



# ESB

## ENVIRONMENTAL STEWARDSHIP BOARD ENVIRONMENTAL STEWARDSHIP ACTION PLAN



# Environmental Stewardship Action Plan

APRIL 2024

Introduction and Core Values .....	3
Acronyms .....	4
Guide for Interpreting the Impact and Effort Meters .....	4
1.0 Air Quality/Emissions .....	5
1.1 Existing Initiatives.....	5
1.2 Quick Wins.....	6
1.3 Long-Term/Other .....	7
2.0 Built Environment .....	9
2.1 Existing Initiatives.....	9
2.2 Quick Wins.....	9
2.3 Long-Term/Other .....	10
3.0 Consumption and Waste Diversion.....	10
3.1 Existing Initiatives.....	11
3.2 Quick Wins.....	12
3.3 Long-Term/Other .....	12
4.0 Natural Environment.....	13
4.1 Existing Initiatives.....	13
4.2 Quick Wins.....	13
4.3 Long-Term/Other .....	14
5.0 Water .....	15
5.1 Existing Initiatives.....	15
5.2 Quick Wins.....	16
5.3 Long-Term/Other .....	16
6.0 Community.....	18
6.1 Existing Initiatives.....	18
6.2 Quick Wins.....	18
6.3 Long-Term/Other .....	19

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## Introduction and Core Values

On December 20, 2022, Littleton City Council, by unanimous resolution, created the Littleton Environmental Stewardship Board and tasked it with creating this Environmental Stewardship Action Plan. In compiling this Plan, the ESB has considered a number of existing city initiatives. The impact and effort meters for each item reflect the collective intuition of the ESB. For now, budgetary considerations have been left out, but the ESB plans to return to that in detail in the future. The Plan's recommendations are divided into existing initiatives, quick wins, and long-term/other.

The Littleton Environmental Stewardship Board (ESB) believes in addressing climate change and other threats to the ecology consistent with the following core values:

- **Thoughtful Urgency:** Reversing climate change must happen now, and not at the expense of high-quality decision making
- **Equity:** Defined as fair access and lack of race, gender, age, ability, and other hierarchies in all stewardship efforts
- **Good Governance:** Including measurable outcomes, transparency, and robust public input
- **Uniqueness:** Littleton is a unique community with a strong history and set of values around creative stewardship (e.g., creating South Platte Park). Stewardship will continue to be creative and tailored to our unique, remarkable community
- **Collaboration:** City departments must continue communicating with one another, and Littleton must leverage local, regional, state, national, and global partnerships
- **Re-Wilding:** Conservation is not enough; built and managed environments must enhance, not frustrate, natural processes; and wild places must be set aside and enlarged (no matter how small they are today)
- **Thoughtful Consumption:** Stewardship requires avoiding unnecessary resource use and diverting waste
- **Generational Fairness:** We will leave Littleton's environment better than we found it
- **Optimism:** In the face of significant challenges, we embrace solutions and maintain faith in a better future
- **Sacredness:** Nature is sacred, and close community with healthy, intact ecology is necessary for human thriving

Guided by these values, the ESB recommends that City Council take the actions listed below. Our highest priorities are for the city to:

- Complete a GHG inventory and create a climate action plan
- Hire a sustainability coordinator
- Allow the ESB to act as an accountability body for the city's relationship with South Suburban Parks and Recreation Department
- Educate and inform the public about environmental efforts
- Get people out of cars
- Electrify the built environment, transportation, and lawn and garden equipment
- Incentivize water conservation
- Provide every building with recycling and composting options
- Implement community-supported agriculture (e.g. at the Littleton Museum)

