To access the Agenda and Backup Materials electronically, go to the City of Grand Junction Website. To participate or watch the meeting virtually register for the GoToWebinar.

GRAND JUNCTION CITY COUNCIL
MONDAY, JUNE 3, 2024
WORKSHOP, 5:30 PM
FIRE DEPARTMENT TRAINING ROOM
625 UTE AVENUE

1. Discussion Topics

a. Sustainability and Adaptation Plan

b. Impact Fee Study Project Update

c. Streetlight Municipalization

d. Budget Policy Development and Preliminary 2025 Budget Considerations

2. City Council Communication

An unstructured time for Councilmembers to discuss current matters, share ideas for possible future consideration by Council, and provide information from board & commission participation.

What is the purpose of a Workshop?

The purpose of the Workshop is to facilitate City Council discussion through analyzing information, studying issues, and clarifying problems. The less formal setting of the Workshop promotes conversation regarding items and topics that may be considered at a future City Council meeting.

How can I provide my input about a topic on tonight's Workshop agenda?

Individuals wishing to provide input about Workshop topics can:

1. Send input by emailing a City Council member (Council email addresses) or call one or more members of City Council (970-244-1504)

2. Provide information to the City Manager (citymanager@gjcity.org) for dissemination to the City Council. If your information is submitted prior to 3 p.m. on the date of the Workshop, copies

will be provided to Council that evening. Information provided after 3 p.m. will be disseminated the next business day.

3. Attend a Regular Council Meeting (generally held the 1st and 3rd Wednesdays of each month at 5:30 p.m. at City Hall) and provide comments during “Public Comments.”

Grand Junction City Council

Workshop Session

Item #1.a.

Meeting Date:	June 3, 2024
Presented By:	Jennifer Nitzky, Sustainability Coordinator
Department:	Community Development
Submitted By:	Jennifer Nitzky, Sustainability Coordinator

Information

SUBJECT:

Sustainability and Adaptation Plan

EXECUTIVE SUMMARY:

Staff have been working with consultants Design Workshop and Spirit Environmental to develop a Sustainability and Adaptation Plan for the City since May 2023. This plan is being developed in alignment with the One Grand Junction Comprehensive Plan and City Council's Strategic Outcome, Resource Stewardship. Staff and consultants will present the draft plan and will seek Council's feedback before the plan is considered for adoption. Staff and consultants will also present an overview of the public comment period and changes made since the Council last saw the draft.

BACKGROUND OR DETAILED INFORMATION:

The Sustainability and Adaptation Plan for the City of Grand Junction will provide long-range goals to guide the community, partners, and the City towards more sustainable practices and policies. This plan complements the One Grand Junction Comprehensive Plan to address social, environmental, and economic implications and opportunities for sustainability and adaptation in the region to ensure a healthy future for all community members. Staff have been working with consultants from Design Workshop and Spirit Environmental since May 2023.

In order to get more public input, staff met with 18 groups/organizations and presented information about the plan to more than 335 community members. In each presentation, staff provided a call to action to encourage community members to offer suggested strategies or goal priorities on the EngageGJ.org platform. Thoughts from the comments received at in-person presentations and online have also been incorporated into the draft plan.

Since the last workshop with City Council, staff hosted an open house with 25

attendees. The public comment period lasted from April 19 - May 17, and the Community Steering Committee convened on April 22 to discuss the 95 percent draft.

The six Focus Areas and their respective goals are as follows:
1. Built Environment

- Goal 1: Balance Transportation Mode Share for Local Trips
- Goal 2: Encourage Innovative Site Design to Foster the Coexistence of Urban and Natural Environments
- Goal 3: Improve Community Access to Food

2. Climate Resilience

- Goal 4: Build Redundancy to Mitigate and Adapt to Natural and Social Hazards
- Goal 5: Maintain Current Air Quality Levels

3. Energy Stewardship

- Goal 6: Encourage Energy Efficiency in Buildings
- Goal 7: Foster Energy Independence

4. Waste Management

- Goal 8: Increase Recycling Rates within the City
- Goal 9: Reduce Waste to Landfill via a Circular Economy

5. Water Conservation

- Goal 10: Increase Water Conservation Education and Awareness
- Goal 11: Reduce Water Consumption from Landscape and Irrigation

6. City Leadership

- Goal 12: Integrate Sustainability Practices into City Leadership Efforts

Implementation matrices with specific actions related to prioritized strategies have been developed to help staff and partners with short- and medium-term implementation. This will be updated on an annual basis.

Changes made from public comment:

- Equity has been expanded upon within the document, including defining what equity means and how these strategies impact social sustainability/equity.
- Language in the Energy Stewardship section focuses more on clean energy, changing some of the renewable language. There is also more information about Grand Junction's transition from the fossil fuel industry to more clean energy and how the City needs to make sure that resilient and affordable energy and jobs are still available in the clean energy sector.
- Moved some strategies to more applicable goals, mostly in Water Conservation.
- More strategies will be added to the Air Quality goal related to anti-idling policies and using social equity to help with mapping the worst air quality in the City.
- Added language about incentives for electrification to Energy Stewardship.
- Added updated numbers for Transit Baseline and KPI in Goal 1.
- Used general language related to joining sustainability coalitions, removing names of specific groups.
- The list of organizations has been removed so as not to imply their approval. They were initially listed as organizations that were presented to and whose feedback was taken into account.
- Resource lists in Implementation Matrices have been removed for staff utilization only.

Public comment provided suggested strategies and ideas, such as increasing the reach of GVT, reducing water use on golf courses, dark skies initiatives, planting trees, local food, big chain stores not being neighborhood friendly, heatwave emergency plans, more public recycling, neighborhood compost, improving building codes, increasing solar panels, looking into nuclear energy, turf conversion and many more. There were also a few comments concerning the City's use of national or international standards such as LEED for Cities, the City's connection with ICLEI, and a desire to see a specific list of groups engaged during this planning process. Public comments from the Open House, EngageGJ.org, staff email, and mailed letters are attached.

All changes made in this workshop will be reflected in the document and staff report before public hearing.

FISCAL IMPACT:

There is no fiscal impact related to this item.

SUGGESTED ACTION:

This item is for discussion purposes only.

Attachments

1. GJSAP_100% Plan_240524
2. petition_signatures_jobs_490039114_20240517203811
3. publiccomment_June3

SUSTAINABILITY AND ADAPTATION PLAN

CITY OF Grand Junction COLORADO

FINAL DRAFT PLAN
JUNE 2024

Image Credit: City of Grand Junction
Mount Garfield and Colorado River Valley

LETTER FROM THE MAYOR

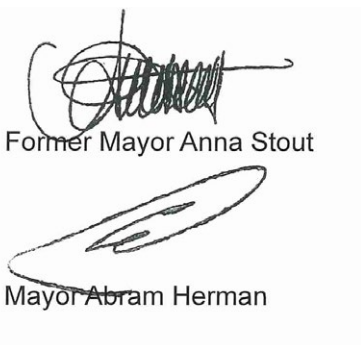
Nestled amidst the vibrant landscape of Western Colorado, Grand Junction is a city unlike any other. Our community's unique blend of history, natural beauty, and local identity sets us apart as a city cherished by residents and visitors alike. As the current and former Mayors of Grand Junction, it is our pleasure to share with you the City of Grand Junction's first Sustainability and Adaptation Plan. This Plan signifies a pivotal milestone in our journey towards a more sustainable future, and a community ready to adapt to future challenges and needs. While we can take pride in our past accomplishments, this Plan outlines our vision and strategies for ensuring a stable future for generations of Grand Junction residents to come.

As we navigate the challenges posed by climate change, population growth, and resource management, it is critical that we take proactive measures to safeguard our environment, enhance our quality of life, and promote economic prosperity. The Sustainability and Adaptation Plan serves as a roadmap to achieve these objectives in an effective and inclusive manner.

This Plan reflects our commitment to resource stewardship and the preservation of a high-quality life for all who live, work, and play in Grand Junction. It is the product of productive collaboration between community stakeholders, experts, and City employees, as well as extensive outreach throughout the community. Through this collaborative effort, we have developed practical and actionable strategies that reflect the priorities and aspirations of our community.

As we confront future challenges, the Sustainability and Adaptation Plan empowers us to leverage our strengths and build upon our successes. Together, we can keep Grand Junction a vibrant and thriving city for all.

Sincerely,



Former Mayor Anna Stout

Mayor Abram Herman

ACKNOWLEDGEMENTS

Many thanks to everyone who was involved in the development of this Sustainability and Adaptation Plan.

City Council

Abe Herman, Mayor, Former Mayor Pro Tem

Randall Reitz, Councilmember, Mayor Pro Tem

Anna Stout, Councilmember, Former Mayor

Scott Beilfuss, Councilmember

Cody Kennedy, Councilmember

Jason Nguyen, Councilmember

Dennis Simpson, Councilmember

City of Grand Junction Staff

Andrea Phillips, Interim City Manager

Greg Caton, Former City Manager

Jenny Nitzky, Sustainability Coordinator

Cassidy Grady, Sustainability Fellow

Darin Graber, Former Sustainability Fellow

Community Steering Committee

Ana Hinojosa Pasillas

Jeff Purdy

Ray Pilcher

Ian Moore

Brad McCloud

Heather Croshaw

Laurel Cole

Danielle Sterle

Kenneth Scissors

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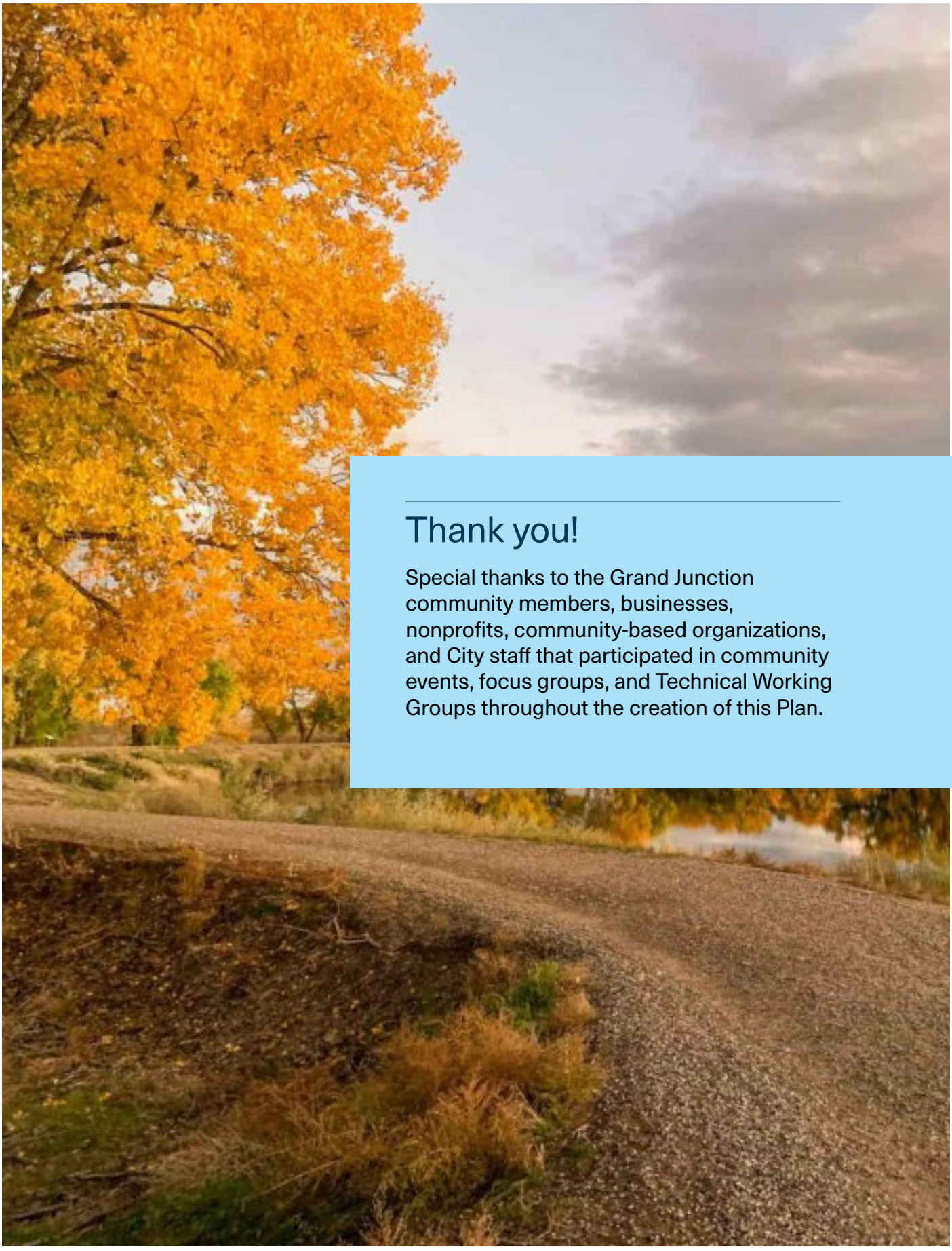
Bekah Bailey, Project Consultant



Thank you!

Special thanks to the Grand Junction community members, businesses, nonprofits, community-based organizations, and City staff that participated in community events, focus groups, and Technical Working Groups throughout the creation of this Plan.

Image Credit: City of Grand Junction
Trails in Fall

Image Credit: City of Grand Junction
Downtown Grand Junction

TABLE OF CONTENTS

Image Credit: City of Grand Junction
Grand Junction Mural
Artist Credit: TJ Smith and Danielle Sterle

1 Introduction

Chapter 1 provides foundational information regarding the purpose and context for this Plan. This chapter includes:

- **Plan Process:** A summary of the process of developing this Plan.
- **Plan Organization:** A guide to understanding the structure and terminology of this Plan.
- **Focus Areas and Goals:** An introduction to the Focus Areas and Goals which are further described in Chapter 3.
- **Dashboard:** A summary of Key Performance Indicators (KPIs) and their baseline measurements and targets.

Please see the Glossary section at the end of this document for definitions of terms.

ABOUT THIS PLAN

Grand Junction is the largest city in the region, located at the confluence of the Colorado and Gunnison Rivers, and is set among the Colorado National Monument, Grand Mesa, and Book Cliffs (Figure 1). This rural and urban interface positions the City to lead Colorado's Western Slope in supporting natural and built environments with a plan for sustainability and adaptation. Sustainability recognizes the imminent need to maintain or preserve social, economic, and environmental resources. Adaptability is the critical capacity to adjust to changing circumstances in the natural and built environment. Together, adaptability and sustainability are the heart of ensuring a prosperous future for the Grand Junction community.

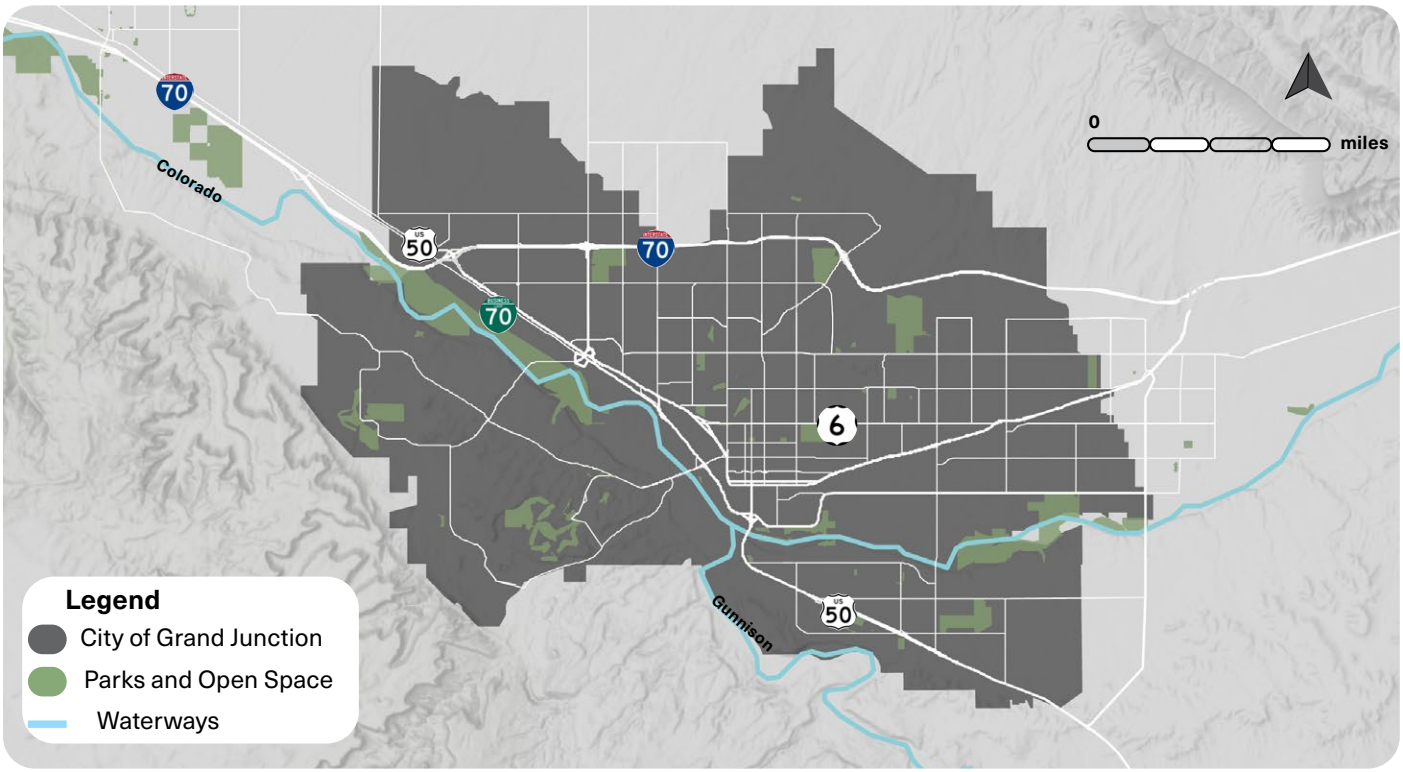


Figure 1: *Map of Grand Junction*

Purpose of this Plan

The Sustainability and Adaptation Plan (the Plan) is organized around six Focus Areas, each of which provides long-range Goals, Strategies, and Priority Actions to foster sustainable practices. This Plan aligns the City of Grand Junction, collaborative partners, and community members to work together to achieve shared goals. It addresses the changing climate, prepares for economic shifts, and complements the 2020 One Grand Junction Comprehensive Plan. The recent introduction of the Dual Stream Recycling Program, Electric Vehicle Readiness Plan, Urban Forestry Management Plan, Housing Strategies, Pedestrian and Bicycle Plan, Regional Water Efficiency Plan and Greenhouse Gas Emissions Inventory set a strong foundation for this effort and demonstrate the City's ambition to lead in resource stewardship.

This Plan...

Defines what 'Sustainability' and 'Adaptation' mean for the community members of Grand Junction.

Addresses environmental issues including water, heat, drought, and natural resource conservation.

Provides an actionable and data-driven path forward to address social, environmental, and economic goals.

Makes provisions for a high quality of life for current and future generations.

Plan Process

This Plan creation took place in five phases as shown in Figure 2. Each phase is built upon a foundation of data to ensure reliability and accountability. The project team initiated the effort with a kick-off meeting in May of 2023. The first phase, Project Understanding, included the creation of project management plans, focus group conversations, and research to establish a baseline understanding. The second phase, Initiate and Describe, gathered input from the community to develop the Focus Areas. The third phase, Evaluate and Target, developed draft Goals and Strategies that were shared at a community open house. Following this feedback, phase 4, Prioritize and Implement, refined the Strategies through implementation workshops and the creation of the Plan. This draft Plan was shared online, at a community open house, and vetted with City Council for adoption.

Figure 2: *Process Diagram*

PLAN ORGANIZATION

This Plan is organized into four chapters. Chapter 2 outlines the community engagement that informed Plan outcomes. Chapter 3 dives deeper into context, Goals and Strategies for each of the six Focus Areas. Chapter 4 identifies Priority Actions for the City.

Focus Areas (I-VI)

Each of the six Focus Areas identifies an opportunity to achieve a more sustainable future. Each Focus Area includes background information and an aspirational statement of what the City hopes to achieve.

Goals (1-12)

A Goal provides a clear objective, expressing the overarching purpose and intention. The Goals are measured by Key Performance Indicators.

Key Performance Indicators (KPIs): KPIs provide benchmarks for measuring progress in each Focus Area. These high-level indicators are based on national best-practices to enable ease of comparison for decision-making and public education. They include a baseline measurement and target.

Strategies (a-z)

The Strategies in Chapter 3 are a tactic or broad approach for how to achieve the Goals.

Equity Impacts: Some of the Strategies identify equity impacts, highlighting opportunities for increased social, environmental, and economic equity and/or considerations to ensure that future actions remain accessible and effective for all members of the community.

Priority Actions (A-VV)

The Implementation Priorities Matrices (IPM) in Chapter 4 identify key actions that are most urgent or impactful for the City to address. These provide a roadmap for how the City will allocate resources, deploy efforts, and adapt to changing circumstances, ensuring a structured and intentional path.

Supplemental Performance Measure (SPM): Aligns with each Priority Action to track and monitor progress over time.

Lead Department: These departments are responsible for leading and reporting Priority Actions.

Partnerships: These identify who are supporting parties or potential collaborative partners.

Timing: Timing horizons are a proposed or aspirational timeframe to completion.

Resources: These are supportive resources to implement the Priority Actions.

LEED for Cities

LEED for Cities metrics are strategically utilized for as KPIs and SPMs given their status as national best practices, ease of performance tracking, and use for benchmarking.

Figure 3: *Plan Organization*

FOCUS AREAS AND GOALS

The Plan is organized around six Focus Areas. Figure 4 below summarizes the Focus Areas in relationship to their 12 Goals. This graphic indicates the inherent overlap and intersection of the Focus Areas, with City Leadership at the center.

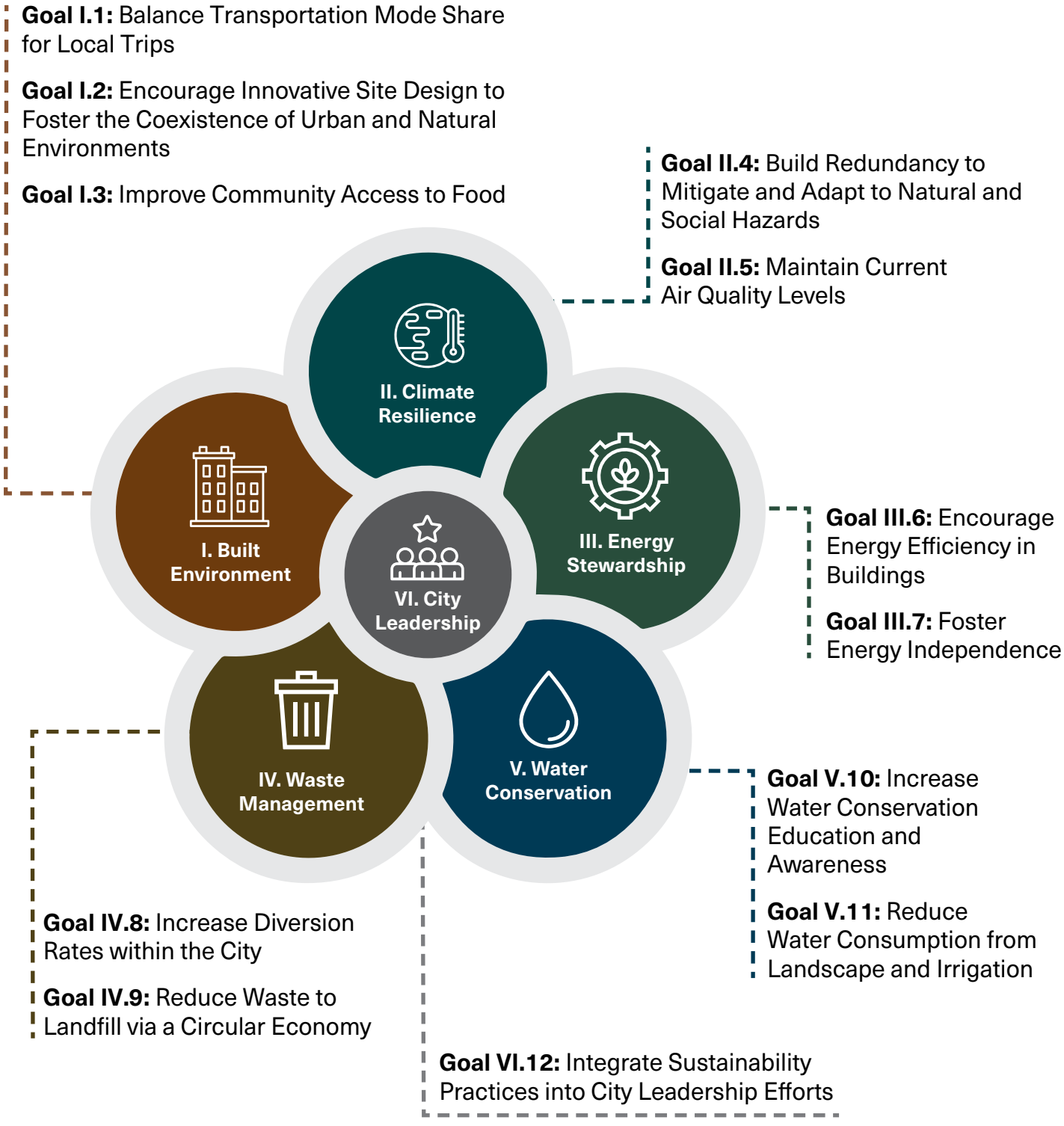


Figure 4: *Focus Areas Diagram*

DASHBOARD

The dashboard is a visual communication tool for managing Goals and Strategies. This is a tool for monitoring progress and tracking performance over time. Dashboard trends data will be used to inform decisions and communicate outcomes with transparency. The baselines and targets are outlined in Chapter 3. For additional supplemental performance measures see Chapter 4.

	BASELINE	TARGET
Goal I.1: Balance Transportation Mode Share for Local Trips **KPI:** Automobile, pedestrian, bicycle travel, and transit trips	92.5% Automobile use 6.1% Pedestrian 1.4% Bicycle In 2023 there were 580,236 unlinked passenger bus trips	Increase share of pedestrian and bicycle trips for local travel Increase number of unlinked passenger bus trips
Goal I.2: Encourage Innovative Site Design to Foster the Coexistence of Urban and Natural Environments **KPI:** Access to services, amenities, and green spaces, especially by foot and bike	Walk Score® = 32 Bike Score® = 55	Increase Walk Score® and Bike Score® to ensure adequate and equitable access for all users who walk, roll, and/or cycle
Goal I.3: Improve Community Access to Food **KPI: Grand Junction population residing in food deserts**	Six census tracts identified as food deserts as of the most recent data set (2019)	Ensure all City residences are within one mile of a grocer, market, or reliable food source, including fresh produce
Goal II.4: Build Redundancy to Mitigate and Adapt to Natural and Social Hazards **KPI:** Inventory of community resiliency capabilities	Inventory complete for City facilities per LEED for Cities	Complete inventory then share and maintain updated inventory
Goal II.5: Maintain Current Air Quality Levels **KPI:** Air quality	Median Air Quality Index (AQI) 44	Aim for more days in the year to fall within the *good* AQI category
Goal III.6: Encourage Energy Efficiency in Buildings **KPI:** Total building-related greenhouse gas (GHG) emissions per capita	7.00 metric tons of CO_2e (carbon dioxide equivalent) per year per capita	Reduce total building-related GHG emissions per capita

BASELINE	TARGET	
Total rooftop solar capacity = 15,742 kW	Install additional solar energy modules	**Goal III.7: Foster Energy Independence** **KPI:** Total installed solar capacity
5.8% diverted from landfill via compost and recycling	Increase diversion rate	**Goal IV.8: Increase Diversion Rates within the City** **KPI:** Total waste diversion community-wide
1.35 tons per capita per year	Reduce annual waste inflow at landfill	**Goal IV.9: Reduce Waste to Landfill via a Circular Economy** **KPI:** Total landfill waste per capita
69 gallons per day per capita	Reduce by 1.4% per year in alignment with the Regional Water Efficiency Plan	**Goal V.10: Increase Water Conservation Education and Awareness** **KPI:** Indoor and outdoor water consumption
34 gallons of outdoor water consumption per capita per day in the summer months	Reduce summer outdoor water consumption	**Goal V.11: Reduce Water Consumption from Landscape and Irrigation** **KPI:** Outdoor water consumption
Adopted Plan and baseline measures	Refresh the Implementation Priorities Matrices	**Goal VI.12: Integrate Sustainability Practices into City Leadership Efforts** **KPI:** Annual updates of the Implementation Priorities Matrices

The KPIs and SPMs identified in the Plan have been established by the City or partner organization. Where KPIs or SPMs have not yet been established, directional targets (such as increase or decrease) are proposed. The City will evaluate and establish specific KPIs or SPMs when possible as the Plan implementation cycle moves forward and baselines and trends can be established.

