase ridership on the Y service and reinstate and promote the summer shuttle.

*Score: 7.9 | Priority: First Wave*

**Tr-3:** Actively pursue opportunities and partnerships to create an electric vehicle (EV) charging hub(s).

*Score: 6.9 | Priority: Second Wave*

**Tr-4:** Find ways to continue supporting bus passes for Lyons residents to encourage the use public transportation.

*Score: 6.7 | Priority: First Wave*

**Tr-5:** Support any upgrading of communication infrastructure that would improve internet speeds thus allowing telecommuting and small tech firms to operate from town.

*Score: 6.3 | Priority: As Appropriate*

**Tr-6:** Find ways to increase occupancy per vehicle (e.g. car pooling programs, car sharing, etc.)

*Score: 5.4 | Priority: Second Wave*

**Tr-7:** Utilize size appropriate busses for routes with lower ridership until needs determine otherwise.

*Score: 5.1 | Priority: First Wave*

**Tr-8:** Create a public education campaign to inform residents about bus passes. Services and the benefits of combining EV charging with residential solar projects.

*Score: 4.5 | Priority: Second Wave*

**Tr-9:** Reduce the impact of events by identifying and encouraging alternative transportation.

*Score: 4.1 | Priority: Second Wave*

## Case Study:

Since 2011 the Town of Lyons has offered free RTD passes to all Lyons residents. This initiative was funded in part by a grant, and increased ridership so much that RTD created additional services to and from Boulder. RTD has busses that operate throughout Boulder County, as well as services to Denver and Denver International Airport. This program has decreased the amount of single occupancy vehicles travelling to and from Boulder, and continues to be a useful service for low-income residents who need affordable access to public transportation.

## HOW TO USE THIS PLAN: ACTION TABLE

This report is the public facing component of the Lyons Environmental Sustainability Plan and the recommendations made are to act as a guide for the town as it moves forward on its sustainability journey, however, they are by no means set in stone. In order to ensure this plan can be utilized moving forward the *Sustainability Action Table* has been created as a management tool (see *figure 1.1*).

Priority	Score Out of 10	First Wave	Second Wave	Key Approaches	Environment	Town Values	Economic Development	Social	Feasibility	Flood Related	Tactic	Lead(s)	Other Stakeholders
					30%	20%	15%	15%	20%				
<b>BUILT ENVIRONMENT</b>													
1	7.3	II			10	8	8	8	8	Meeting Group	TBD	Jeanne Weston / Bill Joseph Steve Bule / SWEEP / Boulder County	
2	6.7		II		8	8	10	5	4	Influence Existing Efforts	TBD (Sustainable Futures Commission)	Developer / Building codes working group / Economic Development Commission	
3	8.7	II			6	10	4	10	4	II	TBD (Sustainable Futures Commission)	Recovering Housing	
4	6.8	II			4	8	8	10	8	II	TBD (Sustainable Futures Commission)	Library Commission - Building codes working group / Economic Development Commission	
5	8.4	II			8	8	4	8	7	Town Draft	TBD (Draft)		
6	5.6	II			10	10	8	8	8	Meeting Group	TBD	Jeanne Weston / Bill Joseph Steve Bule / SWEEP / Boulder County	

Figure 1

The *Sustainability Action Table* has several different components to help prioritize and manage Lyons Environmental Sustainability Action Plan. This section will look at some of those components.

## Sustainability Weighting:

All sustainability efforts do not have the same priorities. Every organization and institution that embraces sustainability looks at it and prioritizes it through a different lens. While this is an environmental sustainability plan there are several areas that every recommendation can create positive impact in. These areas include: **Environmental**, **Town Values**, **Economic Development**, **Social** and **Feasibility**. In the *Sustainability Action Table* each of these areas have been weighted to reflect their importance (see figure 2).

Figure 2



This weighting was determined by and vetted through at the many stakeholder meetings. This process has created a unique lens for Lyons that can be used by the town to prioritize which measures are most important to them. What is also useful about this approach is that this weighting can be changed as town priorities or leadership change.

## Sustainability Scores:

Every recommendation in the *Sustainability Action Table* gets a score in the five different areas (**Environmental**, **Town Values**, **Economic Development**, **Social** and **Feasibility**).

