



**LEBANON ENERGY ADVISORY COMMITTEE (LEAC)
SEPTEMBER 15, 2022 - 4:00 PM
COUNCIL CHAMBERS, CITY HALL OR
REMOTE VIA VIRTUAL PLATFORM
LEBANONNH.GOV/LIVE**

-
- 1. Call to Order**
 - 2. Approval of Minutes**
 - A. August 18, 2022
 - 3. Old Business - Updates on:**
 - A. Community Power Coalition of NH/Legislation/PUC Regulations
 - B. Landfill Gas to Energy Project & Solar
 - C. Updates to Building Codes
 - D. EV Charging RFP (Lebanon/Hanover/Hartford)
 - E. Report on Rental Decarbonization Pilot
 - F. Microgrid
 - G. Strategies/Goals for 2022
 - 4. New Business**
 - A. Lebanon Strategic Plan Updates, Miro Board Discussion (see Fort Collins Plan in packet and <https://lebanonnh.gov/1633/Lebanon-Strategic-Plan>)
 - B. Master Plan Update - Further review of Chapter 13, Vision and Purpose; Outreach (To/From?); Further discussion of draft text on Equity (New Outcome 8)
 - C. REC discussion (LGTE/LCP)
 - D. EV Subcommittee Report
 - E. GM Dealer Community Charging Program
 - F. Recent and Upcoming Conference or Webinars of Note
 - G. EFM Report
 - 5. Open to the Public**
 - 6. Future Agenda Items**
 - 7. Adjournment**

Meetings are open for in-person and remote attendance. Members of the public that wish to attend remotely may do so by going to [LebanonNH.gov/Live](https://lebanonnh.gov/Live) where you will find instructions on how to enter the meeting. Members of the public will be able to participate and ask questions through the City's virtual platform or by phone. Please note: Should technical difficulties occur during the meeting that disrupts virtual or phone connection(s), the meeting will continue without remote access capabilities.

AGENDA
LEBANON ENERGY ADVISORY COMMITTEE
September 15, 2022 – 4:00 PM

AGENDA ITEM 2
APPROVAL OF MINUTES

August 18, 2022

DRAFT



LEBANON ENERGY ADVISORY COMMITTEE MEETING MINUTES

Council Chambers, City Hall

August 18th, 2022

4:00 PM

MEMBERS PRESENT*: Greg Ames (Chair), Jon Chaffee (Vice-Chair), Clifton Below (Council Representative), Woody Rothe (remote), Sherry Boschert (remote), Gene Homicki (alternate, remote)

MEMBERS ABSENT: Meghan Butts (alternate) Devin Wilkie (Council Alternate)

STAFF PRESENT: Tad Montgomery, Rebecca Owens – Planning Office (remote), Shaun Mulholland, Mark Goodwin

GUESTS PRESENT: none.

CALL TO ORDER: Meeting called to order by Greg Ames at 4:04 PM. Greg Ames appointed Gene Homicki to fill the seat of the Lebanon High School student.

ACCEPTANCE OF MINUTES

Sherry Boschert moved to accept the July 2022 LEAC meeting minutes; Clifton Below seconded. The minutes were approved unanimously without change.

OLD BUSINESS:

MASTER PLAN – ENERGY CHAPTER

Rebecca Owens presented an 8/18/2022 revised version of the Energy Chapter of the Master Plan and led a discussion on the revisions. A new Outcome 8 on equity was introduced based on the work of Woody Rothe. Staff and LEAC members will continue to work on this Outcome 8, esp. action items, for the next LEAC meeting. They are also tasked with reviewing the entire chapter for the next meeting with an aim to then update the Executive Summary and Vision Statement.

COMMUNITY POWER UPDATE

Asst. Mayor Below gave an update on the Community Power Coalition of NH (CPCNH). The PUC 2200 Administrative Rules for community aggregation were delayed a month due to Covid. At a CPCNH Board meeting on the 18th they approved entering into contract negotiations with [Ascend Analytics](#) for a package of services valued at roughly \$1.5 million, with deferred compensation until after start-up of CPCNH. Ascend will be helping CPCNH with portfolio management, risk management, procurement management, credit services, and load serving entity services. They are a leader in grid-scale battery dispatch, optimization, and performance. Ascend has a current portfolio of roughly 5,000 MW that

* **QUORUM NOTE:** When LEAC has five members, three need to be physically present to create a quorum.

1 uses their Smart Bidder software which employs AI software as part of its management. They will
2 bring \$8 million of credit support to CPCNH. Clifton Below also mentioned that Calpine Energy Services
3 has been enlisted to offer support with providing retail services. CPCNH is looking for a 3rd contractor
4 to assist with member engagement support. 34 NH communities have now expressed an interest in
5 joining CPCNH, representing 50% of the state's population. The Lebanon Community Power municipal
6 aggregation plan was resubmitted on July 1st to the PUC. Regarding CPCNH's rules adoption by the
7 PUC, Clifton said that of 44 issues that were raised in the public comment process 43 were resolved in
8 the Coalition's favor. One observer compared it to having been dealt three aces in a hand of cards.
9 "We couldn't have had a better outcome." Said Asst. Mayor Below. The Coalition's timeline is to
10 launch in April of 2023. Ascend said that 1-5 MW generation projects usually are not developed at the
11 start-up of a municipal aggregation project, but current state, national, and global energy conditions
12 have changed that and such projects in NH could be feasible and come online as soon as the next three
13 years in conjunction with CPCNH.

14 15 **LEGISLATIVE UPDATE**

16 No new news.

17 18 **LANDFILL GAS-TO-ENERGY PROJECT**

19 An update was passed on from Landfill Superintendent Marc Morgan. National Grid has finished the
20 legal review of the interconnect application and sent it to Liberty. The 18-month clock will start ticking
21 when we get the contract from Liberty. He said that equipment for the project has started arriving and
22 is being stored both indoors at the landfill and outside.

23 24 **ELECTRIC VEHICLE SUBCOMMITTEE**

25 Sherry Boschert gave a review of the EV Subcommittee's work. Greg Ames took minutes for the August
26 LEAC EV Subcommittee and will submit them.

27 F150 Lightening The City's Ford F150 pickup truck is scheduled to arrive between 8/23-8/29. She
28 asked for the City to get its seal on the doors asap so that it can be shown at a Thursday evening
29 farmers market.

30 EV Subcommittee Webpage Continues to be developed as part of the ongoing outreach program.

31 EV Chargers & Site Plan Regulations Shaun Mulholland has asked David Brooks and the Planning Dept.
32 to propose changes to the site plan regulations that would either incentivize or require a minimum
33 level of charging at certain kinds of sites: multi-family housing, commercial/industrial, etc. Shaun
34 Mulholland has asked Sherry Boschert to be involved in that process.

35 Winter EV Event The Subcommittee is planning an EV event around January, 2023 in order to inform
36 prospective buyers that winter operation of EV's is not a hindrance.

37 Multi-Town RFP Tad Montgomery and Sherry Boschert will be meeting with Hanover and Hartford on
38 8/25 to continue the process of developing the RFP. They will be meeting with the Planning Office
39 before then in order to get input on broader city planning objectives that could be met with the rollout
40 of public EV charging infrastructure. All three towns will be bringing that info back and discussing how
41 to incorporate it into the RFP on 8/25.

1 **NEW BUSINESS & OTHER NEWS:**

2
3 **CITY STRATEGIC PLAN**

4 The City Manager introduced LEAC members to the new strategic planning process that the City is
5 developing. He showed a new online City 'white board' tool and said that he is soliciting feedback on
6 the new strategic plan from boards and committees by the end of September. The goal is to have the
7 strategic plan approved by May of 2023 to be used to inform the 2024 budget. The term of the Plan is
8 three years. On the [City's Strategic Plan website](#) there is a [Miro Board](#) that is available to the
9 community to contribute to the brainstorming process. Comments on the Miro Board are arranged by
10 topic. Mr. Mulholland said that each accepted element will have measurable actions and
11 measurements. This Board will eventually be linked to the City's Master Plan. LEAC members are
12 encouraged to brainstorm ideas for the next LEAC meeting. Shaun said that the topic of Environmental
13 Justice has not been fully developed yet. He also asked if there were other topics/headings that LEAC
14 members think should be added.

15
16 **MICRO-GRID**

17 Tad Montgomery, Clifton Below, Greg Ames and Everett Hammond will be meeting with Liberty on
18 8/31 to discuss this potential project.

19
20 **SOLAR**

21 Tad Montgomery announced that the City Management has given the go-ahead for a Phase 3 solar
22 project. The power generated from this solar – that which is not used behind the meter at the various
23 sites or otherwise used to meet City needs – could be combined with the landfill gas-to-energy project
24 and sold to other City electricity users under a pilot project with Liberty Utilities that has been enabled
25 by the passage of Senate Bill 321. The maximum amount is 2 MW under this program, so Tad
26 Montgomery said that he would reach out to Clifton Below to set up a meeting with the solar
27 developer to determine exactly how much solar can be developed in Phase 3. It could be over 1 MW.

28
29 Tad Montgomery requested LEAC's input on the issue of solar Renewable Energy Credits (REC's) and
30 what the City should do with them. After a discussion the following proposal was made by Gene
31 Homicki and seconded by Jon Chaffee:

32
33 MOTION: "LEAC strongly recommends that the City of Lebanon keep and retire REC's generated
34 by the solar arrays at the Valley Cemetery and Civic Memorial Fieldhouse buildings."

35
36 LEAC voted unanimously in support.

37
38 **ENERGY & FACILITY MANAGER'S REPORT**

- 39 • Clean School Bus Grant Tad Montgomery discussed the federal Clean School Bus grant program
40 and encouraged anyone who knows people in the school district to encourage them to apply
41 for funding. Lebanon is not registered as a 'priority' school, but additional funds may be made
42 available soon and the list of eligible schools expanded.

- City Solar Page Tad Montgomery recently revised and updated the [City's Solar Energy](#) page. LEAC members were encouraged to visit it and comment.
- Storrs Hill Lighting An update was given on the RFP that is being drafted to replace the ski slope lighting on Storrs Hill and its parking lot.
- Building Management System There was a brief update on the City's work to replace its aging BMS. An RFP for this should be issued soon.
- News on Winter Fuel Costs Tad Montgomery cited an August 12th WMUR News piece that projected \$8-9/gal. costs for heating oil next winter and quoted NH Department of Energy Commissioner Jared Chicoine as saying that he expects prices to go up.

FUTURE AGENDA ITEMS

- Strategic Plan – continued discussion
- LEAC work priorities for 2022-2023
- REC discussion continued
- Master Plan – continued discussion
- Landfill Gas-To-Energy update
- Solar Phase 3 update

UPCOMING EVENTS

- **September 24, 2022:** There will be a Kearsarge - Lake Sunapee EV Expo in New London as part of Drive Electric week. Greg Ames asked if Tad or another City staff person could bring the Ford F150 to the event. For more info click [here](#).
- Saturday, September 24, 8 am-12 pm: 10th Annual Drive Electric Week Event, City Plaza New Hampshire State House, 7 North Main St., Concord, NH. More info [here](#).
- **September 25, 2022,** 8 am-5 pm: MassTuning TrackFest, Canaan Motor Club — A racetrack day for EV drivers only. Open to all including novices in regular street cars. No timed racing, no trophies. See more [here](#). See video of the East Coast's first EV track day in 2021 [here](#).

NEXT MEETING

Is scheduled for Thursday, September 15th at 4 PM, City Council Chambers.

ADJOURNMENT

A motion was made by Clifton Below to adjourn the meeting at 6:10 PM. The motion was seconded by Sherry Boschert and was unanimously approved.

Respectfully submitted,

Tad Montgomery

AGENDA
LEBANON ENERGY ADVISORY COMMITTEE
September 15, 2022 – 4:00 PM

AGENDA ITEM 4
NEW BUSINESS:
a. LEBANON STRATEGIC PLAN UPDATES

FORT COLLINS STRATEGIC PLAN

2020 STRATEGIC PLAN



Neighborhood Livability
& Social Health



Culture
& Recreation



Economic
Health



Environmental
Health



Safe
Community



Transportation
& Mobility



High Performing
Government



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Acknowledgements

Fort Collins City Council & Leadership



Wade Troxell
Mayor



Kristin Stephens
(Mayor Pro Tem)
Councilmember, District 4



Susan Gutowsky
Councilmember, District 1



Julie Pignataro
Councilmember, District 2



Ken Summers
Councilmember, District 3



Ross Cunniff
Councilmember, District 5



Emily Gorgol
Councilmember, District 6



Darin Atteberry
City Manager



Carrie Daggett
City Attorney



Kathleen Lane
Chief Judge

Strategic Plan Core Team

Tyler Marr, Deputy Information & Employee Services
Director / Core Team Chair

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Introduction

The City of Fort Collins is a full-service municipal organization dedicated to providing world-class services to 170,000 residents, 8,000 businesses, and numerous institutional partners. Located sixty miles north of Denver, Fort Collins is home to Colorado State University (CSU), Otterbox, New Belgium Brewing, Odell Brewing and many high-tech employers and small businesses, as well as an active and engaged resident and business community. As both a community and city organization, Fort Collins is recognized for its quality of services and amenities, sustainable management practices, and a forward-thinking, innovative culture.

Fort Collins has a successful history of participatory community and organizational planning to guide decision-making, City policies, and the delivery of services. Alongside City Plan (Fort Collins' comprehensive plan) the Strategic Plan reflects the values of the community. While City Plan articulates a long-term community

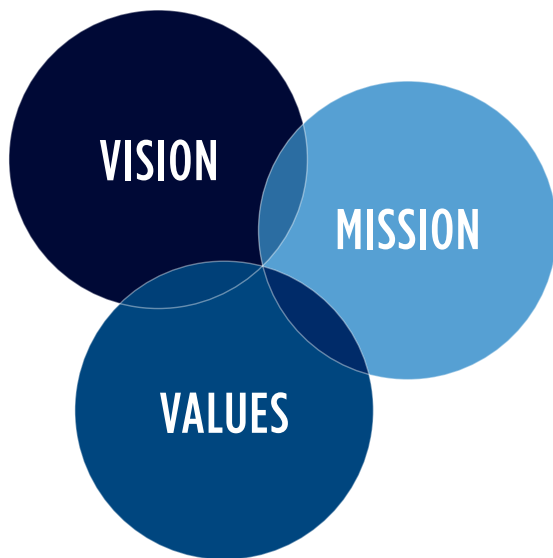
vision and growth framework, the Strategic Plan outlines short- and mid-term objectives, influences the City's budgeting process, and guides the implementation of the City's full range of services, including:

- **Police**
- **Fire Protection through a local authority**
- **Streets, Transportation and Transit infrastructure & operations**
- **Parks, Recreation, Natural Areas and Cultural facilities**
- **Planning, Engineering and Community services**
- **Sustainability Services – Economic Health, Environmental Services and Social Sustainability**
- **Utilities – Electric, Water, Wastewater and Stormwater**
- **Support Services – Leadership, Human Resources, Information Technology, Communication, Financial Services, City Clerk's Office, Facilities and Fleet Services, and Legal and Judicial Services**

The 2020 Strategic Plan outlines key objectives and strategies that link City Plan and the City's organizational priorities.



Vision, Mission & Values



VISION:

To Provide World-Class Municipal Services through Operational Excellence and a Culture of Innovation

MISSION:

Exceptional Service for an Exceptional Community

VALUES:

Collaboration - Excellence -
Integrity - Outstanding Service
Safety & Well-being - Stewardship

The City of Fort Collins is deeply committed to high-quality public service and cultivating an outstanding culture for its employees.

A strong focus on ethics, compliance with all regulations and laws, data-driven decision-making and continuous improvement are foundational to City practices and culture. As recognition of the organization's commitment to providing exceptional service, the City of Fort Collins was recently selected as a Malcolm Baldrige National Quality Award recipient.



The organization also aligns with the broader community values articulated in City Plan:

Livability – The City implements systems and processes to ensure consistent operations and development of new facilities and programs oriented toward enhancing quality of life. Decision-makers, employees and residents all have a hand in guiding resources toward amenities such as natural areas and parks, well-maintained infrastructure and safe neighborhoods. Livability also means working to address challenges around equitable access to services and creating communitywide opportunities for attainable housing and efficient transportation options.

Community – The City and decision-makers value honest dialogue and the input of employees and residents as fellow problem solvers. Participation and collaboration on how best to leverage community and City assets toward future opportunities and challenges is encouraged in decision-making and planning processes. The City also strives to create and demonstrate an inclusive environment representative of Fort Collins' growing diversity and changing demographics.

Sustainability – The City's dedication to providing exceptional service is a commitment for today and the future. Sustainability is deeply rooted in the organization and reflected in strategies to reduce climate impacts and improve community resilience, support the health of the economy through business retention and talent alignment, and embed considerations about equitable processes and outcomes in decision-making. The City's Triple Bottom Line Scan tool (TBL-S) assesses the economic, environmental and social factors of decisions to improve overall outcomes, ensure that one aspect does not dominate the decision-making process, and reduce impacts when trade-offs are unavoidable.

Guiding Themes & Principles

To achieve the City's mission, vision and values, the Strategic Plan is aligned and focused on continuous improvement in seven Key Outcome Areas:

- **Neighborhood Livability and Social Health**
- **Culture and Recreation**
- **Economic Health**
- **Environmental Health**
- **Safe Community**
- **Transportation and Mobility**
- **High Performing Government**

The City budget is also aligned across these seven areas, and revenue is allocated to support policies and initiatives that drive improvement in each outcome. Each Outcome Area includes specific objectives that define different focus areas. While each Outcome Area has unique characteristics, City investment in a single objective regularly impacts more than one outcome.

Major themes and areas of focus within the 2020 Strategic Plan, identified through community outreach and engagement or as a Council Priority, include:

1. Affordability

Improve access to a broad range of quality housing that is safe, accessible and affordable. Address the increasing cost of living in Fort Collins through diverse job opportunities and reduce the mismatch between available jobs and skills in the workforce.

2. Multimodal Transportation & Public Transit

Improve traffic flow and safety, the availability of transportation alternatives, and access to public transportation.

3. Equity, Inclusion and Diversity

Cultivate a safe and welcoming community focusing on equitable engagement, outcomes and service delivery for all, leading with race.

4. Environmental Sustainability

Identify and implement initiatives that achieve the City's environmental goals and objectives.

5. Community Vibrancy

Preserve the community's sense of place with a high value on natural areas, culture, recreation and park systems.



Fort Collins has long employed a Growth Management Area (GMA) to foster a compact community, provide physical separation from our Northern Colorado neighbors, and preserve and protect sensitive natural resources. As Fort Collins' strong employment and population growth continues and the community approaches the boundaries of the GMA, a shift

toward greater redevelopment and infill development is anticipated. The 2020 Strategic Plan themes and areas of focus highlight opportunities for continuing to implement the community's growth framework and community goals to increase the range of housing and transportation options, enhance community identity and create an inclusive environment.



Strategic Advantages & Challenges

The City has identified a number of advantages and challenges that could impact the implementation of Strategic Objectives described in this document. Advantages are those strengths and attributes that will enable the City to achieve objectives; challenges reflect attributes that could impair the ability to achieve objectives. Each of the challenges described below is reflected in one or more Strategic Objectives so that the challenges will be addressed in future budget proposals.