## Acronyms

<b>ACC</b> . . . . . Arapahoe Community College	<b>LEDS</b> . . . . . Littleton Engineering Design Standards
<b>CO2</b> . . . . . Carbon Dioxide	<b>LPS</b> . . . . . Littleton Public Schools
<b>CO2e</b> . . . . . Carbon Dioxide Equivalent	<b>MEETS</b> . . . . . The Metered Energy Efficiency Transaction Structure
<b>CSU</b> . . . . . Colorado State University	<b>SPLASH</b> . . . . . Stormwater Permittees for Local Awareness of Stream Health
<b>DDA</b> . . . . . Downtown Development Authority	<b>SSPRD</b> . . . . . South Suburban Parks and Recreation Department
<b>EPA</b> . . . . . Environmental Protection Agency	<b>ULUC</b> . . . . . Unified Land Use Code
<b>EV</b> . . . . . Electric Vehicle	<b>UFMP</b> . . . . . Urban Forestry Management Plan
<b>GHG</b> . . . . . Greenhouse Gas	
<b>GPDP</b> . . . . . General Planned Development Plan	
<b>HDLM</b> . . . Historic Downtown Littleton Merchants	
<b>LBC</b> . . . . . Littleton Business Chamber	

## Guide for Interpreting the Impact and Effort Meters

Impact Meter	
	High Impact
	Medium Impact
	Low Impact
Effort Meter	
	Low Effort
	Medium Effort
	High Effort
FOR EXAMPLE: An action item that is considered high impact and low effort will appear with two green gauges.	
<p><b>Impact</b></p> 	<p><b>Effort</b></p> 

## 1.0 Air Quality/Emissions

Given that 91% of net U.S. greenhouse gas (GHG) emissions are energy-related, our biggest opportunities for decreasing emissions lie in reducing the use of fossil fuels which drive the energy, transportation, industrial, commercial, and residential sectors. Electrification is the largest opportunity for both emissions and air pollution reductions. Despite this, electrification faces friction as fossil fuels have been set up as the default option. The city has numerous avenues it can take to decrease the costs of electrification and support it as the default choice to sustain a more stable climate and reduce health costs related to air pollution.

This section also addresses outdoor and indoor air pollution beyond GHG emissions such as ozone, nitrous oxide, carbon monoxide, and more. Like GHG emissions, most air pollutants come from burning fossil fuels. Therefore, eliminating burning fossil fuels through electrification addresses indoor and outdoor air quality issues which affect community health.



### 1.1 Existing Initiatives

ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
1.1.1	Arapahoe County EV Action Plan	Continue partnering with Arapahoe County on implementing the EV Action Plan.		
1.1.2	The Spring Tree Program and Urban Forestry Master Plan	Trees absorb both CO2 and air pollutants. Maintaining our tree canopy is also a meaningful adaptation measure to climate change as it reduces ambient air temperatures in warm summer months.		
1.1.3	Colorado Plastic Pollution Reduction Act (CPPRA)	Plastics generate GHG emissions at every stage of their lifecycle. Support compliance with CPPRA.		
1.1.4	Transportation Master Plan	Transportation emits more GHGs than other sectors. The multi-modal transportation opportunities in the Transportation Master Plan represent low or no-carbon alternatives to fossil-fueled transportation.  Additionally, the Transportation Master Plan should be updated to consider EV charging infrastructure.		
1.1.5	Solar-ready building codes	Continue implementation of the already-adopted solar-ready provisions of the 2021 International Energy Conservation Code.		