The points in each area are given based on the level of positive impact the recommendation has in any of the following categories:

Environmental
Reduces Green House Gas Emissions
Reduces Solid Waste
Reduces Water Use
Reduces Pollution / Improves Air Quality
Promotes Ecology

Town Values
Appears in Comprehensive Plan
Appears in Recovery Plan
Came up in LESAP Survey/Interviews

Economic Development
Brings \$'s Into Town
Keeps \$'s In Town
Creates Jobs
Generates Sales Tax

Social
Serves Lyons Residents
Promotes Art / Music / Culture / History
Health & Wellness
Promotes Diversity

Feasibility
-------------

Has a Good Return On Investment
Funding is Available
There is Buy in (Champion / Opposition)
Ease of Implementation

That score in each area is then weighted based on the lens that Lyons created and each recommendation is then given a total score out of ten. The recommendations in the *Sustainability Action Table* are then ranked based on their scores. The recommendations with the most positive impact appear first in each section of the table and those highlighted with bold colored text are the ones that should be prioritized (see figure 3).

Score Out of 10	Environment	Town Values	Economic Development	Social	Feasibility
	30%	20%	15%	15%	20%
<b>7.2</b>	10	8	6	6	6
<b>6.7</b>	8	6	10	5	4
<b>6.7</b>	6	10	4	10	4
<b>6.5</b>	4	6	9	10	6
<b>6.4</b>	8	6	4	5	7
<b>5.6</b>	10	3	2	3	6

Figure 3

These scores are based on the current information available and can, and should change as new opportunities present themselves. For example, if funding becomes available or an opportunity to piggyback off an existing effort occurs then the score in feasibility area should be altered accordingly. This process also creates flexibility and allows new ideas to be submitted and ranked on an ongoing basis.

### Other Headers:

There are other headers in the *Sustainability Action Table* to help provide guidance for the implementation process.

	A	B	C	D	E	F	G			
	Score Out of 10	First Wave	Second Wave	As Appropriate	Tactic	Lead(s)	Other Stakeholders	SFC Liaison	SOURCE	STARS
<b>BUILT ENVIRONMENT</b>										
BB-1 BB-2	7.2	0			Working Group	TBD	Jacque Wilson / Bob Joseph Safe Built / SWEEP / Boulder County	TBD	Com Plan: Environmental Strategy 1.2.1, STAR: CE-5, Best Practices Report: Seattle, Best Practices Report: Nederland	CE-5
BB-3	6.7			0	Influence Existing Elected	TBD (Sustainable Futures Commission)	Developer / Building codes working group / Economic Development Commission	n/a	Stakeholder Meetings	BE-3

**A) Priority Level:** In addition to the overall score the action table also indicates when a recommendation could be implemented. There are three timeframes: “First Wave” indicates a recommendation be started as soon as possible; “Second Wave” is for a recommendation to be considered once there has been progress in other areas; and “As Appropriate” is for projects that are reliant on other factors to take place before it is considered.

**B) Tactic:** Different recommendations need to be implemented using different strategies to be successful. In the table there are six distinct implementation tactics. The next section outlines each of these tactics.

**C) Lead(s):** For every recommendation a lead needs to be identified to champion each initiative.

**D) Other Stakeholders:** In addition to the lead(s) other stakeholders will be involved during planning and implementation of an initiative. Many of the stakeholders have already been included as part of the table but as each initiative is launched the stakeholders should be assessed and revised as necessary.

**E) SFC Liaison:** While many of the recommendations will be led by the SFC there are others that will be lead by other commissions, town staff, or active individuals. In these cases it is recommended that the SFC have a liaison to support the planning and implementation. This ensures that the SFC has maintains a holistic understanding of the progress as it occurs.

**F) Source:** This indicates where a recommendation came from. This is especially relevant if a recommendation relates to an action in the Comprehensive Plan or Recovery Plan.

**G) STARS Indicator:** This column highlights which Community STAR Indicator each recommendation relates to. This will allow Lyons to easily apply for [STARS accreditation](#).

## HOW TO USE THIS PLAN: IMPLEMENTATION TACTICS

No two recommendations are the same but there is a common set of implementation tactics that each of the recommendations should utilize. This section describes each of the implementation tactics.