Image Credit: Facilitron
Aerial View of Downtown Grand Junction

2 Current Understanding

Chapter 2 presents the community context that informed this Plan's Goals and Strategies. This chapter includes:

- **Community Context:** Key facts about the Grand Junction community composition. This is followed by a summary of how community members defined *sustainability* for Grand Junction.
- **Previous Efforts:** A description of previous City efforts that serve as a foundation for this Plan.
- **Community Engagement:** A review of the methods and feedback that informed this process.

COMMUNITY CONTEXT

Who is the Grand Junction Community?

69,412 population

159,681 people live in Mesa County
5,877,610 people live in Colorado

(Source: V2023 U.S. Census Bureau QuickFacts: Mesa County, Colorado; Grand Junction city, Colorado)

2.24 people per household

↓ Mesa County has 2.4 people/household
↓ Colorado has 2.49 people/household

(Source: US Census Bureau, 2010-2023 American Community Survey, ESRI)

1.32% annual population growth rate from 2010-2023

↑ Higher than Mesa County (0.65%)
↓ but similar to Colorado (1.21%)

(Source: V2023 U.S. Census Bureau QuickFacts: Mesa County, Colorado; Grand Junction city, Colorado)

35.2% have a bachelor's degree

92.6% have a high school diploma

(Source: 2022 American Community Survey)

$62,933 median household income

↓ Lower than both Mesa County ($68,677) and Colorado ($87,598)

(Source: V2023 U.S. Census Bureau QuickFacts: Mesa County, Colorado; Grand Junction city, Colorado)

KEY UNDERSTANDING:

The number of Grand Junction residents continues to increase
(Source: US Census Bureau, 2010-2023 American Community Survey, ESRI)

The daytime population of Grand Junction increases to 73,895 people during the weekday due to inbound commuters
(Source: LEED for Citites 2021)

12.6% of Grand Junction households have incomes below the national poverty threshold
(Source: US Census Bureau, 2023 American Community Survey, ESRI)

Figure 5: *Community Demographics*

The Importance of Equity to Sustainability

We began the planning process by asking the community what the terms *sustainability* and *resilience* mean for Grand Junction. We heard that adaptability to changing environmental and social conditions is critical for the longevity of the community. Community members also expressed a desire to maintain affordability, manage local resources, improve health, and achieve a high quality of life. The word cloud figure below includes additional words or short phrases provided by community members to describe these terms.

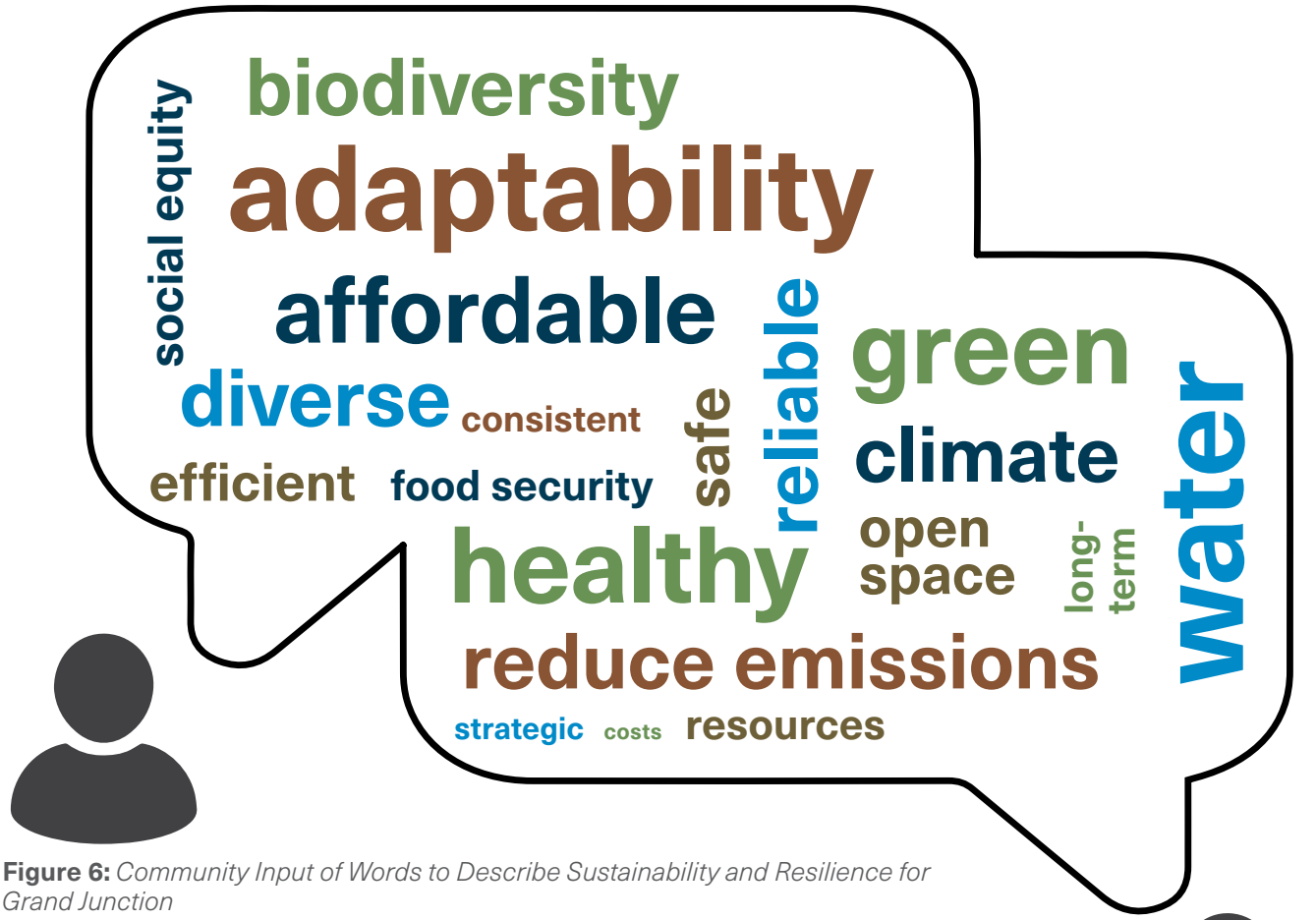


Figure 6: *Community Input of Words to Describe Sustainability and Resilience for Grand Junction*

Equity in social, environmental, and economic systems is vital for effective sustainability and adaptation efforts. It recognizes that the impacts of environmental issues disproportionately and negatively affect marginalized and vulnerable communities, such as low-income populations, indigenous people, people of color, and individuals with disabilities. These communities often face greater exposure to environmental hazards, have limited resources to mitigate risks, and experience barriers to accessing essential services and support. Achieving equity requires that we ensure these communities have a voice in decision-making processes and access to necessary resources, which will facilitate a more equitable distribution of benefits and burdens. Social, environmental, and economic equity are often interrelated or inextricable when creating inclusive solutions for sustainability and adaptation that address the needs of all people.

PREVIOUS EFFORTS

The City of Grand Junction has taken tangible steps to become a more sustainable city. The plans and efforts described below set a strong foundation to build upon.

2018

Waste Diversion Efforts

Since 2018, waste diversion efforts in the City and County have increased recycling by 75% and composting by 5%. *(Source: GHG Inventory Report and Results, City of Grand Junction)*

"Dual-stream recycling was introduced in 2023 and is set to expand across the city. It includes a choice of sizes for landfill waste, with smaller containers costing less, and two separate recycling bins for containers and fiber products at no additional cost. Recycling in this program is picked up twice per month. The multi-stream recycling program, which was only picked up once per month, is being phased out." *(Source: Beck, Kym. Waste Management for Grand Junction. 24 Aug. 2023)*

2024

LEED for Cities Silver

Grand Junction was awarded LEED for Cities Silver certification after winning grant funding and technical assistance to participate in the LEED for Cities Leadership Program.

2023

Grand Junction Regional Water Efficiency Plan

Following the 2012 Grand Valley Regional Water Conservation Plan, the Grand Junction Regional Water Efficiency Plan outlines Grand Junction's efforts to reduce water system losses, initiate a graywater program, and improve irrigation systems. The DRIP program provided a water conservation campaign including educational materials and resources for the community. These recent efforts have reduced residential sector water demand by 1.4% annually.

Figure 7: *Existing Plans Diagram*

2022

City of Grand Junction Community Greenhouse Gas (GHG) Inventory and Recommendations Report and GHG Reduction Roadmap

The State Climate Action Plan calls for the reduction of statewide GHG pollution by 90% by 2050.

The City has launched several initiatives to reduce GHG emissions via energy procurement and production. The City subscribes to three solar farms to help offset the electricity usage at different facilities and produces on-site solar-generated electricity at six different facilities. The City and Grand Valley Transit have also transitioned many of their vehicles to be powered by Compressed Natural Gas (CNG) some of which comes from bioCNG from the Persigo Wastewater Treatment Facility.

2023

Grand Junction Pedestrian and Bicycle Plan

Adopted in May 2023, this plan identifies investments and strategies to achieve the vision of Grand Junction as a city where people of all ages and abilities can safely and conveniently walk, roll, and bike on a connected network of well-maintained infrastructure for transportation or recreation.

2023

Grand Junction Electric Vehicle Readiness Plan

Adopted in 2023, the Electric Vehicle plan stresses the importance of Grand Junction to the I-70 corridor and the role of equitable electric mobility in the future.

2023

Urban Forestry Management Plan

As of 2019, tree canopy covered about 13% of the city, mostly in single-family neighborhoods.

The plan seeks to diversify the tree canopy, using drought-tolerant species, and address damage from tree-boring insects.

COMMUNITY ENGAGEMENT

Development of the Plan has been a process of deep listening and seeking innovative solutions to address issues facing the community. Community members and stakeholders provided insight into how to tailor this Plan to fit the needs and values of the Grand Junction community. Hearing from diverse perspectives, including youth and other traditionally underrepresented populations, was critical for creating an equitable plan. To garner community input, focus groups, open houses, pop-up events, and roadshow presentations were held throughout the process (Figure 8). Stakeholders shaped Plan Goals and Strategies through meetings with the Community Steering Committee and Technical Working Groups. City Council was engaged at key milestones. Virtual engagement was also encouraged via the City's Engage GJ webpage.

Community engagement aimed to meet a diversity of residents.

Engagement Process

ENGAGEMENT WINDOW #1: INITIATE & DESCRIBE

- Focus Group Listening Sessions
- Community Conversations at Pop-Up Events
- Steering Committee Meeting #1
- Community Roadshows
- Council and Planning Commission Presentation

ENGAGEMENT WINDOW #2: EVALUATE AND TARGET

- Steering Committee Meeting #2
- Community Open House
- Technical Working Groups/Steering Committee Meeting #3
- Community Roadshows
- Council Presentation

ENGAGEMENT WINDOW #3: PRIORITIZE, IMPLEMENT, & COMMUNICATE

- Implementation Workshops/Steering Committee Meeting #4
- Community Open House
- Council Presentation

Figure 8: *Engagement Process*

118 Pop-up Event Participants

Pop-up events took place at the farmers market, school events, and library events in the summer of 2023. These were important to meet the community where they are and engage a broad spectrum of participants.

63 Focus Groups Participants

The team conducted 11 focus group sessions in July, 2023. More than 100 topical experts and local representatives were invited to share their insights and perspectives.

335 Community Roadshow Participants

From January to April 2024, staff presented to over 18 organizations at community roadshows. Attendees gave feedback on Focus Areas, Goals, and Strategies.

Who did we hear from?

672

Community Members

70 Open House Participants

A community open house took place at the Lincoln Park Barn in November, 2023. This event included four stations for attendees to talk with the project team and share their suggestions for Plan Strategies. A second community open house took place on Earth Day in April, 2024 to share the Public Review Draft Plan.

20 Steering Committee Members

A City Council-approved Community Steering Committee provided input at four meetings to inform the direction of this Plan.

66 Technical Working Groups Participants

Five Technical Working Group meetings took place in January, 2024. Participants were asked to review, revise, add, or remove Goals and Strategies and identify where the City should focus action. The Technical Working Groups met again in March, 2024 for implementation workshops to refine the Priority Actions.

Figure 9: *Engagement Summary*

COMMUNITY ENGAGEMENT

"...to have resources for the future."

- Community Comment from Farmers Market Pop-Up Event in response to "Why is Sustainabilty and Resilience Important?"

"…. to ensure that Grand Junction thrives and make sure that Grand Junction is healthy."

- Student Comment R5 Pop-Up Event in response to "Why is Sustainabilty and Resilience Important?"

Farmers Market Pop-Up Event, Sept. 7, 2023.

Pop-Up Events

Method: In-person engagement activities were conducted at five community event booths. Community members with diverse interests shaped the Plan via interactions with tabling events to identify issues and share opportunities. Input was collected from 118 participants of various ages, neighborhoods, and interests. Participants were asked about hopes and dreams for the future of their community. These answers provided insights into what the community would like the Plan to address.

Understanding: When asked to define what sustainabilty and resilience mean to the community, common responses included adaptability and equity. Water conservation, energy stewardship, waste management, and hazard resilience ranked highest among participant priorities. Additional topics identified as important by the community included food access, affordable and safe housing, and flexibility to adapt to changing social and environmental conditions.

Focus Groups

Method: Focus group meetings devoted time to discussion and listening early in the Plan creation process. In all, more than 60 participants attended one of the eleven sessions, including City of Grand Junction staff and subject matter experts. The objectives were to gain a better understanding of concerns and opportunities as well as gather input about what is working and what improvements are desired.

Understanding: Figure 10 indicates water conservation was the most common concern of the participants. The region's scarce precipitation and recent drought and temperature changes have raised awareness of

the importance of conserving water. Participants pointed out the importance of water to public health, the local economy, and quality of open spaces. Additionally, energy was identified as a topic of high priority with attention to building practices that are reliable and affordable. Other focus group suggestions included education and programs to get involved and promote sustainable lifestyle choices for residents, especially around transportation alternatives, recycling, and composting.

Community Roadshows

Method: The Community Roadshows convened a wide variety of local organizations to build awareness. City staff presented the draft Focus Areas of the Plan and examples of relevant Strategies. Following the presentation, staff provided business cards containing a QR code for attendees to submit feedback and ideas online.

Understanding: Roadshow participants' feedback was requested to offer suggestions and voice concerns early in the Plan's development, when the Strategies were still flexible and input could be easily incorporated. The input received aligned with feedback from the other engagement methods.

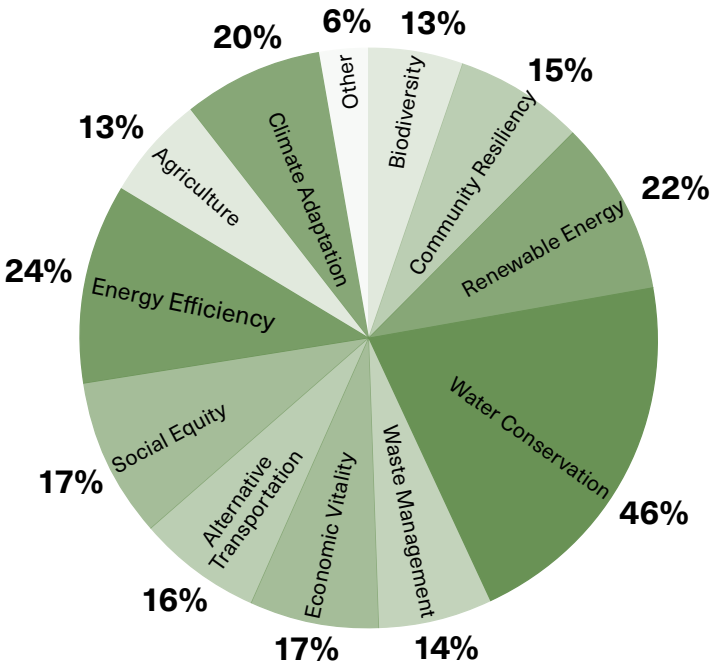


Figure 10: *This graph displays a composite of the focus group participants' prioritization of topics for the Plan. Water conservation, energy, and climate adaptation were the most selected by Focus Group participants.*

Community Roadshow Event, 2023 and 2024

COMMUNITY ENGAGEMENT

> *"We need more protected bike lanes through the City."*
>
> *- Community Comment from Community Open House*

Community Open House

Method: On November 16th, 45 participants attended a community open house. Participants learned about the Plan process and baseline conditions, and suggested ideas for projects and actions. Community participants demonstrated their preferences, priorities, and desired actions by placing dots and posting sticky note comments on information boards. A follow up open house took place on April 21, 2024 with 25 participants in attendance.

Understanding: The open house revealed a strong desire from the community to support sustainable activities, both by individual community members and by the City. Popular ideas included native and drought-tolerant landscaping, efficiency in irrigation, and alternatives to lawns. Education and programs were suggested regarding recycling and composting, improved home appliance efficiency, and opportunities for solar energy at the residential scale. Support was also expressed for increased density to address housing affordability and streetscape improvements that promote walking and biking. This feedback informed the development of the Plan Strategies.

> *"There's a lot of food waste. Grand Junction needs to promote home composting."*
>
> *- Community Comment from Community Open House*

> *"Encourage native plants in all landscaping, not just xeriscaping."*
>
> *- Community Comment from Community Open House*

Community Open House Event, Nov. 16, 2023.

Community Steering Committee

Method: The Steering Committee was selected by staff and approved by City Council, which includes representatives from local organizations such as conservation groups and local businesses. The Steering Committee met five times throughout the process to guide and direct the Focus Areas, provide input on Goals, and prioritize Strategies.

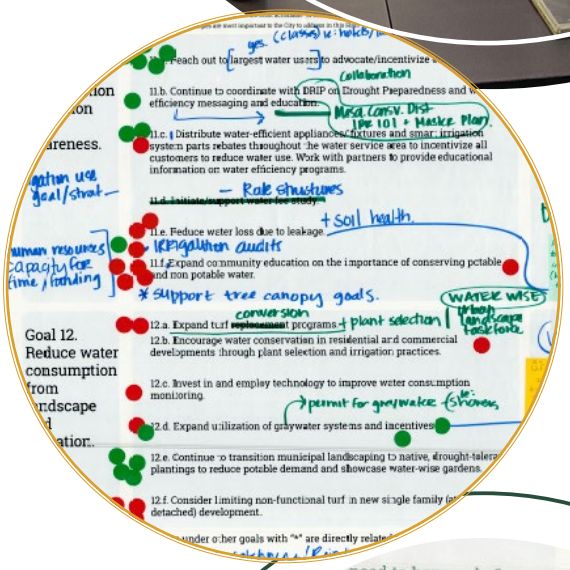
Understanding: The Steering Committee offered guidance to directly inform the development of a Plan that is representative of the Grand Junction community.

Technical Working Groups

Method: The Technical Working Groups included representatives from City staff and local agencies such as water districts, utility providers, developers, and non-profit organizations. Throughout one day, over 60 participants, including Community Steering Committee members, provided in-depth discussion and refinement of draft Goals and Strategies.

Understanding: These conversations were an opportunity for subject experts to converse on what is working, where to make improvements, prioritize future actions, and identify resources and partnerships for implementation.

The group reconvened for an implementation workshop in March to discuss how feedback was incorporated and refine the Priority Actions found in Chapter 4.



Technical Working Groups, Jan.18, 2024.

Image Credit: City of Grand Junction
Community Engagement Farmers Market Pop-Up Event

3 Goals and Strategies

Chapter 3 provides a long-term vision regarding sustainability and adaptation in Grand Junction. This chapter includes:

- **Focus Areas:** The six Focus Areas are Built Environment, Climate Resilience, Energy Stewardship, Waste Management, Water Conservation, and City Leadership. The Focus Areas provide the structure for this Chapter.
- **Goals**: Delineate the objective within each Focus Area to provide a clear purpose.
- **Strategies:** Potential pathways to achieving these Goals are suggested through Strategies. Strategies are tactics or broad approaches for how to achieve the Goals over the next decade.

The Focus Areas, Goals, and Strategies were developed from community feedback, analysis, focus group conversations, Technical Working Groups, and Community Steering Committee direction.

INTRODUCTION TO GOALS AND STRATEGIES

Each of the six Focus Areas include content organized as shown in Figure 11. The Focus Areas are framed with aspirational statements, background information, and current measures. The twelve Goals and their supporting Strategies are the heart of the Plan. Progress towards the Goals is measured through the provided Key Performance Indicators (KPI).

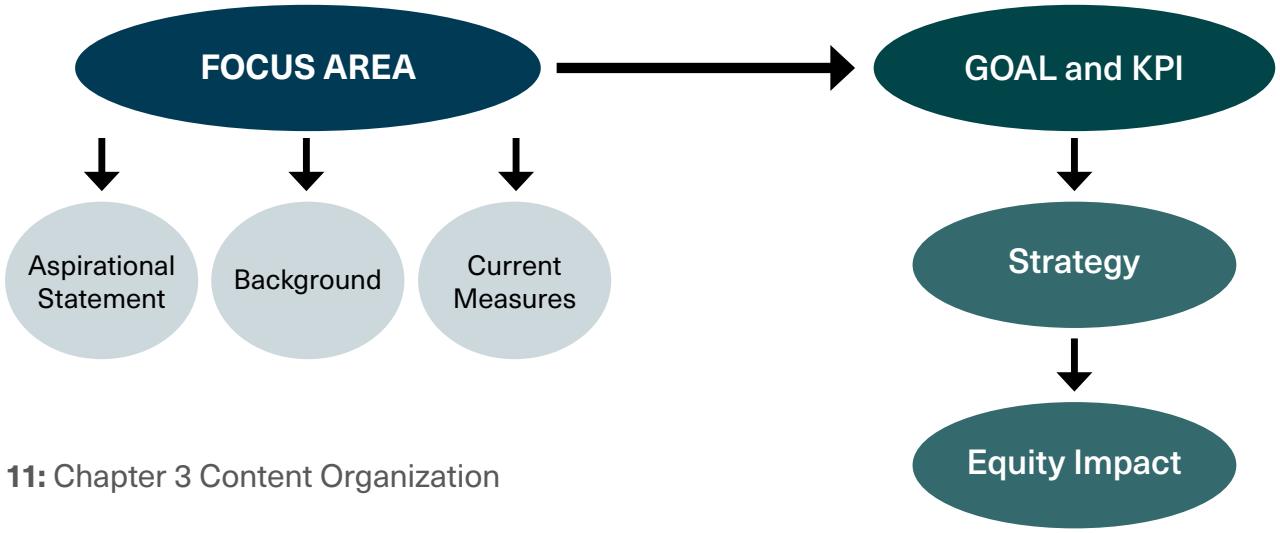
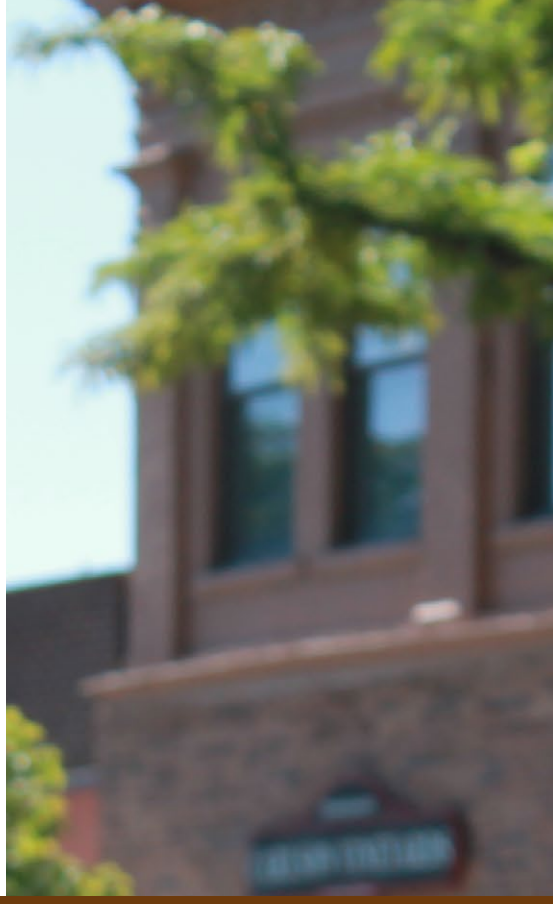


Figure 11: Chapter 3 Content Organization

- Each goal includes a Key Performance Indicator (KPI) and a directional target for how to measure success.
- Where applicable, equity impacts are described for consideration.
- Strategies with an asterisk (*) highlight a direct relationship to greenhouse gas (GHG) emissions reduction.
- Order/numbering of Strategies and/or Priority Actions does not indicate the order of importance.

FOCUS AREA I



Built Environment

Built Environment targets community design that enables sustainable, efficient, and accessible transportation, housing, goods and services to meet Grand Junction's specific needs while protecting natural resources.

Aspirational Statement

We aim to be a more responsible and sustainable community by transforming the design of our built environment to fit the needs of all community members and improve community health. We promote responsible public investment in the development of safe and connected facilities to encourage multiple modes of transportation and reduce vehicle miles traveled. We encourage innovative site design that promotes efficient use of land and protection of the natural environment.

Image Credit: City of Grand Junction
Downtown Grand Junction

BUILT ENVIRONMENT

BACKGROUND

The built environment addresses the physical attributes of a city, interwoven with environmental, social, and economic principles. Urban design and expanded multimodal transportation choices contribute to enhanced safety and decreased emissions. Building design and development patterns have implications for urban heat island effect and vehicle miles traveled (VMT). These are some of the built environment considerations to foster a vibrant community with a high quality of life for everyone.

A mix of uses and infill development support sustainable lifestyle choices for community members. By increasing housing choices, multimodal transportation options, and the integration of nature into public spaces, the built environment becomes more welcoming. The One Grand Junction Comprehensive Plan identifies three tiers to direct planning decisions, the first of which is Tier 1, focused on infill development.

The sprawling nature of Grand Junction has evolved to support a car culture. Walk Score ratings extend from zero (completely car dependent) to 100 (daily errands do not require a car); Grand Junction's current Walk Score® of 32 falls into the 25-49 range of a car-dependent community. The Greenhouse Gas (GHG) Inventory and Recommendations Report indicates that vehicle exhaust is one of the largest contributors to air pollution in the region. Improvements to biking and walking infrastructure promotes alternative transportation and improved quality of life. A stronger emphasis on pedestrian design can help reduce car use, encourage more person-to-person connections, and mitigate air pollution.

Trees and vegetation provide multifaceted benefits to human health and the environment. This includes improving air quality and moderating effects of sun, rain, and wind. The current urban tree canopy is concentrated in the core of the city, with lower-income and peripheral areas having less access to shade and other benefits that a healthy tree canopy provides.

Definitions

Road Diets:
Reallocation of space on existing roadways to improve safety, accommodate multiple modes of transportation, enhance the livability of communities, and promote active transportation. Typically involves reducing the number of travel lanes, narrowing lanes, adding or enhancing bicycle lanes or facilities, and/or implementing traffic calming measures.

LEED BASELINE (2021)

25.7 Vehicle Miles Traveled (VMT)

Miles per day per capita travelled in 2021.

VMT is a measure used to quantify the total distance traveled by all vehicles within a specific geographic area.

Definitions

Modal Filter:
Traffic management measures used in urban areas to restrict vehicle access to improve passage for pedestrians, cyclists, and emergency vehicles.

Mode Share:
Percentage distribution of trips or journeys made by different modes of transportation, such as walking, cycling, driving, public transit, or other means.

Current Measures

The 2023 Urban Forestry Management Plan aims for an 18% increase to tree canopy cover by 2030.

(Source: City of Grand Junction Urban Forestry Management Plan)

LAND

5.2% of the City area is categorized as public land. There are over 1.2 million acres of public land in the surrounding region.

The City manages 35 developed parks, and 56% of residents live within a 10-minute walk of a park.

(Source: City of Grand Junction Parks and Recreation Master Plan)

TRANSPORTATION BEHAVIORS

36% of county residents commute into Grand Junction, which increases the daytime population by **32%.**

92.5% of residents use automobiles, **6.1%** residents walk, and **1.4%** residents use bicycles as their primary mode of transportation.

(Source: City of Grand Junction's Environmental Insights Explorer)

TRANSPORTATION EMISSIONS

Transportation emissions are one of the largest sources of GHG emissions. On-road vehicle use of fossil fuels contributes to **32-34%** of GHG emissions.

(Source: City of Grand Junction Greenhouse Gas Inventory Results & Recommendations Report)

Goal I.1:
Balance Transportation Mode Share for Local Trips

Key Performance Indicators:	Measure:	Directional Target:	Baseline:
Automobile, pedestrian, and bicycle travel Transit trips	Percent of in-boundary trips taken by automobile, pedestrian, or bicycle Unlinked passenger bus trips	Increase share of pedestrian and bicycle trips for local travel Increase number of unlinked passenger bus trips	92.5% Automobile use 6.1% Pedestrian 1.4% Bicycle In 2023 there were 580,236 unlinked passenger bus trips

Source: City of Grand Junction's Environmental Insights Explorer/ Source: Transit Planner for the Regional Transportation Planning Office of Mesa County

Strategy I.1.a. *Build safe and comfortable pedestrian and bicycle infrastructure, including intersections, transit stops, and connectivity for pedestrians and cyclists. Prioritize protected walking and biking paths to serve people without access or who choose not to use motorized vehicles.

- Equity Impacts: Increases mobility in the community without requiring access to a motor vehicle.