ADVANTAGES:

1. A supportive, engaged and innovative community
2. A culture of excellence and continuous improvement driven by the City's Vision, Mission and Values
3. Engaged and committed employees with a strong focus on customer service
4. Collaborative local partners, such as Poudre School District, CSU, local service providers and primary employers
5. Municipal ownership of four essential Utilities – Light & Power, Water, Wastewater and Stormwater
6. Strong revenue and City balance sheet, recently approved tax renewals, an Aaa Moody's credit rating and a diverse local economy

CHALLENGES:

1. Cost of living, including childcare and housing that is affordable and available to all income levels
2. Transportation and traffic issues related to trains, congestion and a high volume of single-occupancy vehicles
3. Balancing competing community desires and changing customer expectations within available resources
4. Embracing and cultivating diversity, equity and inclusion for all, leading with race
5. Attracting, retaining and developing high-quality employees
6. Aging infrastructure and growth-related needs
7. Aligning regional partners around a common set of priorities

The Strategic Objectives associated with each Key Outcome Area are described in the following tables. The Strategic Objectives are not listed in priority order and it should not be interpreted that a Strategic Objective early in the list is of a greater priority than one later in the list. Subsequent sections of this document include bullet details below each Strategic Objective to provide additional context for the objective and its importance.

Summary of Strategic Objectives



NEIGHBORHOOD LIVABILITY & SOCIAL HEALTH

- 1.1** Improve and increase availability and choice of quality housing that is affordable to a broad range of income levels.
- 1.2** Collaborate with other agencies to address poverty issues and other identified high-priority human service needs, and to make homelessness rare, short-lived and non-recurring.
- 1.3** Improve accessibility of City and community programs to low- and moderate-income residents and increase participation in services to eligible, income-qualified residents.
- 1.4** Advance equity for all, leading with race, so that a person's identity or identities is not a predictor of outcomes.
- 1.5** Enhance the quality of life in neighborhoods, empower neighbors to solve problems, and foster respectful relations.
- 1.6** Align land use regulations and review procedures to guide development consistent with City Plan.
- 1.7** Develop options and assess the feasibility of the annexation of the Mulberry Corridor.
- 1.8** Preserve and enhance manufactured housing communities as a source of affordable housing and create a safe and equitable environment for residents.
- 1.9** Create and maintain a safe, healthy and resilient urban forest.



CULTURE & RECREATION

- 2.1** Develop recreation and cultural programs that are diverse, inclusive and accessible, and that also drive attendance and cost recovery.
- 2.2** Address critical park, recreation equipment and trail lifecycle and maintenance needs and continue the planned buildout of the system.
- 2.3** Create enhanced arts and culture participation opportunities for all residents and visitors.
- 2.4** Identify criteria, process and funding options to refresh neighborhood and community parks.
- 2.5** Ensure safety and welfare in City parks, natural areas, trails, and cultural and recreation facilities for visitors and employees.



ECONOMIC HEALTH

- 3.1** Facilitate government and local partners to achieve effective regional economic resilience.
- 3.2** Understand trends in the local labor market and work with key partners to grow diverse employment opportunities.
- 3.3** Systematically engage the business community with an emphasis on starting, sustaining and renewing businesses.
- 3.4** Foster infill and redevelopment opportunities consistent with City Plan policies.
- 3.5** Invest in and maintain utility infrastructure and services while ensuring predictable utility rates.
- 3.6** Deploy and deliver reliable, high-speed internet services throughout the community.



ENVIRONMENTAL HEALTH

- 4.1** Intensify efforts to improve resilience and to meet 2030 climate, energy and 100% renewable electricity goals.
- 4.2** Improve indoor and outdoor air quality.
- 4.3** Enhance efforts to achieve 2030 zero waste goals.
- 4.4** Provide a reliable, high-quality water supply.
- 4.5** Protect and enhance natural resources on City-owned properties and throughout the community.
- 4.6** Sustain and improve the health of the Cache la Poudre River and all watersheds within the city.
- 4.7** Expand the Natural Areas land portfolio while simultaneously maintaining existing lands and improving equitable access to nature.



SAFE COMMUNITY

- 5.1** Improve overall community safety while continuing to increase the level of public trust and willingness to use emergency services.
- 5.2** Meet the expected level of core and specialized police services as the community grows.
- 5.3** Partner with Poudre Fire Authority to provide high-quality fire prevention, community risk reduction and emergency response services.
- 5.4** Continue to deploy comprehensive emergency preparedness and management strategies.
- 5.5** Address flooding risk for the protection of people, property and the environment.
- 5.6** Protect mission-critical physical and virtual infrastructure, in addition to privacy data, against increasing cybersecurity threats.
- 5.7** Reduce incidents of, and impacts from, disruptive and unwanted behaviors with creative approaches that balance compassion and consequences.
- 5.8** Improve security at City facilities and properties.



TRANSPORTATION & MOBILITY

- 6.1** Improve safety for people using all modes of travel.
- 6.2** Manage traffic congestion and improve high-priority intersections for all users.
- 6.3** Ensure equitable access to and expansion of all sustainable modes of travel, with emphasis on growing transit ridership.
- 6.4** Support, enhance and accelerate I-25 improvements according to the multi-modal environmental impact statement.
- 6.5** Maintain existing and aging transportation infrastructure and address missing facilities to meet community needs and expectations.
- 6.6** Manage parking supply and demand Downtown, along the MAX corridor and near Colorado State University.
- 6.7** Manage safety, congestion and quality of life impacts from train operations in Fort Collins.



HIGH PERFORMING GOVERNMENT

- 7.1** Provide world-class municipal services through operational excellence and a culture of innovation.
- 7.2** Maintain the public trust through a high performing board, as well as organizational transparency, legal and ethical behavior and regulatory compliance.
- 7.3** Improve effectiveness of community engagement with enhanced inclusion of all identities, languages and needs.
- 7.4** Attract, retain, engage, develop and reward a diverse and competitive workforce to meet the needs of the community now and in the future.
- 7.5** Foster a culture of safety, well-being, resilience and sustainability across the City organization.
- 7.6** Utilize technology, data, metrics and process improvements to innovate, guide decisions and enhance service delivery.
- 7.7** Address long-term projected gap between available revenue and what is required to meet known and emerging needs.
- 7.8** Maintain and protect assets and infrastructure to drive reliability, cost effectiveness, efficiency and improve the customer experience.
- 7.9** Proactively influence policy and legislative development at all levels.





Neighborhood Livability & Social Health

Fort Collins provides a high-quality built environment, supports connected neighborhoods, seeks to advance equity and affordability, and fosters the social health of the community.

Fort Collins benefits from social connections and open communication. The City strives to provide equitable access to opportunities, services and resources, and to create an inclusive environment for all members of the community. The community takes pride in a friendly culture, celebrates differences and knows that better decisions occur when open dialogue about tough issues is encouraged.

The City is committed to creating a desirable urban environment that recognizes the importance of the form of the environment (e.g., community architecture, historic preservation and pedestrian-oriented environments) and preserving and protecting neighborhood character while ensuring a safe, beautiful and friendly experience for all residents and visitors. A top community priority is to address housing affordability

so that people of all income levels have housing options and the choice to live, work and play here in Fort Collins.

Fort Collins also has a growing and healthy urban tree canopy that creates a sense of place for community members and is inviting for visitors. These trees provide invaluable benefits to the built environment that will live on and add value to the community for generations to come.

The City recognizes the importance of neighborhoods and actively seeks to preserve and support their vibrancy while diligently enforcing property maintenance codes. As the City grows and redevelops, the vision continues to be an overall average increase in density that fosters efficient land use; supports a mix of housing types integrated with activity centers and diverse businesses; increases the safety and efficiency of public utilities, streets, facilities and services; and accommodates multiple modes of travel (including vehicle, bus, bike



and pedestrian). Development and growth are focused within the community's designated Growth Management Area to protect natural resources and the regional landscape, encourage infill redevelopment and human interaction, and maximize the efficient use of public infrastructure. Alternative transportation modes and access to key health and human service facilities are a priority.

Neighborhood Livability and Social Health also addresses challenges related to leading active lifestyles, and the accessibility of health and human service facilities for all segments of the community while protecting the character of neighborhoods. Neighborhood Livability and Social Health is related to human well-being and wellness,

and to opportunities for residents to work and socialize together, to be self-sufficient, and to live, work and travel within the community.

The lack of critical mental and behavioral health services in Larimer County has a direct impact on community residents, businesses and City services. Neighborhood Livability and Social Health must include providing appropriate facilities and services to support people experiencing homelessness with a goal of availability of long-term housing and services solutions. Simultaneously, enforcement efforts must continue to prevent illegal or aggressive behaviors that diminish the quality of life in neighborhoods and business areas.

Neighborhood Livability & Social Health includes:

- Vital and appealing transit-oriented activity centers and destinations throughout the city
- Addressing the impact of increasing poverty, as well as increasing concerns about housing affordability and homelessness
- Equitable access to City services, amenities and information for all neighborhoods
- Enforcement of laws to address aggressive behaviors that affect neighborhood quality
- Encouraging an inclusive, equitable community that embraces diversity
- Creating a distinctive and attractive community that is appealing to workers, visitors and residents and reflects community values
- Promoting the use of sustainable building and site design techniques
- Preserving historic resources and character-defining features that make Fort Collins unique
- Providing residents with opportunities to live healthy, safe and active lifestyles
- Reducing the impacts of our built environment on the natural environment
- Managing where and how the City grows in the future
- Encouraging the development of quality and affordable housing options for residents of all income levels
- Maintaining our unique character and sense of place
- Requiring adequate public facilities and infrastructure to serve existing development and new growth



Definition & Descriptions

1.1 **Improve and increase availability and choice of quality housing that is affordable to a broad range of income levels.**

- Since 2015, residents identified housing affordability as a high priority during community outreach sessions. In the 2019 Community Survey, only 12% of respondents felt positively about the availability of affordable quality housing. Fort Collins ranked 14 out of 19 Front Range jurisdictions surveyed for “availability of affordable quality housing.”
- The current rental market, with vacancy rates of less than 3%, is making it difficult for residents to live and work within Fort Collins.
- To support people with low income levels, the City is helping to create new affordable housing units with the goal of about 400 units per year, to reach the overarching goal of having 10% of all housing inventory as restricted affordable housing at City buildout.
- The Structure Plan in the 2019 adopted City Plan calls for improved housing options available to all City residents.

1.2 **Collaborate with other agencies to address poverty issues and other identified high-priority human service needs, and to make homelessness rare, short-lived and non-recurring.**

- The City’s core role has been, and continues to be, funding, policy development and partnerships for community human service agencies.
- Multiple public and private organizations work to address and improve social, environmental and economic issues within the community and the region.
- The social issues that human

service agencies address are wide-ranging, complex and systemic. A strategic, collaborative approach applied to the City’s engagement with these partners will ensure programmatic effectiveness and efficiencies, eliminate redundancy and identify underserved areas.

- Regional efforts to provide dedicated substance abuse and mental health facilities are being implemented.
- Approximately 430 residents experience recurring homelessness for six months or more at any given time in Fort Collins, and there continue to be gaps. Regional efforts are occurring to improve the systematic approach to make homelessness rare, short-lived and non-recurring.

1.3 **Improve accessibility of City and community programs to low- and moderate-income residents and increase participation in services to eligible, income-qualified residents.**

- As the cost of living in Fort Collins increases, low-income and moderate-income households are struggling to afford participation in City events and services.
- It is estimated that less than half of low-income households participate in the available reduced-fee and rebate programs for which they are eligible.
- A streamlined application process, with increased and focused marketing outreach, would improve customer service and likely increase participation.
- Despite increased marketing and outreach efforts, the number of participating households in the Grocery Rebate program declined from a high in 2015 and has been relatively flat since 2017.

1.4 Advance equity for all, leading with race, so that a person's identity or identities is not a predictor of outcomes.

- The City seeks to strengthen its understanding and ability to advance equitable outcomes for all community members.
- Although the City acknowledges there are inequitable outcomes experienced by Fort Collins residents, the City currently lacks a comprehensive data set and consistent approach to applying an equity lens.
- The impacts and disparities caused by racism are deep and pervasive, and addressing them at the systemic and institutional level also elevates equitable outcomes for all, including other marginalized identities.
- People of various identities experience discrimination and hate crimes in Fort Collins related to religious affiliation, culture, immigration status, housing status, gender expression and identity, sexual orientation, age, socioeconomic status, ability, veteran status, family status and more.
- The City, along with several major partner institutions and community-based organizations, is working together to address race-based oppression and disparities in a systemic manner.

1.5 Enhance the quality of life in neighborhoods, empower neighbors to solve problems, and foster respectful relations.

- Connected neighbors help identify neighborhood-level priorities and learn how to work together and/or with the City to address them.
- Quality of life improves when neighbors have an understanding of how to productively manage

conflict and allow for healthy disagreements.

- The maintenance of alleys in neighborhoods is an important component to functionality, appearance and safety. Optimization of alleys could create new or enhanced public spaces.
- Access to nature and green infrastructure improves the integration of natural habitat with urban spaces.
- Proactive, innovative and effective code compliance processes are important aspects of attractive neighborhoods.

1.6 Align land use regulations and review procedures to guide development consistent with City Plan.

- Fort Collins' population is expected to grow to 250,000 by 2040, which will drive significant construction throughout the community.
- Emphasis should be placed on preserving the iconic and architectural elements of the community, rather than preservation solely based on age.
- Neighborhood outreach and engagement helps the City to understand community expectations.
- While City Plan is reflective of specific policies included in the City's Climate Action Plan, additional changes are necessary to land use and development codes to further advance City Plan and Our Climate Future.

1.7 Develop options and assess the feasibility of the annexation of the Mulberry Corridor.

- The required enclave closed in 2018, opening the possibility of future annexation.
- The Mulberry annexation presents an opportunity to allow the



corridor to be redeveloped in accordance with City standards and plans. Large annexations require significant and targeted investment in resources and infrastructure, as well as thoughtful and deliberate phasing.

- Successful annexation of this corridor will require collaboration with Larimer County, non-City utilities, and Poudre Fire Authority.
- Robust engagement of City and County residents and businesses is necessary for an effective annexation.

1.8 Preserve and enhance manufactured housing communities as a source of affordable housing and create a safe and equitable environment for residents.

- Manufactured housing communities are a significant source of private, affordable housing and should be protected and enhanced.
- Many residents living in manufactured home communities do not enjoy the same rights and benefits (e.g., appreciation in value, tree trimming, etc.) as residents living in traditional multi-family and single-family neighborhoods.
- Connection to municipal resources and services improves manufactured housing community livability for residents, property managers and owners.
- Homeowner groups, affordable housing providers and support organizations need tools to purchase, rehabilitate and effectively manage manufactured housing communities.
- Approximately 10% of calls from emergency services originate from a manufactured housing community.

1.9 Create and maintain a safe, healthy and resilient urban forest.

- A safe and healthy urban forest requires a consistent pruning rotation for all trees.
- Tree replacement improves diversity and urban forest resilience, and creates a sense of place for the social well-being of current and future generations.
- Approximately 33% of the community's urban forest is at risk to the Emerald Ash Borer and all untreated ash trees will die.
- As development occurs, it is important to ensure existing trees are preserved and protected, tree removals are mitigated and replaced, and the canopy is designed for long-term sustainability and effectiveness.





Culture & Recreation

Fort Collins provides and maximizes access to diverse cultural and recreational amenities.

Cultural and recreational opportunities are elemental to Fort Collins' sense of place and help create a desirable community in which to live and play. Residents consistently place a high value on these programs and services, believing the City should continue its strong investment in these amenities. The City's park and trail systems are also highly valued and heavily used. The planned buildout of the trail system is a high priority for residents and will create further connectivity across Fort Collins and throughout Northern Colorado. Additionally, the City believes that connecting residents to nature is fundamental to a high quality of life.

Cultural and recreational facilities and programming provide residents opportunities to lead enriched and healthy lives and support overall community wellness. Arts and culture are enjoyed by residents and visitors alike. Similarly, parks, trails

and natural areas provide beautiful public spaces that foster physical activity and create opportunities for creativity, reflection and leisure. The quality of parks, trails and natural areas, as well as arts, culture and recreation programs and opportunities create a sense of pride among residents, while also drawing visitors and revenue into Fort Collins.

In many respects these amenities define and will continue to define the community. These amenities have a direct link to other Outcome Areas, most notably Environmental Health, Neighborhood Livability and Social Health, Transportation and Mobility, and Economic Health. The City focuses on the stewardship of these resources as a reflection of its residents' and visitors' values.



Providing diverse Culture and Recreation amenities includes:

- Ensuring the legacy of Fort Collins' parks, trails, natural areas, and cultural and recreational facilities for future generations
- Enhancing equitable access to cultural and recreation service offerings and facilities
- Providing a wide variety of high-quality recreation services and cultural opportunities
- Creating an interconnected regional and local trail network of parks and accessible recreational facilities
- Creating and preserving opportunities and spaces where residents can readily access nature
- Continuing a strong focus on exceptional natural resource stewardship and ecologically sound and sustainable operations

Definition & Descriptions

2.1 **Develop recreation and cultural programs that are diverse, inclusive and accessible, and that also drive attendance and cost recovery.**

- Existing diverse programs and opportunities can be bolstered with responsiveness to changing community desires.
- The City desires equitable access and a high degree of participation in all programs offered.
- Fee structures based on demand, program alternatives and affordability help improve program self-sufficiency.
- Indoor and outdoor facilities and programs need to address emerging trends and opportunities for all ages.
- Fort Collins currently lacks quality regional sports venues where competitive leagues can hold their state or regional tournaments.



2.2 Address critical park, recreation equipment and trail lifecycle and maintenance needs and continue the planned buildout of the system.

- Community outreach consistently indicates a strong desire to preserve and cultivate a sense of place and vibrancy as Fort Collins grows.
- Parks, trails and recreation opportunities are highly valued and utilized by residents. In 2019, 93% of residents visited a City park.
- As the City's parks and recreation facilities age and use increases, additional resources will be needed to make necessary improvements and updates to sustain current service levels, meet design standards, and maintain parks as highly valued neighborhood amenities.
- Alternatives and non-traditional approaches to help fund trail maintenance and/or accelerate completion of the trail system are necessary.

2.3 Create enhanced arts and culture participation opportunities for all residents and visitors.

- Through the Lincoln Center, the Gardens on Spring Creek, Fort Collins Museum of Discovery and other cultural services, the City provides programs and services to the community beyond traditional parks and recreation centers.
- The City's cultural heritage includes the community's agricultural roots, its strong commitment to enhancing access to nature, and preservation of open spaces.
- Artistic and cultural opportunities are essential to a vibrant and creative community; equitable participation and inclusion in those opportunities are core community values.



- The recently adopted FoCo Creates Master Plan calls for a destination arts and culture community, a well-networked and visible creative sector, educational opportunities and business support.
- The City intentionally leverages partnerships and philanthropy to support a growing and vibrant cultural and creative community.