## 1.2 Quick Wins

ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
1.2.1	Greenhouse Gas Inventory	Conduct an audit of sources of GHG emissions. We expect the majority of emissions will come from residential and commercial sources, but it should also measure additional categories outside of energy-related emissions, including biomass burning, non-energy related agriculture emissions, waste emissions, and non-energy related industrial emissions.		
1.2.2	Air Quality Monitoring and Assessment Program	Add air quality monitors within the city to assess baseline pollution levels and sources.		
1.2.3	Climate and Air Quality Action Plan	Building upon the results of the GHG Inventory and air quality monitoring programs, establish a Littleton-specific climate action plan for incrementally reducing, and eventually eliminating, climate emissions and air pollutants. Rewiring America's Pace of Progress tool <sup>1</sup> may help identify interim goals prior to undertaking a climate action plan.		
1.2.4	Electrification Education Program	Train electrification volunteers (e.g. Go Electric Colorado) to educate the public on opportunities and challenges of electrification. Encourage homeowners and landlords to get energy audits and develop electrification plans.		
1.2.5	Xcel Partners in Energy Update	Update the existing Partners in Energy Plan and leverage resources from Xcel to identify opportunities for energy efficiency and electrification.		
1.2.6	Solar Group Buys	Facilitate the purchase and install of solar equipment via combined contracts which reduce costs of equipment and installation through organizations such as Solar United Neighbors.		
1.2.7	City-Sponsored Composting	Bio waste in landfills emits methane. Composting this waste reduces GHG emissions.		
1.2.8	Electrification permitting fast tracking	Reduce time to permit for electrification projects to incentivize use.		
1.2.9	Air sealing and insulation standards for city buildings	Improving air sealing and insulation in existing buildings reduces operating costs in the short-term and reduces the cost of electrification retrofits in the future due to reduced heating/cooling load requirements.		
1.2.10	Electrification trade programs in Littleton Public Schools	Prepare our younger generations for the future with heat pump, solar, electrical, and other training programs which will lead to stable, well-paying careers. See also 2.2.3.		

<sup>1</sup> <https://pop.rewiringamerica.org/?id=0845255>

1.2.11	Remove subsidies for natural gas hookups	The cost of hooking up new homes to natural gas pipelines are subsidized by all users, causing increases to everyone's bills. Remove these subsidies to balance the upfront costs of electric and fossil-fueled building construction projects.		
1.2.12	Adopt the Electric Ready codes by the Colorado Energy Code Board	Enable new home buyers' choice between gas and electric by adopting Electric Ready Building Codes <sup>2</sup> which give the option to easily opt-in to electric. Supporting electric-ready is far cheaper than retrofitting later.		
1.2.13	Lawn and Garden Equipment Emissions Standards	Establish emissions standards for all equipment sold in Littleton. In 2020, lawn and garden equipment in the U.S. emitted more than 21,800 tons of fine particulates – an equivalent amount to the pollution from 234 million typical cars. Most electric lawn and garden equipment is already cost competitive and more reliable than gasoline equipment.		
1.2.14	All-electric city landscaping equipment	Transition all city lawn and garden equipment to electric.		

### 1.3 Long-Term/Other

ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
1.3.1	Consider adopting Colorado Model Low Energy and Carbon code	Consider adopting the model low energy and carbon code which will be developed by a board created by the Colorado Energy Office. This code is expected to be created no later than July 1, 2025.		
1.3.2	Expedite all-electric new building permitting	Faster, easier, and less costly permitting for electric appliances, EV charging, rooftop solar, and all-electric new home builds (which is conducive to the lower impact they have on the community than fossil-fuel equivalents).		
1.3.3	Electrification Appliance Rebate Program	Provide rebates for the installation of electric appliances (e.g. heat pumps, heat pump water heaters). Similar to Denver, this could be funded by a small sales tax increase.		
1.3.4	Multi-modal infrastructure	Transportation is the largest sector of GHG emissions in the country. While EVs can reduce emissions in this sector, it is far more cost effective to support a community which does not require car ownership to participate in daily life. Support multi-modal infrastructure, mixed-use zoning, and a walkable community which has a lower environmental footprint and creates strong communities and sales tax bases. Keep this in mind during the 2025 Transportation Master Plan update.		
1.3.5	Electric School Buses	Upgrade school buses to electric. School buses represent a unique opportunity for fleet electrification as they can be a significant stabilizer to electrical grids during off hours.		