Strategy I.1.b. Repurpose Grand Junction's vehicular network. Where possible, consider mechanisms such as road diets, modal filters, expanded paid parking hours, and repurposing underutilized street parking.

- Equity Impacts: Steering public investment away from car traffic and towards walking, biking, and buses.

Strategy I.1.c. Maximize motorized transportation investments by prioritizing maintenance of existing infrastructure.

Strategy I.1.d. *Partner with Mesa County, and other agencies, to establish enduring revenue streams to enhance the level of operating service of Grand Valley Transit.

- Equity Impacts: Increases mobility in the community without requiring access to a motor vehicle.

Strategy I.1.e. Partner with Grand Valley Transit to improve the ridership experience with modernized transit infrastructure and the expansion of pilot programs. Integrate first and last mile connections such as bikeshare programs.

- Equity Impacts: Empowers bus riders and enhances the dignity and predictability of public transportation.

Strategy I.1.f. Develop appropriate services to increase transportation mode options along active transportation corridors. This may include vehicle-share programs, universal accessibility adaptations, on-demand transport infrastructure, and safety services.

- Equity Impacts: Increases accessibility, safety, and peace of mind for human scale travel.

Strategy I.1.g. *Partner with private sector to incentivize active commuting, carpooling, and/or carshare programs.

Strategy I.1.h. Strengthen relationships with surrounding jurisdictions and transportation partners to expedite planned connectivity and mobility improvements.

Goal I.2:

Encourage Innovative Site Design to Foster the Coexistence of Urban and Natural Environments

Key Performance Indicators:	Measure:	Directional Target:	Baseline:
Access to services, amenities, and green spaces, especially by foot and bike	Walk Score® Bike Score®	Increase Walk Score® and Bike Score® to ensure adequate and equitable access for all users who walk, roll, and/or cycle	Walk Score® = 32 Bike Score® = 55

Source: Walkscore.com

Strategy I.2.a. *Encourage transit-oriented development through design overlays around transit hubs and establish transit corridors. Consider parking maximums and expanded sidewalk/trail connectivity requirements for infill development.

- Equity Impacts: Promotes highest-use development adjacent to transit hubs and improves opportunities for car-light living.

Strategy I.2.b. *Implement policies that encourage proximal access to essential services from residential parcels. Consider development incentives for strong community connections and promoting compact development.

- Equity Impacts: Provides increased access to essential services for all populations.

Strategy I.2.c. Provide incentives including expedited review of permitting processes, and/or positive publicity to buildings achieving sustainable/green certification, or other desired measures.

- Equity Impacts: Reduces long-term operating costs and potentially reduces exposure to environmental toxins.

Strategy I.2.d. Protect and preserve existing tree canopy and recover lost canopy through the planting of adaptive and climate-appropriate trees for shading, targeting census blocks below target canopy cover goals and underserved areas. Ensure a balance between maintaining healthy trees to reduce heat islands and lowering water use.

- Equity Impacts: Improves quality of life and provides public health benefits.

Strategy I.2.e. Encourage policy discussions around impact fee incentives for sustainable development approaches.

Strategy I.2.f. Create a toolkit to educate and incentivize regionally appropriate green infrastructure including relevant new technologies.

- Equity Impacts: Reduces the risk of flood damage, erosion, and water contamination. Supports ground/surface water recharge and natural water filtration. Both the harm of unmanaged stormwater and the benefits of properly managed stormwater impact all community members.

Strategy I.2.g. Support existing development standards that protect and avoid diminishment of wildlife habitat, vegetation, water, natural land, vistas, and minerals.

Strategy I.2.h. Increase water quality monitoring in local bodies of water for pollutants of concern. Proactively address changes in water quality through management and development of best practices.

- Equity Impacts: Ensures proper water quality in water bodies that may be primary sources of water for individuals.

Strategy I.2.i. Conduct a feasibility assessment of connection to recycled, raw, or ditch water for City parks currently using potable water.

Strategy I.2.j. Update lighting standards for parks and streets in the Zoning and Development Code and the Transportation and Engineering Design Standards (TEDS). Obtain Dark Sky Certification and ensure lighting is adequate for safety where needed.

Goal I.3:
Improve Community Access to Food

Key Performance Indicators:	Measure:	Directional Target:	Baseline:
Grand Junction population residing in food deserts	Number of census tracts defined as USDA Food Deserts	Ensure all City residences are within one mile of a grocer, market, or reliable food source, including fresh produce	Six census tracts identified as food deserts as of the most recent data set (2019)

Source: USDA Food Atlas

Strategy I.3.a. Improve education about urban agriculture and evaluate polices for reducing barriers to implementing urban agriculture.

Strategy I.3.b. Collaborate with partners to explore opportunities to expand markets for local food producers and increase access to local food options in the community.

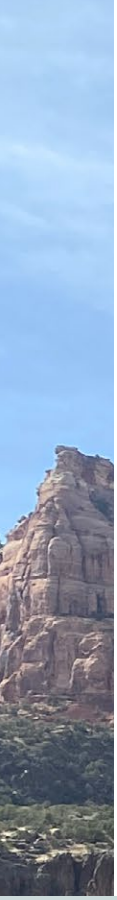
Strategy I.3.c. Work to eliminate existing food deserts.

- Equity Impacts: Reduces disproportionate impacts to low-income and vulnerable populations.

Strategy I.3.d. Encourage sustainable urban agriculture best practices.

Strategy I.3.e. Promote the creation of community gardens in residential areas, especially subdivisions.

FOCUS AREA II



Climate Resilience

Climate Resilience is the ability to prepare for, recover from, and adapt to change. It involves mitigating environmental stresses such as rising temperatures, changing precipitation patterns, and increasing frequency of extreme weather events as well as preparing for social disruptions such as disease and economic shifts.

Aspirational Statement

We aspire to build a more resilient community by employing strategies to mitigate current environmental and social hazards exacerbated by climate change while strengthening community preparedness for future hazards. With robust planning, monitoring, and response implemented alongside proven emissions reduction strategies, our community will be prepared to respond and adapt to climate impacts.

Image Credit: City of Grand Junction Colorado National Monument

CLIMATE RESILIENCE

BACKGROUND

Planning for the future requires both climate mitigation and adaptation. Grand Junction faces acute and chronic environmental stresses such as drought, floods, heat waves, high winds, and wildfires, which have significant economic, social, and environmental repercussions. Changing climate conditions and extreme weather events will impact critical infrastructure including roads, bridges, dams, and railways. Preventing, mitigating, and planning for catastrophic failures is important to preserve human life and maintain city functions. Mitigating risks minimizes the overall financial impact and can save lives in the case of an emergency.

The trend of increased average daily temperatures in the region exacerbates drought conditions and potential wildfires. The associated risks can lead to reduced air quality by increasing particulate matter (PM) from desert dust, wildfire smoke, and inversions. While aiming for a trend of good air quality over time, wildfires and inversions create outliers and may establish new norms in the data that the City does not have direct control over. An anticipated increase in the number and duration of high heat days can put people at greater risk during the summer heat. Vulnerable groups most at-risk to heat include people experiencing homelessness, those with pre-existing health conditions, youth, elderly, and low-income persons.

Exposure to natural hazards such as extreme weather and flooding can exacerbate environmental challenges and need to be factored into community resilience. A community that has plans and provisions in place is better able to withstand and recover from economic fluctuations, social disruptions, and other community crises.

LEED BASELINE (2021)

44 Median AQI

From 2019-2024, Grand Junction air quality has been at the high end of the 'good' range.

The Air Quality Index (AQI) indicates the level of air pollution and health concern. Grand Junction AQI has been stable over the last five years, ranging from 43-46. An AQI score of 0-50 is considered 'good'; higher scores indicate increased levels of health concern.

Definitions

Air Quality Index (AQI):

A numerical scale used to communicate the quality of outdoor air and its potential health effects to the public.

Current Measures

HEAT RISK

Grand Junction experienced **43 days above 95 ºF** in 2023.

Grand Junction experienced **74 days above 90 ºF** in 2023.

(Source: https://mesonet.agron.iastate.edu/sites/hist.phtml?station=GJT&network=CO_ASOS&year=2013&month=8)

WILDFIRE RISK

Area burned each year is projected to increase by 50-200% in Colorado by 2050 according to the 2017 Forest Management to Protect Colorado's Water Resources report.

(Source: Colorado Water Conservation Board)

POTENTIAL FLOOD DAMAGE COSTS

$42 MILLION
in Residential Assets at Risk

$11.5 MILLION
in Industrial Assets at Risk

$27 MILLION in Commercial Assets at Risk

(Source: Grand Junction Asset Inventory - Wildfires, Mesa County Hazards Mitigation Plan)

AIR QUALITY

RANKED 12th
for the cleanest US City in 2023 for particulate matter pollution.

30+ PurpleAir monitors are currently tracking particulate matter (PM).

(Source: "Cleanest Cities: State of the Air" by the American Lung Association)

Goal II.4:
Build Redundancy to Mitigate and Adapt to Natural and Social Hazards

Key Performance Indicators:	Measure:	Directional Target:	Baseline:
Inventory of community resiliency capabilities	Complete inventory in 2024	Complete inventory then share and maintain updated inventory	Inventory complete for City facilities per LEED for Cities

Source: City of Grand Junction, City facilities per LEED

Strategy II.4.a. Integrate climate-related hazards into existing emergency response plans and/or efforts.

- Equity Impacts: Protects all community members with climate and disaster readiness.

Strategy II.4.b. Work with Mesa County on implementation and updates to the 2020 Hazard Mitigation Plan.

- Equity Impacts: Addresses the disproportionate impacts of hazard events on people with low incomes and/or experiencing homelessness and provides recovery resources.

Strategy II.4.c. Conduct a vulnerability and capacity assessment for climate change risks, natural and man-made hazards, and extreme weather events per LEED for Cities.

- Equity Impacts: Helps spotlight hazards and risks which impact at-risk populations and can lead to more equitable distribution of resources and opportunities.

Strategy II.4.d. Support Wildland Urban Interface (WUI) wildfire mitigation efforts in impacted portions of the City.

- Equity Impacts: Reduces the financial burden on residents to invest in mitigation efforts to prevent wildfire damage.

Strategy II.4.e. Expand the adoption of broadcast systems to warn the public about natural hazards and available resources.

Strategy II.4.f. Develop equitable heat response plans including cooling centers and hydration centers in resilience hubs.

- Equity Impacts: Ensures access to resources for community members with inadequate access to safe and cool environments, which are critical during extreme heat events.

Strategy II.4.g. Identify and conduct an inventory of backup power sources for City facilities and fleet; this may include battery storage, fuel, and microgrids that can supply emergency energy needs. Support essential industries and/or institutions to do the same.

Strategy II.4.h. Upgrade infrastructure to be weather-resilient using industry standards and best practices.

Strategy II.4.i. Promote household-level emergency preparedness through multi-lingual community outreach programs, emergency kits, resilient social networks, and disaster planning and recovery programs.

- Equity Impacts: Alerts and prepares all populations for emergency situations.

Strategy II.4.j. Strengthen partnerships with regional providers to coordinate emergency response procedures and resources. Add climate preparedness elements to community programs already aimed at vulnerable populations and low-income households. Dedicate increased funding to accommodate demand for public health services among at-risk populations in partnership with Mesa County.

Strategy II.4.k. Establish a protocol(s) for assisting vulnerable populations, including low-income populations, communities of color, older adults, and people with disabilities that may face financial strain caused by climate hazards, such as higher utility bills.

- Equity Impacts: Improves the resilience of all community members.

Goal II.5:
Maintain Current Air Quality Levels

Key Performance Indicators:	Measure:	Directional Target:	Baseline:
Air quality	Annual median AQI	Aim for more days in the year to fall within the *good* AQI category (0-50 AQI)	Median AQI 44

Source: www.airnow.gov (US EPA)

Strategy II.5.a. Investigate and incentivize air quality technologies to implement in preparation of unhealthy air days.

- Equity Impacts: Improves air quality for all. This is an important benefit for those unable to stay indoors on unhealthy air days.

Strategy II.5.b. Expand outdoor air quality monitoring through state and regional partnerships, including monitoring and collection of actionable data.

- Equity Impacts: Allows for more equitable participation beyond EPA monitors and can target underserved or vulnerable areas.

Strategy II.5.c. Track and report biannual greenhouse gas emissions per capita.

Strategy II.5.d. Expand educational programs to support clean air including actions that minimize health-related and environmental impacts from different pollution sources to use on days with inversions and agricultural burning. Alternative actions may include travel advisories, limiting wood burning, and avoiding outdoor activities.

Strategy II.5.e. Explore partnerships and/or regulations to implement more stringent vehicle emission standards.

Strategy II.5.f. Compare social equity data with air quality data to inform decisionmaking relating to implementing air quality improvement actions.

Strategy II.5.g. Create an anti-idling policy.

FOCUS AREA III

Energy Stewardship

Energy Stewardship entails improving energy efficiency, reducing overall energy consumption, and reducing energy-related pollution and GHG emissions. Renewable energy refers to energy derived from naturally occurring, replenishable sources that are essentially inexhaustible over time, whereas energy efficiency involves reducing energy usage and cost.

Aspirational Statement

We aspire to develop programs and policies that drive meaningful reductions in energy consumption among businesses and residents, support the diversification of energy sources to build redundancy in the power system, and identify opportunities to expand clean energy options.

Image Credit: City of Grand Junction
The Grand Mesa

ENERGY STEWARDSHIP

BACKGROUND

The energy industry has played a significant role in the history of Grand Junction's economic development. The energy industry supports the economy by providing jobs which increases demand for housing supply, and impacts both the environment and transportation infrastructure. A combination of mineral resources and clean energy resources position Grand Junction well for producing energy from a diversity of sources including renewable natural gas (biogas), solar power, and alternative fuels such as hydrogen and geothermal. Opting for clean fuel sources decreases emissions, improves air quality, and reduces greenhouse gas emissions. Regardless of the fuel type, reducing overall energy consumption is a resource-saving measure.

Electricity in the City is commercially supplied by Xcel Energy and Grand Valley Power. Xcel Energy and others provide natural gas and propane. State programs such as the Colorado Renewable Energy Standard (RES) and Clean Air - Clean Jobs Act (passed as House Bill 1365 in 2010), are driving the change in viable energy options. This Bill requires Xcel Energy to increase efficiency and process increased amounts of low to zero-carbon energy to meet a goal of 80% reduction in greenhouse gas (GHG) emissions by 2030.

Energy stewardship in buildings entails design and operations to reduce energy consumption and reduce utility costs. This may include building features such as solar orientation, smart thermostats, insulation, air sealing, and energy-efficient windows to reduce heating and cooling demands.

Fossil fuel production and use has been a mainstay of the Western Colorado economy for many decades, providing reliable and affordable energy and jobs for Grand Junction and surrounding communities. During the last decade, the energy economy of Colorado has begun a transition as renewable energy has become more affordable and concerns regarding climate change have caused our community to take steps to reduce GHG emissions. As the economic impacts of energy transition are felt, steps must be taken to ensure that decent, well-paying jobs are available, and that the energy that drives our economy remains reliable, clean, and affordable for all members of our community.

Natural gas production and use is an important part of the Grand Junction's energy economy. Today, most of Colorado's natural gas is produced east of the Continental Divide, but it is still important as it supplies jobs and energy to our growing city. It is the cleanest of all fossil fuels and generates important tax revenues, but climate concerns are demanding more from natural gas producers and consumers. Colorado has some of the strictest regulations on emissions of GHGs during production and transport of natural gas, but burning the fuel still produces the most important GHG, carbon dioxide. Over 30 percent of Colorado's electricity is fueled by natural gas. In the coming years, sequestration of carbon dioxide will be required to further reduce emissions from natural gas use and this will create jobs for the Grand Junction economy and ensure that its continued use will meet our sustainability goals.

LEED BASELINE (2021)

13.1 Metric Tons of CO_2e per Capita
Annually in 2021

Greenhouse gas (GHG) emissions include carbon dioxide (CO_2) and other gas produced from burning fossil fuels for electricity, heat, and transportation. This traps heat in the atmosphere and contributes to warming global temperatures.

Definitions

CO_2:
Carbon dioxide, a primary greenhouse gas (GHG).

CO_2e:
Carbon Dioxide Equivalent includes all greenhouse gases, including CH_4 (methane) and N_2O (nitrous oxide) converted to the equivalent amount of carbon emissions using a global warming potential factor.

Current Measures

58-61% of GHG emissions in Grand Junction come from buildings.

(Source: City of Grand Junction Greenhouse Gas Inventory Results & Recommendations Report)

GHG EMISSIONS

32-34% of GHG emissions in Grand Junction come from on-road fossil fuels.

Natural gas use increased from 2018 to 2021 for both residential and commercial use, compared to electricity which has declined by 6%.

(Source: City of Grand Junction Greenhouse Gas Inventory Results & Recommendations Report)

SOLAR ENERGY

The City of Grand Junction has installed 5 on-site solar arrays on City facilities.

(Source: City of Grand Junction Greenhouse Gas Inventory Results & Recommendations Report)

OIL & GAS

Statewide oil and gas operations contribute to 16.1% of carbon emissions in Colorado.

**Note: All regional oil and gas companies operate within the current state (ECMC) and federal regulations for emissions. Colorado regulations are among the most stringent in the nation.*

(Source: Colorado Department of Public Health and Environment's GHG inventory Report, 2022)

Goal III.6:
Encourage Energy Efficiency in Buildings

Key Performance Indicators:	Measure:	Directional Target:	Baseline:
Total building-related GHG emissions per capita	Total building GHG emissions (metric tons of CO_2e) per capita	Reduce total building-related GHG emissions per capita	7.00 metric tons of CO_2e per year per capita

Source: City of Grand Junction GHG Inventory

Strategy III.6.a. Adopt regular updates to the International Energy Conservation Code (IECC). Strive to be current within three years of newest IECC code.

Strategy III.6.b. Collaborate with partners to conduct energy and building code-related training for implementing the IECC. Consider expanding education for builders, inspectors, and other key stakeholders.

- Equity Impacts: Energy-efficient buildings can reduce energy costs.

Strategy III.6.c. *Develop energy efficiency and resource conservation education and outreach programs for residents and businesses, including incentives for physical upgrades that reduce building emissions.

Strategy III.6.d. *Upgrade municipal buildings through retro-commissioning studies and deep efficiency retrofits to demonstrate leadership and feasibility.

Strategy III.6.e. *Offer incentives for electrified buildings, such as efficient building certification, expedited permitting and fee reduction, and energy financing programs to spur private sector adoption of IECC code.

Strategy III.6.f. Encourage high-efficiency standards for City-owned buildings.

Strategy III.6.g. Share educational resources with commercial and residential property owners and renters to help reduce energy consumption of buildings.

Goal III.7:
Foster Energy Independence

Key Performance Indicators:	Measure:	Directional Target:	Baseline:
Total installed solar capacity	Total rooftop solar energy capacity (kW) as reported by Xcel Energy	Install additional solar energy modules	Total rooftop solar capacity = 15,742 kW

Source: Xcel Energy

Strategy III.7.a. *Continue to invest in relevant and available clean technology, incluidng solar arrays for City facilities.

Strategy III.7.b. *Identify additional community solar options.

- Equity Impacts: Enables individuals who do not have the means to install solar panels to benefit from solar energy by subscribing to shared solar projects.

Strategy III.7.c. *Promote solar co-ops that bulk purchase neighborhood solar panels.

- Equity Impacts: Democratizes energy access by allowing residents, particularly those in underserved or remote areas, to generate their own energy. Increases feasibility of residential solar community-wide and allows all community members to gain energy independence.

Strategy III.7.d. *Explore the purchase of certified natural gas for municipal facilities.

Strategy III.7.e. Ensure all Renewable Energy Certificates (RECs) are owned and retired as they are generated for City solar projects.

Strategy III.7.f. Support programs in research and development (R&D) and innovations in clean energy. Train local workers for jobs in clean energy project installation, maintenance, and power distribution. Collaborate with local schools and community organizations to support programs and training.

Strategy III.7.g. *Expand clean energy systems, including renewable natural gas generated from the wastewater treatment plant.

Strategy III.7.h. *Diversify the energy supply and reduce dependence on centralized fossil fuel generators for City facilities, including renewable power generation and storage for City-owned EV stations.

Strategy III.7.i. *Explore clean energy generation for City-owned and City-funded buildings.

Strategy III.7.j. Explore options for developing a trust or coalition for energy funding.

Strategy III.7.k. Support outcomes of the Electric Vehicle Readiness Plan.

FOCUS AREA IV

Waste Management

Waste Management considers the systematic planning, collection, diversion, recycling, and disposal of materials generated by residents, businesses, and industries to minimize negative environmental impacts, conserve resources, and ensure the City's ability to effectively manage waste streams.

Aspirational Statement

We aspire to maximize the use of industry best practices for waste reduction by expanding the accessibility of recycling and material diversion programs; driving community-wide education on ways to reduce, reuse, and recycle; and exploring innovative programs to recapture waste for beneficial use.

Image Credit: Grand Junction Sentinel

WASTE MANAGEMENT

BACKGROUND

Grand Junction operates a robust waste diversion program. Strong partnerships in the region support composting, recycling, and diversion initiatives. However, the City's relatively remote geographical location is a challenge. Improvements could serve as a catalyst for developing diversion resources that benefit the larger area of the western slope.

Grand Junction's waste and recycling are serviced by municipal and private haulers. The City runs both multi-stream and dual-stream recycling programs. The landfill, which is run by Mesa County, has a yard waste drop-off and an e-waste drop-off. The City is expanding curbside recycling options for residents and has been exploring additional programs for material streams such as pre-consumer food waste.

Waste management has a significant impact to the environment and both human and animal health. As the local landfill approaches capacity, it is environmentally important and cost-effective to implement strategies to reduce waste by diverting it.

A community commitment to diverting waste through recycling, reuse, and reduction of materials will preserve space in the landfill, save money, reduce greenhouse gas emissions, and preserve natural resources. Increasing diversions to different types of waste material streams improves the potential for more closed-loop solutions. For example, recovering building supplies, sorting waste streams for metals and parts, and increasing the use of local compost saves money and keeps resources local.

LEED BASELINE (2021)

1.35 Tons Per Capita
Related to annual Municipal Solid Waste (MSW) generated by weight.

5.8% Diversion Rate
The diversion rate is the total waste diverted from the landfill (including recycling and compost) divided by the total waste generated from the project and multiplied by 100.

Current Measures

Between 2018-2021 residents produced
11.2% less waste
***despite increased population growth*.**

(Source: City of Grand Junction Greenhouse Gas Inventory Results & Recommendations Report)

RECYCLE

75% **increase in total recycling between 2018-2021.**

5% **increase in total composting between 2018-2021.**

(Source: City of Grand Junction Greenhouse Gas Inventory Results & Recommendations Report)

FOOD WASTE

14 **establishments have participated in a pilot program for composting which has delivered**
69 tons **of food waste to**
3xM Thunder Mountain Organics as of April 2024.

(Source: Beck, Kym. Waste Management for Grand Junction. April, 2024)

Goal IV.8:
Increase Diversion Rates within the City

Key Performance Indicators:	Measure:	Directional Target:	Baseline:
Total waste diversion community-wide	Diversion rate (tons of recycling + tons of compost/ total waste)	Increase diversion rate	5.8% diverted from landfill via compost and recycling

Source: 2021 GHG Inventory

Strategy IV.8.a. Add recycling containers in public spaces and buildings, especially schools, parks, and downtown. Include signage to educate and reduce contamination of recycling and compost streams.

- Equity Impacts: Provides more recycling opportunities for everyone in public spaces.

Strategy IV.8.b. Increase community education and resources on household contamination and available options for waste diversion.

- Equity Impacts: Reduces the cost of waste management for the community.

Strategy IV.8.c. Increase participation in residential recycling program through educational and informational programs.

Strategy IV.8.d. Pass an ordinance to improve data through waste hauler licensing and/or registration and reporting.

Strategy IV.8.e. Restart commercial recycling programs.

Strategy IV.8.f. Increase e-waste diversion from landfills and encourage legal and proper disposal.

Goal IV.9:
Reduce Waste to Landfill via a Circular Economy

Key Performance Indicators:	Measure:	Directional Target:	Baseline:
Total landfill waste per capita	Municipal Solid Waste (MSW) generated tons per capita	Reduce annual waste inflow at landfill	1.35 tons per capita per year

Source: 2021 GHG Inventory

Strategy IV.9.a. Support building a Supply Diversion Center. Partner with the County landfill and other organizations on grants and funding.

- Equity Impacts: Supports opportunities for lower-cost building materials.

Strategy IV.9.b. Investigate benefits and tradeoffs of a deconstruction ordinance.

Strategy IV.9.c. Educate event organizers on hosting zero-waste events in the community.

Strategy IV.9.d. *Expand on existing pilot restaurant composting program with other businesses and institutions.

- Equity Impacts: Expands composting inclusion to underserved areas.

Strategy IV.9.e. *Explore options to expand residential food waste collection.

- Equity Impacts: Provides food waste management for all. Considers collection fee reduction for lower-income populations.

Strategy IV.9.f. Support Mesa County in their creation of a Class 3 compost facility.

Strategy IV.9.g. *Encourage the utilization of local or regional compost and use in City operations.

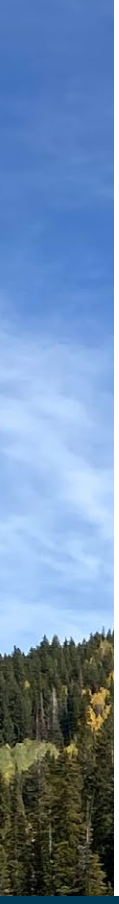
Strategy IV.9.h. Partner with the County to conduct an updated landfill waste audit. Conduct a City-wide audit to determine a baseline.

Strategy IV.9.i. Increase education for residential and backyard composting programs.

IV.9.j: Support the creation of a regional materials recovery facility (MRF).

FOCUS AREA V

Water Conservation



Water Conservation is the practice of using water efficiently and reducing water waste. Water education and innovation are essential in Grand Junction's semiarid climate to ensure a sustainable supply for future consumption, household and business use, agricultural production, and natural habitats.

Aspirational Statement

We aspire to cultivate a community commitment to prioritize water conservation in response to our region's drought risk, ensuring water is used efficiently and effectively. We will work to strengthen partnerships with regional water providers to improve monitoring, conduct water use reduction education, and implement programs that incentivize reduced water consumption for residents and businesses.

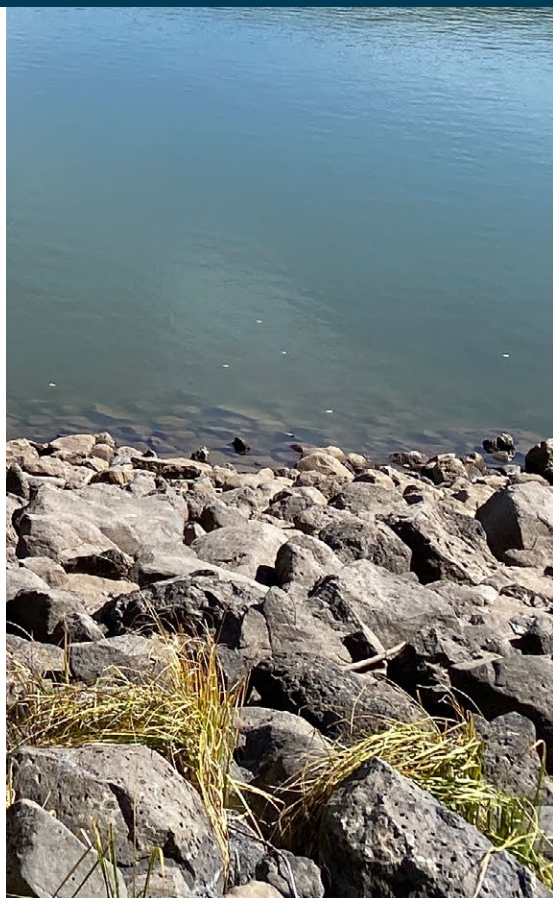


Image Credit: City of Grand Junction

WATER CONSERVATION

BACKGROUND

Grand Junction is situated at the confluence of the Colorado River and Gunnison River, in a semiarid climate with low precipitation. Water from these rivers is a vital resource supporting life in Grand Junction and downstream communities. The threat of increased drought requires proactive planning to ensure availability for critical supply in a water-constrained future. The management of water resources is important to the local economy, human health, and natural environment.

Agriculture is a significant industry in the region and is valued by the Grand Junction community. Agriculture is dependent on water availability and is a major user of surface water. Additionally, a growing population can stress the existing and future supply. Increasing drought conditions and higher temperature trends highlight the need to use water efficiently and implement an adaptive water plan. The 2023 Regional Water Efficiency Plan suggests Grand Junction may need to seek additional water sources by 2039 without significant conservation measures.

The key to water conservation is two-pronged, combining efficiency and conservation to reduce both potable and non-potable water use among residents, businesses, and industries. Effective water management requires a multi-faceted approach with the various Water Districts and partners to balance the needs of residents, businesses, and the environment while considering the implications of growth and development on water resources.

Water Consumption Data

City of Grand Junction Water Service water consumption (2021): 1.55 billion gallons; 88 gallons per day per capita

Ute Water Conservancy District water consumption (2021): 3.01 billion gallons; 69 gallons per day per capita

City of Grand Junction Water Service supplies about 22% of water inside the City.