2.4 Identify criteria, process and funding options to refresh neighborhood and community parks.

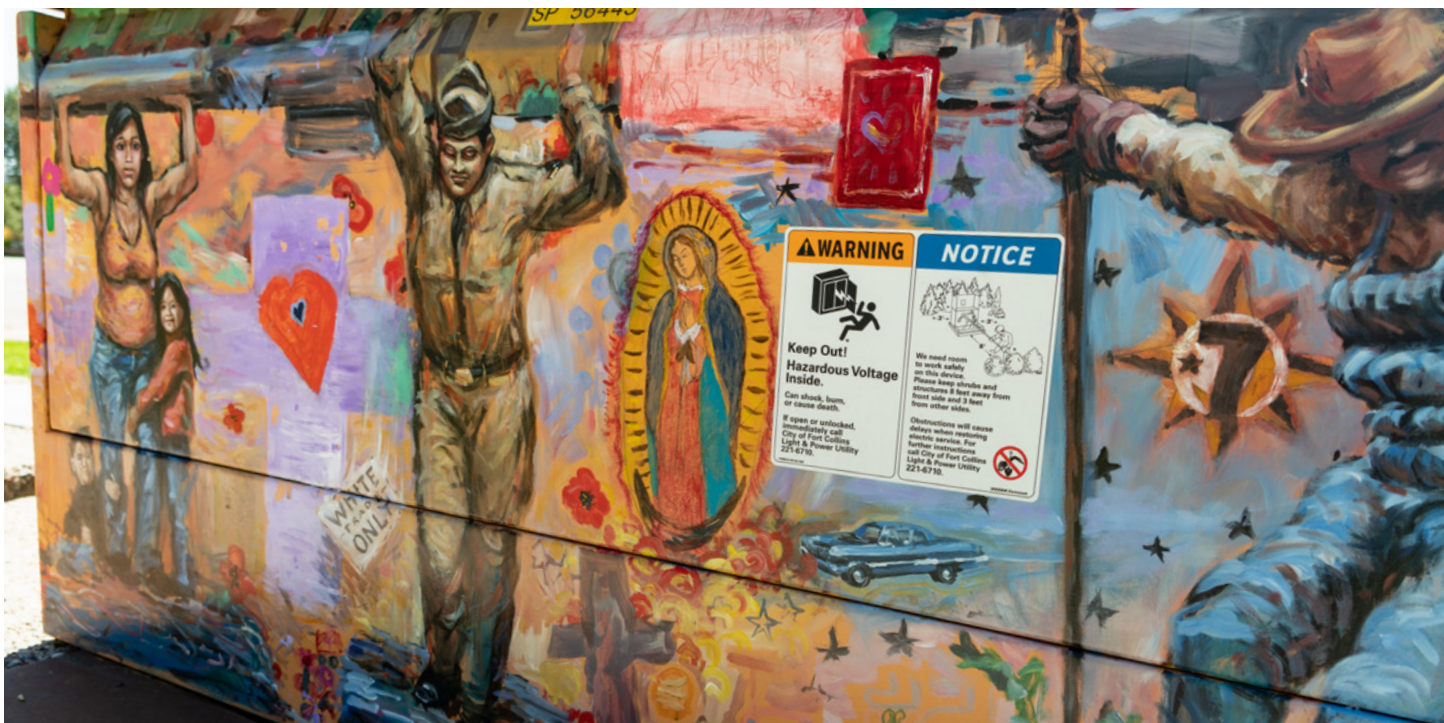
- Aging parks should periodically undergo a “refresh” or comprehensive upgrade to respond to new park standards and changing community expectations.
- As part of the Parks and Recreation Master Plan update occurring this year, a set of standards to inform potential refresh of parks will be developed.
- A park refresh goes beyond the standard lifecycle maintenance

of existing park assets, often improving access and responding to the needs of contemporary park users.

- The City’s parks system continues to age, and a dedicated funding source has not been identified to refresh parks.

2.5 Ensure safety and welfare in City parks, natural areas, trails, and cultural and recreation facilities for visitors and employees.

- New or growing safety issues have surfaced around increased illegal camping, bodily waste, drug use and other disruptive behaviors.
- Maintaining roadway median design and landscaping is an emerging challenge due to safety and staffing concerns.
- Perceptions of crowding and high speeds have grown due to increased trail use.
- An expanded geographic footprint for rangers results in less frequent patrols.





Economic Health

Fort Collins promotes a healthy, sustainable economy reflecting community values.

The City of Fort Collins benefits from a resilient local economy with strong existing businesses and industries combined with diverse and evolving job opportunities and business formation. We strive to create programs and resources that enable the local economy to withstand and lessen outside pressures, bounce back from downturns quickly, and potentially avoid the impact of regional, national and global economic forces. We take pride in our thriving local businesses, entrepreneurs, and inventors who create wealth and opportunity retained in our community.

The City is committed to understanding the numerous challenges facing our local economy, including continued competition from globalization, impacts on facilities and supply chains from climate change, shifting labor markets, and

evolving regional, national and global conditions. By engaging existing businesses and regional institutional partners to understand the impacts of these challenges the City can develop programs and policies encouraging the retention and expansion of existing small and medium-sized businesses. The ability for businesses and industries to start, sustain and renew within our community creates long-term resiliency.

The City works collaboratively with local and regional partners to create an environment that supports necessary conditions for economic vitality. Using available infill and redevelopment land to the highest and best use supports a strong and diverse economy. The City continues to evolve the strategies and programs that support the redevelopment of numerous emerging prospects.

The delivery of efficient and transparent City services coupled with strategic infrastructure investment supports economic



resilience. The City remains committed to continuously improving processes that impact our local businesses, including the development review and permitting process, regulatory environment, and delivery of affordable utilities.

Strategically investing in public infrastructure and community assets, such as the Northern Colorado Regional Airport, gigabit fiber internet service, and reliable water and energy services, enhances the local economy.

A healthy and resilient economy includes:

- Thriving and growing local, unique and creative businesses
- Engaging businesses to understand the numerous challenges they face
- Connecting and developing qualified workers with employers by aligning education and workforce resources to create opportunities for upward career and wage mobility
- Maintaining the City's position as a strong regional center with cultural, natural and community amenities
- Addressing abrupt and long-term climate changes increasing business risk to supply chains, infrastructure and facilities
- Encouraging investment and innovation to enable local businesses to start, sustain and renew through the use of technology and pilot projects supported by City as a Platform and Smart Cities
- Ensuring development and redevelopment opportunities can meet our employment-space needs
- Coordinating efforts among City, regional, state and federal programs to create a strong, resilient regional economic center
- Supporting an innovative, creative and entrepreneurial atmosphere
- Efficient and transparent City processes and services that address the needs of local businesses

Definition & Descriptions

3.1 Facilitate government and local partners to achieve effective regional economic resilience.

- The region has multiple organizations working to improve economic conditions. Coordinated and aligned efforts enhance economic resilience and support the City's commitment to business retention, expansion, incubation and attraction.
- Collaboration with partners is needed to create a unified regional vision for sustained economic growth.
- The Northern Colorado Regional Airport is an underutilized asset that has potential to increase regional economic competitiveness.
- Tourism generates \$275M of regional economic impact each year. The Tourism Destination Master Plan will identify ways to further enhance those impacts.
- The climate economy is an important driver of innovation and can be a significant contributor to economic opportunities.

3.2 Understand trends in the local labor market and work with key partners to grow diverse employment opportunities.

- Reduce identified barriers of workforce attraction and retention, including access and affordability of quality housing and childcare.
- Growth in the entrepreneurial and start-up ecosystem has barriers due to access to capital and inability to recruit targeted talent pools.
- 46% of Fort Collins/Loveland residents have a bachelor's degree or higher, while only 27% of jobs require a post-secondary degree.
- Although the overall supply of employment-zoned land appears sufficient to meet long-term demand, its readiness for development may constrain the community's ability to create employment opportunities.
- Educational partners such as Poudre School District, Colorado State University, and Front Range Community College are critical to advancing workforce training opportunities.
- Fort Collins is home to multiple corporate headquarters, which provide and generate employment opportunities and community wealth.

3.3 Systematically engage the business community with an emphasis on starting, sustaining and renewing businesses.

- There is an opportunity to identify and refine services for Fort Collins business customers by engaging businesses of all sizes and across all industries, including disadvantaged business enterprises (DBE), and women- and minority-owned businesses.
- Improvement in select current service delivery systems (e.g.,

Development Review, Permitting, etc.) is needed to provide efficient and transparent services to all business customers.

- As the community continues to grow and evolve, so does the number of private and public construction projects, which has the potential to be disruptive to businesses.
- 98% of businesses in Fort Collins are small businesses (100 employees or fewer) and a targeted engagement strategy is needed to meet their needs.
- Fort Collins residents and visitors enjoy a thriving nighttime economy, which includes restaurants, music venues and events.

3.4 Foster infill and redevelopment opportunities consistent with City Plan policies.

- Buildout within the City's development boundaries is expected over the next 20 to 30 years. Growth will be denser and taller than historical norms and additional infrastructure will be needed to support remaining open field development.
- Infill developments are met with significant community resistance to higher density and heights, requiring a high level of stakeholder engagement.
- Infill development should enhance and preserve the character of existing neighborhoods while allowing taller buildings in appropriate character sub-districts and maximizing compatibility through appropriate design.
- The Urban Renewal Authority is an important partner in achieving desired infill and redevelopment opportunities.
- Fort Collins has many unique features that need to be preserved and enhanced.
- Many employers have reported



that increasingly stringent land-use codes create barriers that add cost to business development and operations.

3.5 Invest in and maintain utility infrastructure and services while ensuring predictable utility rates.

- Affordable energy costs and high reliability provide an advantage in attracting and retaining energy-intensive industries. Maintaining the system reliability and cost advantage is important to retaining existing primary employers.
- Completion of total undergrounding of the electric distribution and transmission system will require additional resources, increased maintenance and replacement to maintain the current system reliability.
- New infrastructure is needed to deliver services to meet the needs of future growth in areas such as the Mulberry Corridor and northeast Fort Collins.
- Significant water infrastructure (water, wastewater and stormwater) improvements are planned but are not funded.
- Water storage capacity is needed to ensure water rights can be fully utilized to meet future demand and drought management needs.
- Rate structures across all utilities enable end-users to make effective cost and use decisions.

3.6 Deploy and deliver reliable, high-speed internet services throughout the community.

- Following voter approval and issuance of bonds, the buildout of the Connexion system is underway.
- The creation of this new internet utility service requires significant organizational effort and prioritization of activities during the start-up phase.

- High-speed internet service throughout the community will support economic vitality, quality of life, and governmental operations and will be leveraged to facilitate Smart City goals.





Environmental Health

Fort Collins promotes, protects and enhances a healthy and sustainable environment.

For decades, the City of Fort Collins has led the way in innovative and sustainable environmental programs, such as watershed stewardship, water conservation, low-impact development, stormwater management, urban tree canopy preservation, and energy policies. Additional examples include the City's natural areas system, Cache la Poudre River restoration, waste reduction programs, air quality and emissions policies, climate action planning, sustainable purchasing practices, and green building standards.

The City has set some of the most aspirational climate goals in the country, including carbon neutrality by 2050. Achieving the 2020 Climate Action and Energy Policy goals is largely within reach, and it is time to focus on the transformational strategies and policy solutions that will be needed to achieve the 2030 goals. Beginning in 2019, and continuing through 2020, the City is updating three plans: Climate Action Plan, Energy Policy, and the Road to

Zero Waste Plan. These combined planning processes are being conducted together to provide a streamlined engagement process for the community, where if a community member or business engages with one plan, they can impact all three. Collectively, these planning updates are called "Our Climate Future." This plan builds on Fort Collins' goals and leads with equity in both the update process and intended outcomes.

Fort Collins Utilities plays a critical role in environmental stewardship by protecting the watershed and meeting all regulatory standards, as do other utility districts that provide sanitary sewer and water service to Fort Collins residents. Fort Collins Utilities supports innovative programs that go beyond compliance, promoting energy and water conservation, efficiency and clean electricity sources.

The City's efforts to conserve natural areas are a core part of Fort Collins' identity and culture. The program has conserved 44,000 acres since its inception, and continues to conserve land while providing an increased emphasis on stewardship, such



as habitat restoration and visitor amenities. Current land conservation efforts are focused on local, foothills and community separator areas. With regional and global partners, Fort Collins is a leader in

implementing policies and programs that engender a more economically efficient, successful and resilient community, while reducing local climate change impacts.

A healthy and sustainable environment includes:

- Supporting climate action initiatives that will help Fort Collins become a carbon-neutral and resilient community
- Protecting and improving the quality of air, water and night skies
- A sustainable, high-quality water supply
- Conserving resources, including energy and water, and cultivating a healthy ecosystem
- Careful stewardship of, and access to, open lands and natural areas
- A comprehensive and connected system of natural areas and open lands
- Partnerships with local, regional, state and national affiliates to achieve desired goals and outcomes
- Integrating renewable energy technologies for the electric grid
- Solid waste reduction and diversion

Definition & Descriptions

4.1 Intensify efforts to improve resilience and to meet 2030 climate, energy and 100% renewable electricity goals.

- Most of the community's efforts have focused on achieving the short-term 2020 goals, i.e., a 20% reduction in carbon emissions below 2005 levels (Climate Action Plan) and improved efficiency to reach 2.5% annual electricity savings (Energy Policy).
- Results to date have largely been driven by increased renewable resources in the electric grid and efficiencies in home and business operations, while emissions have increased in transportation and natural gas use.
- The community's 2030 goals of an 80% reduction in emissions below 2005 levels and achieving a 100% renewable electricity system require a systems approach that prioritizes the most equitable and scalable solutions to achieve the goals.

- Climate change impacts are already here, and communities in the Intermountain West are particularly vulnerable to increased temperatures, reduced snowpack, threats to water quality, increased storm severity, natural hazards and threats to human health and safety.
- Eighty percent of residents support the City engaging in climate action, and in partnership with others, the City can support ways to engage and empower residents, businesses and institutions with opportunities for sustainable living practices

4.2 Improve indoor and outdoor air quality.

- Fort Collins, along with the Denver/North Front Range region, does not comply with EPA health-based standards for ozone, which comes from local sources such as gas and diesel vehicles, and regional sources such as oil and gas operations.

- Particle pollution like dust and smoke from construction and wood fires can create local nuisance issues and health concerns; visible air pollution (e.g., “brown cloud”) is worse than regional standards approximately one in four days each year.
- Oil and gas operations in and around Fort Collins contribute to elevated ozone levels, increased air toxic emissions, and habitat fragmentation that can harm environmental and human health. Additional strategies may be necessary to address localized and regional impacts.
- Surveys consistently indicate that one quarter of Fort Collins’ households report a member with a respiratory ailment.
- Studies show that people spend up to 90% of their time indoors, indoor air pollution is often much worse than outdoor air pollution, and 56% of Fort Collins homes test high for radon.
- Climate change may contribute to increased air quality risks, such as increased emissions from wildfires, and more high heat days that can contribute to ozone formation.

4.3 Enhance efforts to achieve 2030 zero waste goals.

- Although Fort Collins currently diverts about 57% of its waste stream, the Larimer County Landfill is forecast to reach capacity in 2024. Upon its closure, costs will rise for waste disposal in Fort Collins. Alternatives to landfilling will become increasingly important to help maintain affordability.
- Organics (woody debris, yard trimmings and food scraps) comprise 40% of the waste sent to local landfills and represent a vital opportunity to increase

waste diversion and reduce greenhouse gas (methane) emissions.

- A spectrum of approaches will be needed to meet community goals, including highest and best use of materials through a circular economy, source reduction, reuse, recycling and composting.
- The North Front Range Wasteshed Coalition (Fort Collins, Loveland, Larimer County and Estes Park) is working toward developing new infrastructure and policies to support responsible, cost-effective waste management and resource recovery in Northern Colorado.

4.4 Provide a reliable, high-quality water supply.

- The watershed acts as a primary water treatment facility, so monitoring and protecting the watershed and focusing on long-term storage capability is critical.
- Key local industries rely on a high-quality and reliable water resource.
- Balancing water supply and demand is necessary in the face of a changing climate and increasing population. While the City’s water consumption per capita has declined by approximately 32% since 2000, additional stress is placed on water resources due to growth, climate change and lack of storage.
- The regulatory environment related to emerging contaminants, including micro-plastic particulates, in drinking water and wastewater is evolving.
- The impact of higher costs to acquire water rights and store raw water poses a challenge to ensure adequate and affordable water resources for all water providers in the Growth Management Area.



4.5 Protect and enhance natural resources on City-owned properties and throughout the community.

- A focus on Nature in the City ensures that as the community grows to its build-out population, residents of all abilities have access to high-quality, natural spaces close to where they live and work. It is important for all people, such as those with visual or hearing impairments, to have inclusive experiences.
- Development review and regulations require minimum buffers, work to minimize impacts, protect the night sky, provide guidance, and require mitigation to conserve and enhance natural resources and wildlife habitats.

4.6 Sustain and improve the health of the Cache la Poudre River and all watersheds within the city.

- The Cache la Poudre River has multiple and, at times, competing demands from various users.
- The Cache la Poudre River is a natural amenity and ecosystem to be carefully nurtured and maintained.
- The City's urban streams have been degraded by agriculture and urban development.
- Maintaining river health is dependent on partnerships with local, regional and national organizations that focus on local and regional investments.
- Planned construction of Glade Reservoir by Northern Water in 2023 will impact the Poudre River and requires careful monitoring, mitigation and adaptive management.
- Increasing levels of plastic waste pollution, including macro-plastics (e.g., single-use plastics) and micro-plastics, creates ecological hazards.

4.7 Expand the Natural Areas land portfolio while simultaneously maintaining existing lands and improving equitable access to nature.

- Fort Collins enjoys a unique appeal due to open spaces, access to mountains, parks and trail systems, and an individual identity separate from neighboring communities.
- The City's open space lands and trail network are critical to reaching goals to increase responsible access to nature.
- As Natural Areas experience more visits, challenges arise including how best to address heavy use (e.g., parking and user conflict) and preserve the assets for future generations.
- Access to nature and green infrastructure improves the integration of natural habitat with urban spaces.
- Continue efforts to conserve and restore land that provides habitat and biological diversity, public access via trails, buffers that provide separation from neighboring communities, scenic vistas, opportunities for environmental education and watchable wildlife, and conservation of agricultural lands.





Safe Community

Fort Collins provides a safe place to live, work, learn and play.

The City of Fort Collins strives to be a safe and healthy place to live, work, learn and play. Safety and security are important aspects of a sustainable community as they help shape its appeal, viability, productivity and economic stability. The use of technology to improve prevention, investigative techniques and communication is important. Cybersecurity is a high priority in maintaining safety within our community.

Ensuring that Fort Collins is a safe community is addressed by many services and programs provided by the City and its partners. Residents often identify immediate actions from Police Services and Poudre Fire Authority as key contributors to their sense of safety. A safe community also includes a high-functioning Municipal Court and judicial system.

Reliable infrastructure, such as flood protection systems, and effective emergency preparedness, are critical to a safe community. Infrastructure is protected through best management practices and long-term planning.

Key components of community education include community policing, prevention and preparedness; fire prevention and awareness; and regulations and infrastructure investment. The City's Emergency Management system and many regional, state and federal partners work to minimize and effectively respond to emergency situations.





A safe and healthy community includes:

- A safe and welcoming city in which to live, work, learn and play
- Proactive and skilled police and fire services
- Safe, reliable and best practice floodplain management
- An active emergency management system focused on prevention, preparedness and recovery with key partnerships in place to effectively respond to emergency situations
- Mitigating risks posed by hazards to businesses and property
- Ensuring that hazard mitigation efforts and investments are made equitably

Definition & Descriptions

5.1 Improve overall community safety while continuing to increase the level of public trust and willingness to use emergency services.

- Local and regional coordination is essential to a safe community so that all emergency response teams are aligned and work collaboratively toward successful outcomes.
- Local, regional and federal resources should be maximized to address safety issues.
- An increasingly diverse community requires new communication strategies and non-traditional partnerships to effectively build trust and enable residents to understand the resources available to them to help keep their families safe.
- Partnerships continue to support key enforcement and education programs such as animal control, mental health, substance abuse, detoxification, victim assistance, youth programs, bike safety, county jail and programs to reduce repeat crimes.
- As Fort Collins grows, City policies must focus on ensuring that Police Services is able to remain innovative and adaptable to effectively meet community expectations for public safety.

5.2 Meet the expected level of core and specialized police services as the community grows.

- As the community continues to grow, the type and volume of crimes and community needs will change, requiring additional police resources and skills to maintain and increase community safety.
- The police industry is changing, with a greater number of calls requiring specialized training to deal with mental and behavioral health issues.
- The City is experiencing increased severity and pervasiveness of illegal drug-related incidences and human trafficking that are resulting in negative impacts on the community.
- The use of technology, such as body-worn cameras, and training related to the appropriate use of force helps maintain a high level of transparency and public credibility.
- To meet community expectations, Police Services needs to be nimble in responding to emerging needs, which include community policing, bike patrol, party enforcement and others.
- The fiscal challenge of increasing staffing levels in proportion to our growing population requires

intentional focus on reducing inefficiencies and building capacity within the current workforce.