<sup>2</sup> [https://www.energycodes.gov/sites/default/files/2021-10/Residential\\_Electrification.pdf](https://www.energycodes.gov/sites/default/files/2021-10/Residential_Electrification.pdf)

1.3.6	Decommission aging gas infrastructure with electric appliances	Target aging natural gas infrastructure for decommissioning rather than replacement as replacement costs are passed to all customers causing natural gas bills to increase. Support homeowners with financing, group purchasing contracts, and incentives to transition to electric homes. This keeps energy bills stable for customers who remain on natural gas and allows for a paced transition to electric over time. Households may choose to remain on gas when natural gas infrastructure is decommissioned, but they would need to purchase a propane system and fuel to do so.		
1.3.7	The Metered Energy Efficiency Transaction Structure (MEETS)	Energy efficiency is often not prioritized in commercial buildings because long-term gains cannot be realized in a market where ownership changes often. Model a program after MEETS, which incentivizes all parties towards energy efficiency. Additional provisions could be added to support electrification.		
1.3.8	All-electric city fleet	Electric vehicles cost more upfront but have a lower total cost of ownership than their fossil-fueled equivalents. The city can save money by replacing aging city vehicles with electric equivalents.		
1.3.9	All-electric city buildings	Retrofit existing buildings to be all-electric.		
1.3.10	Public EV charging infrastructure	Create more public EV charging infrastructure in the city. Most homeowners will charge their vehicles at home, but many individuals in multi-family units do not have access to home charging. A robust public charging infrastructure allows all to benefit from the electric vehicle transition.		



## 2.0 Built Environment

The built environment (BE) includes buildings, distribution systems, and transportation infrastructure. In addition to the built structures and systems, the BE also includes land uses and land use planning. One of the main controls any municipality has over its future is through its land use decisions.



### 2.1 Existing Initiatives

ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
2.1.1	Follow through with existing planning	Littleton has done extensive past planning that, if carried out, would benefit local environmental sustainability. For example: Comprehensive Plan Sections ENV 4 regarding expanding recycling and composting and ENV 8 regarding stormwater management.		
2.1.2	Enforce Building Codes	Increase enforcement of current and future environmentally friendly building codes.		
2.1.3	Transportation Planning	Continue to implement the Transportation Master Plan with an emphasis on multi-modal forms of transportation.		
2.1.4	Infrastructure Upgrades	Continue upgrades to infrastructure such as stormwater sewers, especially where their failure impacts transportation.		
2.1.5	Land Use Planning	Ensure compliance with stated environmental guidelines within the ULUC. This is particularly important regarding parcels currently undergoing a review process. As the ULUC is revisited, make environmental stewardship a more explicit value of the plan.		

### 2.2 Quick Wins

ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
2.2.1	Building Code Review	Adopt environmentally friendly building codes including Electric Ready and Colorado Model Low Energy and Carbon Code (see Section 1 - Air Quality and Emissions). Example: Reduce required roof setback for solar panels to encourage implementation of solar installations.		
2.2.2	Pedestrian and Bicycle infrastructure around schools	Plan and implement transportation safety initiatives around schools and other high-pedestrian areas.		
2.2.3	Expand workforce and trades for	Work with educational institutions such as LPS and ACC to train a workforce knowledgeable in environmental		

	renewable energy and electrification	stewardship programs (e.g. linespeople, HVAC installers, electricians, etc.).		
2.2.4	Improve stormwater infrastructure upgrades	Upgrading stormwater infrastructure provides opportunities for expanding green infrastructure. Examples exist at Eco Park in Centennial and 39 <sup>th</sup> Avenue Greenway in Denver.		
2.2.5	Sustainability Coordinator	Hire one. Include representatives from the ESC on interview panels. Empower them with resources and strategic partnerships to take action and make measurable impacts. Part of this position will be to directly connect residents and businesses to sustainability resources.		
2.2.6	Adopt Dark Skies Initiative	Adopt Dark Skies standards in city codes to meet needs to see at night, conserve energy, avoid harmful effects on wildlife, and protect views of the night sky. Ensure city models Dark Skies best practices by updating city-controlled lighting infrastructure.		