The Ute Water Conservancy District supplies about 72.5% of water inside the City.

Per City of Grand Junction GIS utility mapping data estimate

In 2021, the total annual water consumption in Grand Junction was 4.6 billion gallons.

In 2021, the average daily water consumption per capita in Grand Junction was 69.06 gallons.

This data comes from annual reporting by each water utility, as collected in the Regional Water Efficiency Plan. The City was unable to obtain per capita water consumption from Clifton Water District for the approximately 4.5% of water supply inside the City of Grand Junction limits.

69 Gallons per Day per Capita

The 2021 average water use for the combined City and Ute Water Conservancy District.

Current Measures

The Grand Junction Regional Water Efficiency Plan **aims to reduce water use by 10% over the next SEVEN years.**

(Source: 2023 Water Efficiency Plan, Grand Junction Water and Ute Water Conservation District)

RESOURCES

29,000 people are served by the City's current water service.

Grand Junction is served by 3 water utilities (Grand Junction, Ute, and Clifton) **and 7 irrigation districts** (Grand Valley Water Users Association, Grand Valley Irrigation Company, Mesa County Irrigation District, Palisade Irrigation District, Orchard Mesa Irrigation District, Redlands Water and Power Company, and Ridges Irrigation District).

(Source: 2023 Water Efficiency Plan, Grand Junction Water and Ute Water Conservation District)

SEASONAL USE

Water usage increased by 3X during the summer due to outdoor uses in 2022.
2.7 million gallons/day in January vs. 7.9 million gallons/day in July.

(Source: 2023 Water Efficiency Plan, Grand Junction Water and Ute Water Conservation District)

LAND USE

83% of water use in Grand Junction is by residential properties.

(Source: 2023 Water Efficiency Plan, Grand Junction Water and Ute Water Conservation District)

Goal V.10:
Increase Water Conservation Education and Awareness

Key Performance Indicators:	Measure:	Directional Target:	Baseline:
Indoor and outdoor water consumption	Per capita domestic water consumption (gallons per day per resident)	Reduce by 1.4% per year in alignment with the Regional Water Efficiency Plan	69 gallons per day per person

Source: City of Grand Junction Water

Strategy V.10.a. Reach out to largest water users to advocate and/or incentivize conservation.

Strategy V.10.b. Continue to coordinate with DRIP and Mesa Conservation District, including Irrigation 101, drought preparedness, water efficiency messaging, and education.

- Equity Impacts: Enhances public awareness of per capita consumption reduction tactics for all residents.

Strategy V.10.c. Encourage water conservation in residential and commercial developments. Provide education around water-wise plant selection and irrigation practices.

Goal V.11:
Reduce Water Consumption from Landscape and Irrigation

Key Performance Indicators:	Measure:	Directional Target:	Baseline:
Outdoor water consumption	City of Grand Junction metered outdoor water (gallons)	Reduce summer outdoor water consumption	34 gallons of outdoor water consumption per person per day in the summer months

Source: City of Grand Junction

Strategy V.11.a. Expand turf conversion and water-wise plant selection programs.

Strategy V.11.b. Invest in and employ technology to improve water consumption monitoring.

Strategy V.11.c. Expand utilization of graywater permitting systems and incentives.

Strategy V.11.d. Continue to transition municipal landscaping to climate-appropriate and/or native, drought-tolerant planting to reduce potable demand. Showcase water-wise gardens.

Strategy V.11.e. Consider development standards that limit non-functional turf in new single family (attached and detached) development.

Strategy V.11.f. Reduce water loss due to leakage and overuse through irrigation and/or water use audits.

Strategy V.11.g. Distribute water-efficient appliances and/or fixtures. Offer smart irrigation system parts rebates throughout the water service area to incentivize all customers to reduce water use.

Strategy V.11.h. Expand community education on the importance of conserving potable and non-potable water. This may include a toolkit with water-wise best practices landscape design suggestions.

- Equity Impacts: Help consumers make more conscious use of water to avoid local water shortages in the near future.

FOCUS AREA IV

City Leadership

City Leadership, encompassing City staff and elected officials, must keep sustainability and adaptation in focus for the Goals of this Plan to be achieved. Strategic planning will need backing from policies, resources, procedures, community support, and champions. The City will track progress, evaluate effectiveness through assessments, and adjust accordingly.

Aspirational Statement

We aspire to lead with innovation and integrity to benefit environmental health, foster resilience in the face of changing conditions, and maintain the prosperity of the community for future generations.

Image Credit: City of Grand Junction
Grand Junction City Hall

CITY LEADERSHIP

What is LEED for Cities?

The City of Grand Junction received a grant through the LEED for Cities Local Government Leadership Program to help pursue the Leadership in Energy and Environmental Design (LEED) for Cities certification. LEED for Cities is a tool for the City to track performance using nationally recognized best practices and measures. The measures and practices in the LEED for Cities efforts are complementary to the Plan and will be used selectively as appropriate for the City of Grand Junction.

BACKGROUND

Adapting City operations and developing partnerships are critical to Plan implementation. The Key Performance Indicators (KPIs) are included to help staff track progress. The broad nature of the KPIs allows for flexibility and modification to be made to the Strategies in case of changing situations, new technologies, and availability of resources. This is the same approach expressed in the City of Grand Junction City Council Strategic Framework for 2023-2025 that states:

> *To flourish in the future, the City needs to remain nimble, resilient and welcoming of new ideas. Through engagement with the community, the City recognizes the importance of being strategic and innovative.*

The Shared Vision from the 2023-2025 Strategic Framework provides additional direction for leadership's implementation of the Sustainability and Adaptation Plan:

> *Grand Junction is a safe, welcoming, healthy and accessible city that builds on its collective character to be a place where opportunity abounds, resources are well-managed, and people are connected and engaged in their community.*

The 2023-2025 Strategic Framework includes five Strategic Outcomes that guide staff in crafting initiatives: 1. Placemaking, 2. Thriving and Vibrant, 3. Welcoming, Livable, and Engaging, 4. Safe and Healthy, and 5. Resource Stewardship. City staff can embed these initiatives to seek resources and partnerships for implementation.

Goal VI.12:

Integrate Sustainability Practices into City Leadership Efforts

Key Performance Indicators:	Measure:	Directional Target:	Baseline:
Annual updates of the Implementation Priorities Matrices	Number of Priority Actions implemented	Refresh the Implementation Priorities Matrices	Adopted Plan and baseline measures

Strategy VI.12.a. Ensure City staff are focused on Diversity, Equity, and Inclusion (DEI) in hiring practices, community engagement, and programs.

Strategy VI.12.b. Identify coalitions that help the City further sustainability initiatives.

Strategy VI.12.c. Create a sustainability standard that drives the ethos of the City, how it conducts business, and purchases goods.

Strategy VI.2.d. Create a collaborative organization that helps to implement clean energy projects across the Grand Junction area.

Strategy VI.12.e. Ensure the City has the staff capacity and resources to proactively implement the Sustainability and Adaptation Plan. Allocate resources to implement Strategies on an annual basis.

Strategy VI.12.f. Continue to track and report metrics related to the Sustainability and Adaptation Plan's Strategies, including LEED for Cities performance metrics. Compile metrics into a database and other appropriate industry standard tracking mechanisms.

Strategy VI.12.g. Develop a Council-Appointed Sustainability Advisory Board.

Strategy VI.12.h. Proactively seek out and connect with like-minded entities to explore opportunities for strategic collaboration at the local, regional, and state levels in the public, private, and non-profit sectors.

4 Implementation Priorities

The Implementation Priorities Matrices (IPM) provided in this chapter organize the Goals and Strategies into a refined list of Priority Actions. Priority Action items were selected by the Technical Working Groups and Community Steering Committee based on the action's impact, urgency, alignment with community values, and near-term feasibility. Priority Actions account for resource limits of the City and identify investment needs. The following chapter includes:

- **Priority Action:** These are key tasks or efforts for the City to undertake. Priority Actions align with Strategies in Chapter 3, as identified in the Strategy Alignment column of the Matrices.
- **Supplemental Performance Measure (SPM):** Aligns with each Priority Action to track and monitor progress over time.
- **Strategy Alignment:** Denotes Strategies in Chapter 3 that support or align with Priority Actions.
- **Lead Department:** Departments responsible for leading and reporting Priority Actions.
- **Partnerships:** Supporting parties or potential collaborative partners.
- **Timing:** Priority Action timeframes are defined as near-term (1-2 years), medium-term (3-5 years), and ongoing to identify when the City might initiate a project, program, or policy.
- **Resources:** Supportive programming, organizations, and funding sources to implement the Priority Actions.

Image Credit: City of Grand Junction
Snow on the Grand Mesa

SUSTAINING THIS PLAN

The Priority Actions serve as an initial springboard to start implementation. The first few years will serve as a testing ground for the viability of the Strategies given the available resources that include staffing, community support, funding (grants and appropriations), and political will.

Adoption of this Plan by City Council indicates their support for implementing the Strategies and allocating resources to meet this Plan's Goals.

A Sustainability Advisory Board focused on supporting implementation of the Plan can help leverage community passion. This Board should help calibrate the required level of effort and prioritize Strategies to be pursued each year. The Partnerships identified by the City in the following Implementation Priorities Matrices (Figures 12-18) should be regularly consulted to ensure the City is effectively avoiding duplication of services and amplifying efforts.

To ensure successful implementation, the City of Grand Junction must retain the ability to modify the Plan to match available resources and establish a regular cadence of refreshed Plan strategies. The Plan should be evaluated each year to assess successes and lessons learned. Ideally, this evaluation cycle would align with the City's budgeting process, allowing for inclusions into the annual budget to update with current realities and priorities. An annual public event to review the plans' updated Implementation Priorities Matrices (IPM) is one approach for ensuring communication of commitments, encouraging feedback, and fostering community engagement in plan implementation.

Built Environment

Goal I.1: Balance Transportation Mode Share for Local Trips

Action	Priority Action	SPM	Strategy Alignment	Lead Department	Partnerships	Timeframes
A	Focus on improving safety and connectivity through intersections for pedestrians and cyclists. Develop modern and safe intersection standards for retrofits and new builds and begin implementation.	Number of improved intersections	1.a, 1.b	Engineering and Transportation	Bicycle Colorado, Community Development	Near-term
B	Help pilot new public transit programs and increase awareness to increase ridership. Coordinate with Grand Valley Transit (GVT) to implement a free ridership program with a focus on encouraging new riders.	Annual public transit ridership	1.d, 1.e	Community Development	Grand Valley Transit	Medium-term

Goal I.2: Encourage Innovative Site Design to Foster the Coexistence of Urban and Natural Environments

Action	Priority Action	SPM	Strategy Alignment	Lead Department	Partnerships	Timeframes
C	Work with property owners on individual streets and areas that are good candidates for road diets, parking management, and design interventions. Allow low impact development (LID) techniques to extend into right-of-way.	Number of interventions	2.a	Engineering and Transportation	Developers, Mesa County, Community Development	Medium-term

Built Environment

Goal I.2: Encourage Innovative Site Design to Foster the Coexistence of Urban and Natural Environments (Continued)

Action	Priority Action	SPM	Strategy Alignment	Lead Department	Partnerships	Timeframes
D	Incorporate transit-oriented development (TOD) through design overlays around transit hubs. Establish transit corridors and incentives into the Zoning & Development Code. Establish sustaining funding sources to support pedestrian and bicycle-friendly retrofits.	Adoption of an ordinance	2.a	Engineering and Transportation	Developers, Grand Valley Transit	Medium-term
E	Protect and preserve existing tree canopy and expand climate-appropriate trees citywide, with a focus on census blocks below target canopy cover goals and underserved areas.	Tree canopy cover percentage	2.d	Parks and Recreation	Community Development, General Services, Engineering and Transportation, Utilities, Grand Junction Forestry Board	Medium-term
F	Determine appropriate incentives for developers to install desired features that exceed minimum code requirements.	Incentives included	2.c, 2.e, 7.e	Community Development	Developers, Home Builders Association, Mesa County	Medium-term

Goal I.3: Improve Community Access to Food

Action	Priority Action	SPM	Strategy Alignment	Lead Department	Partnerships	Timeframes
G	Encourage and support food sovereignty in Grand Junction, including urban agriculture. Identify areas of focus to rectify food deserts.	Educational events	3.a, 3.b, 3.c	Community Development	Farmers, Developers, Parks and Recreation	Near-term

Climate Resilience

Goal II.4: Build Redundancy to Mitigate and Adapt to Natural and Social Hazards

Action	Priority Action	SPM	Strategy Alignment	Lead Department	Partnerships	Timeframes
H	Support mitigation efforts in the Wildland Urban Interface (WUI), specifically reducing wildfire fuel loads of grasses within draws near Redlands.	Acres of natural hazards and fire risk mitigated	4.d	Fire	Parks and Recreation, private landowners, Utilities	Medium-term
I	Build community resiliency to natural hazards by improving community education and emergency notifications, especially to vulnerable populations.	Educational events	4.e, 4.f, 4.k, 4.c, 4.i	Fire	Non-profits, Communications and Engagement, Community Development	Medium-term
J	Inventory existing back-up power systems for community facing facilities.	Inventory complete (Y/N)	4.g	General Services	Faith-based organizations, non-profits, Community Development	Near-term
K	Update the Mesa County Hazard and Mitigation Plan with relevant climate concerns. This Plan update should be accompanied by a robust vulnerability and capacity assessment.	Assessment complete (Y/N)	4.a, 4.b, 4.j	Community Development	Colorado Resiliency Office, local non-profits, Governor's Office, Climate Preparedness	Near-term

Climate Resilience

Goal II.5: Maintain Current Air Quality Levels

Action	Priority Action	SPM	Strategy Alignment	Lead Department	Partnerships	Timeframes
L	Support expansion of the existing air monitoring network, focusing on expanding air monitors in vulnerable areas of the city.	Number of air monitors	5.b, 5.f	Community Development	Citizens for Clean Air, Mesa County Public Health-Environmental Programs, Colorado Air Quality Control Commission, Communications and Engagement	Near-term
M	Continue community education on air quality impacts.	Number of educational events	5.d	Community Development	Citizens for Clean Air, Mesa County Public Health, Colorado Air Quality Control Commission, Communications and Engagement	Medium-term
N	Implement recommendations of the Electric Vehicle Readiness Plan.	Number of EVs registered, number of level 2 and DCFC chargers	5.b	Community Development	Engineering and Transportation	Medium-term
O	Complete bi-annual update to GHG Inventory.	Total GHG emissions per capita	5.c	Community Development	Air Quality Organizations, Transportation, Mesa County Building	Ongoing
P	Conduct a study of the air quality impact of requiring tailpipe emissions controls.	Study complete (Y/N)	5.e, 5.g	Community Development	Engineering and Transportation, Mesa County Public Health, Mesa County DMV	Medium-term
Q	Install outdoor air quality monitors in every Census Block Group within City limits.	Number of monitors installed	5.b, 5.f	Community Development	Mesa County Public Health	Medium-term

Climate Resilience

Goal II.5: Maintain Current Air Quality Levels (Continued)

Action	Priority Action	SPM	Strategy Alignment	Lead Department	Partnerships	Timeframes
R	Start a joint initiative to educate the public on the health impacts of air pollution and preventative and adaptive transportation habits.	Educational materials produced	5.d, 5.g	Community Development	Mesa County Public Health	Medium-term
S	Implement protocols for issuing “poor air quality advisories” when there are days with high ozone levels, inversions, high levels of particulate matter (including blowing dust storms), and/or high AQI. Include education about how individuals can protect themselves from these hazards in hazard mitigation planning.	Protocols implemented	5.a, 4.b, 5.f	Community Development	Mesa County Public Health Grand Junction Fire	Medium-term

Energy Stewardship

Goal III.6: Encourage Energy Efficiency in Buildings

Action	Priority Action	SPM	Strategy Alignment	Lead Department	Partnerships	Timeframes
T	Support code-related trainings and education.	Number of participants	6.b, 6.g	Community Development	Community Development, Colorado Energy Office, contractors, Mesa County Building Department	Near-term
U	Adopt regular updates to the International Energy Conservation Code. Strive to be current within three years of current code.	Years from current code	6.a, 6.b, 6.e	Community Development	Mesa County Building	Medium-Term
V	Educate the community about local utility energy conservation programs.	Number of participants in conservation programs	6.c, 6.g	Community Development	Local businesses,	Medium-term

Energy Stewardship

Goal III.7: Foster Energy Independence

Action	Priority Action	SPM	Strategy Alignment	Lead Department	Partnerships	Timeframes
W	Ensure ownership of Renewable Energy Certificates (REC) for all City solar projects and/or equivalent REC purchases.	RECs owned	7.e	Finance	General Services	Near-term
X	Support clean energy jobs through training and collaboration.	Number of trainings	7.f	City Manager's Office	Local businesses, workforce development, Colorado Mesa University (CMU), Community Development	Medium-term
Y	Support expansion of Renewable Natural Gas (RNG) from Persigo.	Total RNG used	7.g, 7.h	Utilities	Grand Valley Transit	Medium-term
Z	Support bulk purchasing programs of renewable energy and participation in utility renewable energy programs for community members.	Programs implemented	7.c	Community Development	General Services, Communications and Engagement, and local utilities	Medium-term
AA	Continue to invest in solar arrays for City facilities.	Total City Solar Capacity	7.a	General Services	Solar Developers, Xcel Energy, Grand Valley Power	Ongoing
BB	Investigate investment in Xcel's clean energy programs for City facilities.	Number of Programs	7.g, 7.h	General Services	Xcel Energy	Ongoing

Waste Management

Goal IV.8: Increase Recycling Rates within the City

Action	Priority Action	SPM	Strategy Alignment	Lead Department	Partnerships	Timeframes
CC	Implement waste hauler registration and annual reporting system.	Number of haulers registered and reporting	8.d	General Services	Waste hauling companies, Mesa County	Near-term
DD	Improve education for residents on how to recycle and where to divert materials.	Diversion rate	8.b, 8.c	Communications and Engagement	Technology provider, residents, Western Metals Recycling, Mesa County SD 51, CMU, General Services	Near-term
EE	Add recycling containers in public spaces.	Number of bins added in public spaces	8.a	General Services	Waste haulers, non-profits	Medium-term
FF	Explore Zoning and Development Code subdivision regulations to ensure adequate space is provided for recycling bins in new development.	Addition of regulations	8.a	Community Development	Local developers	Medium-term

Waste Management

Goal IV.9: Reduce Waste to Landfill via a Circular Economy

Action	Priority Action	SPM	Strategy Alignment	Lead Department	Partnerships	Timeframes
GG	Support Mesa County in their creation of a Class 3 compost facility.	Facility constructed	9.f	General Services	Mesa County, composting partners	Medium-term
HH	Publicize an expanded restaurant composting program.	Tons of composted material	9.d	General Services	Composting partners, Downtown Development Authority, technology providers, Communications and Engagement	Near-term
II	Utilize more local/regional compost in City operations.	Tons of compost used	9.g	General Services	Composting partners, Recycling Division, Parks and Recreation	Near-term
JJ	Confirm and conduct most useful waste audit type with partners (MSW, C&D).	Audit results	9.h	General Services	Mesa County Landfill	Medium-term
KK	Support zero-waste and hard-to-recycle waste events.	Number of events	9.c	Community Development and General Services	Eco-Cycle, General Services, Parks and Recreation (Arbor Fest), Communications and Engagement	Near-term
LL	Initiate a backyard composting educational program.	Programs initiated	9.i, 9.c	General Services	Mesa County	Medium-term

Water Conservation

Goal V.10: Increase Water Conservation Education and Awareness

Action	Priority Action	SPM	Strategy Alignment	Lead Department	Partnerships	Timeframes
MM	Support a water-wise demonstration garden.	Garden initiated	10.e	Utilities	DRIP, CMU, Mesa Conservation District, Community Development, Parks and Recreation	Medium-term
NN	Recognize water savers who have implemented conservation projects.	Awards given out	10.a	Utilities	DRIP	Near-term
OO	Offer irrigation audits to targeted customers with high water usage.	Number of audits	10.c	Utilities	Water, CSU Extension	Near-term
PP	Support fee study to better align costs and incentives for conservation.	Fee study initiated	10.e	Utilities, Parks and Recreation	CMU, General Services, Community Development	Medium-term
QQ	Support rain barrel workshops.	Rain barrels installed	10.b	Utilities	DRIP, CMU, non-profits, Parks and Recreation	Near-term

Water Conservation

Goal V.11: Reduce Water Consumption from Landscape and Irrigation

Action	Priority Action	SPM	Strategy Alignment	Lead Department	Partnerships	Timeframes
RR	Limit turf in new developments and replace with turf alternatives in existing developments.	Ordinance	11.a	Community Development	Homeowners associations (HOAs), CMU, CWCB, water providers	Medium-term
SS	Continue to transition to climate-appropriate tree and plant species for municipal landscaping.	Planting progress	11.c	Parks and Recreation	Parks and Recreation, CSU Extension, Community Development	Medium-term
TT	Implement continuous use of notifications to raise awareness when there may be a water leak.	Annual notifications	11.g	Utilities	DRIP	Medium-term
UU	Provide education and notices to private property owners on low water use turf options/alternatives, appropriate vegetation, and irrigation system adjustments to improve efficiency.	Number of trainings/ events	10.c, 10.d, 11.e	Utilities	Communications and Engagement, DRIP	Near-term
VV	Host Qualified Water Efficient Landscaper certification training and test in Grand Junction.	Training conducted	10.b, 11.a, 10.c	Utilities	CSU Extension Office, Mesa Conservation District	Near-term
WW	Create a toolkit with water-wise landscape design suggestions	Creation of a toolkit	11.i	Community Development	Utilities, DRIP, Communications and Engagement	Near-term
XX	Support water efficient appliance programs.	Water savings	11.f	Utilities	CSU Extension, Mesa County Public Health, CMU, Utilities	Medium-term

City Leadership

Goal V.10: Increase Water Conservation Education and Awareness

Action	Priority Action	SPM	Strategy Alignment	Lead Department	Partnerships	Timeframes
YY	Allocate resources to implement Strategies.	Annual budget allocated to projects, programs or policies	12.e, 12.c	Community Development	City Administration, City Council	Near-term
ZZ	Develop a Council-appointed Sustainability Advisory Board. Members may also serve as representatives on local coalitions and/or Colorado Communities for Climate Action.	Number of meetings held annually	12.b, 12.g	Community Development	City Administration, City Council	Near-term
AAA	Create a Sustainability Standard to drive the ethos of the City to be used by a newly formed Sustainability Advisory Board.	Creation of a standard (Y/N)	12.c, 12.g	Community Development	City Administration, City Council	Near-term
BBB	Develop training material to inform new staff and City Council members of social, environmental, and economic sustainability initiatives.	Creation of training material (Y/N)	12.a, 12.c	Community Development	City Administration, City Council	Near-term

GLOSSARY

Active Commuting: Using active transportation (AT), such as walking, cycling or public transit, to get to and from work.

Adaptation: An adjustment or modification to improve survival, reduce risks, and maximize potential benefits due to environmental conditions.

Air Quality Index (AQI): A numerical scale used to communicate the quality of outdoor air and its potential health effects to the public.

Building Redundancy: Process of incorporating backup systems or duplicate components into a system or infrastructure to ensure continued operation in case of failure or disruption.

Built Environment: Man-made structures, features, landscapes, and facilities viewed collectively as an environment in which people live and work.

CO_2: Carbon dioxide, a primary greenhouse gas (GHG).

Carbon Dioxide Equivalent (CO_2e): Number of metric tons of CO2 emissions with the same global warming potential as one metric ton of another greenhouse gas.

Carbon Mitigation: Methods to reduce emissions and stabilize the heat-trapping greenhouse gases in the atmosphere.

Certified Natural Gas: Natural gas that has been compressed and meets specific quality standards for use as a fuel in compressed natural gas vehicles.

Clean Energy: Energy sourced from systems with minimal GHG emissions such as solar, wind, geothermal, hydro, nuclear, biogas, and green hydrogen.

Circular Economy: Minimizing waste of resources by extracting the maximum value from them during their lifespan, and then recovering and regenerating products and materials at the end of their service life.

Climate Resilience: The ability to prepare for, recover from, and adapt to the impacts of climate change. It involves mitigating environmental stresses such as rising temperatures, changing precipitation patterns, and increasing frequency of extreme weather events as well as preparing for resulting social disruptions such as disease and economic shifts.

Compost: Nutrient-rich organic matter created through decomposition of organic materials such as food scraps, yard waste, leaves, and grass clippings.

Conservation: Management and sustainable use of natural resources to ensure their long-term availability and preservation for future generations.

Compressed Natural Gas (CNG): Natural gas that has been compressed to high pressures for use as a fuel in vehicles, industrial applications, and other energy-intensive processes.

Dark Sky Certification: Places, properties, or developments that meet specific criteria aimed at preserving and protecting the natural nighttime environment from light pollution.

Diversity, Equity, and Inclusion (DEI): Together, these initiatives promote a culture of respect, acceptance, and belonging, where everyone has equitable opportunities to thrive and contribute to their fullest potential. Diversity is the range of human differences, including but not limited to race, ethnicity, gender identity, sexual orientation, age, religion, socioeconomic

GLOSSARY

status, disability, and cultural background. Social Equity involves ensuring fairness, justice, and impartiality in the treatment of all individuals, particularly those from marginalized or underrepresented groups. Inclusion refers to creating environments where all individuals feel welcomed, respected, supported, and valued.

Drought Response Information Project (DRIP): Part of the Drought Response Plan and provides public education on why and how to reduce per capita water consumption.

Electric Vehicle (EV): A vehicle that can be powered by an electric motor that draws electricity from a battery and is capable of being charged from an external source. An EV includes both a vehicle that can only be powered by an electric motor that draws electricity from a battery (all-electric vehicle) and a vehicle that can be powered by an electric motor that draws electricity from a battery and by an internal combustion engine (plug-in hybrid electric vehicle).'

Energy Efficiency: Optimization of the way energy is consumed, produced, and distributed to minimize waste and maximize productivity.

Energy Stewardship: Responsible management of energy resources, which can involve individuals, organizations, and communities taking proactive measures to conserve energy, reduce waste, and promote the efficient and responsible use of energy resources.

Engage GJ: Online engagement platform for Grand Junction community members to participate in local government.

Social Equity: Fairness and justice by allocating resources and opportunities to create equal outcomes for everyone.

Focus Area: A broad thematic group which identifies an opportunity to achieve a more resilient future.

Food Sovereignty: Concerns about global food systems, which are often characterized by inequalities, environmental degradation, and dependence on multinational corporations.

Goal: Provides a clear direction supporting a Focus Area, expressing the overarching purpose and intention.

Graywater: Wastewater generated from certain domestic activities such as bathing, showering, washing dishes, and laundry.

Green Infrastructure: A network of natural and semi-natural features, systems, and practices designed to provide various ecosystem services, manage environmental issues, and enhance the resilience and sustainability of human settlements. Examples include bioswales, permeable pavements, and green roofs.

Greenhouse Gas (GHG): Gas in the Earth's atmosphere that absorbs and emits radiation within the thermal infrared range, warming the Earth's surface and lower atmosphere.

GHG Emissions: The release of greenhouse gases into the Earth's atmosphere as a result of human activities and natural processes.

Key Performance Indicator (KPI): Benchmarks for measuring progress in each Goal.

Impact Fees: Charges imposed by local governments on new developments or policies to help cover the costs associated with providing public services.

Infill Development: Development of vacant or underutilized parcels of land.

GLOSSARY

International Energy Conservation Code (IECC): A model building energy code developed by the International Code Council (ICC) to establish minimum energy efficiency requirements for new residential and commercial buildings.

LEED: Leadership in Energy and Environmental Design is a rating system for green building design, construction and operation.

LEED for Cities: A tool for the City to track performance over time using nationally recognized best practices and measures for sustainability objectives.

Materials Recovery Facility (MRF): a\A specialized plant that receives, separates and prepares recyclable materials for marketing to end-user manufacturers.

Microgrid: A localized energy system that operates independently or in conjunction with the main grid to generate, distribute, and manage electricity for a specific geographic area.

Modal Filters: Traffic management measures used in urban areas to restrict vehicle access for to improve passage for pedestrians, cyclists, and emergency vehicles.

Mode Share: Percentage distribution of trips or journeys made by different modes of transportation, such as walking, cycling, driving, public transit, or other means.

Municipal Solid Waste (MSW): Solid waste generated by households, commercial establishments, institutions, and other non-industrial sources within a municipality.

Non-Functional Turf: Turfgrass that serves aesthetic purposes such as along streetscape sidewalks and roundabouts, rather than functional or practical uses such as sports fields, playgrounds, or recreational areas

Non-Potable Water: Water that is not suitable for drinking or human consumption due to its quality, contamination, or treatment status.

Property Assessed Clean Energy (PACE): Financing that uses future energy cost savings to collateralize capital improvements.

Particulate Matter (PM): A complex mixture of solid particles and liquid droplets suspended in the air.

Potable Water: Water that is safe and suitable for human consumption.

Priority Action: Actions that are most urgent or impactful for the to address.