5.3 Partner with Poudre Fire Authority to provide high-quality fire prevention, community risk reduction and emergency response services.

- When a fire breaks out, the goal is to contain it within the room of origin. To enhance public safety, the goal is to increase containment in the room of origin to 85%.
- Fast response time is crucial to containing fire. PFA's goal is to be on scene 80% of the time within 6 minutes and 20 seconds.
- Public awareness, including school programs, community outreach and social media campaigns, supports fire prevention.
- Development review services ensure that new construction, redevelopment and building activity are consistent with international and local codes.
- Our region has a history of wildfires that have a negative impact on our community and threaten private property, natural resources and water quality.
- The community's demand for Emergency Medical Services continues to grow rapidly, challenging PFA to address demand growth through alternative response models and public education. PFA has one of the highest rates of survival from cardiac arrest in the nation and is dedicated to improving these chances even more.

5.4 Continue to deploy comprehensive emergency preparedness and management strategies.

- The City's Emergency Operation Plan outlines the Citywide emergency mitigation, response and recovery plans for all hazards and calls for ongoing training for staff and volunteers to effectively execute the plan.
- Continuity of Operations (COOP) plans enable City departments to understand best practices and strategies to support operational needs and the highest level of service delivery during times of crisis.
- Emergency planning, preparation and training should leverage federal and state resources and be done in collaboration with regional efforts.
- In 2019, emergency management functions were moved into the City organization in collaboration with Poudre Fire Authority to improve the focus of City operations on community preparedness and enhance service delivery.
- While having robust communication methods, the City has some gaps in its communication plans and capabilities for non-English speakers and residents without access to technology like internet services.

5.5 Address flooding risk for the protection of people, property and the environment.

- Proper stormwater flow management is critical to the protection of people, property and the environment, especially within the 100-year floodplain.
- Approximately 1,100 structures are in the floodplain due to inadequate stormwater infrastructure.



- Reducing the flooding risk to private property and City infrastructure, as well as decreasing the number of flood-prone areas, will increase infill development opportunities.

5.6 Protect mission-critical physical and virtual infrastructure, in addition to privacy data, against increasing cybersecurity threats.

- Many City services are reliant on technology for the continuity of core operations, while improving the effectiveness and efficiency of City services.
- Cybersecurity continues to be increasingly important to the protection of the City's assets and information as well as the protection of customer privacy.
- Cyber audits and awareness training are a critical component of ensuring the City's ability to mitigate everchanging threats from new operational technologies and growing cybersecurity attacks.
- Understanding cybersecurity risks and threats, as well as learning how to detect them, is paramount for every employee to prevent negative impacts from malicious activity.

5.7 Reduce incidents of, and impacts from, disruptive and unwanted behaviors with creative approaches that balance compassion and consequences.

- There is a need for increased access to mental health and substance abuse resources.
- Fort Collins continues to experience an increase in disruptive behaviors, causing numerous challenges and frustration among visitors, business owners and residents.
- Police, Municipal Court, Natural Areas and Parks resources are

disproportionately consumed by transient issues, reducing the level of service provided to other residents.

- The negative impacts from illegal and unwanted behaviors continue to expand beyond the Downtown area and more broadly across our community.

5.8 Improve security at City facilities and properties.

- The City continues to experience an increase in security-related incidents happening at Municipal Court that require police assistance. Current space constraints do not allow for effective deployment of industry-standard security strategies for providing a safe and secure facility for customers and residents.
- Security controls for City facilities are managed by multiple systems, and best practices point to one centralized system as most effective, including the capability to integrate with camera and credentialing systems.
- Perception of safety of Transfort, Parks and Natural Areas has a high impact on residents' use and enjoyment of these services.
- Current lack of protocols to improve security at City facilities provides an opportunity for best-practice policies and associated staff training.



Transportation & Mobility

Fort Collins provides a transportation system that moves people and goods safely and efficiently while being accessible, reliable and convenient.

The transportation system is a key component for nearly all aspects of the City of Fort Collins. The system provides the connecting fabric among residences, employment, schools and shopping. It is critical for economic success and commerce, interconnected with land use, and impacts the Climate Action Plan and healthy living goals. It is also a key aspect of advancing City priorities around access and equity. The success of a high-quality and well-functioning multi-modal system is a community differentiator and reflected in quality-of-life performance measures.

The Transportation Master Plan, approved by City Council in 2019, describes six core components of a sustainable transportation network, all of which are intended to guide Fort Collins toward realizing the overall transportation vision over 20 years. These components provide a comprehensive framework

for assessing current network conditions and inform where Fort Collins can enhance its mobility programs and investments to achieve broader-reaching outcomes. These components were closely evaluated and used to inform the strategic objectives of this document as a method to focus on near-term actions. The six core components are:

- (1) Transportation Infrastructure – Planning a physical transportation network that supports multimodal travel.
- (2) Mobility & Travel Choices – Considering the role each transportation mode plays in shaping the Fort Collins mobility network.
- (3) Health & Equity – Ensuring the transportation network plays a key role in advancing social outcomes.
- (4) Innovation – Understanding emerging technologies and how new trends are influencing the movement of goods and people.
- (5) Safety – Eliminating serious injuries and fatalities on Fort Collins roadways.
- (6) Sustainability & Resiliency – Shifting transportation away from creating harmful environmental impacts toward being a resource for improving environmental outcomes.



A connected and mobile community includes:

- Integrated land use and transportation planning and investments
- Transportation facilities and networks that are reliable, affordable, efficient, connected and comfortable
- Capacity and systems for effective traffic flow and minimal congestion
- Programs that facilitate well-informed travel-behavior decisions
- Growing and leveraging changing transportation technologies

Definition & Descriptions

6.1 Improve safety for people using all modes of travel.

- The City has a goal to reduce traffic fatalities to zero (Vision Zero).
- Crashes have a negative impact of \$165 million annually in Fort Collins, borne primarily by the public at large.
- Appropriate programs, policies, educational resources and infrastructure improvements (e.g., accessible sidewalks, safety-conscious intersection design, and low-stress networks) work to reduce the overall number and severity of traffic accidents.
- Community awareness and education regarding collisions involving vulnerable road users including pedestrians, bicyclists and motorcyclists is a focus. School safety is a priority and requires community partnership.
- Quality infrastructure is necessary to improve safety, including safe, accessible, well-functioning, high-quality intersections, streets, bikeways, sidewalks and trails.

6.2 Manage traffic congestion and improve high-priority intersections for all users.

- Approximately half of Fort Collins residents commute out of Fort Collins and half of Fort Collins workers commute into Fort Collins from other communities.
- Specific infrastructure projects (such as intersections) to improve safety, efficiency and reliability can have significant positive impacts. Project identification is through a data-driven approach and existing prioritization studies that evaluate congestion relief and safety.
- Continued focus on efforts to increase bicycling throughout Fort Collins will have benefits to other modes of travel.
- Demand-management strategies can be effective in reducing traffic congestion and require a coordinated approach that evaluates the entire transportation system.
- Technology should be leveraged to maximize system capacity and efficiency.

6.3 Ensure equitable access to and expansion of all sustainable modes of travel, with emphasis on growing transit ridership.

- Currently, 74% of all trips in Fort Collins are people driving alone. A behavioral and cultural change is necessary to shift transportation modes.
- As the City approaches buildout, additional roadway expansion becomes less effective and more expensive. Creating opportunities for sustainable modes of travel for all people is a key piece of achieving mobility and quality of life outcomes. Special consideration should be given for transit-dependent populations.
- A fully functioning transit system requires a level of service that allows the rider to move throughout the community in a timely manner and works seamlessly with other modes of travel.
- The Transit Master Plan was updated in 2019 and calls for high-frequency transit and innovative approaches to expanding coverage to create additional high-productivity and accessible routes.
- Electrification of buses, the City's fleet, and the community vehicle fleet is an important piece of reducing transportation-related emissions and will require associated infrastructure.

6.4 Support, enhance and accelerate I-25 improvements according to the multi-modal environmental impact statement.

- Construction of managed lanes on I-25 is underway between Highway 14 and Highway 56.
- The remaining gap between Highway 56 and Highway 66 will require additional and creative partnerships with the state and federal governments.

- To date, regional partners (Larimer County, Weld County, Berthoud, Johnstown, Loveland, Timnath, Estes Park, Windsor and Wellington) and private-sector investors have contributed \$55 million toward the Colorado Department of Transportation project to add managed lanes.
- Due to limited highway capacity, multi-modal options such as commuter rail, transit, and other innovative regional solutions should be explored.
- Improvements to gateway interchanges and bridges, as well as pedestrian and bicycle access under I-25, are key design elements that will help enable regional alternative modes of transportation to safely cross the busy thoroughfare.

6.5 Maintain existing and aging transportation infrastructure and address missing facilities to meet community needs and expectations.

- The lack of transportation infrastructure in the northeast quadrant (some requiring significant investment) limits opportunities for affordable housing and business development that would meet the same quality and standards as the rest of the community.
- Street maintenance, high-functioning intersections, multi-modal facilities, and completion of the sidewalk network are a high priority for the community.
- The cost of infrastructure maintenance continues to increase rapidly along the Front Range.
- Desired aesthetic components (e.g., medians) and current design standards have an impact on project implementation and increase ongoing maintenance costs.



- The City has a significant number of bridges, culverts and irrigation ditch crossings that are in need of repair.

6.6 Manage parking supply and demand Downtown, along the MAX corridor and near Colorado State University.

- Parking at key locations maximizes the effectiveness of integrated transit, bicycle and pedestrian solutions.
- Access to convenient parking for people of all abilities is an important consideration.
- Successful implementation of transportation demand-management strategies should reduce automotive congestion and the increasing need for associated parking.
- Mobility hubs enhance last-mile access into neighborhoods from key parking locations and need consideration along future BRT corridors.
- Current pricing structures disincentivize parking in preferred long-term locations.

6.7 Manage safety, congestion and quality of life impacts from train operations in Fort Collins.

- Train horn noise causes significant impacts for residents and businesses in Fort Collins.
- Increasing frequency of long trains (up to three miles) causes severe traffic congestion and negatively impacts public safety.
- Lack of grade-separated crossings, particularly near the Burlington Northern Santa Fe Railroad switching yard in northeast Fort Collins, also causes significant congestion and negatively impacts neighborhood quality of life.





High Performing Government

Fort Collins exemplifies an efficient, innovative, transparent, effective and collaborative city government.

A high-performing government delivers services desired by the community through sound financial management; data-informed, transparent and collaborative decision-making; effective communication and efficient project management. To achieve this, the City attracts and employs diverse and competitive talent, retains its workforce through development and growth opportunities, and promotes intelligent risk-taking to address increasingly complex challenges.

The City's vision, mission and values are reinforced at every level of the organization and guide its culture. Exceptional customer service that is responsive to the needs of residents and businesses is crucial in every interaction among the City and all members of the community.

Public involvement and a transparent government are cornerstones of a high-performing community. The City values inclusive community engagement and involvement in the planning and decision-making

process. It also collaborates and problem-solves with adjacent municipalities, CSU, school districts, Larimer County, special districts, local organizations and interested individuals.

Key Citywide processes have been identified, including leadership, strategic planning, budgeting, organizational development and human resources that are aligned to develop an organization that listens to and engages the public, continuously delivers high-quality services to the community, facilitates high performance and generates trust in and transparency of City business.

The City of Fort Collins uses a systems approach to apply economic, environmental and social lenses to decision-making. The City is also committed to continuous improvement and performance excellence. Operational data and performance metrics, along with data from surveys, benchmarking, engagement events and face-to-face interactions, are key to decision-making and pursuing strategic opportunities for improvement. The City budget reflects community values, challenges and opportunities.

A high-performing government includes:

- Effective and efficient local governance where all community voices are valued
- Fiscal sustainability and transparency
- A collaborative and community-based approach to problem solving
- Core processes that are consistently used across the organization



- An organizational culture of continuous improvement in all areas
- A systems approach, driven by data, to effectively solve problems, creatively pursue opportunities for improvement and develop innovative solutions
- A workforce of talented people who care deeply about public service and trust
- Promoting lifelong learning, volunteerism and philanthropy
- Citywide strategies and standards for meaningful and inclusive involvement in governance and decision-making

Definition & Descriptions

7.1 **Provide world-class municipal services through operational excellence and a culture of innovation.**

- Delivering world-class services provides a platform for co-creation that enables residents, businesses and non-profit agencies to help enhance Fort Collins and solve challenging community issues.
- The City continues to implement systems and processes that improve services and resident satisfaction, as is consistent with the City's performance excellence journey.
- While the City strives to meet the needs of all community members, regulation, stewardship, voter-driven actions and other factors may dictate circumstances in which the City is unable to satisfy some residents and businesses.
- As the organization has increased service delivery to the community, internal support services are strained to keep pace.

7.2 **Maintain the public trust through a high performing board, as well as organizational transparency, legal and ethical behavior and regulatory compliance.**

- City Council and the organization place a strong value on maintaining public trust and have articulated high expectations

regarding transparency.

- In 2019, 65% of residents indicated the overall direction of the City was positive, which is above national and Front Range benchmarks.
- The City continues to focus on fostering a culture of ethical behavior and embedding core values into the culture to reinforce accountability.
- Oversight, coordination and collaboration are required for the City to comply with various federal and state laws, such as the Americans with Disabilities Act (ADA), Title VI and Fair Housing.
- State and federal regulatory environments are constantly changing. The City strives to be in front of and exceed many regulatory requirements.

7.3 **Improve effectiveness of community engagement with enhanced inclusion of all identities, languages and needs.**

- The City's Public Engagement Strategic Plan focuses on fostering an engaged community, equipping staff to successfully lead public engagement projects, prioritizing inclusivity, and ensuring accountability and excellence in community engagement.
- Fort Collins has a diverse mix of residents who desire meaningful



engagement, trust and regular communication with their local government. Cultural and language gaps, and limited time can be barriers to engagement.

- The City is seeing “engagement fatigue” with reduced participation in community outreach and stakeholders voicing concern about over-engagement and the pace and breadth of City initiatives.
- The City needs to continue to reimagine community engagement to reach the entire community in meaningful ways.

7.4 Attract, retain, engage, develop and reward a diverse and competitive workforce to meet the needs of the community now and in the future.

- Cost of living increases, anticipated retirement of City employees, and projected growth in the regional population increase the challenges in the region and for the City related to talent management.
- A competitive total compensation offering is essential to hire and retain talent.
- Investment to constantly develop and engage our employees is critical to ensure an agile workforce ready to meet the evolving needs of our community.
- A diverse workforce leads to increased innovation, productivity and creativity. The City organization has a need to develop diverse talent pools and increase representation in its leadership pipeline.
- The City relies heavily on a dedicated group of volunteers to assist the workforce in delivering world-class services. Opportunities exist to further leverage the talent of our volunteers.

7.5 Foster a culture of safety, well-being, resilience and sustainability across the City organization.

- The City’s safety culture is one of prevention, education, safe design principles and collaborative partnerships with City Wellness.
- The City’s Total Recordable Injury Rate (TRIR) and Days Away Restricted or Transferred (DART) case rates continued to improve over the past two years, but significant progress remains necessary to reach stated goals of being the safest workplace in America.
- The City offers a holistic approach to well-being for our workforce and their families by increasing engagement, impacting productivity and decreasing health care costs.
- The City views it as critical to lead by example in sustainability. The recently completed Municipal Sustainability and Adaptation Plan calls for focused effort in resiliency, public lands, water, waste, emissions and workforce to reach the 2050 goals.

7.6 Utilize technology, data, metrics and process improvements to innovate, guide decisions and enhance service delivery.

- As large data sets become more readily available for analysis, the City needs to evolve its business practices and partner with the community to make best use of that data.
- The City recognizes the need to identify and refine benchmarks, which help to determine world-class performance levels and targets from regional, national and global comparisons across industries.
- The City lacks a coordinated approach to fully integrate and



deploy advanced information and connected technologies (Internet of Things [IoT]) to help manage key infrastructure, public health and safety systems.

- Developing a systematic approach to “smart cities” thinking, including how to best utilize data and artificial intelligence (AI), can produce better outcomes for residents and businesses.
- In 2019, 13,500 hours of staff time was saved through performance improvement work led by the City’s FC Lean program. Additional opportunities remain in the organization.

7.7 Address long-term projected gap between available revenue and what is required to meet known and emerging needs.

- Increasing community demands, staffing required to provide services to a growing population, and inflationary costs are pressuring the City’s reserves as revenue growth slows compared to nearby communities.
- The 2019 Long Term Financial Plan indicates that long-term total expenses are expected to grow at 3%, while total revenues are expected to grow at 2.1%. The City has explored revenue diversification options and continues to evaluate potential causes and solutions.
- Various areas across the City lack funding for enhanced and replacement capital investments, including transit, Golf, Parks, transportation infrastructure, etc.

7.8 Maintain and protect assets and infrastructure to drive reliability, cost effectiveness, efficiency and improve the customer experience.

- As the City’s assets age, renewal and replacement are critical to maintaining service standards.
- The City owns and maintains 100 buildings. The average facility age is 38 years and critical mechanical components are reaching end of life and are inefficient.
- Tools and systems that support capacity planning and capital asset needs, monitor asset life and condition, and schedule repairs (based on optimal asset life cycle cost estimates) may improve the effectiveness of asset management.
- Virtual assets, such as software licensure and data, are also critical to delivering City services and require consistent cycles of replacement and maintenance.
- Lifecycle replacement gaps pose risk to the City’s ability to provide safe and quality experiences that meet resident expectations.

7.9 Proactively influence policy and legislative development at all levels.

- The City plays a critical role in influencing local, state and federal policy that impacts its ability to achieve Key Outcomes.
- Proactive influence of other government policy and legislation can help ensure a workable outcome for the City and its residents.
- Policy decisions at other levels of government result in sometimes burdensome compliance requirements that require additional human capital as well as funding solutions to ensure legal compliance.



APPENDIX A

Performance Measures

The City of Fort Collins is committed to being a data-driven organization.

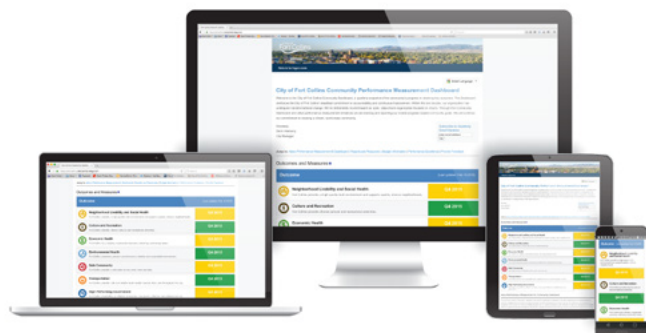
Using quantifiable data and analysis, the City tracks and measures success in achieving the Key Outcomes and Strategic Objectives defined in this plan. This includes identifying

appropriate metrics related to both Key Outcomes and Strategic Objectives, establishing appropriate targets for each of these metrics, tracking the actual performance of each metric over time, and regularly reviewing and discussing the performance.

Community Dashboard

The City's focus on tying metrics to specific Outcomes began in 2013. Staff, working with City Council, developed the Community Dashboard where each of the seven Outcome Areas has four to seven performance metrics that track, at a high level,

the City's progress in achieving the desired Outcome. Every measure on the dashboard is measured against a target. The Community Dashboard is updated quarterly and can be found online at [fcgov.com/dashboard](https://www.fcgov.com/dashboard).





NEIGHBORHOOD LIVABILITY & SOCIAL HEALTH MEASURES

Affordable Housing Inventory

Affordable housing units house the City's lowest wage earners and are important to the sustainability of our community. Through policy and funding, the City would like to at least maintain and preferably increase the number of units available to consumers requiring this type of housing. Low income housing in Fort Collins is for people who earn 80% or less Area Median Income.