### 2.3 Long-Term/Other

ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
2.3.1	Get people out of cars and support multi-modal transportation	Land use decisions should encourage walkability, density, and community character.		
2.3.2	Electrify transportation infrastructure	Ensure adequate charging stations and provide resources to assist homeowners in upgrading residential electrical systems to accommodate EV charging. Support implementation of Arapahoe County EV action plan. Refer to item 1.3.10.		
2.3.3	Storm sewer	Complete location maps. Use Denver's green infrastructure guidelines as appropriate.		
2.3.4	Develop programs and resources to retrofit houses	Invest in the city's housing stock to ensure equity in the transition to greener options. Identify grants and strategic partnerships.		
2.3.5	Wildlife Corridors	Work with CDOT to incorporate wildlife corridors on Santa Fe and other highway upgrades.		



### 3.0 Consumption and Waste Diversion

Colorado’s waste diversion rates (recycling and composting) rank significantly below those of other states. The city should measure its existing waste diversion rates and make significant efforts to increase those rates to reduce waste bound for landfills. A significant component of that process should include efforts to reduce consumption of items on the front end that typically end up in landfills. All residents should have access to affordable recycling and composting services.



#### 3.1 Existing Initiatives

ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
3.1.1	Leaf recycling services	Continue seasonal drop off for leaf recycling for several weeks in the fall.		
3.1.2	Christmas tree recycling	Continue free seasonal drop-off for Christmas trees to be turned to mulch.		
3.1.3	Front Range Waste Diversion Grant Program	Follow recommendations in the upcoming waste characterization study.		
3.1.4	Colorado Plastic Pollution Reduction Act (CPPRA)	Support compliance with CPPRA. See also 1.1.3.		
3.1.5	Producer Responsibility Program for Statewide Recycling (PRPSR)	Support compliance with PRPSR.		
3.1.6	Household HazMat Roundup and Electronics Recycling Event	Continue existing program and increase frequency of events. Expand program to include other hard-to-recycle items. Consider public/private partnership (e.g. Ridwell) or incorporating into city services.		

### 3.2 Quick Wins

ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
3.2.1	Study baseline waste, recycling, and composting rates	Determine existing landfill, recycling, and composting rates to set ambitious waste reduction and diversion targets. See also 3.1.3.		
3.2.2	Promote and educate on at-home composting	Partner with organizations (e.g. Colorado State University (CSU) Extension or Eco-Cycle) on seminars and resources to promote and increase the rate of at-home composting for yard waste and food waste.		
3.2.3	Leaf recycling program	Educate community on benefits of mulching in place over disposal and the importance of proper disposal.		

### 3.3 Long-Term/Other

ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
3.3.1	Offer a curbside appliance and mattress recycling program	Work with haulers and the city to implement a curbside appliance, mattress, and other large-item recycling program.		
3.3.2	Study and evaluate potential for "Pay as You Throw" waste program	Evaluate "Pay as You Throw" waste fees to encourage residents to generate less waste.		
3.3.3	Offer an opt-in compost pickup service	Contract with existing waste haulers or compost services (e.g. Compost Colorado) for compost pickups at favorable rates. Fold leaf recycling program into composting program.		
3.3.4	Study, evaluate, and gather bids from waste haulers for a contracted consolidated waste hauling system	Engage a working group to evaluate the feasibility of a consolidated waste hauling program contracted by the city. Ensure inclusion of landfill, recycling, and compost. Potentially partner with Englewood and/or Sheridan to offer regional consolidated contracted hauling options and economies of scale, similar to Denver.		
3.3.5	Require residents and businesses to recycle	Amend the city code to require recycling in addition to waste hauling. Carefully consider the equities associated with the change.		

## 4.0 Natural Environment

Littleton is largely a built-out community, but also has significant amounts of open and natural spaces. Maximizing these areas for habitat, carbon sequestration, natural air filtration, natural water storage and filtration, aesthetic enjoyment, and recreation is necessary for a sustainable Littleton.