Recycled vs Raw vs Ditchwater: Recycled water is treated wastewater suitable for reuse; raw water is untreated or minimally treated water from natural sources; ditchwater is untreated or minimally treated water collected or conveyed through open channels or ditches for agricultural or drainage purposes.

Retro-Commissioning (RCx): A process to improve the performance, efficiency, and operation of existing building systems and equipment to optimize energy use, reduce operating costs, and enhance occupant comfort, health, and productivity.

Renewable Energy: Energy derived from naturally occurring, replenishable sources that are essentially inexhaustible over time.

Renewable Energy Certificates (RECs): Tradeable renewable energy credits intended to incentivize renewable energy production.

GLOSSARY

Renewable Natural Gas (RNG): A type of renewable energy derived from organic material. RNG is also known as biomethane or biogas.

Resilience: An ability to recover from or adjust easily to misfortune or change.

Resilience Hub: A community-based facility or resource center to enhance the resilience and preparedness of individuals, families, neighborhoods, and communities to cope with and recover from various hazards, emergencies, disasters, and other adverse events.

Road Diets: Reallocation of space on existing roadways to improve safety, accommodate multiple modes of transportation, enhance the livability of communities, and promote active transportation. Typically involves reducing the number of travel lanes, narrowing lanes, adding or enhancing bicycle lanes or facilities, and/or implementing traffic calming measures.

Steering Committee: A group of individuals selected by staff and approved by City Council to provide strategic direction, advice and leadership. This may include representatives from local organizations and businesses, conservation groups, and the general community.

Strategy: A tactic or broad approach to achieve the Goals.

Supplemental Performance Measure (SPM): Additional metrics which align with each action to track and monitor progress.

Supply Diversion Center (SDC): A facility or organization that coordinates the management and distribution of supplies to support disaster relief efforts, humanitarian aid missions, and emergency response operations.

Sustainable: A method of harvesting or using a resource so that the resource is not depleted or permanently damaged.

Technical Working Group: A group of individuals with expert knowledge in specific areas who work together on specific goals.

Transportation and Engineering Design Standards (TEDS): The TEDS Manual establishes requirements and guides the city and developers on how streets and multimodal transportation infrastructure will be designed within Grand Junction. It includes guidance and requirements for preparing transportation impact statements (TIS), street design standards, access control, traffic signal design, street lighting, pavement, and pedestrian, bicycle, and transit facility design standards.

Transit-Oriented Development: An urban planning and design approach that focuses on creating compact, walkable, mixed-use developments around transit stations or corridors.

Tree Canopy: Branches, leaves, and foliage which form the crowns of trees and cover the ground when viewed from above.

Urban Forestry: Focuses on the management, conservation, and cultivation of trees and forests within urban areas.

Urban Heat Island (UHI): Urban areas that experience significantly higher temperatures than surrounding rural areas due to human activities and the built environment.

Vehicle Miles Traveled (VMT): A measure used to quantify the total distance traveled by all vehicles within a specific geographic area.

GLOSSARY

Walk Score®: Uses publicly available data to provide assessments of walkability and other modes of transportation (transit, bicycle) and is a good proxy to assess whether a city is becoming more or less walkable over time.

Waste Diversion: Minimization of the amount of waste sent to landfills and maximization of the recovery of valuable resources from waste streams.

Waste Management: The collection, transportation, treatment, recycling, disposal, and monitoring of waste materials generated by human activities.

Water Conservation: Using water efficiently and responsibly to minimize waste, reduce water consumption, and preserve water resources for current and future generations.

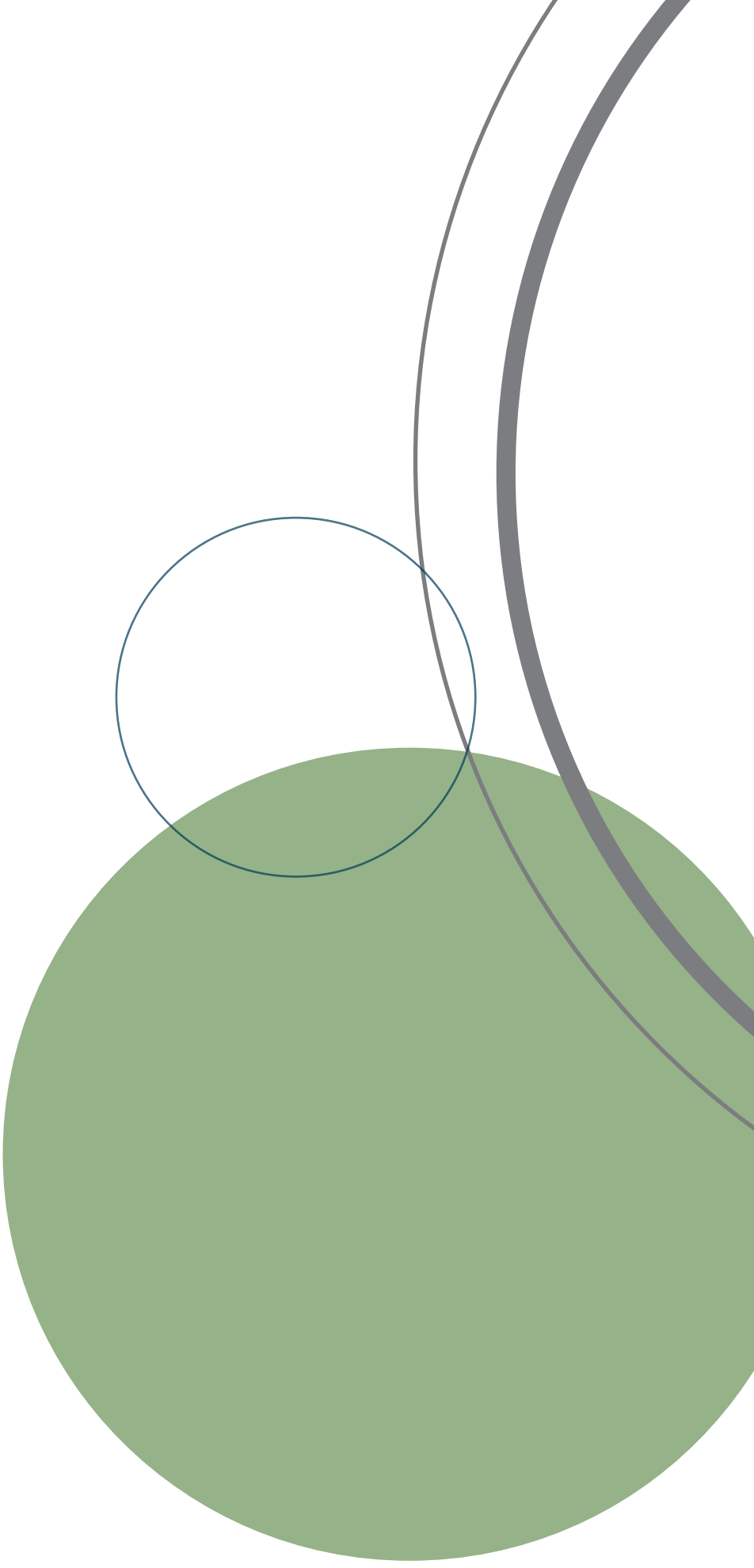
Water-Wise: Practices, behaviors, and technologies that promote efficient and responsible water use, particularly in the context of landscaping, gardening, and outdoor water usage.

Wildland Urban Interface (WUI): The zone of transition between unoccupied land and human development where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

Xeriscaping: A type of landscaping that conserves water and minimizes the need for irrigation.

Zero-Waste: Aims to minimize the amount of waste generated and sent to landfills or incinerators, ultimately striving to eliminate waste entirely.

Zoning and Development Code: The Zoning and Development Code update is the city's land use regulation that serves as a planning implementation tool of the City's One Grand Junction Comprehensive Plan.



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Angela LopezCedaredgeCO81413US2024-05-04
Kallee CogswellGilbertAZ85298US2024-05-04
Judy SalamonGrand JunctionCO81506US2024-05-04
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Public Comment on EngageGJ- From 16 participants

https://engagegj.org/rsp/forum_topics/public-comment-period

1. Have you received any help, directives, other guidance from the ICLEI or any federal agencies?
2. Its my understanding you ARE making decisions using ICLEI guide lines? If you unpack that agenda I sincerely believe most Mesa County citizens would not be on board with that. Please let me know if this is or isn't accurate? If you are not using the ICLEI guide lines I would like to hear that and if you are then the people of Mesa County need to be informed of exactly what guidelines you are adhering to and what it will mean to them in a practical/understandable manner.
    a. I was told at the open house that you ARE using their guidelines and also Grand Junction has been a member of ICLEI since 1/10/22. We must pay dues to this organization as well since we are members.
3. Do you make decision at all based on information from ICLEI? Not that they provided you specific guidelines on a specific project? Do you agree with their ideology?
4. You do use plans from ICLEI which was stated to me at the open house on Sunday. ICLEI was established by the UN in 1990 and supports Agenda 21. Grand Junction has been a member of ICLEI since 1/10/22. So essentially we are partnering with an organization that is forwarding Agenda 21.
    a. Who signed us up with ICLEI?
    b. go here and type in Municipality of Grand Junction: https://iclei.org/iclei-members/
    c. Excellent question! If we are using ICLEI guidelines, what other resources and guidelines are being sourced from the UN?
5. On page 40 of the document, there is a reference for Xcel Energy, but it is not clear what the reference is for. I am assuming that it is in reference to the baseline number of total rooftop solar capacity.

Is this only within the city, and only where Xcel is the provider (as opposed to GVP). Since what is laid out in the city's 2020 Comprehesive Plan extends well beyond the city's current boundaries, shouldn't the Sustainability and Adaptation Plan mirror the 2020 Comp Plan? While I have been told that the city will continue to explore a variety of opportunities to invest in local renewable energy projects, including solar, it is not clear to me that this would include 3rd party solar projects. Currently the city purchases power from at least two separate solar gardens, operated by Oak Leaf Energy and Fresh Air Energy, but would the city be open to "purchasing" power from other 3rd party sources of renewable energy. If so, should this be stated very clearly? This would be a matter of energy security, to be able to say that a large percentage of the city's power comes from local sources.

6. Who are the organizations and community partners? A list that we can research would be helpful. I don't think everyone probably has the same "Practical Goals" and it has been my experience most have an agenda so I would like to know what that agenda is and if it truly aligns with what our community wants.
    a. What does the community at large mean? How many people were consulted? What demographics does this include? How was the outreach conducted? Was the outreach to the citizens as well orchestrated as the outreach to "Stakeholders"? This should be a project that is voted on since it is so complex and affects the lives of every citizen in a very personal way.
7. Is there any incentive or action plan to promote business owners like plumbers/HVAC or supply houses to sell or promote water conservation products?
8. Are we able to oppose this plan? It seems that so much work has been done and "stakeholders" instead of citizens were consulted first to draft this incredibly robust plan. I'm wondering if any other Grand Junction citizens feel as though they have been an afterthought in the design of this sustainability project.
    a. Yes, I still can't figure out who the organizations and community Partners, broad outreach and community at large

are? I have asked several time and no one seems to know or want to provide us a list. I get "non answers" WHO? HOW MANY? My business is part of the City and I certainly was not consulted, sent a survey or questioned as to what I wanted nor have the businesses around me? It seems we only find out when these "Organizations" have decided and implemented their policy's and we can't oppose their plan. Why aren't we voting on these things?

9. p.4 Under "Focus Areas (I-VI) change "resilient" to "sustainable". Under "Goals (1-12) delete the sentence "Goals may require a decade or more...". It seems out of place here and a bit off-putting. You can bring this concept in under "Priority Actions (A-VV) in the Timing sentence by adding "and a proposed or aspirational timeline to completion". Under "LEED for Cities" change "were strongly considered" to "are strategically utilized for", then delete "and have been used where appropriate". p6. Goal 1.2 The walk and bike scores are too specific for this broad goal and don't match the KPI. (it is also not equitable or inclusive as not everyone bikes and walks, so change "foot and bike" to "low impact transportation"). The KPI should relate to the % of "services, amenities, and green spaces" that have adequate low-impact accessibility. If that measurement data is not available, then state that and plan to attain it going forward. Perhaps a better option would be to move the transportation/accessibilty aspects up fo Goal I.I along with Strategy's 1.2a and b, and develop the Goal 1.2 KPI in keeping with strategies 1.2c-j. p24-27. Include public transit more throughout. p. 36 change to "Energy Stewardship entails improving energy efficiency, reducing over-all energy consumption, and reducing energy-related pollution and GHG emissions." (we don't want to say it means to reduce consumption from clean energy sources, and the sentence beginning with Renewable energy is misplaced here). p.37. Under background, consider adding at the end: "Xcel also offers residential and commercial customers a 100% renewable electricity option". Encouraging both the City and private entities to look into it can be added later as strategies. In the 3rd

paragraph, first sentence change "considers" to "entails or involves", and change "direct impact on" to "reduce". In the second sentence add "smart thermostats". Drop the last sentence starting with "Electric heating..." because not all electric heating and cooling systems use less energy (it depends on the particular system), and it is self-evident that energy efficient appliances use less energy, so no need to state that. If we want to mention energy-efficient appliances, they can be added to the list of measures in the second sentence and then change "building design" to "building features". p.38. Under LEED Baseline add "cooling, industry, and agriculture" to the list of major GHG sources. In the Energy Stewardship section, consider adding an additional goal: "Reduce transportation-related GHG emissions". The current measures invite this by noting that 1/3 of our GHG emissions come from on-road fossil fuels, and the KPI, baseline, and targets stem from that. Strategies are well-know, some of which are sprinkled around in other areas of the plan, so making this a distinct goal would give a home to this important aspect. p. 39. Goal III.6. Consider changing to "reduce building-related GHG emissions". Energy efficiency is more of a strategy than a goal. The new title also matches the KPI/measure/target/baseline and strategies. Consider adding a strategy to promote incentivized financing (CPACE etc). Consider then adding a final strategy related to decreasing over-all energy consumption through other methods complimentary with efficiency such as decreased usage (turning off lights, lowering thermostats at night, sleep modes on electronics, etc). p53. Consider adding a strategy such as :"proactively seek out and connect with like-minded entities to explore opportunities for strategic collaboration at the local, regional, and state levels in the public, private, and non-profit sectors". Glossary: add "Clean Energy: energy sourced from systems with minimal GHG emissions such as solar, wind, geothermal, hydro, nuclear, biogas, and green hydrogen".

10. I don't see the complete plan as was previously available on this website. It included committee members, and groups involved

with the plan. Can you tell me where it went. It is difficult to comment with a page number if the whole plan isn't there.

11. Hello again, I still can't figure out who the organizations and community Partners, broad outreach and community at large are? I have asked several time and no one seems to know or want to provide us a list. At the very least I would like to know who participated, how many and what efforts were made to reach the community at large? My business is part of the City and I certainly was not consulted, sent a survey or questioned as to what I wanted nor have the businesses around me that I have asked? Why aren't we voting on these things? Policies that will affect the people, (over generations), our pocketbooks and quality of life need brought to the people as a whole and not non-elected groups. I think people believe they are represented by the people they elect and it seems there are many non-elected groups making policies for communities without the community even being aware until its too late? Again, I would like a list of organizations, and a number of private citizens that participated in the "community at large". Certainly NOT private citizen names but a number of private citizens that participated in the "community at large". How can we know if these broadly reached people, community partners, communities at large and organizations truly represent the residents if we don't know who and how many? So far all your answers are really non answers. It should not be this difficult to figure out who is really making policy's especially if it is really the will of the majority of our community. It should be obvious? transparent right?
12. The information about this plan is massive and intricate. As citizens we need much more time to digest the details of this plan. None of us can form an educated opinion because we do not have enough time to adequately analyze it's implications. A couple weeks of public comment time is not enough. And I agree that citizens should be voting on all aspects of the plan. But we need time to understand the implications of this project. Fliers should be sent to all citizens with the QR codes on them so they can see for themselves what this plan entails. The changes will be sweeping.

a. If you follow GJ on social media or read the newspaper, information is posted there. Would you agree to millions of dollars of city funds be spent on flyering and calling the thousands of businesses in GJ? I was easily informed of this project for free by the city and read the document goals within twenty minutes.

13. Under the "Track sustainability objectives" in the Grand Junction SAP plan found under LEED for cities and communities, this statement is made: Benchmark performance against national and global standards. So we are giving our decisions away to the standards of the global community. Who is part of this Global community? So far we know that part of this "community" Is ICLEI, which is an organization born out of the UN. What other UN Entities are driving this plan for the sovereign citizens of Grand Junctiopn?

a. LEED is a widely accepted standard for sustainability standards in buildings. There are different levels and categories. Many buildings throughout the U.S. are LEED certified in various categories, which simply means they meet the milestones laid out in the internationally recognized set of standards that is LEED. Similar concept to agreed upon standards for car performance for example

14. The LEED Cities concept was established, I believe at the Paris Accords. The fact that this plan is using these guidelines to drive policy in our city shows that local control of our freedoms, rights, way of life, and governance is being outsourced to the international community and their desires and goals for us. We, as citizens deserve to control the destiny of our city, not international bureaucrats.

15. I appreciate the outreach and have participated in the city surveys. I am impressed with the collaboration between city departments businesses and non profits. I understand the importance with the task at hand. If we are serious about our quality of life here, we will benefit from this effort both economically

and environmentally. Thank you very much. Hopefully Mesa County will take on some of the planning ideas county wide. The plan looks comprehensive. I understand it is setting a vision. Hopefully it will bring us together for the work.

16. Are citizens able to attend the draft review of this proposal?
    a. Yes they were. There is a large section in the plan about the multiple sessions that were held and how many attended. You are able to review the draft plan now and comment on this very forum.
17. I thought the plan could use some coherent feedback from a citizen who has actually read it. The two most important elements of this plan are 1) the connected strategies of improvements to bike infrastructure and access, air quality maintenance, and investment in public transit and 2) accountability and incentives for energy/water efficiency within the city. WHAT THE PLAN IS MISSING: a strategy to combat harmful invasive weeds within city limits and city owned natural areas. This year, foxtails is dominating grassless patches of ground. These often outcompete native grasses and produce thousands of needle-sharp seed pods that can get lodged under the skin of humans and pets. My small dog has a six inch scar up his leg as a testament to their dangerous qualities. Despite the widespread presence of numerous aggressive and harmful invasive plants (Tree-of-heaven and foxtails most visible) the city has no education or incentive program to minimize their negative impact to native areas, hobby/food gardeners, or pets and humans alike. I would like more information about any existing programs, thank you! Storm drain improvements. I understand this calls for buy in from multiple city departments, but in downtown neighborhoods specifically, so much trash and leaves enter the ancient storm drain system that it often backs up and has flooded my garage in the past. Installing simple screens to eliminate debris could extend the life of the aged system, keep trash out of waterways, as well as reduce the risk and potentially liability that may result from damage to private property. GOOD THINGS I think the steps the city is making in improvements to water conservation and the acknowledgement of

improvements that could be made to landfill diversion and recycling programs commendable. It is unclear in the transit improvement section if some or all of these improvements will result in citizen-based service, e.g. more regular buses / extended routes and service times. Additionally terms like "ride-share programs" are vague by design to allow for flexibility I understand, but the city will do well to be wary expansion of Uber and Lyft partnerships. While they may be useful during busy season here, they can clog streets and there simply is not enough room at the airport yet. Recycling expansion north of Gunnison is sorely needed, but the addition of public recycling/composting containers brings Grand Junction to level with the rest of the United States, so good progress there.

18. It looks like there has been some great questions and input here. I'm curious, will this be shared with city Council, and if so when?
19. I have a few questions. I would like to know what your annual budget is and where the funding comes from. What are the top three goals of this plan? Please state these goals in a few plain, clear, sentences, without the bureaucratic/environmentalist vaguely defined terms and meanings. In the future, how will you improve your public outreach? Getting a handful of comments from the farmers market and the library is not exactly getting your message out to the broader public. Could it be you really don't want much public input?
    a. Hi Plugger, Information about the 2024 Budget can be found online at www.gjcity.org. This plan does not have top three goals however, six Focus Areas are identified each with goals, strategies, and priority actions that can be accomplished in the short term. Public outreach included community roadshows, pop-up events, and two open houses. Please review the Draft Sustainability and Adaptation Plan for more information on community engagement. Pages 14-19 include methods and descriptions of the outreach events along with key comments

from community members that directly informed the plan contents.

b. Question #1 was a straight forward question and should be easy for you to reply to. Surely you must know what your operating budget is and what department that money comes from. I'm not an auditor, I'd just like a round number and to know where it comes from. I looked at your "community engagement" section and I'm still underwhelmed by your efforts. Looks like you found 568 fellow travelers from the drum circles at the farmers market, a few folks at the library, a few school kids , and some environmental activist groups. A very small and limited support group from a community of over 68,000 people. I also looked at the 12 goals of the six focus areas. A few of those goals may be implemented relatively pain free but most of the goals you want to impose will require major changes in the way we all live our lives! Every item of this agenda should be put on hold until each issue is placed on a ballot and voted on by the citizens of this city!

20. I am concerned about the impact of this plan on the disabled and elderly community. The transportation aspects of the plan are built around the concepts of limiting transportation by vehicles and making venues mostly accessible by mass transit, bikes or walking. This is fine for a younger and non disabled population. This practically does not work for the elderly or people with mobility disabilities. They need to be able to get into a vehicle at their residence and drive and park as close as possible to the business or other venue. Limiting the ability to use vehicles just impedes their ability to go to businesses and other venues independently. They are not able to easily walk to bus stops or businesses and cannot ride bikes or scouters. A large percentage of the Grand Junction population has mobility issues. They are not young and mobile. I suggest this be clearly and directly addressed in the plan.

21. Please define what is meant by food and housing equity.

22. I think this is something that needs to be addressed even in those who live outside of the city limits. My address is Grand Junction CO and because I am 2 miles from a cut off does not mean I am in a different location. Is there a way to incorporate all areas in Grand Junction, Clifton, Palisade, Fruita and all surrounding areas into this plan? I think that offering more public transportation in the ways of offering busses more than once an hour would increase the use of them. I personally would opt into using them more frequently if the schedule was more friendly to the community. I also think that water conservation, waste management, and the community food options are things that need to be worked on throughout the entire community and not just in the inside city limits plan. I think better marketing to make more people aware of this is also a good thing. I did not even know about this website until a meeting through my work and since I am not in city limits, I am not offered the same kind of communication even though I live in Grand Junction and am affected like everyone else in the community by these things.

23. The entire plan on transportation is based on a younger and mobile population. This does not match the population in our community. The elderly and disabled are simply not considered. In addition, the plan is built on a concept of making vehicular use (including parking) more difficult by "road diets, modal filters, expanded paid parking hours and repurposing underutilized street parking." (Strategy I.1.b.). In reality use of a vehicle is necessary for most of our population. I would suggest that we should make vehicular use and parking easier for the community's population while also making biking, walking and mass transit easier. We should make all options better and not more difficult for our community.

24. First off I just want to say this is fantastic! It brings me joy that GJ is stepping up and taking action to move us closer to a more sustainable lifestyle. The plan overall is a lot to take in, so I will focus on an area I see as one of the most important, water conservation. At an overview I agree with a lot of the goals and steps being proposed as we move forward. I strongly believe in the educational approach to raise awareness for water conservation, but worry of the actual actions taken by community members not practicing best water usage. That is why I encourage the entertainment of Water Police, or Water Patrol as coined by the folks in Las Vegas. Here is a link to what I speak of: https://www.lvvwd.com/conservation/water-waste/index.html Now I recognize this is a larger lift and not entirely easy to implement. Right now I just wanted to plant the seed of an additional way we can help our community tackle the water usage issues. Let's be honest we all have seen a haywire sprinkler shooting off into the street, well alway from the lawn and think to ourself, gee I'd like to inform the owner of this malfunction or even fine them for negligence. All that water waste can be prevented if there was an entity that managed it more closely... Lastly I love seeing the "Welcome to GJ" mural used so much! I'd love it even more if there was credit given to the artist as well :) TJ Smith

and Danielle Sterle Thanks for everything, looking forward to seeing the plans in further action!

25. I am writing to express my gratitude for this long-awaited and comprehensive effort! Thank you to the city council, staff, sustainability coordinator, steering committee, organizations, and citizens for collaborating to address urgent needs! I support this draft and the first "Sustainability and Adaptation Community Steering Committee" to help facilitate the direction of the plan. I hope to see sustainable practices widely known and celebrated. Perhaps you already have ideas for publicizing effective local solutions and inviting greater adaptation. We have new stories to write and share about Western Slope resiliency!
26. This plan has agenda 2030 written all over it. Looks like Grand Junction is headed to a 15 minute City where everything u do is within 15 minutes of where u live. Like Klaus Swab says from World Economic Forum, u will own nothing and be happy. The Globalists are trying to lock us down in 15 minute cities. They want to know where u are at all times just like China. They are using ICLEI to further their UN agenda of world Tyranny. CARBON Dioxide plays a crucial role in Earths ecosystem. It is essential for plant growth and development, increased crop yields, preserves food. It is used to produce valuable fuels such as ethanol. Go to the UN website to see what their real plan is..it is tyranny not freedom. Watch the utube video "the UN plan to end private property." It explains Agenda 2030 really well. Kibbie Ward

27. In a sustainable, 15 minute city, amenities are supposed to be within 15 minutes of residents homes in order to be classified as a sustainable city. The Orchard Mesa Pool has to be left open because the CRC is over 15 minutes travel distance by car from many surrounding Grand Junction city suburbs. The CRC is way more than a 15 minute journey if traveled by bike, skateboard, scooter, or by walking from Grand Junction City suburbs. Therefore, taking a wrecking ball and tearing down the Orchard Mesa pool is unsustainable!
28. A community member notified me the Center for Independence (CFI) was listed as an agency who has submitted comment, or provided apparent approval of the proposed Plan. At our board of directors meeting on May 16, the question of our input and participation was raised. According to our Director, there has been no input or comment provided by CFI either for or against this Plan . The Plan Glossary does not define accessibility or disability as terms addressed in the Plan. Our goal at CFI is to promote community solutions and empower individuals with disabilities to

live independently. While utopian goals are set out in the Plan, it fails to address the reality of an aging and increasing population of disabled individuals who live in Mesa County. These groups come to our community to access superior medical care and escape harsher climates. Theirs in not an ambition to walk or ride a bike, but to have accessibility to services for daily needs. Most of our elderly and disabled residents rely solely on personal transportation (automobiles) to reach their destination. Any restriction on their mobility has a negative impact on their independence. Restrictions on parking or limiting street usage for those with disabilities, including the elderly, essentially denies reasonable access to this expanding segment of society. Not everyone in Mesa County is going to ride a bike or walk miles to work. However, everyone will age and eventually reach a category where mobile access directly to a specific location is a necessity, not a luxury. Please do not include agencies as participants, or hold them out as in agreement with the plan, when it goes against their stated goal of promoting freedom of movement and accessibility without restriction.

29. Dear Grand Junction City Council Members, At the request of Ruth Kinnett and Lisa Fry, whose contact information is listed below, I am sending this e-mail. If you have any questions feel free to contact them directly. We, the undersigned residents and concerned citizens of Grand Junction, hereby submit this petition urging the City Council to immediately cease the implementation of the proposed Sustainability and Adaptation Plan.
Sincerely,
Concerned Citizens of Grand Junction
Ruth Kinnett - ruthkk97@gmail.com
Lisa Fry - aspengroveenterprises@gmail.com
Petition · Sustainability and Adaptability at what cost? - Grand Junction, United States · Change.org

Open House Public Comment

1. More safe bike routes please!!
2. Love to see this! More pedestrian and bicycle connectivity in Grand Junction
3. Build actual safe bike infrastructure (protected, separated lanes) not just paint on the road. Biking on Riverside Parkway is terrifying.
4. You seem to have forgotten who pays your salaries.
5. GVT doesn't reach Redlands.
6. Bike Ambassador Program! Funding opportunity: (maybe) Colorado Tourism Office
7. Please do not tell us we need to ride buses, scooters, etc. It does make sense considering basic needs.
8. Screw the golf course. Stop wasting water, we're running out of water. +1
9. Please include Dark Skies in any neighborhoods who want it.
10. Water the grass at Lincoln Park golf course. Maintain what you have.
11. You need to be aware of the many projects forced on business. Now you want to get rid of it?
12. Encourage community gardens by having land available in urban food deserts. +1
13. Keep local food in our community when possible.
14. You can't force grocery stores to build where you want it.
15. Plant female trees (less allergies, more food :))
16. You big chains are not neighborhood friendly. They will not put a store on every corner needed.
17. Tap into health insurance programs to fund community gardens and farm stands.
18. Citizens please check the UN website for their Book Agenda 2021 and 2030 Project <3
19. Heatwave emergency plan? -water, shelter, education
20. Clean up the brush - weather is cyclical - Man is not God
21. Require HOAs to have neighborhood recycling. +1
22. GJ, keep up the great work with new dual stream recycle program. Bravo!
23. Composting and woodchip programs.
24. Compost pick up in neighborhoods +1
25. Waste of resources. Shut it down now! Leads to socialism. Stop now, Amen.
26. The building code should provide for more and better insulation and require rooftop solar at least on all public facilities.
27. Help homes convert from grass to xeriscaping, lower water use.
28. All-electric building codes for new construction!
29. Town solar/wind coop. Tax payers pay for the infrastructure and can opt in?
30. Have you considered nuclear?
31. Film for windows to convert them into solar panels. Solar power film. Seems cool!
32. The building and installing windmills is not good! Kill birds and don't last long and no way to recycle blades.
33. Water efficiency training for landscapers!
34. Better monitoring of sprinklers - I live near Las Colonias and call in leaks often.
35. More trees + grass = more oxygen + trees eat CO2
36. Can the City offer water-wise landscape design services to residents? (Subsidize costs for residents)
37. Use native plants more than high water grasses, etc.