Fort Collins' Housing Opportunity Index (HOI) compared to western states region HOI

The Housing Opportunity Index (HOI) is defined as the share of homes sold in an area that would have been affordable to a family earning the local median income. The target is to be in the top third (66% or better) for the Western region of the United States.

Response Time to Graffiti Removal

This indicator measures the amount of time to respond to and abate both reported and unreported graffiti in the City. The goal is to have graffiti properly abated within two business days.

Voluntary Code Compliance

This metric tracks the percentage of voluntary compliance with nuisance code violations issued by the City of Fort Collins. Voluntary compliance is defined as violations corrected by the property owner or tenant.

Voluntary Speed Compliance

This monthly metric (averaged by quarter) measures speed compliance to 30 mph zones throughout the city. Speeding through neighborhoods can be a quality of life issue for many. Fort Collins is an outdoor activity centered city, with many of its residents frequently enjoying the outdoors in the neighborhoods. Speeding through neighborhoods, commonly a 30 mph zone, can be of concern, especially if near a school or an area with many children present. This metric measures the compliance rate to those 30 mph zones, and can assist with identifying areas for education and enforcement efforts.



CULTURE & RECREATION MEASURES

Gardens on Spring Creek - Total Cumulative Participation

The total number of participants at the Gardens on Spring Creek.

Golf Courses - Total Cumulative Participation

The total number of participants at all three City of Fort Collins Golf Courses.

Lincoln Center - Total Cumulative Participation

The total number visits and participation at the Lincoln Center.

Museum of Discovery - Total Cumulative Participation

The total number visits and participation at the Museum of Discovery.

Natural Areas Programs - Cumulative Participation per Capita

The participants per capita attending Natural Areas programs.

Paved Trails - Cumulative Number of Visits

The total number of people accessing and utilizing the City's paved trails system.

Recreation Programs - Total Cumulative Participation

The total number of participants in Recreation programs, events and facility visits.



ECONOMIC HEALTH MEASURES

Commercial Vacancy Rates

Percentage of vacant, leasable commercial space within the city. This is divided into three categories: Industrial, Office and Retail. The category with the worst vacancy rate is displayed and that is the value compared to our target.

Electric System Average Interruption Duration Index (SAIDI) in Minutes

The electric distribution System Average Interruption Duration Index (SAIDI) is a description of the length of time all customers would have been out of power if the total number of hours out of service in a year's time were to be shared, and it is typically measured in minutes. The number of outages as well as the time between the start of an outage and the restoration of electric service have a bearing on this number.

Local Unemployment Rate

Local unemployment rate is the percentage of the total labor force that is unemployed but actively seeking employment and willing to work. This includes persons actively looking for work in the prior 4 weeks by contacting an employer directly, having a job interview, sending out resumes or filling out applications.

Business Establishments per Capita (Larimer County)

This metric provides an understanding of business and job growth in the City. The total number of business establishments in Larimer County is divided by the current Larimer County population to understand job and business growth relative to population changes. The data reported is 2 Quarters in arrears due to the timing of receipt from Larimer County.





ENVIRONMENTAL HEALTH MEASURES

Community Electricity Use Per Capita (kWh/quarter)

This metric tracks electricity use (kWh) per capita. It is calculated by dividing the yearly community electricity use by that year's population. By tracking electricity use at a per capita level, changes in behavior, efficiency and other influencing factors are more visible than at the community level where population can mask these trends. Performance improves as electricity use per capita declines. Data is provided by Fort Collins Utilities.

Community Water Use per Capita

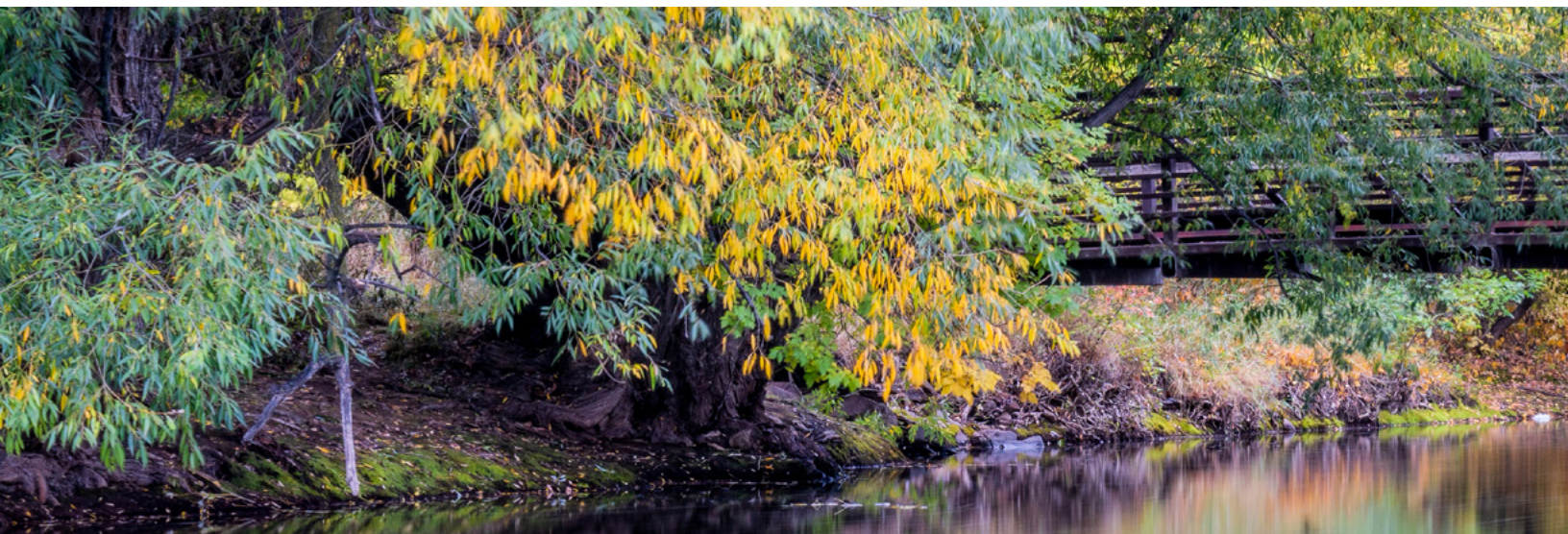
This metric tracks water use (gallons) per capita for each quarter, split by commercial and residential water use. It is calculated by taking the total water use in a quarter, divided by the number of days in the quarter and estimated population in the Fort Collins Utilities water service area. This metric is expected to fluctuate throughout the year, as water use increases during the summer months and is higher in hotter, drier years. Data is provided by Fort Collins Utilities.

Outdoor Air Quality Index (AQI)

The Air Quality Index (AQI) is used by the EPA to communicate daily air pollution and health implications. Shown are the number of days per quarter in which the ozone or PM2.5 AQI was categorized as "Unhealthy for Sensitive Groups," "Unhealthy" or "Very Unhealthy." The metric is a measure of the number of 'good' air quality days (as defined by EPA's Air Quality Index - AQI) in a quarter based on air quality monitoring data from Fort Collins. The AQI is calculated by EPA as a measure of local air quality and its effect on human health. The higher the AQI value, the greater the level of air pollution and the greater the health concern. 'Good' air quality corresponds to an AQI of 50 or less (on a scale of 0-500) and poses little or no risk of adverse health effects.

Wastewater Treatment Effectiveness Rate (%)

The utility's compliance with the effluent quality standards in effect for the Water Reclamation and Biosolids Facilities. The indicator is expressed as the percent of time each year that an individual wastewater treatment facility is in full compliance with applicable effluent quality requirements.





SAFE COMMUNITY MEASURES

Average Response Time to Police Priority 1 Calls

This measure represents the average response time to Police Priority 1 calls. Priority 1 calls make up less than 1% of the overall calls for service, however, these are the highest priority of call, one that is an immediate threat to life, a felony-in-progress call, or a call where a weapon is being used. This time is measured from the time the call is received to the time the officer arrives at the scene.

Drinking Water Compliance Rate (% Days)

Fort Collins Utilities compliance with the drinking water quality standards in effect for the Water Treatment Facility. The indicator is expressed as the percent of time each year that an individual water treatment facility is in full compliance with applicable drinking water quality requirements.

Number of Injury/Fatal Crashes

Injury/Fatal crashes is the number of reported public street crashes involving motor vehicles, bicyclists or pedestrians where someone was injured or killed.

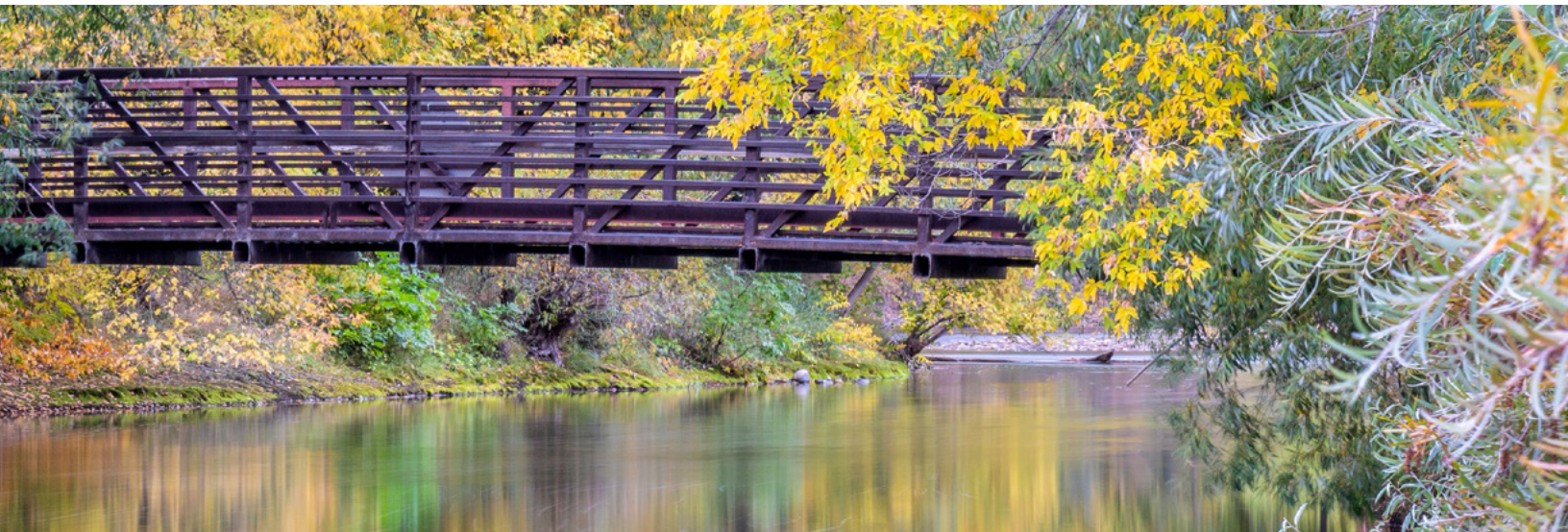
Part 1 Crimes in Fort Collins (per 1,000 population)

Part 1 crimes are defined by the FBI as

Aggravated Assault, Arson, Auto Theft, Burglary, Homicide, Rape, Robbery and Theft. Part 1 crimes are the common set of criminal offenses that law enforcement agencies across the county collect data and report statistics for on an annual basis.

Percent of Time Fire PFA Intercedes before Flashover (contained to room of origin)

This measure relates to the ability of on-scene firefighters and building sprinklers to prevent fire flashover and the spread of a structure fire.





TRANSPORTATION & MOBILITY MEASURES

Average Travel Speeds/Times on Arterial Streets

Traffic volume-weighted average travel times (in minutes/mile) on City arterial streets including Harmony, Horsetooth, Drake, Prospect, Mulberry, Taft Hill, Shields, College, Lemay and Timberline during the p.m. peak period on weekdays.

Cumulative Lane Miles of Roadway Pavement Improved

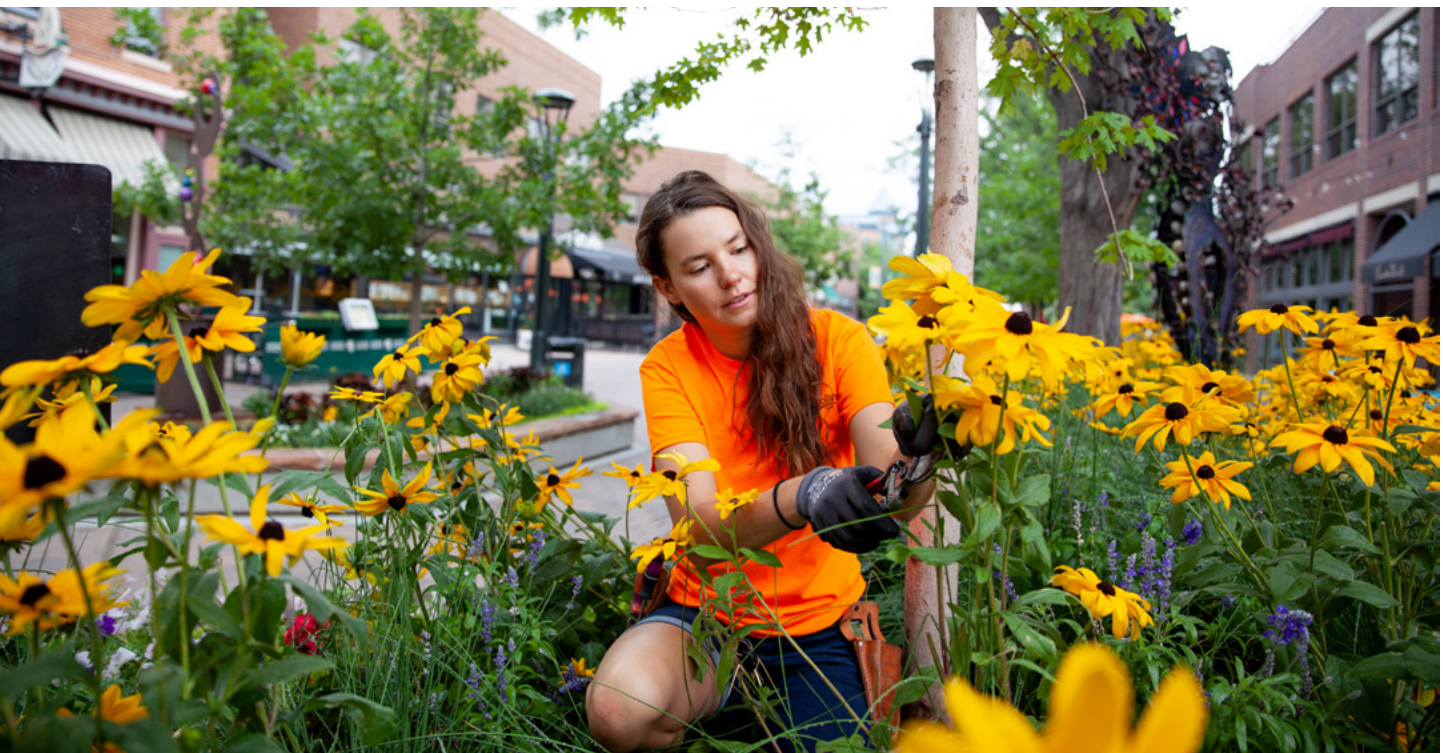
The number of lane miles improved displays the City's commitment to providing safe, well-maintained streets. Proper maintenance reduces future maintenance costs by extending the life of the pavement and maximizing our investments. Quarterly targets are set to provide information on our progress toward meeting our yearly goals. These targets vary from quarter to quarter due to weather limitations of the construction season. Achieving our yearly goals allows us to meet our overall street pavement condition Level of Service 'B' (LOS). The total number of lane miles improved annually increased significantly starting in 2011 due to the increased revenue dedicated to Street Maintenance and Repair in the Keep Fort Collins Great tax initiative in 2010.

Transfort Ridership (in thousands)

The total number of fixed route passenger boardings. The target is a 5% increase in fixed route ridership over the previous year. The graph shows the actual fixed route passenger boardings each quarter (in thousands).

Average # of Transfort riders per hour of operation

The average number of passengers who board a transit vehicle for every revenue hour of service that a vehicle is operating.





HIGH PERFORMING GOVERNMENT MEASURES

Accuracy of Cumulative Budgeted Expenses (\$ millions)

This metric covers the accuracy and precision of planned (budgeted) and actual expenditures. Expenditures include operating costs, such as personnel, insurance, consulting and supplies, as well as debt payments and capital equipment purchases. Not included are the costs of large capital projects that occur over several years and have a beginning and end.

Expenditures are separated into Governmental and Enterprise. Governmental expenditures are for those activities that are primarily supported by taxes and grants and to a much lesser degree from fees. Examples are Police, Streets Maintenance, Parks, Museum, Fire, etc. Alternatively, Enterprise expenditures related to activities that are accounted for like a business and are entirely supported by fees charged to users. These include Light and Power, Water, Wastewater, Storm Drainage and Golf.

Actual Cumulative Revenue Compared to Budget (\$ millions)

This metric covers differences from anticipated (budgeted) and actual revenue. Revenue includes taxes, fees, grants, fines, interest earnings, etc. Revenue is separated into Governmental and Enterprise depending on the activity it supports. Governmental revenues are typically taxes, grants and fines used to support police, streets, museum, fire and parks. Examples of Enterprise revenue are fees for energy, water, wastewater and golfing.

Average Response Time of Cases Submitted to Access Fort Collins

Total cases submitted online or via mobile application, including Councilmember and City Manager requests (SARs). Average Response Time is the average number of business days from when a case is submitted to when a staff response is sent.

City Employee Cumulative Turnover Rate

Turnover is a measure of the rate at which employees leave employment with the City. It includes classified and unclassified management employees and all separation reasons (layoffs, and voluntary and involuntary terminations). While turnover is typically measured annually, this report includes turnover reported on a year-to-date basis for each calendar year. The rate is calculated by dividing the total number of employees who separated year-to-date by the average headcount for that reporting period (quarters are cumulative).

City Employee Safety - Days Away Restricted or Transferred (DART) Rate YTD

The Days Away Restricted or Transferred (DART) rate calculation is based upon the number of work related injuries and illnesses severe enough to cause an employee to be temporarily reassigned or miss work completely in relation to the total number of employee hours worked. This is a nationally recognized standard safety metric. Current-year benchmarks are not available as they are published by the Bureau of Labor Statistics and have an approximate 18-month lag time.

City Employee Safety - Total Recordable Injury Rate (TRIR) YTD

The Total Recordable Injury Rate (TRIR) is a nationally recognized standard safety metric. It is based upon the total number of work related injury and illness cases reported that, generally speaking, required more than standard first aid treatment, as it relates to the total number of employee hours worked. Current-year benchmarks are not available as they are published by the Bureau of Labor Statistics and have an approximate 18-month lag time.



APPENDIX B

Long-Term Financial Plan

OVERVIEW

The City updates the Long-Term Financial Plan (LTFP) outlook every two years as part of the Strategic Planning Process. The objective is to highlight potential challenges and aid in philosophical decision-making on strategies that span the longer term (5-10+ years). These planning exercises then inform the biennial Budgeting for Outcomes (BFO) process through which specific services, programs and projects are funded.

The City enjoys a strong, diversified economic base, has done an excellent job in managing its expenditures and maintains a Aaa Moody's credit rating (affirmed in December 2019 and ranking in the top 3% nationally). The City maintains \$235 million in reserves (excluding Enterprise Funds) and manages an annual net City budget of approximately \$275 million (\$500 million including Enterprise Funds).

The LTFP outlook Baseline Scenario uses most likely outcomes, assuming current operating conditions and existing service delivery levels. Unidentified productivity increases, process improvements and technology savings, as well as revenue enhancements and potential financing alternatives, are not included in the baseline scenario. Additionally, no outlier impacts (severe recession, natural disaster, etc.) are assumed to happen. If one of these circumstances were to occur, potential drastic measures may need to be taken that are not built into the forecast scenarios.