4.1 Existing Initiatives				
ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
4.1.1	Urban Forestry Management Plan	Implement and follow the Urban Forestry Master Plan (UFMP).		
4.1.2	Arborist Licensing	Require all tree companies to be licensed and insured to work within the city. Increases safety and standards.		
4.1.3	Emerald Ash Borer Outreach	Treat and/or replace city-maintained trees. Increase community outreach and education. Partnering with neighboring municipalities and Colorado State University (CSU) extension.		

4.2 Quick Wins				
ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
4.2.1	Re-wilding	Leave certain places alone, including leaving dead plant matter such as tree branches (honor the life cycle of the environment/forest). Be creative on limited city-managed open spaces.		
4.2.2	Regionally sustainable plantings in city medians	Design, fund, and landscape, considering the changing climate to allow for long-term vitality.		
4.2.3	Fees and fines to be allocated to "Tree Fund" for equity programs	Target areas, work with finance, training Forestry staff to enforce/receive safe payments. This money comes from the "save the tree/pay for the tree" program.		
4.2.4	Implement turf conversion program for homeowners	Allocate funding and partner with other organizations to offer reduced-cost turf conversion.		

## 4.3 Long-Term/Other

ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
4.3.1	Expand the Ketring Park Natural Area	Reduce turf, increase tree canopy, and improve the health of existing open space.		
4.3.2	Train and establish Tree Ambassadors	Establish trust and relationships with target neighborhoods and partner with existing successful training/apprentice programs. Dedicate staff support and funding.		
4.3.3	Tree Equity Subsidy Program	Provide funding and community education. With all things tree, recognize the importance of public/private partnership. Funding to come from pre-existing fees and fines.		
4.3.4	Urban tree canopy assessment goals	The city's Existing Conditions Survey is complete. Recommendations include training tree ambassadors, funding, sourcing, and planting regional species, obtaining contractor support, and providing community education. Equitable canopy distribution to be met in partnership with the Tree Subsidy Program.		
4.3.5	Add development processes (save the tree/pay for the tree) to the Unified Land Use Code (ULUC)	Adopt policy including an appropriate payment-in-lieu alternative.		
4.3.6	Tree survey in (re)development process	Implement tree surveys early in the (re)development process.		
4.3.7	Relationship with South Suburban Parks and Recreation Department (SSPRD)	Insist on equity and environmental sustainability in all SSPRD activities in the city. Allow the Environmental Stewardship Board to act as an accountability body for the city's relationship with SSPRD.		



## 5.0 Water

Littleton is semi-arid, there will be less water in the future, and it is becoming more expensive to keep water clean. Denver Water controls all of Littleton’s potable water. The city controls its stormwater, wastewater, and groundwater systems.



### 5.1 Existing Initiatives

ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
5.1.1	Support city stormwater activities	<p>Maintain the city’s stormwater permit and expand the city’s stormwater efforts, including:</p> <ul style="list-style-type: none"> <li>• Provide compostable pet waste bags</li> <li>• Offer year-round leaf composting</li> <li>• Mark storm drains to note that “water drains to stream”</li> <li>• Offer year-round motor oil recycling</li> <li>• Expand and record street sweeps (miles swept)</li> <li>• Collaborate with Stormwater Permittees for Local Awareness of Stream Health (SPLASH)</li> <li>• Ensure that city staff inspects construction sites to protect stormwater quality</li> <li>• All city-initiated construction should model appropriate stormwater quality protection</li> <li>• SSPRD does not have a stormwater permit. The city should inspect all construction activities on SSPRD-managed areas.</li> <li>• Petition Colorado Department of Public Health and Environment (CDPHE) to require that SSPRD obtain a stormwater permit.</li> </ul>		
5.1.2	Conduct and/or re-conduct water audit of city practices	The 2009 Environmental Action Plan noted several ways the city could reduce water use. Follow up and evaluate those activities.		
5.1.3	Incorporate water considerations into the renovations at Ketring and Gallup Parks	The city plans to renovate Ketring and Gallup Parks. Ketring Lake doesn't have enough water. Its only water source is pumping groundwater. The city should halt all groundwater pumping as soon as possible. Cisterns built under the parking lots could store rainwater for the lake. Consider reducing the size of the lake and increasing the wetlands.		
5.1.4	Green roofs on city buildings	This is an action item from the 2009 Environmental Action Plan. Evaluate the practicality of installing green roofs on city buildings.		