38. Educate public about household water conservation - i.e. when warming the water to take a shower, collect it in a bucket and use it to refill the toilet tank.
39. Need incentives to REDUCE use of even irrigation water -> use native plants.
40. A mini workshop for City Council + Employees in relevant areas of work is a good beginning. Newspaper articles.
41. Make sure we're including all GJ residents with our decisions.
42. Overreach by the City Gov't. Amen
43. Stop building so many buildings + encourage people to farm or we will have no food.
44. This is a good use of City's powers - Sustain and adapt to what may come.

Att'n: Jenny Nitsey

Comments on:

CURRENT CONDITIONS AND COMMUNITY ENGAGEMENT SUMMARY

https://engagegj.org/20624/widgets/66610/documents/49128

As it appeared on Jan 18, 2024

COMMENTS:

ITEM 1:

This first thing that concerns me is the "**INTRODUCTION**" paragraph where I see the word "sustainable". This is really bad sign, to start off with. It references the WORD ECONOMIC FORUM's "AGENDA 2030." Bad, bad, BAD news. Our city should not be suckered in by this group. City officials should research this organization this document and see exactly who these people are and what they are planning to do. Hints: eating crickets, bicycling to the grocery store (how well does that work for a family of 5?), no home ownership, everyone living in cubicles like the atrocity just being built on the 1100 +/- block on Grand Ave. (Whoever authorized that? Not the people who live near it and have to drive by it every day from work and try not to vomit, and have to suffer the devaluation of their well-kept treasured Victorian homes/offices.)

This whole "AGENDA 2030" thing is a farce and a deception ("climate change"), perpetrated by a cabal of megalomaniacs:

1) The climate is always changing, and humans are not the cause of it. Climate change is mostly influenced by sunspot cycles (i.e., changes in magnetism and thermal output of the sun – go look at the graphs). Good luck changing that.
2) Humans cannot control the climate. Trying to play God can get dangerous.
3) The amount of Carbon Dioxide in the atmosphere is currently at the low end of the level that will support autonomous growth of trees, grasses, etc. We need ***more*** CO2 if anything, not ***less***.
4) Warmer temperatures encourage growth of plants – forests, grasses, and, importantly, agricultural crops
5) Trees take in CO2 and exhale Oxygen. Humans breathe _____ (fill in the blank).
6) The earth regulates itself temperature-wise. If the temperature gets cooler (as it did in the 1970's) more high clouds (cirrus) form; they hold in the heat and the earth gets warmer. When the earth get s too warm, there are fewer of those clouds forming, which allows excess heat to radiate back out into space.
7) Too cold temperatures are more injurious to human life than too warm temperatures.

Therefore, let nature take its course, and let the free market devise ways to accommodate it.

ITEM 2:

Page 2: Grand Junction does not need a "LEED" certification. I don't want to be tracked and we don't need more redundant regulations that try to tell us how to live our lives.

ITEM 3:

Page 4: Who chose the "focus groups" that are referenced on page 4? "Topical experts and local representatives"? How about just plain old residents of Grand Junction, CO. We are not stupid. And we apparently have more common sense than the "topical experts and local representatives."

ITEM 4:

Page 5: "Community Events Booths"? Never heard a word about them. Why didn't we?

ITEM 5:

Page 8: There's another WEF/Globalist word – "equity." What's with all the "equity" talk? Equity means forcing people into a "one-size-fits-all" mold to serve the purposes of a ruling "elite." One size does not fit all. We live in a republic (no, it is decidedly **NOT** a democracy – a "democracy is 2 wolves and a sheep deciding what's for dinner" – we are a representative republic. Look it up sometime.)

Why does the government need to get into "affordable housing"? The free market will take care of it if it is needed. (By the way, I don't think most folks would consider the prices of these atrocities being built – like the one on Rood Ave. previously noted – as "affordable.") And the free market would also provide something a lot more aesthetic than the atrocity on Grand Ave.

"WHAT DOES SUSTAINABILITY MEAN TO GRAND JUNCTION?" It means: Arrogant people in power trying to feel important by telling the lowly masses how they should live their lives. We don't need it, thank you. We can make our own decisions and do not need you people to do it for us. Again: one size does not fit all and the free market handles these sort of issues quite well. Leave us alone.

Page 16: "WASTE DIVERSION EFFORTS" I can take care of my own trash, thanks. Grand Junction forces residents to use City Trash Services, apparently for about $45 per month. Why? I rarely have more than one small trash bag for the $45. For $10 I can take own trash to the dump once every 3 months. There are recycling places all over town and I can take recycled metal to VanGundy's and get paid to do it. And don't get me started about the unethical and environmentally damaging policies of the GJ Water Company.

Also, regarding waste disposal, people could be urged (not mandated) to eat more fresh vegetables and locally grown meat/poultry – they are more nutritious and better for your health in other ways, taste better, and generally involve less commercial packaging (usually plastic) which must be disposed of. They [redacted] also [redacted] require minimal preparation.

Page 18: No more solar arrays. They waste land that could be used for agriculture. They use toxic metals that are purchased from China and are not generally recyclable.

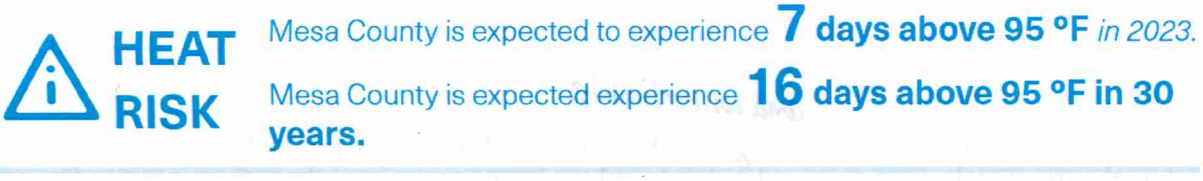
Page 20; Maybe you could first get the City Water Department to pursue some less wasteful policies regarding informing customers if they may have a water leak before they use up 87,000

gallon ($1600 worth) of water; maybe not penalizing people and making them put in a separate water meter because they are renting out a hundred square-foot to a single occupant who is only there 5 or 6 days a week.

UNFORTUNATELY THE LINK TO THE DOCUMENT THAT RELATES TO SOME OF THE FOLLOWING ITEMS HAS BEEN DISABLED, SO PRECISE REFERENCES FOR ALL COMMENTS CANNOT BE GIVEN.

ITEM 6:

"CLIMATE RESILIENCE" – SEE **ITEM 1**.



"16 days above 95°F in 2054"? How do you know this? A computer program somewhere? Ever heard the term GIGO? Stands for "Garbage In Garbage Out." You can program a computer to give whatever results are desired, assuming academic proficiency, honesty, and integrity are not prerequisites.

Page 14: "publicly operated cooling centers" Seriously?

ITEM 7:

"WASTE MANAGEMENT"

See last paragraph **ITEM 5.**

ITEM 8:

"ENERGY."
Instead of spending time and money on this goofy "SUSTAINABILITY" plan, how about directing resources to repealing House Bill 1365, so that Colorado (including Mesa County/Grand Junction Area) can return to producing some of the cleanest burning fossil fuels on the planet, and creating high paying jobs for our residents?

Page 20: "ABSOLUTELY NO" to watering restrictions. People use water to grow their food. If you want to increase access to untreated irrigation (as opposed to potable water) for watering gardens, that could be a sensible goal. But reducing residential water usage in a desert? Do you people ever think ahead? Do you ever do analyses of the results of knee-jerk reactions? Specifically, have you thought about what this place would look like, and how much heat would be radiated back into the air from rock-covered yards, and how much more air conditioning would need to be used as a result?

Permeable pavements? We already have a way to return runoff to the river. It's called "gutter pans and irrigation tailwater ditches."

And "water audits"? No thank you.

"Water efficient appliances"? I've tried them. Water efficient dishwashers means dirty dishes. You have to wash them twice. Uses twice as much water. Water efficient clothes washers means dirty clothes. You have to wash them twice. Uses twice as much water. Just let me pick my own dishwasher and clothes washer, thank you. I think I can figure out what is best for me. Don't need your "help."

Metered irrigation water? Are you serious? Have you ever even talked to anyone who works in agriculture? So my crop is 80% mature, but you decide I have used enough water for the year, and the crop dies before it matures and can be harvested? DO you people ever THINK?

Improved storm-water management is an area for possible study, although the Valley does pretty well with this already.

and unreliable

Solar arrays are unsightly, expensive, and take land out of otherwise productive use. Rare earth used in electric panels are not mined in USA and we have to purchase them from unfriendly entities. This is not cost effective, and threatens national security/self-sufficiency.

USA has over 200 years' worth of clean burning fossil fuels within our national borders, a lot of it right here in Colorado (think: Piceance Basin). We can be energy self-sufficient, a boon for national security and financial stability. We can sell our clean fuels to countries that are now using far greater amounts of far dirtier fuels. Our fuels burn way cleaner than those accessible in other parts of the world. Why are we worrying about curtailing ***our*** production and use, while China builds 14 dirty coal plants per year and 3rd world countries use dirty coal? Why are we buying into this scam? **STOP IT! WAKE UP!**

ITEM 10:

BUILDINGS etc.

Urban Forestry. Good idea, maybe. Should be limited to listing good trees/grasses/shrubs to plant in desert environment and what are their moisture needs. Should NOT prescribe/mandate by laws, regulation or otherwise, when/where people have to plant trees/shrubs etc.

Maintaining irrigation facilities in a desert environment requires significant investment on the part of private business and residential owners and should be left to the choice of the owner. Such expenditures – decreed by whim of bureaucrats trying to create a robust bureaucracy to protect their employment status, with the result of decreasing the profits of entrepreneurs and destroying the budgets of homeowners – are not ethical.

There are numerous examples of dead trees around town (many on city property) that have died and not been replaced because trying to grow a tree in an unirrigated area of a "stinking desert" is a losing proposition. (You *did* say you want to conserve water, right?) Again, let the free market decide. If people want trees etc. enough to spend the money to keep them growing, they will do so.

People do not want to hear about an "interwoven environmental, social and economic principles." **They want you to leave them alone to live their lives and make their own decisions.**

Page 22: With regard to: "Mixed uses, compact development, infill development are intentional land use decisions that promote housing and sustainable choices such as multimodal transportation, housing affordability and 'third-spaces,' or places people gather outside of home and work, such as parks, plazas, retail centers or community events."

This word salad is directly out of "AGENDA 2030." (We assume you are aware of this fact; if not, you need to do some research.)

"[I]ntentional land use decisions" made by whom? These decisions should be made by property owners, individually and possibly sometimes, in some instances, as a group. Not by some self-designated elite bureaucrat; but by the local residents, based on their interests, which include safety, preservations of value of their real estate, preservation of the ambiance of their neighborhood.

What owner of real estate in a well preserved, nicely landscaped neighborhood, perhaps a classy older one-story to 1½ story Victorian single-family home or residential/office property – what owner in such a neighborhood would want a bunch of ugly 3- story boxes (very likely to degenerate into hundreds of even more unsightly units of Section 8 housing) with no landscaping, lots of heat-generating asphalt and concrete, inadequate parking, increased traffic, and an increase in undesirable activity – what property owner wants this mess plunked in the middle of their attractive, quiet single-family/home office neighborhood?

People who are willing to live in small, cheap, unattractive housing do not have the same concerns and interests as people who have intentionally chosen a nice neighborhood to live and work in. The eyesore drives away clients. The parking overflow from the cheap housing makes it hard for homeowners and clients to find parking. The architecture is not compatible with the surrounding buildings and decreases real estate value. This obviously doesn't matter to you people, but it surely matters to the people who own the property.* But apparently they must take a back seat to "sustainability," whatever that is. I if I live in the Victorian neighborhood, this disgusting eyesore decidedly does ***not*** "sustain" my standard of living.

With regard to: "Intentional planning and design have many benefits . . ." Benefits for whom? Certainly not for residents of Grand Junction.

"Infill development" should be consistent with and compatible with the existing development. *1151 thru 1191 Main St.* are a good example of reasonable "infill" development that is consistent and compatible. Like the surrounding area, it is *single-family*, 1½ story Victorian style housing like the buildings around it. The townhome type construction is a slightly more efficient utilization of real estate, but is not incompatible with the surrounding architecture, and in fact, is quite attractive.

Also, there is a need for affordable, well-built single-family detached homes with yards and parking. Young families are having difficult time finding affordable starter homes because of the poor fiscal management skills of our government. Excessive unfunded government spending has caused high inflation and resulting high interest rates that make home ownership a daunting challenge for hard-working young families. These types of homes would have been a much preferred alternative to the disgusting eyesores that are being erected on the north side of Rood Ave. & 10th/11th Streets.

For high-density low-income housing, the area between the railroad track and Walmart was a much more appropriate location.

* and pay your salary

Another example of inappropriate construction is the mess that is being constructed where the old downtown City Market was. The downtown area now has no easily accessible grocery store, but lots more low-income (again potentially concentrated Section 8 housing, with all its attendant drawbacks – noise, drugs, messiness and poor maintenance). There are some attractive apartments nearby that area which are transitional housing. The management has high standards for tenant behavior, neatness, and maintenance. The old City Market site could have been used to construct more apartments like these, possibly with a smaller grocery store.

With regard to: "The sprawling nature of Grand Junction promotes a 'car culture' which is further supported by data that vehicle exhaust is one of the largest contributors to air pollution in the region."

This should read: "The sprawling nature of Grand Junction promotes a 'car culture.' " This is as it should be, and this is why we chose to live here. Personal autonomy is a high priority for the people who live here, especially older folks. We find it really difficult to go grocery shopping in public transit, given the inconvenient bus schedules and routes and the necessity of navigating steep steps up into a bus while carrying and lifting heavy food bags. Wheeling the groceries out of the store, directly to your car, parked adjacent to the grocery store; sliding them into the back seat of your car; and driving them directly to your kitchen door is the preferred procedure! Younger folks with families do not have the time to waste waiting for busses and trundling kids and food bags into and out of public transportation.

However, there are ways we can reduce pollution without infringing on personal freedoms and freedom of choice. One way would be to encourage people to consolidate work and errand-running trips, and try to minimize car travel when there is an inversion. Heating with natural gas or propane during inversions will produce less particulate matter than heating with wood.

All the things you want to do cost fantastic amounts of money, ***infringe on personal freedom and choice*** and will not change the cause of the inversions in the valley; inversions happen because of the geography and air flow in the valley. If people do not like dealing with the air quality for the few inversion days each year, they can be encouraged move to where they may find better air quality. This would decrease the strain on city utilities and amenities – and possibly decrease severity of inversions if they take their cars with them.

You can't ride bicycles and walk places in the winter, especially if you have loads to transport. And especially if you are older. If people want to use these methods of transportation, more power to them, but they should not be required to do so – whatever their age or physical capabilities.

ITEM 11:

General/Conclusion:

You people have let yourselves be suckered and deceived by the WEF/GLOBALIST crowd which is trying to decimate world population. They want to exercise absolute control over the general population for the purpose of fueling their own lusts for money and power. They are in no way capable of determining what are best choices for individuals. They literally see themselves as God (do a computer search on Yuval Noah Harari).

You people in government need to educate yourselves on the long-term disaster of playing into their deceptions. They want to destroy all of us – they call us "useless eaters" (Mr. Harari) and want to placate us with drugs and computer games and have us eat bugs while they fly around in jets, live in multi-million dollar homes, and eat steak and caviar.

I do not begrudge anyone's desire to attain affluence. Far from it. There are, however, moral/ethical and immoral/unethical ways to achieve that goal. People who buy into the "sustainability" ruse have been seriously duped and are letting themselves be used. Be forewarned: they will cast you aside when you have served their purposes – have you heard the saying "They eat their own"?

Man-made climate change is a hoax and a fabrication. Climate control is a futile undertaking. Be advised that people who would tell you otherwise definitely do not have your best interests at heart. ***Do your research***. Please re-read the Declaration of Independence at your earliest convenience (I say "re-read" since I am assuming you have read it before, but maybe forgotten some of its contents??).

I also suggest that in the future, when choosing city planning personnel (particularly at the administrative level), applicants' being able to display evidence of common sense, and some knowledge of physics, engineering, architecture and real estate should be prerequisites. This is apparently not presently the case. **Political "wokeness" should be a definitely disqualifying characteristic.**

"If you don't stand for something, you will fall for anything."

modern proverb

S. Kuhn

4/18/2024

Regarding: 'GRAND JUNCTION SUSTAINABILITY AND ADAPTATION PLAN"

[redacted]
Jenny Nitsey, Grand Junction City Hall
250 N. 5th St.
Grand Junction, CO 81501
[redacted]

April 18, 2024

We need more small houses – downsize homes for older people and starter homes. We need houses with parking and yards for kids & pets not these great big unsightly things like the ones at 1st and Rood and at 10th and Rood. We need more free parking for commuters, and downtown shoppers and diners. We need fewer bike paths, fewer skate parks in senior neighborhoods. Fewer potholes. And fewer bums in the parks.

Multifamily housing needs to look like the townhomes at 12th & Main and not the unaffordable atrocities at10th & Rood that do not blend in with historic homes and businesses in the neighborhood; they are eyesores, have insufficient parking, and destroy surrounding real estate values. They make people park on the streets. Why were residents not consulted before these things were built? Sounds like someone is railroading us into Agenda 2030 stupid "sustainable" housing. Whoever that is we need to get rid of them. Soon.

The apartments built between the railroad and the Rimrock Walmart aren't too bad -- they are fairly attractive infill and probably a better use for the land than additional business/semi-industrial construction surrounding it, many of which are vacant anyway.

Instead of trying to solve problems we don't have or can't fix ("climate change"), we need to spend more time dealing with goofy policies with the City Water Department and the homeless people living in our parks, which we cannot now use, although our taxes pay for them.

Thank you,

Jane Nair

Jane Nair

Regarding: "GRAND JUNCTION SUSTAINABILITY AND ADAPTATION PLAN"

Jenny Nitsey, Grand Junction City Hall
250 N. 5th St.
Grand Junction, CO 81501

It sounds as though they want to ration our irrigation water, apparently even when there is not a drought. They want us to live in these ugly boxes, which they are building all over town. Which brings up another issue: nobody wants to build small reasonably priced, well built single family starter homes, or homes for older adults downsizing. Everything is the boxes or half million dollar houses crammed in 5 feet away from each other.

They want us to get rid of our cars. They want us to walk or ride bicycles everywhere. Not a possibility, at this point. Or take a bus. Bus routes and schedules are notoriously inconvenient in this town. Nobody rides busses. Rules for trash. Rules for water, rules for washing dishes, washing clothes. Rules for planting trees, grass. This is just not my town. This is not why I moved here -- to live in a boarding school environment.

This document is all full of "woke" buzzwords, which is a big red flag to me. There is too much regulating and dictating and not enough real problem solving. We need a different approach. Solve problems on a one-off basis, as needed and don't try to pre-program the whole town or use a one-size-fits all fix.

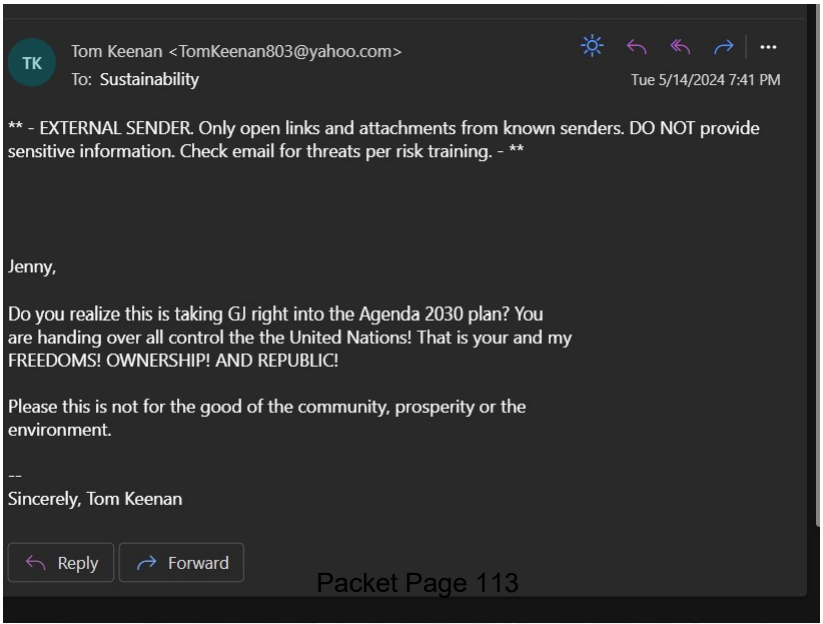
People want to make their own choices.

Thank you,

Mary Praete

Mary Praete

4/18 2024



Grand Junction City Council

Workshop Session

Item #1.b.

Meeting Date:	June 3, 2024
Presented By:	Andrea Phillips, Interim City Manager, Carson Bise, TischlerBise, Tamra Allen, Community Development Director
Department:	Community Development
Submitted By:	Tamra Allen, Community Development Director

Information

SUBJECT:

Impact Fee Study Project Update

EXECUTIVE SUMMARY:

The City's Municipal Code requires the City to update its impact fee study once every five years. The City's last fee study for transportation, police, fire, parks, and municipal facilities was completed in 2019. The City has contracted with TischlerBise to update its fee study and create a nexus study for an affordable housing linkage fee. Representatives from TischlerBise will present information about impact fees and the related process and timeline for completing these fee studies.

BACKGROUND OR DETAILED INFORMATION:

TischlerBise is a fiscal, economic, and planning consulting firm specializing in fiscal/economic impact analysis, impact fees, user fees, market feasibility, infrastructure financing studies, and related revenue strategies. The firm has been providing consulting services to public agencies for more than 30 years and, in that time, and has prepared more than 1,000 impact fee/infrastructure financing studies.

Impact fees are simple in concept, but complex in delivery. Generally, the jurisdiction imposing the fee must:
(1) identify the purpose of the fee,
(2) identify the use to which the fee is to be put,
(3) show a reasonable relationship between the fee’s use and the type of development project, and
(4) account for and spend the fees collected only for the purpose(s) used in calculating the fee.

Reduced to its simplest terms, the process of calculating impact fees involves the

following two steps:
1. Determine the cost of development-related capital improvements, and
2. Allocate those costs equitably to various types of development.

The City's Municipal Code 21.02.070(a) Development Impact Fees, provides that the impact fees described in this section (Transportation, Police, Fire, and Parks) and the administrative procedures of this section shall be reviewed at least once every five years by an independent consultant, as directed by the City Manager, to ensure that (i) the demand and cost assumptions underlying the impact fees are still valid, (ii) the resulting impact fees do not exceed the actual costs of constructing capital facilities that are of the type for which the impact fees are paid and that are required to serve new impact-generating development, (iii) the monies collected or to be collected in each impact account have been and are expected to be spent for capital facilities for which the impact fees were paid, and (iv) the capital facilities for which the impact fees are to be used will benefit the new development paying the impact fees.

The City's last fee study for transportation, police, fire, parks and municipal facilities was completed in 2019. The City has contracted with TischlerBise to update its fee study and create a nexus study for an affordable housing linkage fee. Representatives from TischlerBise will be presenting information about impact fees and the related process and timeline for completing these fee studies. TishlerBise will be working to complete the fee study by fall 2024.

FISCAL IMPACT:

The adoption and implementation of growth-related impact fees area fiscal policy of the City. Fiscal impact will be considered at a future date and will be dependent upon the Council's consideration of an updated fee schedule.

SUGGESTED ACTION:

Discussion only.

Attachments

1. impact fee code section

(i) Before making any construction or alteration to a site or structure, such owner shall make application to the City for a Certificate of Appropriateness. The Director shall review such application for compliance with the Guidelines and Standards and make an initial determination and recommendation to the Board. The Director may include in that recommendation any conditions deemed appropriate to comply with the Guidelines and Standards and with the Zoning and Development Code.

(ii) The Board shall have jurisdiction to review City staff recommendations and to decide applications for Certificates of Appropriateness at a public hearing. The Board may include any conditions of approval deemed appropriate for compliance with the Guidelines and Standards. No owner shall construct or alter a structure or site in the District without first obtaining a Certificate of Appropriateness from the Board.

(iii) A decision of the Board may be appealed to City Council within 30 days of the issuance of the decision. Appeals to City Council shall be de novo.

(iv) All reviews pursuant to this subsection (2) shall determine if the new construction or alteration is compatible with the historic designation as provided in the North Seventh Street Historic Residential District Guidelines and Standards. In reviewing an application, consideration shall be given to design, siting, form, texture, setbacks, orientation, alignment, finish, material, scale, mass, height, and overall visual compatibility, according to and with reference to the applicable Guidelines and Standards of the North Seventh Street Historic Residential District. For purposes of this section, the term "compatible" shall mean consistent with, harmonious with and/or enhancing the mixture of complementary architectural styles either of the architecture of an individual structure or the character of the surrounding structures.

(h) Revocation of Designation

(1) If a building or special feature on a designated site has been altered in such a way so as to negate the features necessary to retain designation, the owner may apply to the Historic Board for a revocation of the designation or the Historic Board shall recommend revocation of the designation to the City Council in the absence of the owner's application to do so.

(2) If a designated structure is moved or demolished, the designation shall, without notice and without Historic Board recommendation, automatically terminate. If moved, a new application for designation at the new location must be made in order for designation to be considered.

(3) Upon the City Council's decision to revoke a designation, the Director shall cause a revocation notice to be sent to the property owner.

21.02.070 Development Fees

(a) Development Impact Fees

(1) Title

This section shall be known and may be cited as the "Grand Junction, Colorado, Impact Fee Ordinance" or "Impact Fee Ordinance."

(2) Authority

The City has the authority to adopt this section pursuant to Article XX, § 6 of the Colorado State Constitution, the City's home rule charter, the City's general police powers, and other laws of the State of Colorado.

(3) Application

This section shall apply to all development within the territorial limits of the City, except development exempted pursuant to GJMC 21.02.070(a)(5)(ii).

(4) Purpose

(i) The intent of this section is to ensure that new development pays a proportionate share of the cost of city parks and recreation, fire, police, and transportation capital facilities.

(ii) It is the intent of this section that the impact fees imposed on new development are no greater than necessary to defray the impacts directly related to proposed new development.

(iii) Nothing in this section shall restrict the City from requiring an applicant for a development approval to construct reasonable capital facility improvements designed and intended to serve the needs of an applicant's project, whether or not such capital facility improvements are of a type for which credits are available under GJMC 21.02.070(a)(6), Credits.

(5) Development Impact Fees to Be Imposed

(i) Fee Obligation, Payment, and Deposit

(A) Obligation to Pay and Time of Payment

Any person who causes the commencement of impact-generating development, except those exempted pursuant to GJMC 21.02.070(a)(5)(ii) shall be obligated to pay impact fees pursuant to the terms of this section. The obligation to pay the impact fees shall run with the land. The amount of the impact fees shall be determined in accordance with GJMC 21.02.070(a)(5)(iii) and the fee schedule in effect at the time of issuance of a Planning Clearance and paid to the Director at the time of issuance of a Planning Clearance. If any credits are due pursuant to GJMC 21.02.070(a)(6) those shall be determined prior to the issuance of a Planning Clearance and payment of the impact fees.

(B) Fees Promptly Deposited into City Accounting Funds

All monies paid by a fee payer pursuant to this section shall be identified as impact fees and shall be promptly deposited in the appropriate City impact fee accounting funds established and described in GJMC 21.02.070(a)(7).

(C) Extension of Previously Issued Development Approval

If the fee payer is applying for an extension of a development approval issued prior to January 1, 2020, the impact fees required to be paid shall be the net increase between the impact fees applicable at the time of the current permit

extension application and any impact fees previously paid pursuant to this section, and shall include any impact fees established subsequent to such prior payment.

(D) Fee Based on Approved Development

If the Planning Clearance is for less floor area than the entire development approved pursuant to the development approval, the fee shall be computed separately for the floor area of development covered by the Planning Clearance, and with reference to the use categories applicable to such development covered by the Planning Clearance.

(E) Permit for Change in Use, Expansion, Redevelopment, Modification

If the fee payer is applying for a Planning Clearance to allow for a change of use or for the expansion, redevelopment, or modification of an existing development, the impact fees required to be paid shall be based on the net increase in the impact fees for the new use as compared to the previous use and actual fee paid for the previous use, and shall include any impact fees established subsequent to such prior payment.

(F) Prior Conditions and/or Agreements

Any person who prior to January 1, 2020, has agreed in writing with the City, as a condition of permit approval, to pay an impact fee shall be responsible for the payment of the impact fees under the terms of such agreement, and the payment of the impact fees may be offset against any impact fees due pursuant to the terms of this section.