### **Fundraising:**

Fundraising is an important part of the process because without funds to support capital-intensive initiatives, the town will be unable to reach the goals they have mapped out in this plan. For each recommendation there should be an appointed fundraising lead whose focus is to identify opportunities for funding from foundations or grants, as well as, engage stakeholders in the project to assist in the grant application process. Ideally all fundraising efforts should be conducted in a cohesive way to maximize efforts on creating background and supportive materials. This effort would be most effective if led by a core fundraising team that reported to the SFC.

### **Research:**

Within the plan there are some recommendations that require research before they can move to the implementation phase. Examples of this include the cataloging of existing efficiency rebates and resources available before an education and outreach campaign is launched. This effort would be most effective if lead by a research team that reported to the SFC.

### **Working Groups:**

There are certain recommendations that need the input of several stakeholders. An effective way to do this is to create a working group, which includes all major stakeholders that would be involved in the project. This is important because it gives a comprehensive understanding between all parties on what the objective of the project is. Working groups must have a leader and a clear objective to keep the members of the group focused and working to contribute to the group's goal. It is valuable to establish a timeline of objectives to achieve the goal of the working group, and to hold all members accountable for their individual contributions to ensure progress is always being made. Instituting a working group for sustainability objectives guarantees all parties are actively engaged in implementing the initiatives, and have vested interests in seeing them become a success. Every working group should have a liaison from the SFC.

### **Education and Outreach:**

Education and Outreach efforts should be led and coordinated by the SFC as one of the main pillars moving forward. Using the SFC as the main vein for Education and Outreach efforts will allow them to create a coordinated outreach plan, fully maximizing on economies of scale by combining several educational efforts together and reducing the overall workload. It is imperative for the SFC to identify education and outreach opportunities as they come up, and be proactive in engaging town members and other stakeholders that could contribute expertise to the education efforts. Education and Outreach is a strategy that engages the public in the town's sustainability efforts and encourages them to incorporate sustainability in their day-to-day lives.

### **Town Driven:**

Several of the recommendations in the plan require action from the Town of Lyons such as upgrading infrastructure and incorporating new sustainable systems that reduce the town's environmental impact. In order to enact these recommendations they must be town driven. Without buy in from staff and allocated budget these items will never be achievable. Once this plan is adopted NCS and a liaison from the SFC will conduct several workshops with town staff to educate them on sustainability, the plan, and the process moving forward. These workshops will provide greater insights into which actions will be implemented first and which will need funding before the town can adopt them.

### **Influence Existing Efforts:**

There are several recommendations that are dependent on existing efforts that are not directly associated with sustainability throughout the town. These include things like the construction of a hotel and library or the laying of faster speed Internet infrastructure. These are not items that should be initiated as a result of this plan but if they move forward the SFC should be aware of these projects before they begin in order to ensure that they are meeting the town standards for sustainability

## HOW TO USE THIS PLAN: MANAGING & UPDATING

It is commonplace for plans such as this to quickly lose momentum and sit on a shelf until the next consultant brought in dusts it off. Fortunately, Lyons has a history of bucking this tradition as the staff actively uses their Comprehensive Plan and Recovery Plan. In order to help insure the Lyons Environmental Sustainability Action Plan has the same fortune we recommend:

### **SFC Oversight:**

The SFC, as a volunteer group of citizens, will take an active roll in ensuring this plan stays at the forefront of the town's agenda. In addition, the SFC will not only lead several projects but they will also have liaisons actively involved in each of the projects.

### **Town Staff Management:**

Like the Recovery Plan, the Lyons Environmental Sustainability Action Plan will be most effective if the Town of Lyons has a staff member with time allocated keep it updated and ensuring it is progressing. It would make sense if this staff member were also the liaison to the SFC.

### **Bi-Annual Updates:**

It would be beneficial to set a bi-annual meeting with the SFC, town liaison, board of trustee liaison and NCS to update the table and reprioritize as necessary.

### **Recovery Plan Integration:**

Either the town liaison or a representative from the SFC should attend the Recovery Plan steering committee meetings. This will insure that duplicate efforts are not occurring, and sustainability is being considered throughout the recovery process.