BACKGROUND

During the last two Strategic Plan updates in 2016 and 2018, a key component of uncertainty was the potential for the Keep Fort Collins Great tax (KFCG) to expire during 2020. The potential loss of that revenue source (approximately \$32 million per year) would have put severe pressure on the City's finances. Fortunately, voters approved an equivalent tax amount (0.85% in total) in two pieces; adding 0.6% permanently to the core 2.25% General Fund tax rate and another 0.25% to the General Fund as a ten-year renewable tax in April 2019. However, even with the renewal, underlying projections during these prior plan updates indicated annual City expenditures could exceed annual revenues over the longer term (potentially reaching \$15 million per year by the year 2025).

OUTLOOK

The cost pressures over the long term from growth in expenditures outpacing growth in revenues continue in the 2020 LTFP update. The City is serving an increasing population base and expanding service offerings to meet community needs. To help address these increasing needs, the City has added approximately 25 full time equivalent (FTE) employees per year during the past four years. Supplements of additional resources to this existing workforce will be needed to meet future service requirements. Estimates of revenue growth from existing sources, while continuing to grow

annually since the general economic recovery started in 2010, have softened somewhat and are expected to grow at less than historical rates. New avenues of revenue will need to be explored.

The forecast includes the following primary revenue and expense drivers:
Primary Revenue Drivers

- Sales Tax – growth of 2.5% based on taxable sales historical average, lower growth than prior LTFP forecasts
- Use Tax – growth of 3.6%, similar to prior forecasts but from a lower base than prior LTFP forecasts
- Property Tax – growth of 5.0% based on 5-year average; considers steep property valuation increases from 2016-2019
- Capital Grants – very project-specific; tied to Consumer Price Index (CPI) growth at 2.7%
- Shared Revenues – County and State distributions, 1.2% growth (similar to historical rate for past 15 years)
- Cultural, Park, Recreation and Natural Areas Fees – average historical rate of 3.3%

PRIMARY EXPENSE DRIVERS

- Salaries and Wages – combined growth rate of 3.7%; includes CPI of 2.7 percent plus additional for projected FTE increases
- Benefits – combined growth rate of 4.7%; increase at 1% over CPI of 2.7 percent plus additional for projected FTE increases
- Professional and Technical – growth of 3.2%, correlated to CPI and sales tax
- Supplies and Other Purchased Services – 2.3% growth
- Infrastructure – 3.0% growth rate, correlated to sales and use tax

The 2020 LTFP Baseline Scenario (see Exhibit 1) shows our projected revenues, expenditures and future estimated fund balances. Long-term revenue is estimated to increase at an approximately 2% compound annual growth rate (CAGR). Meanwhile, expenditures are projected to grow at 3% CAGR. The projected gap between revenue and expenditures could reach \$35 to \$40 million per year by 2025.

The City is required to balance the budget during the biennial BFO process and cannot deficit spend beyond the utilization of existing available fund balances. As such, the decline in fund balance in Exhibit 1 and the gap between revenue and expenditures is illustrative of the tension the City will feel in trying to meet growing service level needs with a slower growing revenue stream.

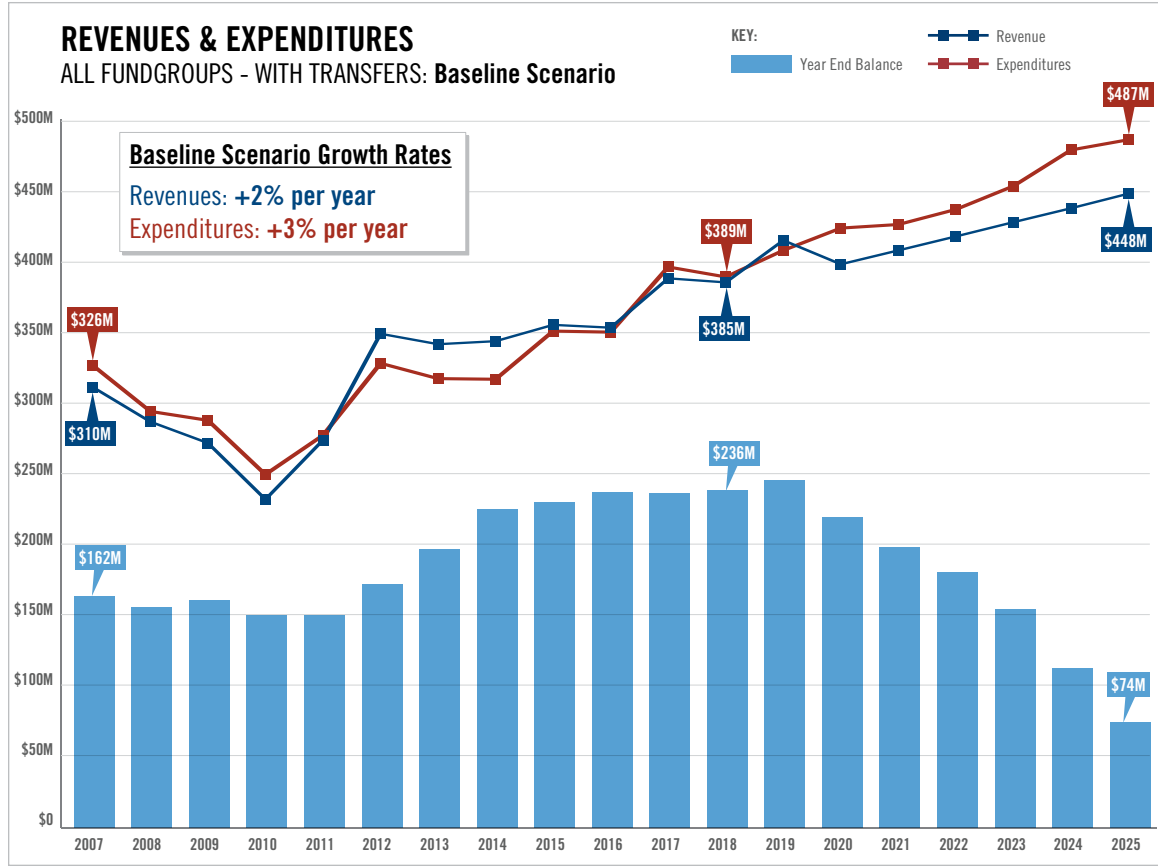
The City will need to evaluate all alternatives to shrink the gap between projected baseline expenditures and projected baseline revenues. The unidentified expenditure savings and potential revenue enhancements that are not included in the Baseline Scenario should be fully investigated and considered for all future BFO cycles. Scenario B – Gap Closure (see Exhibit 2) provides a view of what the City's finances look like under this environment. Long-term expenditure growth is limited to 2.25% per year (from 3%) and revenues are increased slightly to 2.25% as well (from 2%).

SUMMARY

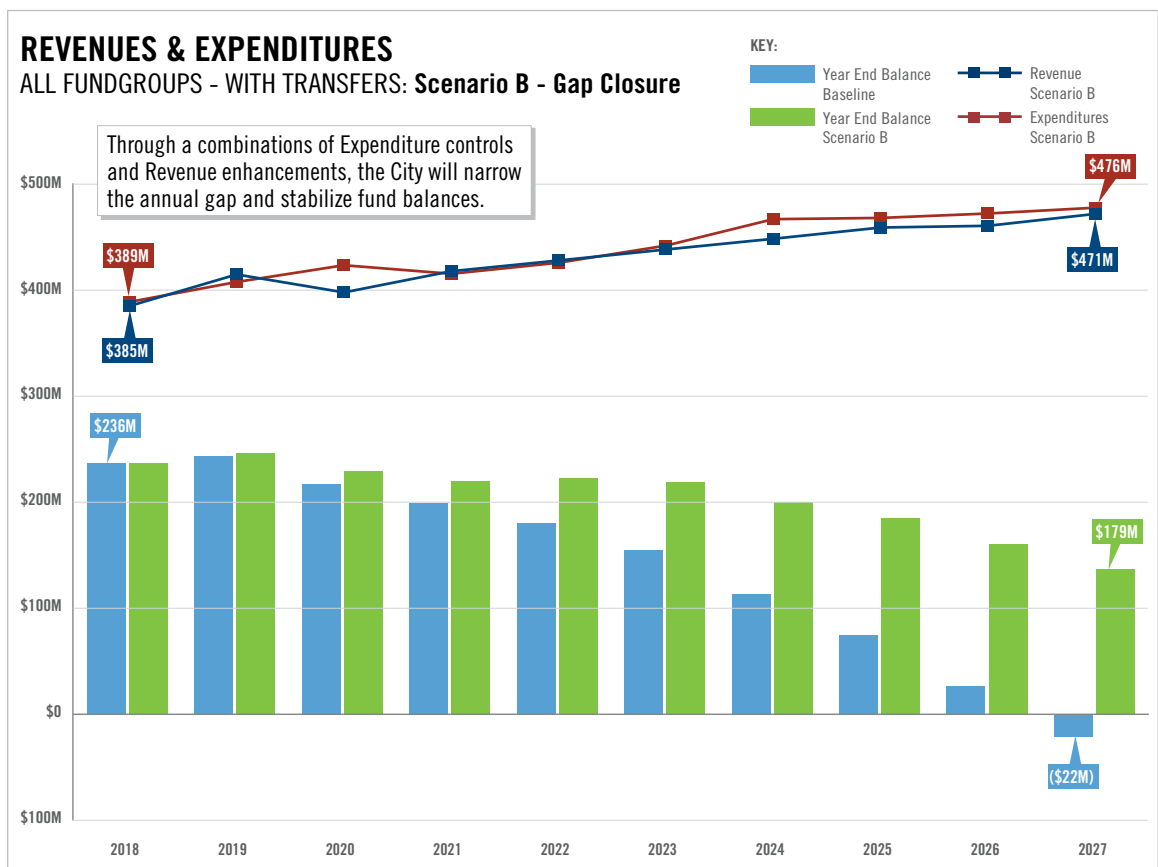
The City has a strong track record in prioritizing and managing its complex service delivery requirements in a prudent financial manner. As the cost pressures persist and revenue challenges continue, the City's proactive monitoring of and adjustments to the environment will be vital to maintaining this success.



c1



c2







APPENDIX C

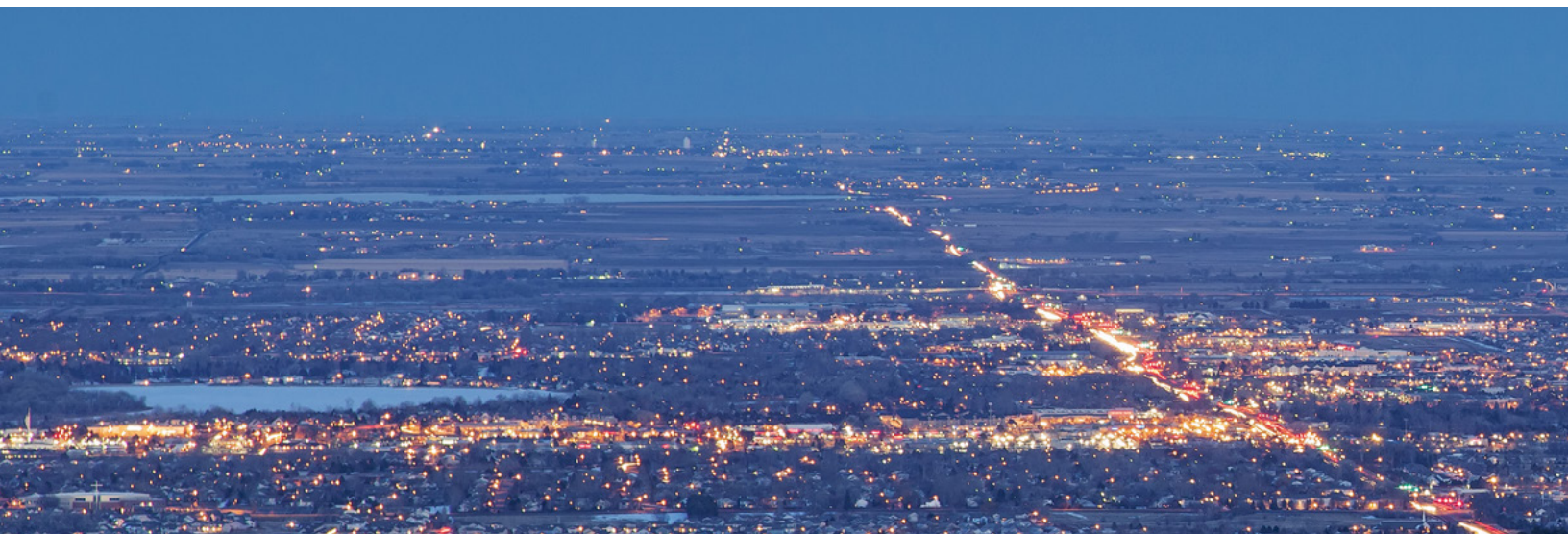
Glossary of Terms

- **BART - Budget Analysis and Reporting Tool:** Software developed internally by City staff for budgeting and reporting purposes.
- **BFO - Budgeting for Outcomes:** A system driven by goals and performance to provide information that relates budgeting to planning and outputs/results. Its purpose is to better align the services delivered by the City with the things that are most important to the community.
- **BFO Team:** One of seven cross-departmental teams that participate in the BFO process, articulate goals for each Outcome, provide direction to departments for developing budget Offers, rank Offers for funding, and evaluate performance of Offers.
- **BLT - Budget Leadership Team:** The City Manager and his/her executive team
- **CAP - Climate Action Plan**
- **City Plan:** Began in 1995 as a Comprehensive Plan that illustrates how the City and community envision Fort Collins in the next 25 years.
- **Community Dashboard:** A quarterly snapshot of the community's progress in attaining Key Outcomes. The Dashboard reinforces the City of Fort Collins' steadfast commitment to accountability and continuous improvement. Performance measurement initiatives are tracked and reported for overall progress toward community goals.
- **Continuity of Government:** Emergency management requirement and plans to maintain essential City functions during emergencies and disasters including governance, telecommunications, health and safety regulation, policing and utility services.
- **CPIO - Communications and Public Involvement Office:** City department charged with public information dissemination, communications strategies and public engagement in City services.
- **DART - Days Away Restricted or Transferred**
- **DDA - Downtown Development Authority**
- **ELT - Executive Leadership Team:** The City Manager and his/her executive team
- **FTE - Full time equivalent:** A full-time employee scheduled to work 40 hours per week is equivalent to 1.0 FTE.
- **Futures Committee:** The Futures Committee was formed to assist City Councilmembers in their decision-making process. The goal is to position the City in the distant future (30+ years) for achievable successes, integrating community desires with known fiscal, social and environmental data.
- **GEMS - Greenhouse Gas Emissions Management System**
- **GHG - Greenhouse Gas Emissions**
- **GMA - Growth Management Area**



- **GSC - Gardens on Spring Creek**
- **Home Rule:** A form of government under the control of local residents rather than state government; the City Charter and the ordinances adopted by Council under the Charter supersede any conflicting law of the state in matters of purely local concern. Statutory and constitutional provisions allow municipalities to exercise powers of local self-government, such as the administration and collection of local taxes.
- **HR - Human Resources**
- **ICMA - International City/County Management Association:** A trade organization for Council-Manager cities; a clearinghouse for information regarding cities, including the ICMA Center for Performance Excellence Program of comparative data regarding municipal services.
- **IGA - Intergovernmental Agreement**
- **ICS - Incident Command System:** A nationally-used, standardized emergency management organizational structure for single or multiple incidents that can cross organization or jurisdictional boundaries.
- **IT - Information Technology**
- **KFCG - Keep Fort Collins Great:** A ballot measure passed in November 2010 approving a 0.85 percent increase in the City sales and use tax rate.
- **Low to Moderate Income:** Households whose incomes are below 95 percent of the area median income (AMI), as determined by the U.S. Department of Housing and Urban Development (HUD), with adjustments for smaller or larger families.
- **Manufactured Housing:** A pre-constructed dwelling unit, meeting the construction standards of the US Department of Housing and Urban Development, which also includes mobile homes.
- **Master Plans:** Long-term vision documents in each service area.
- **MOD - Museum of Discovery**
- **NCEDC - Northern Colorado Economic Development Corporation**
- **O&M - Operations and Maintenance**
- **Outcome Measure:** The mathematical expression of the effect on customers, clients, the environment, or infrastructure that reflects the purpose.
- **PDCA - Plan, Do, Check, Act:** A continuous process-improvement methodology
- **PDT - Planning, Development and Transportation:** One of the largest Service Areas in the City of Fort Collins, PDT includes the following departments: Community Development and Neighborhood Services, Engineering, Traffic Operations, Transfort (Transit), Parking Services, Streets, and FC Moves (Transportation Planning).
- **PFA - Poudre Fire Authority**
- **Place-making:** A decision-making approach intended to preserve and enhance a vibrant community by optimizing its economy, environment and social values.
- **Plan Fort Collins:** The City's comprehensive community planning process that developed City Plan.
- **Performance Measure:** Measurement that reflects the service that is being provided and permits objective evaluation of the service program.

- **Plan Elements:** Existing plan elements and other related documents that are incorporated into City Plan.
- **Poverty Rate:** The Fort Collins poverty rate from the 2010 U.S. Census is 18%. This includes CSU and Front Range Community College student populations. Data is not collected to eliminate those student populations. Excluding 18- to 24-year-olds in the Fort Collins data reduces the local poverty rate to 10.3%, but that excludes a larger number of people than just the student populations.
- **Quality Measure:** The mathematical expression of how well the service, product or activity was delivered, based on characteristics important to the customers.
- **RAF - Recordable Accident Frequency**
- **Resilience:** The capacity to prepare our human and natural systems to respond and adapt to changes and disruptions of various scales that affect our ability to thrive.
- **Result:** The effect desired for the public, expressed as broad statements (also referred to as an outcome).
- **RFR - Request for Results:** Key input to the BFO process; developed by Results Teams to solicit Offers from departments to provide services to accomplish results that matter to residents.
- **SAIDI - Electric System Average Interruption Duration Index**
- **SARs - Service Area Requests**
- **Sense of Place:** Those characteristics that make an area special or unique as well as those that foster an authentic feeling of attachment or belonging.
- **Sustainability Assessment Tool:** A data-driven tool for evaluating the impact of actions on the economy, environment and society .