(G) Time of Submittal

For nonresidential and multifamily development (excluding townhomes, duplexes, and condominium residence(s)) the fee shall be calculated as of the submission of a complete application and construction commences within two years of approval. Should construction fail to commence within two years, the applicant shall pay those fees in place at the time of issuance of a Planning Clearance.

(ii) Exemptions

The following types of development shall be exempt from payment of impact fees. Any claim for exemption shall be made no later than the time when the applicant applies for the first Planning Clearance. Any claim for exemption not made at or before that time shall be waived. The Director shall determine the validity of any claim for exemption pursuant to the standards set forth below.

(A) Replacing Existing Residential Unit with New Unit

Reconstruction, expansion, alteration, or replacement of a previously existing residential unit that does not create any additional residential units.

(B) New Impact-Generating Development Creates No Greater Demand than Previous Development.

New impact-generating development that the fee payer can demonstrate will create no greater demand over and above that produced by the existing use or development.

(C) Building after Fire or Other Catastrophe

Rebuilding the same amount of floor space of a structure that was destroyed by fire or other catastrophe.

(D) Accessory Structures

Construction of unoccupied accessory structures related to a residential unit.

(E) Previous Payment of Same Amount of Impact Fees

Impact-generating development for which an impact fee was previously paid in an amount that equals or exceeds the impact fee that would be required by this section.

(F) Government

Development by the federal government, the state, school district, county or the City.

(G) Complete Development Application Approved Prior to Effective Date of Chapter

For development for which a complete application for a Planning Clearance was approved prior to January 1, 2020; and for nonresidential and multifamily development for which a complete application was submitted prior to January 1, 2020, so long as construction commences by January 1, 2022, the required fees shall be those in effect at time of submittal.

(H) Small Additions and Renovations for Residential Uses

Construction of an addition to an existing dwelling unit of 500 square feet or less, or expansion of finished space for an existing dwelling unit of 500 square feet or less. This exemption shall only be used one time for each dwelling unit and does not apply to accessory dwelling units.

(iii) Calculation of Amount of Impact Fees

(A) Impact Fee Schedule

Except for those electing to pay impact fees pursuant to GJMC 21.02.070(a)(5)(iii)(B), the impact fees applicable to the impact-generating development shall be as determined by the impact fee schedule, which is hereby adopted and incorporated herein. The impact fee schedules are based on the impact fee studies. It applies to classes of land uses within the City, differentiates between types of land uses, and is intended to defray the projected impacts caused by proposed new development on city capital facilities. The determination of the land use category(ies) in the impact fee schedules that are applicable to

impact-generating development shall be made by the Director with reference to the impact fee studies and the methodologies therein; the then-current edition of the ITE Trip Generation Manual, published by the Institute of Traffic Engineers; the City zoning and development code; the then-current land use approvals for the development; and any additional criteria set forth in duly promulgated administrative rules.

a. Annual Adjustment of Impact Fees to Reflect Effects of Inflation

The impact fee schedule shall be adjusted annually and/or biannually consistent with the impact fee study. Commencing on January 1, 2023, and on January 1st of each subsequent year, each impact fee amount set forth in the impact fee schedule shall be adjusted for inflation, as follows:

1. For transportation impact fees, the fees shall be adjusted for inflation based on the latest 10-year average of the Colorado Department of Transportation Construction Cost Index, published quarterly by CDOT.
2. For fire, police, and parks the fees shall be adjusted for inflation based on the most recent Construction Cost Index published by Engineering News Record.
3. The adjusted impact fee schedule shall become effective immediately upon calculation and certification by the City Manager and shall not require additional action by the City Council to be effective.

b. Impact-Generating Development Not Listed in the Impact Fee Schedule

If the proposed impact-generating development is of a type not listed in the impact fee schedule, then the impact fees applicable are those of the most nearly comparable type of land use. The determination of the most nearly comparable type of land use shall be made by the Director with reference to the impact fee study and City code.

c. Mix of Uses

If the proposed impact-generating development includes a mix of those uses listed in the impact fee schedule, then the impact fees shall be determined by adding the impact fees that would be payable for each use as if it was a freestanding use pursuant to the impact fee schedule.

(B) Independent Fee Calculation Study

In lieu of calculating the amount(s) of impact fees by reference to the impact fee schedule, a fee payer may request that the amount of the required impact fee be determined by reference to an independent fee calculation study.

a. Preparation of Independent Fee Calculation Study

If a fee payer requests the use of an independent fee calculation study, the fee payer shall be responsible for retaining a qualified professional (as

determined by the Director) to prepare the independent fee calculation study that complies with the requirements of this section, at the fee payer's expense.

b. General Parameters for Independent Fee Calculation Study

Each independent fee calculation study shall be based on the same level of service standards and unit costs for the capital facilities used in the impact fee study and shall document the relevant methodologies and assumptions used.

c. Procedure

1. An independent fee calculation study shall be initiated by submitting an application to the Director together with an application fee to defray the costs associated with the review of the independent fee calculation study.
2. The Director shall determine if the application is complete. If it is determined the application is not complete, a written statement outlining the deficiencies shall be sent by mail to the person submitting the application. The Director shall take no further action on the application until it is complete.
3. When it is determined the application is complete, the application shall be reviewed by the Director and a written decision rendered on whether the impact fees should be modified, and, if so, what the amount should be, based on the standards in GJMC 21.02.070(a)(6)(i).

d. Standards

If, on the basis of generally recognized principles of impact analysis, the Director determines the data, demand information and assumptions used by the applicant to calculate the impact fees in the independent fee calculation study more accurately measure the proposed impact-generating development's impact on the appropriate capital facilities, the impact fees determined in the independent fee calculation study shall be deemed the impact fees due and owing for the proposed development. The fee adjustment shall be set forth in a fee agreement. If the independent fee calculation study fails to satisfy these requirements, the impact fees applied shall be the impact fees established in the impact fee schedule.

(6) Credits

(i) Standards

(A) General

Any person causing the commencement of impact-generating development may apply for credit against impact fees otherwise due, up to but not exceeding the full obligation of impact fees proposed to be paid pursuant to the provisions of

this section, for any contributions or construction (as determined appropriate by the Director) accepted in writing by the City for capital facilities. Credits against impact fees shall be provided only for that impact fee for which the fee is collected.

(B) Valuation of Credits

a. Construction

Credit for construction of capital facilities shall be valued by the City based on complete engineering drawings, specifications, and construction costs estimates submitted by the fee payer to the City. The Director shall determine the amount of credit due, if any, based on the information submitted, or, if he/she determines the information is inaccurate or unreliable, then on alternative engineering or construction costs determined by and acceptable to the Director.

b. Contributions

Contributions for capital facilities shall be based on the value of the contribution or payment at the time it is made to the City.

(C) When Credits Become Effective

a. Construction

Credits for construction of capital facilities shall become effective after the credit is approved pursuant to this section, a written credit agreement is entered into and (a) all required construction has been completed and has been accepted by the City, (b) suitable maintenance and financial warranty has been received and approved by the City, and (c) all design, construction, inspection, testing, financial warranty, and acceptance procedures have been completed in compliance with all applicable City requirements. Approved credits for the construction of capital facilities may become effective at an earlier date if the fee payer posts security in the form of an irrevocable letter of credit, escrow agreement, or cash and the amount and terms of such security are acceptable by the City Manager. At a minimum, such security must be in the amount of the approved construction credit plus 20 percent, or an amount determined to be adequate to allow the City to construct the capital facilities for which the credit was given, whichever is higher.

b. Contribution

Credits for contributions for capital facilities shall become effective after the credit is approved in writing pursuant to this section, a credit agreement is entered into and the contribution is made to the City in a form acceptable to the City.

c. Transferability of Credits

Credits for contributions, construction or dedication of land shall be transferable within the same development and for the same capital facility

for which the credit is provided but shall not be transferable outside the development. Credit may be transferred pursuant to these terms and conditions by a written instrument, to which the City is a signatory, that clearly identifies which credits issued under this section are to be transferred. The instrument shall be signed by both the transferor and transferee, and the document shall be delivered to the Director for registration of the change in ownership. If there are outstanding obligations under a credit agreement, the City may require that the transferor or transferee or both (as appropriate) enter into an amendment to the credit agreement to assure the performance of such obligations.

d. Total Amount of Credit

The total amount of the credit shall not exceed the amount of the impact fees due for the specific facility fee (e.g., fire, police, parks).

e. Capital Contribution Front-Ending Agreement

The City may enter into a capital contribution front-ending agreement with any developer who proposes to construct capital facilities to the extent the fair market value of the construction of these capital facilities exceeds the obligation to pay impact fees for which a credit is provided pursuant to this section. The capital contribution front-ending agreement shall provide proportionate and fair share reimbursement linked to the impact-generating development's use of the capital facilities constructed.

(ii) Procedure

(A) Submission of Application

In order to obtain a credit against impact fees, the fee payer shall submit an offer for contribution or construction. The offer shall be submitted to the Director and must specifically request a credit against impact fees.

(B) Contribution Offer Contents

The offer for contribution credit shall include the following:

a. Construction

If the proposed credit involves construction of capital facilities:

1. The proposed plan for the specific construction certified by a duly qualified and licensed Colorado engineer;
2. The projected costs for the suggested improvement, which shall be based on local information for similar improvements, along with the construction timetable for the completion thereof. Such estimated costs may include the costs of construction or reconstruction, the costs of all labor and materials, the costs of all lands, property, rights, easements and franchises acquired, financing charges, interest prior to and during construction and for one year after completion of construction, costs of

plans and specifications, surveys of estimates of costs and of revenues, costs of professional services, and all other expenses necessary or incident to determining the feasibility or practicability of such construction or reconstruction;

3. A statement made under oath of the facts that qualify the fee payer to receive a contribution credit.

b. Contribution

If the proposed offer involves a credit for any contribution for capital facilities, the following documentation shall be provided:

1. A copy of the Planning Clearance for which the contribution was established;
2. If payment has been made, proof of payment; or
3. If payment has not been made, the proposed method of payment.

(C) Determination of Completeness

The Director shall determine if the application is complete. If it is determined that the proposed application is not complete, the Director shall send a written statement to the applicant outlining the deficiencies. No further action shall be taken on the application until all deficiencies have been corrected.

(D) Decision

The Director shall determine if the offer for credit is complete and if the offer complies with the standards in GJMC 21.02.070(a)(6)(i).

(iii) Credit Agreement

If the offer for credit is approved by the Director, a credit agreement shall be prepared and signed by the applicant and the City Manager. The credit agreement shall provide the details of the construction or contribution of capital facilities, the time by which it shall be dedicated, completed, or paid, and the value (in dollars) of the credit against the impact fees the fee payer shall receive for the construction or contribution.

(iv) Accounting of Credits

Each time a request to use approved credits is presented to the City, the Director shall reduce the amount of the impact fees, and shall note in the City's records and the credit agreement the amount of credit remaining, if any.

(7) Impact Fee Accounts

(i) Establishment of Impact Fee Accounts

(A) Establishment of Impact Fee Accounts

For the purpose of ensuring impact fees collected pursuant to this section are designated for the mitigation of capital facility impacts reasonably attributable to new impact-generating development that paid the impact fees.

(B) Establishment of Impact Fee Accounts

Impact fees shall be deposited into five accounts (collectively, Impact Fee Accounts): transportation, parks and recreation, capital facilities, fire capital facilities, and police capital facilities accounts.

(ii) Deposit and Management of Impact Fee Accounts

(A) Managed in Conformance with § 29-1-801 C.R.S. et seq

The Impact Fee Accounts shall bear interest and shall be managed in conformance with § 29-1-801 C.R.S. et seq. No impact fees(s) or other similar development land development charge(s) shall be imposed or collected except pursuant to a schedule(s) that is(are) (a) adopted by ordinance by the City Council, pursuant to a legally sufficient study(ies); (b) generally applicable to a broad class of property; and (c) serves to defray the projected impacts on capital facilities caused by development. The City shall from time to time quantify the reasonable impacts of proposed development on existing capital facilities and establish the impact fee(s) or land development charge(s) at a level no greater than necessary to defray such impacts directly related to proposed development. No impact fee or other similar land development charge shall be imposed to remedy any deficiency in capital facilities that exists without regard to the proposed development.

(B) Immediate Deposit of Impact Fees in City Accounting Funds

All Parks and Recreation, Fire, Police, and Transportation impact fees collected by the City pursuant to this section shall be promptly deposited into the appropriate interest bearing accounting fund(s) ("Impact Fee Accounts") of the City designated, as allowed by § 29-1-803 C.R.S., by category, account or fund as determined by the City Manager or their designee. Any interest or other income earned on money deposited shall be credited to the Impact Fees Account(s) and no other City accounting fund(s).

(C) Interest Earned on Impact Fee Account Monies

Any impact fees not immediately expended shall be deposited as provided in this section. Interest earned on money in the Impact Fee Accounts shall be considered part of such account(s) and shall be subject to the same restrictions on use applicable to the impact fees deposited in such account.

(D) Income Derived Retained in Accounts until Spent

All income derived from the deposits shall be retained in the accounts until spent pursuant to the requirements of this section.

(E) Expenditure of Impact Fees

Monies in each account shall be considered to be spent in the order collected, on a first-in/first-out basis.

(iii) Annual Report

At least once annually the City will publish on its official website a report for the most recent fiscal year stating the amount of each Impact fee and/or land development charge collected to the Impact Fee Accounts, the average annual interest rate on each account and the total amount disbursed from each account.

(8) Expenditure of Impact Fees

(i) Capital Facilities Impact Fees

The monies collected from each capital facilities impact fee shall be used only to acquire or construct capital facilities within the City. Each and all capital facilities impact fees may, as determined by the City Council, be expended anywhere within the City notwithstanding the location of the project for which the impacts were paid.

(ii) No Monies Spent for Routine Maintenance, Rehabilitation or Replacement of Capital Facilities

No monies shall be spent for periodic or routine maintenance, rehabilitation, or replacement of any City transportation, parks and recreation, fire, or police capital facilities.

(iii) No Monies Spent to Remedy Deficiencies Existing on Effective Date of Chapter

No monies shall be spent to remedy existing deficiencies in transportation capital facilities, parks and recreation capital facilities, fire capital facilities, or police capital facilities.

(iv) Transportation Impact Fees

Transportation impact fee monies may be spent for the reconstruction and replacement of existing roads, the construction of new road systems and may be used to pay debt service on any portion of any current or future general obligation bond or revenue bond issued after July 6, 2004, and used to finance major road system improvements. All Transportation Impact Fees may, as determined by the City Council, be expended anywhere within the City notwithstanding the location of the project for which the impacts were paid.

(9) Refund of Impact Fees Paid

(i) Refund of Impact Fees Not Spent or Encumbered in 10 Years

A fee payer or the fee payer's successor-in-interest may request a refund of any impact fees not spent or encumbered within 10 years from the date the fee was paid, along with interest actually earned on the fees. Impact fees shall be deemed to be spent on the basis of the first fee collected shall be the first fee spent.

(ii) Procedure for Refund

The refund shall be administered by the Director, and shall be undertaken through the following process:

(A) Submission of Refund Application

A fee payer or successor-in-interest shall submit within one year following the end of the tenth year from the date on which the Planning Clearance was issued for which a refund is requested. The refund application shall include the following information:

a. A copy of the dated receipt issued for payment of the impact fee;

b. A copy of the Planning Clearance.

(B) Determination of Completeness

The Director shall determine if the refund application is complete. If the application is not complete, the Director shall mail the applicant a written statement outlining the deficiencies. The Director shall take no further action on the refund application until it is complete.

(C) Decision on Refund Application

When the refund application is complete, it shall be reviewed and approved if the Director determines a fee has been paid which has not been spent within the 10-year period. The refund shall include the fee paid plus interest actually earned on the impact fee.

(iii) Limitations

(A) Expiration of Planning Clearance without Possibility of Extension

If a fee payer has paid an impact fee required by this section and obtained a Planning Clearance, and the Planning Clearance for which the impact fee was paid later expires without the possibility of further extension, then the fee payer or the fee payer's successor-in-interest may be entitled to a refund of the impact fee paid, without interest. In order to be eligible to receive a refund of impact fees pursuant to this subsection, the fee payer or the fee payer's successor-in-interest shall be required to submit an application for such refund to the Director within 30 days after the expiration of the Planning Clearance for which the fee was paid. If a successor-in-interest claims a refund of the impact fee, the City may require written documentation that such rights have been conveyed to the claimant. If there is uncertainty as to the person to whom the refund is to be paid or if there are conflicting demands for such refund, the City Attorney may interplead such funds.

(iv) No Refund If Project Demolished, Destroyed, Altered, Reconstructed or Reconfigured

After an impact fee has been paid pursuant to this section, no refund of any part of such fee shall be made if the development for which the impact fee was paid is later demolished, destroyed, or is altered, reconstructed, reconfigured, or changed in use so as to reduce the size or intensity of the development or the number of units in the development.

(10) Low-Moderate Income Housing

In order to promote the provision of low-moderate income housing in the City, the City Council may agree in writing to pay some or all of the impact fees imposed on a proposed low or moderate income housing development by this section from other unrestricted funds of the City. Payment of impact fees on behalf of a fee payer shall be at the discretion of the City Council and may be made pursuant to goals and objectives adopted by the City Council to promote housing affordability.

(11) Administration, Appeals and Updates of Determination or Decision of Director to City Manager

(i) Review Every Five Years

The impact fees described in this section and the administrative procedures of this section shall be reviewed at least once every five years by an independent consultant, as directed by the City Manager, to ensure that (i) the demand and cost assumptions underlying the impact fees are still valid, (ii) the resulting impact fees do not exceed the actual costs of constructing capital facilities that are of the type for which the impact fees are paid and that are required to serve new impact-generating development, (iii) the monies collected or to be collected in each impact account have been and are expected to be spent for capital facilities for which the impact fees were paid, and (iv) the capital facilities for which the impact fees are to be used will benefit the new development paying the impact fees.

(ii) Appeal

(A) Director Determination or Decision

Any determination or decision made by the Director under this section may be appealed to the City Manager by filing with the City Manager within 30 days of the determination or decision for which the appeal is being filed: (A) a written notice of appeal on a form provided by the City Manager, (B) a written explanation of why the appellant feels the determination or decision is in error, and (C) an appeal fee established by the City.

(B) City Manager Review

The City Manager shall fix a time and place for hearing the appeal, and shall mail notice of the hearing to the appellant at the address given in the notice of appeal. The hearing shall be conducted at the time and place stated in the notice given by the City Manager. At the hearing, the City Manager shall consider the appeal and either affirm or modify the decision or determination of the Director based on the relevant standards and requirements of this section. The decision of the City Manager shall be final.

(C) Administrative Rules

The City Manager and Director, and their respective designees, may from time to time establish written administrative rules, not inconsistent with the provisions of this section, to facilitate the implementation of this section as provided in GJMC

21.02.010. Without limiting the foregoing, the Director is authorized to establish written administrative rules, not inconsistent with the provisions of this section, for use in the determination of the land use category(ies) in the impact fee schedule that is applicable to impact-generating development. All administrative rules adopted pursuant hereto shall be published in written form and copies thereof maintained in the offices of the Director and City Clerk. Administrative rules adopted pursuant hereto and a copy of such rules shall be made available without charge to fee payers and other persons requesting a copy thereof.

(12) Impact Fee Schedule – Fire, Police, Parks and Recreation, and Transportation

Table 21.02-8: Impact Fee Schedule (2023) Fire, Police, Parks and Recreation & Transportation

		Fire	Police	Parks & Recreation	Transportation
Single-Family					
<1,250 sq. ft. of living area	Dwelling	$751	$323	$1,333	$3,078
1,250 to 1,649 sq. ft. of living area	Dwelling	$751	$323	$1,333	$4,711
1,650 to 2,299 sq. ft. of living area	Dwelling	$751	$323	$1,333	$5,377
2,300 sq. ft. or more of living area	Dwelling	$751	$323	$1,333	$7,042
Manufactured Home in a Manufactured Housing Community	Pad	$751	$323	$1,333	$3,196
Multi-family	Dwelling	$494	$212	$897	$2,881
RV Park	Pad	$494	$212	---	$3,196
Hotel/Lodging	1,000 sf	$517	$218	---	$3,972 [1]
Retail/Commercial	1,000 sf	$517	$218	---	$7,227
Convenience Commercial (Gas station/Drive Thru)	1,000 sf	$517	$218	---	$15,364
Office	1,000 sf	$202	$86	---	$5,799
Institutional/ Public	1,000 sf	$202	$86	---	$1,426
Industrial	1,000 sf	$70	$30	---	$2,025
Warehousing	1,000 sf	$36	$15	---	$921

Notes:
[1] Hotel/Lodging Transportation Fee calculated per Room
Fees will be increased annually for inflation

(b) School Land Dedication Fee

(1) Standard for School Land Dedication

Dedication of suitable school lands for school purposes shall be required of any development if the school district determines that such development includes within it

land which is necessary for implementing a school plan. In all other cases, the fee required under GJMC 21.02.070(b)(1)(ii) shall be paid in lieu of a school land dedication.

(i) Standard for Fee in Lieu of School Land Dedication

Except in cases where a school land dedication is required in accordance with this section, or an exemption under this section applies, all development and all projects which contain a new dwelling shall be subject to fees in lieu of school land dedication (SLD fee) in an amount per dwelling unit determined by resolution of the City Council. SLD fees shall be collected by the City for the exclusive use and benefit of the school district in which such development is located and shall be expended by the school district solely to acquire real property or interests in real property reasonably needed for development or expansion of school sites and facilities, or to reimburse the school district for sums expended to acquire such property or interests. Revenues from such fees shall be used only for such purposes.

(ii) Payment, Prepayment, Exemption, Credit, and Refund of SLD Fee

(A) No building permit shall be issued for a dwelling, multiple-family dwelling or multifamily dwelling which is or contains one or more dwelling units until and unless the SLD fee for such dwelling unit in effect at the time such permit is applied for has been paid as required by this section.

(B) Nothing in GJMC 21.02.070(b)(1)(i) shall preclude a holder of a development permit for a residential development or mixed-use development containing a residential development component from prepaying the SLD fees to become due under this section for one or more dwellings, multiple-family dwellings or multifamily dwellings to be constructed in such development. Such prepayment shall be made upon the filing of a Final Plat for residential development, at the SLD fee rate then in effect and in the amount which would have been due had a building permit application for such dwelling been pending at the time of prepayment. A subsequent building permit for a dwelling, multiple-family dwelling or multifamily dwelling which is or contains one or more dwelling units for which the SLD fees have been prepaid shall be issued without payment of any additional SLD fees. However, if such permit would allow additional dwelling units for which SLD fees have not been prepaid, such permit shall not be issued until the SLD fees for such additional dwelling units have been paid at the rate per dwelling unit in effect at the time the building permit application was made.

(C) Any prepayment of SLD fees in accordance with this section shall be documented by a memorandum of prepayment which shall contain, at minimum, the following:

a. The legal description of the real property subject to residential development for which an SLD fee is being prepaid;

b. A description of the development permit issued concerning such real property, and a detailed statement of the SLD fees owed pursuant to such permit which are being prepaid;

c. The notarized signatures of the record owner of the property or their duly authorized agents; and

d. The notarized signature of the County Manager indicating approval of the prepayment plan, if the fee was paid while the real property was outside the limits of the City; or if the fee was paid at the time the real property was within the limits of the City, of the City Manager, indicating approval of the prepayment plan.

(iii) Exemptions

The following shall be exempted from payment of the SLD fee:

(A) Alterations or expansion of an existing building except where the use is changed from nonresidential to residential and except where additional dwelling units result;

(B) The construction of accessory buildings or structures;

(C) The replacement of a destroyed or partially destroyed building or structure with a new building or structure of the same size and use;

(D) The installation of a replacement mobile home on a lot or other parcel when a fee in lieu of land dedication for such mobile home has previously been paid pursuant to this section or where a residential mobile home legally existed on such site on or before the Effective Date of the ordinance codified in this section;

(E) Nonresidential buildings, nonresidential structures, or nonresidential mobile homes;

(F) Nursing homes, adult foster care facilities or specialized group facilities; and

(G) City- or County-approved planned residential developments that are subject to recorded covenants restricting the age of the residents of said dwelling units such that the dwelling units may be classified as housing for older persons pursuant to the Federal Fair Housing Amendments Act of 1988.

(iv) Credits

(A) An applicant for a development permit (or a holder of such a permit) who owns other suitable school lands within the school district in which the development is located may offer to convey such lands to the school district in exchange for credit against all or a portion of the SLD fees otherwise due or to become due. The offer must be in writing, specifically request credit against fees in lieu of school land dedication, and set forth the amount of credit requested. If the City and the school district accept such offer, the credit shall be in the amount of the

value of the suitable school lands conveyed, as determined by written agreement between the City, the school district and the permit holder or applicant.

(B) Credit against SLD fees otherwise due or to become due will not be provided until good and sufficient title to the property offered under this subsection is conveyed to and accepted by the school district. Upon such conveyance, the school district and the City shall provide the applicant with a letter or certificate setting forth the dollar amount of the credit, the reason for the credit, and a description of the project or development to which the credit shall be applied.

(C) Credits shall not be transferable from one project or development to another.

(v) Refund of Fees Paid

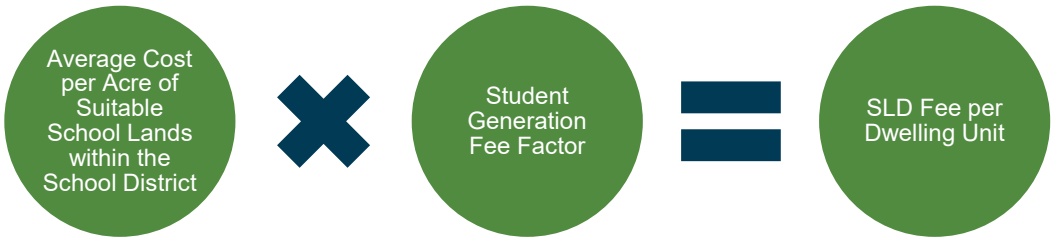
(A) Any SLD fee which has not been expended by the school district within five years of the date of collection shall be refunded, with interest at the rate of five percent per annum compounded annually, to the person who paid the fee. Prior to such refund, such amount shall be reduced by an amount equal to three percent of the principal amount to be refunded, for the costs incurred by the City in the refund of such fee. The City shall give written notice by U.S. mail to the person who paid the fee at their address as reflected in the records of the Mesa County Clerk and Recorder. If such person does not file a written claim for such refund with the City within 90 days of the mailing of such notice, such refund shall be forfeited and shall be retained and used for the purposes set forth in this section.

(B) The City Council may, upon the school district's request, extend the five-year period of time specified in GJMC 21.02.070(b)(1)(v)(A) upon a showing that such extension is reasonably necessary in order for the school district to complete or close a purchase transaction entered into in writing by such district prior to expiration of such period, or to give the school district an opportunity to exercise a purchase option it acquired prior to expiration of such period. Such request shall be made at a public hearing of the City Council. In no event shall any extension of time exceed an additional five-year period.

(2) Fees in Lieu of School Land Dedication (SLD Fees)

(i) SLD fees shall be collected and held in trust for the use and benefit of the school district containing the residential development for which the fee is collected. Such fees shall be expended by the school district to acquire additional real property for expansion of school facilities and construction of new school facilities necessitated by new residential development in the school district, or to reimburse the school district for sums expended to acquire such property. The amount of the SLD fee shall be based on a methodology which takes into account the student generation rates of new residential development, the quantity of land required to build new school facilities on a per pupil basis, and the anticipated cost of acquiring suitable school lands in the school district to expand existing school facilities and construct new school facilities to accommodate new residential development without decreasing current levels of educational services.

(ii) The SLD fee and the value of the variables in the formula to determine the SLD fee shall be set by resolution of the City Council in accordance with the following formula:



(For example, if the average cost of suitable school lands within the school district is $15,000 per acre and the student generation fee factor is 0.023, the SLD fee per dwelling unit would be $15,000 x 0.023, or $345.00.)

(iii) The average cost per acre of suitable school lands within the school district ("average cost per acre for SLD fee") and the student generation fee factor ("SGF factor") shall be determined by City Council. Before City Council considers modification of either, a 60-day prior written notice shall be provided to the school district. If a written request for a public hearing specifying which factor, the average cost per acre for SLD fee and/or the SGF factor, the school district wants to be heard on is received by the City from the school district at least 30 days before the matter is scheduled to be determined by City Council, a public hearing shall occur. At a hearing where City Council is considering the modification of the average cost per acre for SLD fee, City Council shall consider the school district's long range capital improvement plans and any other evidence, comments or recommendations submitted by the school district. At a hearing where City Council is considering the modification of the SGF factor, City Council shall consider the school district's school facilities plan currently in place, the methodology and data supporting the proposed modification, and any evidence, comments or recommendations submitted by the school district.

(iv) The SLD fee in effect as of January 1, 2006, was $460.00. The SGF factor used to determine the SLD fee was 0.023. This SLD fee and SGF factor shall continue until otherwise modified by City Council as set forth in this Code.

Grand Junction City Council

Workshop Session

Item #1.c.