5.2 Quick Wins				
ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
5.2.1	Explore potential of 'water credit'	Pursue the option of earning 'water credits' with Denver Water by measuring water saved.		
5.2.2	Increase permit compliance to ensure clean stormwater	ACC and LPS have stormwater permits that are often out of compliance. The city should partner with them to ensure stormwater permit compliance. Again, and unbelievably, SSPRD does not have a stormwater permit. They should be required to obtain a stormwater permit as part of our contract.		
5.2.3	Pursue a permit to treat Ketring and other city lakes with aluminum sulfate (alum)	Water quality in virtually all city lakes is poor due to high concentrations of phosphorus and nitrogen. Alum removes phosphorus, sealing it in the sediments. South Platte Renew should be able to assist.		
5.2.4	Get estimates for cistern construction	Cisterns store rainwater and could address flooding and stormwater quality issues. Get estimates for building cisterns on city property.		
5.2.5	Metro Basin Roundtable Updates	The Metro Basin Roundtable is part of a statewide effort to manage water resources. Get South Platte Renew to provide annual updates to city council and the ESC on the Metro Basin Roundtable.		

5.3 Long-Term/Other				
ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
5.3.1	Encourage residents to save water	<p>Denver Water has programs to encourage water conservation. If Littleton aggressively expands those programs measures the water savings, a 'water credit' may be created. The programs could include:</p> <ul style="list-style-type: none"> <li>• Garden in a Box – encourage Denver Water to provide a discount like other water providers do</li> <li>• Rain barrels</li> <li>• Subsidized sales of xeric plants</li> <li>• Irrigation audits</li> <li>• Subsidized tree evaluations for proper maintenance</li> </ul>		
5.3.2	Enhance city stormwater activities	Expand street sweeping which improves water and air quality. Expand composting to make it year-round and accept all garden waste and motor oil. Engage LPS students to help mark storm drains.		

5.3.3	Expand outreach and education around water and stormwater issues	Consider collaborating with SSPRD, South Platte Renew, and the City of Englewood to conduct bike tours along the South Platte River and other local waterways, noting water quality, environmental, and recreational activities.		
5.3.4	Enhance collaboration with South Platte Renew	Increase council briefings on upcoming regulations South Platte Renew is expecting. Participate in the legislative process, where appropriate, to help establish 'how clean is clean' and what we can afford. Collaborate with South Platte Renew's outreach and education program as appropriate. See bike tours.		
5.3.5	Use state-of-the-art green stormwater infrastructure	Maximize the opportunity to control stormwater and minimize flooding impacts while realizing additional benefits of habitat protection. Use this opportunity of our aging stormwater infrastructure and the need to rehabilitate it by maximizing the use of green stormwater infrastructure.		
5.3.6	Stop pumping groundwater and close all wells.	Adopt a city policy of protecting and preserving groundwater under the city. Close all groundwater wells and try to ensure that the city's groundwater rights are protected by conservation easements, if possible. Substitute stormwater collected in cisterns to replace groundwater. Consider deeding the groundwater rights to a conservation group.		
5.3.7	Address issues in the Integrated Water Resources Plan	The integrated water resources plan identified issues with the sustainability of several lakes in the city. For Ketring Lake, consider reducing the size of the lake, expanding the wetlands, and constructing a second filter under the wetlands. For Ridgeview and Geneva Lakes, there is an excellent opportunity to create a stormwater feature at the sites using examples from places like the Eco Park along Cherry Creek and the 39th Avenue Greenway in Denver. At Geneva Lake, there may be an opportunity to construct a cistern under Town Hall's parking lot and use that water to maintain the lake. A cistern may provide some flood control as well.		