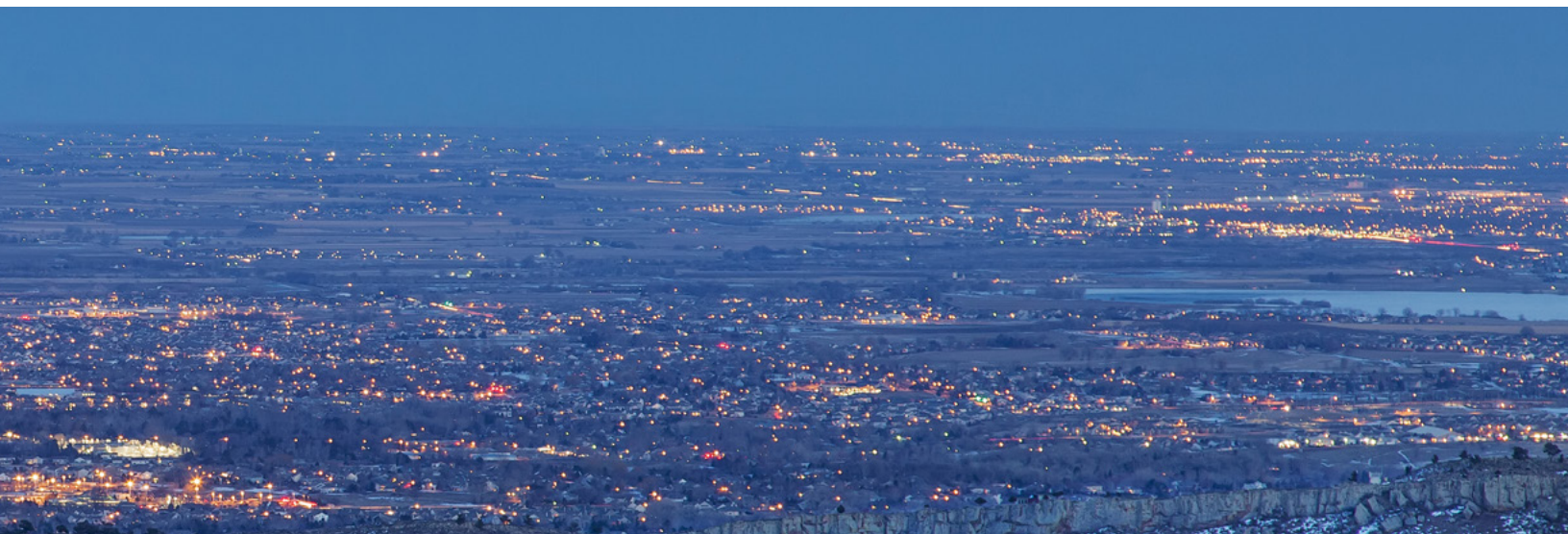




- **SIT - Strategic Issues Team:** A management team that includes all members of ELT plus other senior managers and internal service managers; meets monthly to provide input to ELT and transmit information to other staff.
- **Strategic Outcomes:** A result. The effect that residents want as a result of government programs and activities (e.g., safety is the result or outcome that residents want from police and fire programs or activities). Seven Key Outcomes make up the City of Fort Collins strategic planning and budgeting processes.
- **Strategic Objectives:** Fundamental issues the City must address. They give direction for accomplishing the mission, contain meaningful planning challenges, and result from organizational input analysis.
- **SP - Strategic Plan:** Based on identification and analysis of: (a) organizational inputs such as emerging trends and issues, financial information, and workforce trends; (b) community survey and

input information, which included extensive community outreach and the Community Survey; and (c) Council priorities and input. It is linked to City Plan and the Council-adopted master plans.

- **SPP - Strategic Planning Process**
- **TBL - Triple Bottom Line:** Triple Bottom Line analysis is a concept intended to take into consideration the social, economic and environmental aspects of any project, procedure or purchase.
- **Transportation Master Plan:** Long-term vision document that defines the long-term multimodal system that Fort Collins desires in the future and serves as a comprehensive reference guide regarding transportation issues.
- **URA - Urban Renewal Authority:** The Urban Renewal Authority identifies and revitalizes areas of Fort Collins deemed blighted and provides a funding mechanism to encourage redevelopment.





AGENDA
LEBANON ENERGY ADVISORY COMMITTEE
September 15, 2022 – 4:00 PM

AGENDA ITEM 4
NEW BUSINESS:
B. MASTER PLAN UPDATE

13-ENERGY_2022- REDLINE OUTCOMES- 091221

LEBANON MASTER PLAN 2012 (draft revisions last updated 8/18/22)

13 | Energy

13/A Executive Summary. Introduce Equity here.

13/B Vision & Purpose. After first paragraph "aim to:" add another bullet point on Equity.

13/F-1 Regional Coordination & Leadership. Add a paragraph stating: Lebanon is committed to reaching out to community voices not usually represented or heard. "Where climate (and energy) policy decisions are made, inequitable policy is to some extent a procedural problem: those with more money, time and historic representation are overrepresented."

13/F-14 (new section) Equity and Environmental Justice. Set forth the Definition, philosophy and purpose of this topic.

Overall Long-Term Goal: Add a sentence here on sustainability with Equity as part of the definition of sustainability. (as stated above in the Introduction).

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OUTCOME 1 ~~The City's~~ Buildings in the City are energy efficient and new construction and redevelopments adhere to energy efficient standards.

STRATEGIES

- A. The City shall maximize energy efficiency in municipal buildings and encourage efficiency in commercial and residential buildings.
- B. The City shall develop guidelines to encourage energy efficient construction.

ACTIONS

1. ~~Regularly evaluate (e.g., audits, commissioning) community facilities, including schools, streetlights and operations and implement resulting cost-effective conservation and efficiency recommendations~~ Assess and execute as many ETAP Project Action List items as possible.
2. Adopt Energy Efficient Building Code policy.
3. ~~Revise development regulations to require the use of energy conservation (e.g., orientation, vegetation for heat island reduction and wind buffers) and efficiency measures~~ existing subdivision and site plan regulations to be more energy efficient.
4. Educate ~~residents and businesses~~ taxpayers about ~~greenhouse gas reduction opportunities and associated benefits~~ dollars saved over time when money is invested in energy efficiency.

Commented [R01]: Does "the City's" mean municipal buildings or all buildings in City? If latter, then A3 is out of place. Incorporate conservation not just efficiency.

Commented [TM2R1]: I'd suggest that it means 'all buildings' here because right below here is breaks out specific categories of buildings - municipal vs. other. I don't know what "A3" is referring to.

Commented [R03]: this integrates and assumes Ch. 5 Action 18 from Outcome __ and note that energy is not specified as conservation/efficiency can include water+energy in tandem

Commented [R04]: Change A3 to assume Ch. 4 Action 14 "Encourage the use of energy conservation measures through site plan review, such as orienting buildings to take advantage of natural light and heat, and providing vegetation for summer shading and wind buffers." -

Commented [TM5]: 'residents and businesses' might be better than 'taxpayers'

OUTCOME 2 The City relies upon as much local renewable energy as possible.

STRATEGIES

- A. The City shall actively pursue opportunities to expand its use of renewable energy sources, such as hydropower, wind, solar, geothermal, and consider purchasing renewable energy from utility companies if offered.
- B. The City shall encourage the commercial and residential sectors to invest in renewable energy.

ACTIONS

1. ~~Promote new and existing incentives like the~~ Adopt a tax-neutral Property Tax Exemption for renewable energy projects.
2. Conduct feasibility studies on the sites for solar power potential, ~~based on the Solar Map.~~
3. ~~Assess the feasibility of solar domestic hot water in new and existing municipal buildings.~~
4. Look into ~~the potential of power generation alternatives such as~~ different energy storage technologies like pumped storage or large batteries, ~~alternative ways of assessing wind power generation potential.~~
5. ~~Encourage residents that benefit from moderate to fair wind power potential to explore small-scale residential wind power projects.~~
6. ~~Assess feasibility of implementing the recommendations of the hydropower study to improve energy efficiency for the municipal water and wastewater systems.~~
7. ~~Encourage Rivermill Hydroelectric, Inc. to improve onsite efficiency and power capacity at the Rivermill Dam. Monitor and consider hydropower opportunities in the City, including those along the Mascoma River and Connecticut River, to meet community needs.~~

Commented [R06]: Re-number as needed

Commented [TM7]: I don't know what the Solar Map is so suggest we take this out.

Commented [R08R7]: I do not either. There are some neat tools out there that said <https://scenichudson.maps.arcgis.com/apps/MapJournal/index.html?appid=fc31317de09d484e9d63e9403c4a348f>

Commented [TM9]: I'd suggest rather 'such as different energy storage technologies like pumped storage or large batteries.'

8. ~~Be involved in any hydropower development proposals along the Mascoma River.~~
9. Consider moderate-scale district heating systems in new or existing office and industrial parks. These district heating systems could be based on a public/private partnership to cost-effectively implement high-efficiency heating among multiple buildings.
10. ~~Research potential for possible public private/partnerships to develop biomass or liquid natural gas district heating and power plant projects in areas like business and industrial parks, downtown Lebanon, or downtown West Lebanon.~~
11. ~~Participate in regional discussions about opportunities for biomass heat/power and liquid natural gas.~~
12. ~~Continue to take advantage of geothermal resources in new construction, similar to Kilton.~~
13. ~~Study the feasibility of ground source heat pumps in new and upgraded municipal buildings.~~ Promote (air, water, and ground source) heat pumps and other passive or active efficient and sustainable approaches such as for heating, cooling, and hot water in new and upgraded municipal facilities.
14. ~~Encourage businesses to invest in renewable energy generation.~~

Commented [RO10]: Unclear if these are "red" and being retained or altered

Commented [TM11R10]: We've had preliminary conversations with hydroplant owners but really need to wait until LCP is functioning before going further. I don't understand how we could have an impact at Rivermill Dam.

Commented [RO12]: This relocates a Ch. 5 Action "require the use of renewable energy in heating and cooling systems in new construction of public buildings"

Commented [RO13]: Delete? This duplicates Outcome 7 Action 13

OUTCOME 3 There is a culture of energy efficiency and conservation within the City's municipal, commercial, institutional, and residential communities.

STRATEGIES

- ~~A. The City shall actively pursue federal, state, and regional funding and grants for projects identified in the Energy Plan. Other creative financing mechanisms shall be considered to support municipal, residential, and commercial energy initiatives.~~
- ~~A. The City shall conduct and support education and outreach efforts to increase local and regional understanding of the importance to reduce energy use and demand, curb reliance on fossil fuels, and protect the environment.~~
- ~~B. The City shall encourage municipal departments, residents, businesses, institutions, and visitors to support the local economy and preserve the working landscape by purchasing local food.~~
- ~~C. The City shall conduct and support education and outreach efforts to increase local and regional understanding of the importance to reduce energy use and demand, curb reliance on fossil fuels, and protect the environment.~~
- ~~DC.~~ The City shall explore opportunities to collaborate with local and regional partners, including the Lebanon School District and neighboring communities, to develop regional energy initiatives including aggregated power purchasing, expanded commuter engagement, and other opportunities to reduce energy use and costs.
- ~~D. The City shall actively pursue federal, state, and regional funding and grants for projects identified in the Energy Plan. Other creative financing mechanisms shall be considered to support municipal, residential, and commercial energy initiatives.~~

Commented [TM14]: I would put C first and A last

ACTIONS

1. Develop outreach campaigns for City employees, such as for example, to increase carpooling, ~~and~~ recycling, and composting.
2. Host and promote "Button-Up New Hampshire" workshops and other weatherization programs.
3. Develop a public education campaign about energy topics including an online and social media presence.
4. Advocate for projects that reduce the City's energy consumption and/or introduce renewable energy resources in the Capital Improvement Program.
5. Investigate opportunities for interdepartmental coordination and funding of energy efficiency maintenance projects in existing municipal buildings.
6. ~~Establish~~ Consider an 'energy fund' to set aside funds to finance further energy savings projects.

Commented [RO15]: Comment was "reword; consider metrics" but not clear what needed modification is

Commented [TM16R15]: Neither am i

7. Maintain a list of “shovel ready” energy-related projects to take advantage of potential future funding and grant programs offered by federal and state agencies.
8. Create or contract an ‘energy coordinator’ position.
9. Expand the work of the Lebanon Garden Committee to establish community gardens.
10. Conduct outreach to promote and strengthen Lebanon’s Farmer’s Market.
11. Use and promote local food at City events.
12. Research technical programs to add in Lebanon School curriculum to involve students in energy efficiency and conservation.
13. [Encourage businesses and residents to utilize direct \(e.g., Solarize programs\) or indirect \(e.g., Lebanon Community Power\) renewable energy generation, including through provision of educational resources in City media.](#)

Commented [RO17]: Relocated from 2.A14

OUTCOME 4 The City’s residential, commercial, and institutional sectors privately invest in energy efficiency and renewable energy projects [to reduce the use of fossil fuels.](#)

STRATEGIES

- A. The City shall take active steps to [encourage-educate and encourage](#) residents, businesses, and institutions to invest in efficiency and renewable technology, [and reduce use, investments in, and procurement of fossil fuels.](#)
- B. The City shall pursue public-private partnerships to save money and generate [clean renewable](#) energy.
- C. The City shall work with area businesses and institutions to leverage educational opportunities.

ACTIONS

1. The Lebanon Energy Advisory Committee should advocate for and the City Council should pass a more [stringent-flexible](#) energy efficient building code policy [that furthers the City's goals toward environmental impact and greenhouse gas reductions.](#)
2. The Lebanon Energy Advisory Committee should [explore and](#) advocate for and the City Council should pass [more incentives to promote energy efficiency in existing and new development, in addition to the](#) tax neutral property tax exemption policy for renewable projects.
- ~~3. Encourage the use of natural gas at local businesses (ex: Kleen Laundry).~~
- ~~4. Explore shared natural gas delivery with other municipalities and businesses.~~
- ~~5. Explore shared biomass power production opportunities (ex: Unity, NH).~~
6. Continue to explore partnerships with the private sector to maximize energy savings on specific projects (ex: Landfill project).
7. ~~Demand-Require, for municipal/governmental use, and encourage for other entities,~~ rigorous [benchmarking](#), commissioning and [audit](#) reviews for energy efficient opportunities on all projects.
8. [Continue to work with Lebanon Community Power to support financing of energy efficiency program and deep energy retrofits.](#)
9. [Actively research, promote, and leverage the C- PACE and other energy efficiency financing programs.](#)
10. [Explore implementation of an energy use registry/reporting system and require or encourage inclusion of rental units.](#)

OUTCOME 5 Lighting throughout the City is efficient, cost-effective, and restores dark skies.

STRATEGIES

- A. The City shall maintain a current map and inventory of all [public](#) exterior lights ~~in~~.

Commented [TM18]: Note that we don't have access to other than city-owned.

- B. The City shall reduce the number of overall lights in its control to save taxpayer money and reduce energy use and night-sky pollution associated with unnecessary lights.

ACTIONS

1. ~~Develop an ordinance to require~~Regularly evaluate and ensure implementation of City standards for energy efficient lighting ~~for all in~~ new interior and exterior designs, retrofits and projects in general.
2. ~~Develop fair criteria for light removal.~~
3. ~~Continue to apply a systematic process with fair criteria to review and R~~remove all unnecessary municipal exterior facility and street lights per ADM-109.
4. ~~Continue to U~~upgrade existing lights to LED or other efficient higher efficiency models and calibrate operating times and levels to optimize dark sky and efficiency performance.
5. Refer to what other municipalities have done to maximize light removal and public satisfaction.
6. Use cut-off lighting techniques to reduce light pollution of necessary lights.
7. ~~Incorporate~~Update land development regulations that to require high efficiency lights, for site plan review and development.
8. ~~Encourage residents and businesses to upgrade existing fixtures to high-efficiency and dark sky compliant fixtures.~~

Commented [RO19]: i.e., may still need to address indoor lighting for high efficiency and light spill (i.e., commercial storefronts like new Dominoes and under-building parking structures like Altaria)

Commented [TM20]: This action seems to apply only to new lighting projects, is that what we want?

Commented [RO21R20]: Does rewording work?

Commented [RO22]: E.g., at parks like Pat Walsh skating rink

Commented [TM23]: 'Incorporate' into what? Draft? Upgrade?

OUTCOME 6 The City of Lebanon has an economically and environmentally sustainable, multi-modal transportation network, and municipal vehicle fleet.

STRATEGIES

- A. The City shall develop a multi-modal transportation system that provides employees, residents, and visitors ways to travel around Lebanon without driving alone.
- B. The City shall ~~reduce emissions~~seek to eliminate greenhouse gas emissions and ~~reduce the lifecycle~~ costs of vehicles and machines in the municipal fleet.
- C. The City shall improve access to commuting options for City employees and partner with employers and surrounding towns to expand access to all regional commuters.
- D. ~~The City will strive to reduce~~ fleet and community vehicle miles traveled (VMT) and related greenhouse gases as well as infrastructure wear from VMT.

Commented [TM24]: reduce

ACTIONS

1. Institute a policy that requires the purchase of energy efficient and/or alternative fuel vehicles and equipment, and insert language into City procurement documents ~~Request for Proposals and Qualifications~~ encouraging or favoring these.
2. Consider installing electric vehicle charging stations, for example at park and rides.
3. Continue support of Advance Transit and promote new routes where appropriate.
4. Establish new and participate in a regional network of park and ride facilities that connect to transit lines.
5. Institute a City-wide Anti-Idling Policy based on the current policy issued by the Department of Public Works.
6. Purchase ~~biodiesel-sustainable~~ fuels, preferably from local vendors, for ~~diesel-municipal~~ machines and vehicles.

Commented [TM25]: Procurement documents

7. Collect data on fleet travel patterns and efficiency, and seek greater efficiency. Assess the travel patterns of the municipal fleet and identify more efficient routes.
8. Examine ways to work with other employers, including the Lebanon School District, to leverage the tools and experience of the Smart Commute programs including the Upper Valley Transportation Association (UVTMA) and CommuteSmartNH.
9. Implement recommendations of the City of Lebanon Sustainable Transportation Plan (2011), in partnership with the Upper Valley Transportation Management Association through the Smart Commute program.
10. Set up an internal carpool matching system to help employees who live near one another share rides.
11. Continue to examine the feasibility of support initiatives offering employees a compressed work week (four ten-hour days per week, for example).
12. Adopt-Enable a telecommuting policy and promote working from home to appropriate employees.
13. Advocate for wide-reaching high-performance broadband service to improve remote service and telecommuting options.
14. Continue to work with the Upper Valley Transportation Management Association to market-promote commuting options and engage employees in a behavior-change campaign/alternative commuting.
15. Assess the costs and benefits of offering City employees a commuter benefit (extra time off for not driving alone, for example e.g., free EV charging).
16. Continue to promote walking and biking in municipal employee wellness programs.
17. Explore ways to incentivize residents and visitors to switch to zero emissions vehicles.
18. Promote development of safe multimodal commuting routes" (or is this in Transportation?)

Commented [TM26]: Efficiency; seek ... (?)

OUTCOME 7 The City of Lebanon factors sustainability, equity and lifecycle impacts into decisions, provides easy access to transportation systems, and concentrates activities, amenities and commerce as densely as possible to enhance quality of life, retain small town charm, and increase energy savings.

Commented [TM27]: Do we need 'The City Shall' for these? Seems awkward way down here.

Commented [RO28]: Remove if there will be a separate Equity outcome?

STRATEGIES

- A. The City shall explore ways to allow residents and visitors to reduce vehicle miles travelled throughout the City.
- B. The City shall assess the current grounds care and landscaping practices within the City's control and explore more sustainable methods including those with less reliance on fossil fuels, lower- or zero fossil fuel footprints and toxicity.
- C. The City shall explore-continue ways to increase residents' and businesses' access to recycling and local foods.
- D. The City will organize climate action planning to address community carbon impacts and climate resiliency, engage, and guide municipal, residential and commercial energy conservation and greenhouse gas reduction.

Commented [RO29]: Move to Transportation chapter? Omers has bike rentals (but not 24/7) vs. bikeshares. Gene/others: should this be revamped to talk about supporting bicycle infrastructure including that which facilitates e-bike use and overall increase bike comfort/safety and use (e.g., separated bike lanes, not just paint, to protect people)

ACTIONS

1. Establish park and ride facilities that connect to transit lines. Evaluate ways to increase support for and utilization of transit, including park and ride facilities in the Upper Valley.
2. Assess feasibility of bicycle rental stations throughout the City, located near bicycle lane networks.
3. Develop sustainable-Create and activate policies for sustainable methods for of grounds care and landscaping including sustainable, non-toxic alternatives, and overall commitment to more sustainable selections as relates to species (e.g., groundcover turf alternatives), equipment (e.g., electrified), pesticides and other chemicals, and related operations.

Commented [TM30]: #3 is awkward and confusing - 'alternatives to ... non-toxic and more sustainable selections'? Organic pesticides are still pesticides. I think this section needs to be re-written (Pat McGovern to help?), but I'm not sure it belongs in Ch. 13.

Commented [RO31R30]: I reworded this a bit; there are several energy tie-ins because many grounds care chemicals are fossil fuel based and many traditional grounds care methods (like frequent mowing) increase energy use; also species selection impacts irrigation and in turn energy needs.