## 6.0 Community

An informed, involved, and knowledgeable community is a critical component of the successful implementation of environmental initiatives. Education, outreach, and the promotion of a strong sense of community will help the city advance and secure its goals of creating a greener, more sustainable, and climate-resilient Littleton.



### 6.1 Existing Initiatives

ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
6.1.1	Community building with downtown partners	Maximize partnership with the Littleton Downtown Development Authority (LDDA), Historic Downtown Littleton Merchants (HDLM), Littleton Business Chamber (LBC), and others to foster a greater sense of community and environmental awareness in the downtown area.		
6.1.2	Community building through downtown redevelopment	Ensure that the redevelopment vision for downtown fosters community building, environmental awareness, and a sense of belonging for all.		

### 6.2 Quick Wins

ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
6.2.1	Community cleanups	Engage with SSPRD and other partners to establish neighborhood cleanups of residential neighborhoods, trails, waterways, public lands, etc.		
6.2.2	Board meeting recordings	Ensure public has access to live and recorded broadcasts from Environmental Stewardship Board meetings so people feel more informed and more comfortable attending/contributing to meetings.		
6.2.3	Public engagement regarding the potential for a contracted consolidated waste hauling system	Ensure the public has access to information regarding waste disposal and hauling impacts and options.		
6.2.4	Re-wilding education	Educate the public about the importance of re-wilding so that they understand its value to the community.		
6.2.5	Environmental stewardship newsletter/insert	Develop a newsletter or insert from the Environmental Stewardship Board. This could go out to all residents via the Littleton Report. This could be a vehicle to inform the public about what the city is doing, why the city is doing it, why it's important, and what they can do to help/contribute.		

6.2.6	Resource clearinghouse	Create a page on the city website with links to available grants, solar energy resources, composting, Environmental Stewardship Board agendas and meetings, electrification resources, etc.		
6.2.7	Support and promote existing community initiatives related to sustainability	E.g. Littleton Social Cycle, Littleton Community Retreat, etc.		

### 6.3 Long-Term/Other

ITEM	ACTION	RECOMMENDATIONS	IMPACT	EFFORT
6.3.1	Create lip sync challenge	Explore the possibility of creating a lip sync challenge <sup>3</sup> with an environmental theme, to encourage an enhanced sense of community in the city.		
6.3.2	Community meal	Community meal with foraged food, community supported agriculture (CSA), and local businesses to foster an enhanced sense of community.		
6.3.3	Littleton Museum CSA	There is an opportunity at the Littleton Museum to expand community engagement through the development of a CSA. This could use the current irrigation system and involve the expansion of existing programs at the museum. This would invite a new constituency that the museum needs.		
6.3.4	Food, regional native, and low-water gardens	Work with Denver Water, Denver Botanic Gardens, and other partners to make affordable and easy pre-planned gardens widely available.		
6.3.5	Tree Equity Subsidy Program	Establish a Tree Equity Subsidy Program. Engage volunteers to be trained as tree ambassadors. See also 4.5.3.		
6.3.6	Promotion of year-round recycling and composting	Promote and advertise year-round location and facility for recycling of organics, electronics, hard-to-recycle items, etc. See also 3.1.1.		
6.3.7	Environmentally focused public art fund	Establish a fund for environmentally focused public art in partnership with the Littleton Arts and Culture Board.		
6.3.8	Environmentally friendly investment options for city employees	Ensure city employees have access to environmentally friendly investment options for their retirement funds.		

<sup>3</sup> Example: <https://www.youtube.com/watch?v=ZPjjZCO67Wl>