4. Support urban forestry management and incorporate green infrastructure -such as street trees, buffers and parks- in residential, commercial and public project road, neighborhood and commercial design and related requirements (e.g., development regulations and tree ordinance), to diminish stormwater runoff, enhance soil capacity to absorb stormwater, enhance the aesthetic value of the landscape, reduce greenhouse gas emissions, reduce the need for traditional stormwater management techniques and reduce energy demands from the urban heat island effect.
5. Develop land use plans, policies, and regulations to encourage energy efficiency and renewable energy resources for renovation of existing structures and new construction. Continue to improve land use plans, policies and regulations for existing structures and new construction, requiring the study and where feasible/appropriate implementation of heat island reduction, carbon sequestration, efficiency measures, climate resiliency, and renewable energy elements or readiness.
6. Sustainably manage City-owned forest land to provide high-value locally produced wood products, sequester carbon, and improve recreational use, biodiversity, and wildlife habitats. Sustainably manage City-owned forest land to provide high-value, locally produced and durable wood products, sequester carbon, provide passive recreational opportunities, and support biodiversity by maintaining healthy wildlife habitats.
7. Promote locally and sustainably produced foods and products.
8. Promote the Lebanon Farmer's Market and encourage participation by local vendors.
9. Provide for and increase compost disposal at City facilities.
10. Designate, expand, and maintain locations for community gardens throughout the City.
11. Design edible and native plant based-functional (e.g., edible, native, pollinator, and green infrastructure) landscapes throughout the City.
12. Set up centrally located recycling and compost drop off stations throughout the City that are walkable, visible and attractive.
13. Study the feasibility of ground source heat pumps in new and upgraded municipal buildings.
14. Encourage businesses to invest in renewable energy generation
15. Reduce and discourage consumption of single-use products (e.g., plastics) and promote the reuse and sharing of durable products.

Commented [R032]: confusion btw grounds vs development (improve site regs) vs public projects. split it into 3 dif actions bc v packed. Make trees connection clearer in separate action (street trees, heat island, regs Tree Commission)

Commented [R033R32]: I did not change this one much because the existing text seems to cover the discussion...

Commented [R034]: Have asked Mark if City land in fact is used for products

Commented [R035]: Moved to/deleted because this duplicates Outcome 2 Action 13

OUTCOME 8 The City of Lebanon reaches out to and engages with its disadvantaged and minoritized communities in energy policy development and administration of Lebanon's energy resources in a fair and equitable manner.

STRATEGIES

A.

Strategies: focus on interaction and education.

ACTIONS

1.

Actions: can include

-Weatherization of low to middle income housing

-Community solar

-EV charging

Commented [R036]: See Equity considerations under <https://civicclerk.blob.core.windows.net/stream/LEBANON/NH/579470b1-b04c-47fa-bfbc-2ef6a7625b6e.pdf?sv=2015-12-11&sr=b&sig=iFOFZi8a9eyHkgd49dOG6aJLuMg5FfwBbATvR%2Bqlxyg%3D&st=2022-07-21T20%3A48%3A39Z&se=2023-07-21T20%3A53%3A39Z&sp=r&rsc=cache&rsct=application%2Fpdf>

Commented [R037R36]: Alt language potentially: The City of Lebanon demonstrates to the region and to the State, a commitment to effective equity and environmental justice in Lebanon's energy future, inclusive of all residents.

Commented [R038R36]: Make as active as possible and inclusive of previously excluded voices

-Car sharing

- Tree planting

Other notes:

- Create master plan-wide metrics to continue measurement of progress toward reductions of greenhouse gases

- Ch. 13 does not address Scope 3 and consumption-based emissions upstream in the supply chain; how can the MP do so, where is environmentally preferable procurement covered, and where is community level consumption covered. Does Outcome 7 A7 cover that enough?

AGENDA
LEBANON ENERGY ADVISORY COMMITTEE
September 15, 2022 – 4:00 PM

AGENDA ITEM 4
NEW BUSINESS:
B. MASTER PLAN UPDATE

PROPOSED WORDING FOR OUTCOME 8

Proposed wording for Outcome #8 on Equity for chapter 13 of the Master Plan

Outcome #8: The City of Lebanon reaches out to and engages with its disadvantaged and minoritized communities in energy policy development and administration of Lebanon's energy resources in a fair and equitable manner.

Strategies: focus on interaction and education.

Actions: can include

- Weatherization of low to middle income housing
- Community solar
- EV charging
- Car sharing
- Tree planting

-end-

AGENDA
LEBANON ENERGY ADVISORY COMMITTEE
September 15, 2022 – 4:00 PM

AGENDA ITEM 4
NEW BUSINESS:
D. EV SUBCOMMITTEE REPORT

**EV'S LANGUAGE- TEXT
ONLY NO COMMS**

Electric Vehicle Infrastructure Code / Policy Updates

- Identify requirements and potential new language for Zoning Ordinance
- Review with LEAC EV and update text
- Fit into current ZO as redline
- Update SPR as needed
- Update public EV station location opportunities list and associated utility/charging level/universal accessibility recommendations
- Update City project/ROW requirements and standards for EV infrastructure and identify upcoming opportunities e.g., streetlight updates and CIP projects like West Lebanon Streetscape, Hanover St. reconstruction

Revised existing ZO language

Add a new use, “Electric Vehicle Charging Station” (right now, service/fuel station is the only use that EVSE would apply to and they’re not allowed in every district)

Update ZO Section 607.3 Max. Off-Street Parking Requirements. The following is existing text with proposed strike-out because parking spaces set aside for EV charging should be included in the calculation of parking requirements:

B. Off-street parking in excess of 120% but not more than 150% of the minimum requirement set forth in Section 607.2 may be permitted as set forth below.

1) The following categories of parking spaces shall not be counted towards the 120% maximum set forth in subsection A, but shall be subject to the 150% cap set forth in subsection B:

a. Spaces provided within a **parking structure**.

b. Spaces dedicated for vehicles participating in a carpool, vanpool, or car-share program. Such spaces shall be reserved and used only for carpool, vanpool, or car-share program parking, and shall be signed or marked accordingly.

c. ~~Parking spaces dedicated for vehicles operating on primarily alternative fuels including but not limited to electric, natural gas, and hydrogen. Such spaces shall be reserved and used only for alternative fueled vehicles and shall be signed accordingly and/or the spaces shall be painted with the words “Alternative Fueled Vehicles Only”~~

New language

- A. **Purpose.** The purpose of this section is to facilitate the transition to electric vehicle use and to expedite the establishment of convenient, cost-effective electric vehicle infrastructure that such a transition necessitates.

- B. **Applicability.** Levels 1, 2, and 3 electric vehicle charging stations are allowed in all zoning districts except as follows. If the primary use of a parcel is the retail charging of electric vehicle, then the use shall be considered a fuel service station for zoning purposes; installation of such charging stations shall be subject to conditional use permit approval and located in zoning districts which permit fuel service stations. ~~Level 3 electric vehicle charging stations require a conditional use permit in _____ zoning districts.~~ Electric vehicle charging stations are permitted within the city right-of-way upon review by local authorities and require a conditional use permit. ~~Level 1-3 charging equipment and station installations are subject to building permit approval.~~
- C. **EV Infrastructure Requirements / Off-Street EV Parking Requirements.** EV Charging Stations, EV-ready and EV-capable parking spaces are to be included in the calculation for both the number of minimum and maximum vehicle spaces required as follows depending on the principal use:
- a. Single- and two-family dwellings: In order to proactively plan for and accommodate the future growth in market demand for electric vehicles, ~~construct~~ all new one- and two-family dwellings with 1 EV ready space per dwelling (a 220-240-volt / 20-50 amp outlet on a dedicated circuit) in the garage and/or in close proximity to designated vehicle parking, where parking is provided, to allow L2 or Low L2 electric vehicle charging).
 - b. Multi-family dwelling: all new, expanded and reconstructed parking areas [or residential projects with over _____ parking spaces total?] shall provide:
 - i. EV installed: at minimum, Level 2 or Low Level 2 EV charging stations with EVSE for 4% of required/proposed parking spaces
 - ii. EV ready: the electrical capacity, conduit and wiring from an electric panel to future EV charging stations, with an electrical outlet that can be used and possibly converted later to hardwire installation of Level 2 EVSE for a minimum of 20% of required/proposed parking spaces (including 20% of ADA spaces, rounded up to the nearest whole number) including [or additional to] the minimum of parking spaces required to be EV charging stations or EV capable. The main electrical switchgear must be installed with sufficient space and capacity to support 208/240V and 20-40A per space, with a dedicated branch circuit and overcurrent protection device, per space.
 - iii. EV capable: installed conduit throughout the structure and subpanels sized to accommodate circuits delivering 20-40A for a minimum of 40% of required/proposed parking spaces (including 20% of ADA spaces, rounded up to the nearest whole number) including [or additional to] the minimum of parking spaces required to be EV charging stations or EV ready.
 - c. Non-Residential Land Uses: All new, expanded and reconstructed parking areas [that result in parking for a total of 50 or more parking spaces] shall provide

- i. EV installed: at minimum Level 2 EV charging stations for 2% of required/proposed parking spaces with a minimum of two spaces served by Level 2 charging (or higher level charging in another ratio as may be suitable and comparable)
- ii. EV ready: the electrical capacity, conduit, wiring and electrical outlet that can be used and possibly converted later to the hardware installation for Level 2 or 3 electric vehicle EVSEs. For parking lots that include employee parking, a minimum of 10% of required/proposed employee parking spaces, including 10 % of ADA spaces, rounded up to the nearest whole number, and including [or additional to] the minimum of parking spaces required to be EV charging stations. For parking lots including customer parking, a minimum of 5% of required/proposed customer parking spaces.
- iii. EV capable: installed conduit throughout the structure and subpanels sized to accommodate circuits delivering 20-40A for a minimum of 15% of required/proposed parking spaces (including 20% of ADA spaces, rounded up to the nearest whole number) including [or additional to] the minimum of parking spaces required to be installed EV charging stations or EV ready spaces.
- d. All parking spaces in a parking structure must be made EV-Capable.
- e. A proposal may substitute up to five Level 2 charging spaces with one Level 3 (DC fast-charging space) (minimum 20kW).
- f. Every two (2) EV-installed (EVCS) spaces [additional to the required minimum EVCS] may be counted as four (4) non-EV off-street parking spaces as relates to Section 607.1, Minimum Off-Street Parking Requirements [for reduction of total parking not greater than 10 percent of the total amount of parking].
- g. The Planning Board may approve alternative provisions through a conditional use permit particularly when commiserate or suitable to a unique context. A detailed proposal is required.

D. Site selection. Prior to initiating permitting, proposed EVSE sites should have a mandatory site survey in coordination with utilities to determine financial feasibility of bringing power to the site and to avoid conflicts that might increase project complexity and ensure parking configurations are certain prior to submittal of the development application. Load requests to utilities should use GPS coordinates rather than address locations when submitting requests for power reviews. Such a strategy will lead to a more accurate assessment of the feasibility of supplying power to the site.

E. Standards.

- a. All installations of EVSE shall meet National Electric Code (Article 625) and UL certification is recommended. The applicant should consult with the local code officials to ensure electrical code compliance as well. Level 2, including all auxiliary loads, should be metered in accordance with electric utility requirements

- b. Property owners should consider evaluation and installation of an EV load management system in conjunction with other EVSE, with the system designed to allocate charging capacity among multiple EV charging stations at a minimum of 8 amps per charger (minimum allocation may vary).
- c. Battery charging station outlets and connector devices shall be no less than 36 inches and no higher than 48 inches from the ground or pavement surface where mounted. EVSE must comply with all relevant ADA requirements.
- d. Equipment (including components mounted on pedestals, lighting posts, bollards, or other devices) shall be designed and located as to not impede pedestrian travel or create trip hazards, particularly for on-street charging stations and others within the right-of-way. Provide a retraction device or place to mount cords and EV pedestals or protections designed to minimize vandalism, pedestrian conflict, and potential damage by accidents, snow storage/plowing and inclement weather.
- e. EVSE shall be protected such as by wheel stops or concrete filled bollards or shall be placed a minimum of 24 inches clear from the face of the curb.
- f. EV infrastructure should be made of low-maintenance durable materials that are vandal-proof to the extent possible and operational in extreme weather conditions (including low and high temperatures).
- g. The City's Energy Facilities Manager is authorized to review designs and maintain standards for EVSE.

F. EVSE parking.

- a. EV parking spaces shall meet standard dimensional and related requirements of the Site Plan Regulations, Section 6.5E, not including the additional space required of EVSE.
- b. EV parking spaces should be located adjacent to the principal use. Accessible electric vehicle charging stations should be located in close proximity to the building or facility entrance. It is not necessary to designate the accessible electric vehicle charging station exclusively for the use of disabled persons.
- c. EV charging stations that are available for public use must be equipped to enable universal access, as defined by the New Hampshire Department of Transportation.
- d. All EVCS shall be connected to a barrier-free accessible route of travel.
- e. Provide a statement of explanation for where EV spaces are proposed; while EV parking spaces are encouraged to be sited in visible (readily identified by EV users), desirable and convenient locations on-site, installation costs and similar practical factors may be detailed. Facilities should blend with the surrounding landscape/architecture for compatibility with the character and use of the site.
- f. The owner or operator must disclose the location and characteristics of each public EV charging station to the U.S. Department of Energy's Alternative Fuels Data Center. Information that must be disclosed includes, but is not limited to, address, voltage, and timing restrictions.

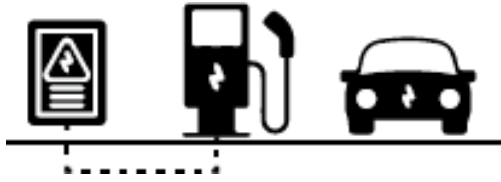
G. EVSE signage.

- a. Identify EVCS as EV-parking only. Except when located in conjunction with single- or two-family dwellings or with assigned/permitted spaces, electric vehicle charging station spaces must be individually signed or otherwise marked for the dedicated parking and charging of electric vehicles only. Provide painted marking and posted signage according to the FHWA/MUTCD Interim Approval (IA-13) for Electric Vehicle Charging. Electric vehicles may be parked in any space designated for public parking, subject to the restrictions that apply to any other vehicle. When a sign provides notice that a parking spaces is a designated EV charging station, no non-electric vehicles may occupy or otherwise obstruct the space (NH RSA 236:134). Except when located in conjunction with single- or two-family dwellings, with assigned/permitted spaces, or where no policy is otherwise provided and posted, no EV user may occupy the space when not actively charging or beyond the hours designated on any posted signs or policies.
- b. Required information. Each location (EVCS parking space) or cluster of electric vehicle charging stations must include posted notices with safety information (including voltage and amperage levels), and contact information for service problems. Except when located in conjunction with single- or two-family dwellings or with assigned/permitted spaces, and only if to be enforced, posted signage must show hours of operation (e.g. MUTCD R7-5), usage fees, and penalty warnings (idling; non-EV parking).
- c. Format. As an alternative to posting all information, details subject to change (e.g. rates) may be provided via a digital screen, website or similar. All published (physical and digital) content must be kept up-to-date. Signage must be included in the specifications package for Site Plan approval, where applicable.
- d. Visibility. EV charging station wayfinding signage and markings are highly encouraged to effectively guide motorists. Adequate lighting must be provided where EV charging stations are installed unless charging is for daytime purposes only.

Definitions [review current SPR and ZO definitions to avoid duplication; also see IECC 2021]

Battery exchange station: fully automated facility that will enable an electric vehicle with a swappable battery to enter a drive lane and exchange the depleted battery with a fully charged battery through a fully automated process

Electric Vehicle charging station (EVCS): Also called EV-Installed, a public or private parking space that is designated exclusively for and served by battery charging station equipment for the purpose of transferring electric energy to a battery or other energy storage device in an electric vehicle. EV Charging Stations shall be considered accessory structures and allowed and encouraged in all districts, subject to the requirements of this ordinance

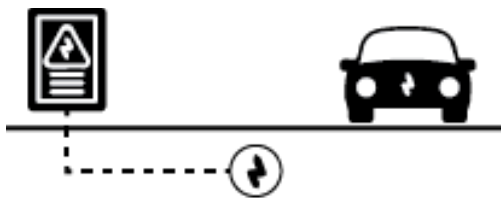


Electric Vehicle Supply Equipment (EVSE): any equipment or electrical component used in charging electric vehicles at a specific location. EVSE does not include equipment located on the electric vehicles themselves.

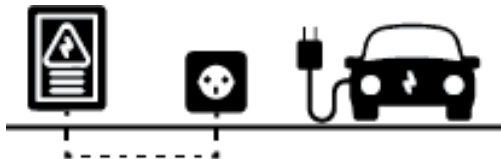
Electric Vehicle Infrastructure: structures, machinery, and equipment necessary and integral to support an electric vehicle, including charging stations and electrical outlets.

Electric Vehicle: any vehicle that is licensed and registered for operation on public and private roadways and which operates, either partially or exclusively, on electrical energy from the grid, or an off-board source, that is stored on-board for motive purpose.

EV-Capable (parking space): Electrical Panel Capacity & Conduit. Provides hard-to-retrofit elements during new construction while minimizing up-front cost. Installation of panel capacity and conduit (raceway) throughout the structure to accommodate the future build-out of EV charging with 208/240 V, and 20-60 amps for each parking space. Level 1 charging capacity may be considered.



EV-Ready (parking space): Install full circuit. Requires not just the conduit but the wiring, and includes an outlet that can be used to plug in EVSE or later converted to add a hard-wired EVSE, i.e. provides plug-and-play ready spaces to minimize total costs and additional barriers to installing EVSE. Installation of 208/240V, 20-40-amp panel capacity, raceway, wiring, receptacle, and overprotection devices similar to a dryer circuit, for each parking space.



Level 1 (charging level/EVSE): “trickle” charging for EVs that operates on a 15-20 amp breaker on a 120 volt AC circuit (wall outlet) while drawing 1.4-2.4 kW to add 2-6 miles of range per hour of charging.

Low Power Level 2 (charging level/EVSE): charging for EVs that operates on a 208 or 240 volt, 20-amp circuit while drawing around 3.8 kW to add approximately 13 miles of range gained per hour of charging. This level requires less electrical capacity than full Level 2. It

may be more appropriate for residential or workplace charging than for commercial locations.

Level 2 (charging level/EVSE): charging for EVs that operates on a dedicated 40-100 amp breaker (same kind used by a clothes dryer or stove) on a 208 or 240 volt AC circuit while drawing 6.2+ kW to supply 19+ miles of range gained per hour of charging. Typically used in public or commercial locations.

Level 3 (charging level): fast or rapid charging for EVs that operates on a 60 amp or higher breaker on a 480 volt AC electric circuit or higher three phase circuit with special grounding equipment and mounting on an equipment pad. Level 3 stations can also be referred to as rapid charging stations that are typically characterized by industrial grade electrical outlets that supply 60-80 miles of range gained per 20 minutes of charging (or 180-240 miles per hour of charging).

Electric Vehicle Load Management System: A system designed to allocate charging capacity among multiple EV charging stations at a minimum of 8 amps per charger (minimum allocation may vary) and intended to increase cost-effectiveness by allowing the system to “share” the load across multiple EVs in the parking lot depending on their charging needs.

Other considerations to incorporate and incentives?

When the cost of installing EVSE required by this Chapter would exceed 5 percent of the total project cost, the property owner or applicant may request a reduction in the EVSE requirements and submit cost estimates for staff and Planning Board consideration.

EVCS Residential Permit Application Checklist (see [Keene](#))?

The City of Lebanon will waive/reduce/rebate ____ fee from the building permit for each additional EV charging space installation. (reduction in application fee? Don't include EV costs in total project cost that fees based on?)

For each additional 200% of spaces served by EVSE pre-wiring or 100% of EV charging station installations over the required minimum, the applicant may request: a density bonus of XYZ