Meeting Date:	June 3, 2024
Presented By:	Trenton Prall, Engineering & Transportation Director
Department:	Engineering & Transportation
Submitted By:	Trent Prall, Engineering and Transportation Director

Information

SUBJECT:

Streetlight Municipalization

EXECUTIVE SUMMARY:

Streetlight municipalization refers to the City taking ownership of the streetlights from the power utilities. For many years, the City has been interested in converting the Xcel and GVP streetlight systems to LED luminaires for energy savings, cost savings, reduced maintenance, better visual acuity, and the ability to monitor and control them remotely. The City recently commissioned a consultant-prepared feasibility study. The workshop will discuss the feasibility study findings as well as the next steps if the decision is to move forward with municipalization.

BACKGROUND OR DETAILED INFORMATION:

In 2022, City Council authorized staff to budget funds to explore the feasibility of the City taking over the streetlights from the owners of the streetlights in the City, Xcel Energy and Grand Valley Power (GVP). The process is referred to as "streetlight municipalization." This involved discussions with Xcel Energy and Grand Valley Power (GVP), the other owners of streetlights in the City, and the development of a feasibility study to understand the costs, benefits, and other considerations of transitioning to a streetlight system wholly owned and operated by the City.

The City's street lighting system is a hybrid of fixtures owned and operated by the City, Xcel Energy, and GVP. The City has 8,153 streetlights, of which 6,287 are owned by Xcel, 1,110 are owned by GVP, and 756 are owned by the City. Municipalization refers to the City taking ownership of the streetlights from the power utilities. For many years, the City has been interested in converting the Xcel and GVP streetlight systems to LED luminaires for energy savings, cost savings, reduced maintenance, better visual acuity, and the ability to monitor and control them remotely.

The primary benefits of municipalization include not only potential savings in operating costs but also control of the assets that could also be used for smart lighting, smart traffic, electric vehicle charging, WIFI, fiber, sensors, and cameras. Smart lighting refers to reducing light levels by dimming to lower outputs during times of little or no vehicular or pedestrian traffic, usually between the hours of midnight and 5 a.m. Additionally, the controls provide two-way communication to central nodes, giving real-time information on the status of the streetlights. Outages are self-reported by each streetlight, reducing the repair time. The cities of Golden and Greenwood Village have completed municipalization, while Thornton, Boulder, Littleton, Centennial, Erie, and Aurora are currently studying municipalization.

Staff contracted with RTE Energy Solutions to complete a GIS streetlight inventory audit and a feasibility study to identify a path forward. The feasibility study is attached to this memo for City Council review. The company is a global leader in streetlighting systems and has extensive experience working with municipalities on streetlight acquisition, conversion, and operation to support staff in both independent analysis and Xcel Energy streetlight acquisition and LED conversion, developing a full financial model to inform the acquisition decision. The firm is also currently working with Boulder, Thornton, and Littleton.

The feasibility study outlined the following: estimated baseline energy use and operating costs, estimated post-acquisition costs, LED upgrade energy use and operating costs, budgetary estimates based on market data of both Xcel and GVP streetlight assets, a review of financing options available to the City, a summary of available rebates, a budgetary cost-benefit analysis, an estimated 20-year projected savings and cash flow, an identified range of cost estimates for disconnect/separation from Xcel's grid, calculated greenhouse gas reduction, and recommended next steps and an estimated timeline should the City move forward with municipalization.

There are four options contemplated in the study. Staff are focusing on smart control options utilizing fuse kits (page five) to complete the separation of the streetlights from Xcel's network quickly. Smart controls allow optimization of the lights, leading to greater energy savings and communication with individual lights to determine whether or not they are working. The installation of fuses, rather than a more expensive complete separation, which is quicker to install and will provide more expedient energy savings for the City. Financially, this option would cost $11.5 million; however, the option has an annual operating cost savings of $1.25 million (revised from $1.6 million in original study) for a payback period of approximately 8.1 years (revised from 6.5 years in original study). The 10-year internal rate of return on this option is 6.5 percent, and the 15-year internal rate of return is 11.06 percent.

Staff have met with Xcel and Grand Valley Power representatives to discuss the proposed municipalization study and potential schedules. Staff proposes issuing certificates of participation to fund the project. The next step would be to enter into an agreement for Xcel and GVP to prepare a full separation study for their systems at an estimated cost of $300,000-$350,000. The City's consultant would then conduct an

investment-grade audit of the separation studies. That audit would include verification and review of the Xcel Separation Study, extensive field investigations and infrastructure analysis, comprehensive photometric design, and detailed engineering calculations to project accurate and reliable energy and maintenance savings.

FISCAL IMPACT:

For discussion only.

SUGGESTED ACTION:

For discussion only.

Attachments

1. P-1381_Grand Junction_CO_Feasibility Study Report_12_21_2023(1)

RTE ENERGY SOLUTIONS

City of Grand Junction, CO

Feasibility Study Report

System Acquisition & LED Streetlight Conversion

December 21st, 2023

Primary Contact:
Paul Vesel
Vice President, Western US
201 West Street, Annapolis MD 21401
(413) 695 - 0045
pvesel@rte-es.com

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December 21st, 2023

Trenton Prall
Public Works Director
City of Grand Junction
250 North 5th Street
Grand Junction CO 81501

Dear Mr. Prall,

We are pleased to present the Feasibility Study report on the streetlight network for the City of Grand Junction. This report may be used as a guide as the City of Grand Junction considers operations and management of the streetlight system while making an informed decision in purchasing the streetlights from Xcel Energy & GVP.

From our analysis, the economics of this project are compelling, as substantiated by the **82%** overall operating cost savings on your streetlight expenditures in the first year. We have provided a project scenario based on available utility billing data, our completed GIS audit, appropriate market material and labor rates and a one-for-one educated design replacements centered on the average top tier manufacturer pricing. In this report you will also find a budgetary cost-benefit analysis including calculation of estimated total conversion cost, acquisition, and system separation from Xcel Energy's grid and GVP's grid, energy reduction, savings, return on investment, and project payback period as well as calculation of greenhouse gas (GHG) reduction. After reviewing the Feasibility Report by the City, RTE Energy Solutions can assist with making a presentation to City Council, if requested.

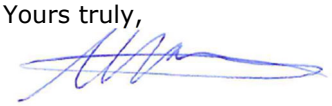
As a next step, we strongly recommend the City engages in the development of a Separation Study with Xcel Energy, after which an Investment Grade Audit Report could be completed by RTE Energy Solutions. The detailed Investment Grade Audit (IGA) would include verification and review of the Xcel Separation Study, infrastructure analysis, contractor and product bid management, comprehensive lighting designs, and detailed engineering calculations. Specifically, this would include:

- Review and formal recommendations of Xcel Separation Study
- Photometric designs to optimize energy efficiency, minimize costs, & protect public safety
- Competitive selection and procurement to ensure best value pricing, products, and services
- Installation of new LED luminaires and responsible recycling of old fixtures
- Transfer of all inventory files, data, and warranties
- Review of project financing options, and
- Customized community outreach services

Please note that the main body of the report focuses on upgrading the complete streetlight inventory (including pre-existing LEDs), for uniformity in product specifications (wattage, CCT, CRI, aesthetics, manufacturer, warranty). Alternatively, the City may elect to convert only the existing HID (non-LED) fixtures, those project scenarios are presented in Appendix C.

The RTE Energy Solutions team appreciates this opportunity to present our Feasibility Study Report and we look forward to continuing our work with the City of Grand Junction.

Yours truly,



Angelos Vlasopoulos, Chief Executive Officer
avlas@rte-es.com

RTE ENERGY SOLUTIONS

1. EXECUTIVE SUMMARY – PHOTOCELL OPTION (FUSE KITS)

Technical/ Environmental Assessment	Title	City of Grand Junction LED Streetlight Conversion
	Baseline	Qty HPS(1) Cobrahead Fixtures: 452 Qty LED Cobrahead Luminaires: 2,900
		Qty HPS Decoratives Fixtures: 4,635 Qty LED Decoratives Luminaires: 166
		Total Demand (in kW): 1,000
		Annual Operating Hours: 4,140
		Annual Energy Consumption (in kWh): 4,140,157
	Technology Employed	Smart Ready LED Fixtures & Photocells
	Technology Provider(s)	TBD
	Annual Operating Cost Savings	$1,605,300 (82%)
Financial Assessment	Financing Scheme	Capital Purchase (City-financed)
	LED Upgrade Project Cost	**$5,335,873**
	Estimated Acquisition Cost (Xcel + GVP)	$5,362,825 (based on a $725.00/fixture estimate)
	Total Project Cost	**$10,698,698**
	Incentive (Xcel Energy rebate)	$39,509
	Net Project Cost	**$10,659,189**
	LED Luminaire Life Expectancy	23 Years
	20-Year Project Savings	$36,042,068
	Payback Period	6.0 Years

(1) High Pressure Sodium.
(2) LED upgrade project cost shown above would include a budget allowance for fuse kits supplied and installed for each light.
(3) The scenario presented above is based on adding a photocell at each light and converting the complete inventory (including pre-existing LEDs), for system uniformity (product specifications and warranty).

EXECUTIVE SUMMARY – SMART CONTROLS OPTION (FUSE KITS)

Technical/ Environmental Assessment	Title	City of Grand Junction LED Streetlight Conversion
	Baseline	Qty HPS(1) Cobrahead Fixtures: 452 Qty LED Cobrahead Luminaires: 2,900
		Qty HPS Decoratives Fixtures: 4,635 Qty LED Decoratives Luminaires: 166
		Total Demand (in kW): 1,000
		Annual Operating Hours: 4,140
		Annual Energy Consumption (in kWh): 4,140,157
	Technology Employed	Smart Ready LED Fixtures & Smart Controls
	Technology Provider(s)	TBD
	Annual Operating Cost Savings	$1,605,300 (82%)
Financial Assessment	Financing Scheme	Capital Purchase (City-financed)
	LED Upgrade Project Cost (Smart Control)	**$6,142,781**
	Acquisition Cost (Xcel + GVP)	$5,362,825 (based on a $725.00/fixture estimate)
	Total Project Cost	**$11,505,606**
	Incentive	$39,509
	Net Project Cost	**$11,466,097**
	LED Luminaire Life Expectancy	23 Years
	20-Year Project Savings	$34,692,985
	Payback Period	6.5 Years

(1) High Pressure Sodium.
(2) LED upgrade project cost shown above would include a budget allowance for fuse kits supplied and installed for each light.
(3) The scenario presented above is based on adding a smart controller at each light and converting the complete inventory (including pre-existing LEDs), for system uniformity (product specifications and warranty).

EXECUTIVE SUMMARY – PHOTOCELL OPTION (FULL SEPARATION)

Technical/ Environmental Assessment	Title	City of Grand Junction LED Streetlight Conversion
	Baseline	Qty HPS(1) Cobrahead Fixtures: 452 Qty LED Cobrahead Luminaires: 2,900
		Qty HPS Decoratives Fixtures: 4,635 Qty LED Decoratives Luminaires: 166
		Total Demand (in kW): 1,000
		Annual Operating Hours: 4,140
		Annual Energy Consumption (in kWh): 4,140,157
	Technology Employed	Smart Ready LED Fixtures & Smart Controls
	Technology Provider(s)	TBD
	Annual Operating Cost Savings	$1,605,300 (82%)
Financial Assessment	Financing Scheme	Capital Purchase (City-financed)
	LED Upgrade Project Cost (Smart Control)	**$11,908,560**
	Acquisition Cost (Xcel + GVP)	$5,362,825 (based on a $725.00/fixture estimate)
	Total Project Cost	**$17,271,385**
	Incentive	$39,509
	Net Project Cost	**$17,231,876**
	LED Luminaire Life Expectancy	23 Years
	20-Year Project Savings	$29,469,380
	Payback Period	9.2 Years

(1) High Pressure Sodium.
(2) The scenario presented above is based on complete separation from Xcel Energy's infrastructure (permanent separation and light relocations off Xcel distribution poles).
(3) The scenario presented above is based on adding a photocell at each light and converting the complete inventory (including pre-existing LEDs), for system uniformity (product specifications and warranty).

EXECUTIVE SUMMARY – SMART CONTROLS OPTION (FULL SEPARATION)

Technical/ Environmental Assessment	Title	City of Grand Junction LED Streetlight Conversion
	Baseline	Qty HPS(1) Cobrahead Fixtures: 452 Qty LED Cobrahead Luminaires: 2,900
		Qty HPS Decoratives Fixtures: 4,635 Qty LED Decoratives Luminaires: 166
		Total Demand (in kW): 1,000
		Annual Operating Hours: 4,140
		Annual Energy Consumption (in kWh): 4,140,157
	Technology Employed	Smart Ready LED Fixtures & Smart Controls
	Technology Provider(s)	TBD
	Annual Operating Cost Savings	$1,605,300 (82%)
Financial Assessment	Financing Scheme	Capital Purchase (City-financed)
	LED Upgrade Project Cost (Smart Control)	**$12,715,468**
	Acquisition Cost (Xcel + GVP)	$5,362,825 (based on a $725.00/fixture estimate)
	Total Project Cost	**$18,078,293**
	Incentive	$39,509
	Net Project Cost	**$18,038,784**
	LED Luminaire Life Expectancy	23 Years
	20-Year Project Savings	$28,120,298
	Payback Period	9.6 Years

(1) High Pressure Sodium.
(2) The scenario presented above is based on complete separation from Xcel Energy's infrastructure. (permanent separation and light relocations off Xcel distribution poles).
(3) The scenario presented above is based on adding a smart controller at each light and converting the complete inventory (including pre-existing LEDs), for system uniformity (product specifications and warranty).

2. ASSET VALUATION

Based on our experience with utility property appraisers and past projects per streetlight acquisition costs can vary. This is partially due because the streetlights are valued on a system wide basis. The overall value of the system-wide streetlighting system fluctuates as components are added to the system, depreciated, and retired. Based on our experience a per streetlight acquisition cost is likely between **$450-$850** per streetlight.

This number is derived from Kissinger & Fellman (K&F) who has participated in rate cases and other proceedings at the Colorado Public Utilities Commission (PUC), advising and advocating on legislative matters, and other issues related to utilities. In addition to negotiating street light acquisitions, K&F was lead counsel for the local government coalition that advocated for the creation of the Xcel Energy ESL and MSL streetlight tariffs and related rules, which paved the way for municipal acquisition of streetlights.

In addition to the amount of construction allowance per lighting unit, depreciation is considered in the evaluation. For a public utility, street lighting equipment generally has a 35-year straight line depreciation schedule and wiring is depreciated on a 40-year schedule. Historically, we believe Xcel likely acquired much of the system through developers' exactions (required by the City or previously, the county government over the years). In addition, the County and City may have installed additional lights at its expense, or possibly with a cash contribution from Xcel.

For some years, Xcel offered a cash contribution, or a "construction allowance" effectively amounting to a discounted price for installing fixtures in exchange for a long-term commitment from the City. However, in other instances, ownership in many of the streetlights may have been granted by the County, the City and/or developer(s) to the utility at zero cost to the utility. In essence, it may be argued that by making an offer to purchase those fixtures, the City is offering to reimburse the utility for investments in the system the utility, in fact, never made. Since records may or may not exist to precisely define the construction allowances, the City may decide to negotiate a reasonable figure given the circumstances involved in the negotiations.

As part of the Feasibility Study, we have allocated an estimate figure of **$725.00** per streetlight for acquisition cost. This estimate was applied to the complete utility owned inventory (Xcel Energy and GVP). Our recommended approach throughout the next phase of the project would be for the City to hire an Owner's Agent, such as K&F, to review and assist with the negotiation aspects of the acquisition.

3. SUMMARY OF SEPARATION REQUIREMENTS

The two key challenges imposed by the current Xcel Energy rules and regulations are the following:

- Requirement for costly separations, deemed as "**permanent separations**" by Xcel Energy, such as: panels/switches/pull boxes to be installed in each street lighting circuit. The timeline to address the complete and more costly separation is **15 years** from system acquisition.
- Requirement to relocate lights that are currently on **utility distribution poles**. The relocation requires the supply/installation of a new City-owned pole (generally in proximity to the existing Xcel distribution pole), along with the transfer of the lighting asset (arm/bracket) and required wiring. The timeline to address the relocation from system acquisition varies depending on the number of poles to be re-located. The timeline requirement varies by quantity of lights, as outlined below:

Number of acquired street lights on Company distribution poles	Period (Years) to complete removal and relocation from Company distribution poles
0 – 500	5
501 – 1,000	8
1,001 – 2,000	10
2,001 – 3,000	12
More than 3,000	15

Xcel's grace period for these costly requirements provides an opportunity to structure a phased approach which can help in securing savings faster for the City and can be used to offset the cost of separations and relocation in years to come. More importantly, as more cities opt for municipalization, these rules may evolve to the point where hefty separation requirements are no longer necessary in the future.

Our suggested approach would be to install a fuse kit at each light in order for Xcel Energy to process a billing change to the ESL tariff such that the City starts to accrue savings as quickly as possible. While this increases the actual count of demarcations (separation), it is much cheaper to install fuse kits at each overhead and underground fed light, as individual fuse kits cost approximately $60.00/unit (supply/install). The cost for installing a disconnect at the transformer and/or more complicated pull box configurations can be much more difficult and expensive, with a cost ranging from $1,200 to $2,000 per disconnect ($1,875.00 is used throughout RTE's estimate).

The table below details the approximate cost comparison of both these approaches. As can be seen, there are significant savings in installing individual fuse kits.

Comparison of Approaches for Separation as Part of LED Upgrade (Xcel Inventory)

Description	Approx. Qty	Approx. Unit Cost	Approx. Total
Approach #1: Complete Separation (Xcel Only)	2,515	$1,875.00	$4,715,625
Approach #2: Using Fuse Kits at each Xcel Light (RTE Recommended Approach)	6,287	$60.00	$377,220
Difference (Savings) – Approach #1 vs. #2			**$4,338,405**

Estimated separation total savings: approximately $4.3 million. This cost savings is being realized as part of the project today, however, as per the current rules and regulations, the City would still be required to incur the separation costs under approach #1 above within the next 15 years (unless a change to the rules occurred). Please note that the above approach #1 assumes an Xcel required separation point at every 2.5 lights, on average (see approach described below). The actual quantity of separations will be confirmed following the completion of the Xcel Energy separation study. The best estimate from our team, based on historically completed separation studies, would be that the ratio of lights to permanent separation will likely be between 2-3 lights per permanent separation. As such, below represents the estimate cost range, based on this approach, for permanent separation.

Estimated Range of Permanent Separation Quantity Required (Xcel Inventory)

Description	Low End Estimate	High End Estimate	Average of Estimate (Figure used in Report)
Estimated quantity Xcel lights per permanent separation	2.0	3.0	2.5
Estimated quantity of permanent separations required	3,144	2,096	2,515
Estimated cost per permanent separations	$1,875.00	$1,875.00	$1,875.00
Estimated cost for permanent separations	**$5,895,000**	**$3,930,000**	**$4,715,625**

As it pertains to lights on Xcel distribution poles, our team identified a probable count of approximately 750 lights in such situations, based on our GIS audit (preliminary field estimate). The final quantity would be confirmed by Xcel Energy as part of the separation study. The table below presents future estimated costs to consider the system fully separated from Xcel Energy.

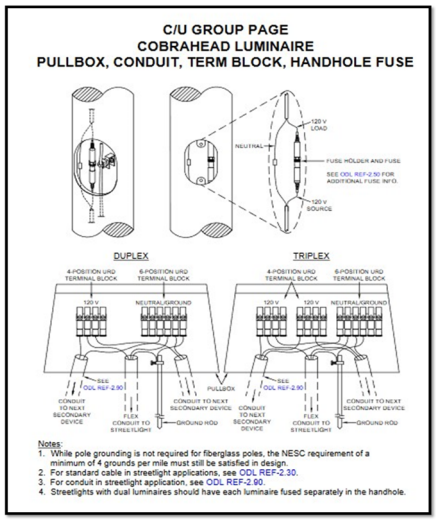
Future Cost Considerations:

Description	Approx. Qty	Estimated Unit Cost	Estimated Total Cost	Xcel Energy Grace Period
Permanent Separation Costs	2,515	$1,875.00	**$4,715,625**	15 Years
Relocation Costs (lights on Distribution poles)	750	$3,000.00	**$2,250,000**	8 Years
Total			**$6,965,625**	

Please note that the quantity, requirements, and final cost of the separation can vary widely depending on the specifics of the City's infrastructure, and the estimate provided in this report is a starting point to depict the approximate magnitude of the separation costs and costs of relocating lights on Xcel distribution poles. Following the completion of the Xcel Energy separation study, our team is offering a review of the separation study, and revised separation cost estimates would be provided.

Please note that we have consulted with Kissinger & Fellman, and it is our team's understanding that should the City take the approach of adding individual fuse kits at each light, the City could still participate in future rate cases. This could potentially allow the individual fuse kit approach of separation to be approved by Xcel Energy, beyond the current 15-year grace period, instead of the pull box requirement.

Sample UG fuse/fuse holder



Sample diagram of pull box

Sample OH switch/disconnect system:

Note on GVP Inventory Separation Requirements:
Our team inquired with GVP on a preliminary acceptable method of separation. We were advised that fuse kits should be added as the demarcation point. Fuse kits would be located in the handhole for underground or banded to poles for overhead. GVP would have to approve the design of the banding methodology. Our Feasibility Study includes fuse kits for all GVP lights, under all project scenarios.

Conclusion on Separations

Should the City of Grand Junction wish to pursue a less expensive approach for separation, we highly recommend using the individual fuse kits at each light. **We believe adopting this alternative approach for separation could generate roughly $4.3 million in potential cost savings as part of this project phase.** Please note that the intention under this approach is to ensure that cost savings can be achieved as quickly as possible from the acquisition and LED upgrade. Furthermore, this approach will allow savings to be accrued to eventually pay for future separation and relocation costs (years from today), by making use of the Xcel Energy grace periods when it comes to these requirements.

4. RATE ANALYSIS

The following section provides an analysis of the rates which are part of PSCo Colorado Electric tariff for "Public Street and Highway Lighting Service". The general structure of the applicable tariff schedules are as follows:

Xcel Energy: Street Lighting Service (Schedule SL)

Schedule description: The Tariff is for unmetered streetlights that are owned & maintained by Xcel Energy. This tariff includes routine maintenance services. Yearly operating hours as per Schedule SL is 4,140 hours.

Tariff structure under this schedule: A monthly per fixture charge is applied, in addition to applicable adjustments (per kWh tariff rate riders and applicable taxes). Maintenance beyond ordinary and routine maintenance and replacement for lamps and light sensitive devices, is billed on a per case basis each month. From analyzing bills done by Xcel Energy from municipalities from Colorado, non-routine maintenance represents approximately **$70.00/year/fixture** in additional charges from Xcel Energy. Below is a sample of the schedule depicting the monthly pre-fixture rates for Dusk to Dawn HPS fixtures.

MONTHLY RATE	REF. NO.	
Lights Burning Dusk to Dawn:		
High Pressure Sodium Lamps:		
4,100 lumen lamps, 50 Watts, per lamp, per Month	010	$ 10.66
5,800 lumen lamps, 70 Watts, per lamp, per Month	020	11.10
9,500 lumen lamps, 100 Watts, per lamp, per Month	030	11.77
16,000 lumen lamps, 150 Watts, per lamp, per Month	040	12.85
22,000 lumen lamps, 200 Watts, per lamp, per Month	050	13.99
27,500 lumen lamps, 250 Watts, per lamp, per Month	060	15.33
50,000 lumen lamps, 400 Watts, per lamp, per Month	070	19.02
140,000 lumen lamps, 1,000 Watts, per lamp, per Month	080	30.60

Xcel Energy: Energy Only Street Lighting Service (Schedule ESL)

Schedule description: Tariff is for unmetered streetlights that are owned & maintained by municipalities (this is how the City would be billed from transferring from SL, assuming meters are not installed). Yearly Operating hours as per schedule ESL is 4,140 hours (same as schedule SL). This tariff would apply whether lights were acquired and kept as HPS/MH or if the lights were acquired and converted to LEDs.

Tariff structure under this schedule: A monthly fee is billed based on the per month kWh consumption per light, in addition to applicable adjustments (per kWh tariff rate riders and applicable taxes). The City is responsible for maintenance costs (including routine maintenance of the fixtures and control device). The example below from the ESL tariff, presents certain monthly fees based on the per kWh monthly range of the fixtures:

Monthly Energy Range, kWh per light:	REF NO.	
0.0 – 3.0	001	$ 0.15
3.1 – 6.0	002	0.32
6.1 – 9.0	003	0.48
9.1 – 12.0	004	0.64
12.1 – 15.0	005	0.79
15.1 – 18.0	006	0.96
18.1 – 21.0	007	1.12
21.1 – 24.0	008	1.28
24.1 – 27.0	009	1.44

Xcel Energy: Metered Street Lighting Service (Schedule MSL)

Schedule description: The Tariff for any lighting facility owned, operated, and maintained by the municipality. This tariff would apply for locations with existing meters and/or if meters were added to existing non-metered location. Billing is based on the consumption amount plus a fixed fee.

Tariff structure under this schedule: Monthly fee (fixed, minimum fee), per meter of $3.65, in addition to a consumption fee of $0.05356/kWh fees. The City is responsible for maintenance costs (including routine maintenance of the LEDs and control device). The MSL rate may be applicable in certain parts of the inventory should metering devices be installed within certain circuits (to measure the consumption of multiple lights).

For the purpose of the Feasibility Study, it is assumed that all current SL lights would be transitioned to ESL. The addition of meters would add to the project's complexity and costs and may only be a financially feasible option in certain locations where enough lights could be controlled by a single meter. However, the meter rate could also apply to certain existing City lights which are not part of the scope of the Feasibility Study.

GVP: Rate Street and Yard Lighting (SYL)

Description: The Tariff is for unmetered streetlights that are owned & maintained by GVP. Yearly Operating hours is estimated at 4,140 hours (reference estimate taken from Xcel Energy as indicative number of yearly operating hours). The SYL tariff is used for the baseline inventory.

Mercury Vapor Lamps:	
175 Watt dusk to dawn (60 kWh per month) Monthly Charge:	$18.26 per light per month
250 Watt dusk to dawn (86 kWh per month) Monthly Charge:	$25.57 per light per month
400 Watt dusk to dawn (138 kWh per month) Monthly Charge:	$41.66 per light per month
High-Pressure Sodium Lamps:	
100 Watt dusk to dawn (35 kWh per month) Monthly Charge:	$10.91 per light per month
250 Watt dusk to dawn (86 kWh per month) Monthly Charge:	$25.57 per light per month

GVP: Rate Non-Metered Service Tariff

Description: A consumption fee of $0.11684/kWh. This tariff is used for the post-upgrade LED inventory. RTE inquired with GVP and there is currently no un-metered tariff for customer-owned streetlights and RTE was indicated a preliminary representative rate would be the Non-Metered Service tariff (used in analysis). The final rate would be subject to negotiation between City and GVP as part of the buyback discussions.

5. LED CONVERSION ANALYSIS

Our team has reviewed and selected LED luminaires with comparative lumen outputs for all existing HPS fixtures recorded in the City of Grand Junction's most up-to-date inventory (audited by RTE in 2023). This analysis is only a starting point and demonstrates the energy and cost savings that are possible using LED technology while deploying industry standard roadway lighting practices. Final luminaire selection and revised energy and cost savings will follow, after the product selection and design phase of the Investment Grade Audit are completed.

Photometric Design Recommended

Relying solely on a "one-for-one" replacement technique has limitations:

1. It is limited to existing inventory records that are often outdated and/or inaccurate.
2. It can only prescribe the LED replacement wattage according to the wattage that is recorded in the most up to date inventory.
3. No consideration is made for a proper lighting design and updated for current roadway conditions.
4. Without lighting designs, over-lit or under-lit streets today will continue to be so, even with LEDs.

The limitations of the industry-standard one-for-one replacement, listed above, are why RTE Energy Solutions advises all of its clients to undertake an Investment Grade Audit (IGA). The IGA includes extensive field investigations, infrastructure analysis, comprehensive photometric designs, and detailed engineering calculations to project accurate and reliable energy and maintenance savings.

Furthermore, when designing and selecting fixtures, our team of experts works with the City to consider all existing streetscape and design guidelines plus local aesthetics in the surrounding area. RTE's lighting designers, work with an array of manufactures and can assist the City in the selection of products that exhibit an aesthetic as well as functional purpose to create interest and a sense of scale for pedestrians using glare-free luminaires. This allows for a seamless visual transition and ensures that the optimum solution, both from a lighting quality and economic basis is chosen for the City.

5.1. Current Inventory and Sample LED Replacements

COBRAHEAD FIXTURES						
Baseline Fixture Type	**Baseline System Wattage**	**Baseline Qty**	**LED Luminaire Type**	**LED System Wattage**	**LED Qty**	**Energy Savings**
100W HPS Cobrahead	117	120	35W_3000K_LED Cobrahead Replacement	35	120	70%
250W HPS Cobrahead	296	19	80W_3000K_LED Cobrahead Replacement	80	19	73%
400W HPS Cobrahead	482	5	135W_3000K_LED Cobrahead Replacement	135	5	72%
50W HPS Cobrahead	61	7	25W_3000K_LED Cobrahead Replacement	25	7	59%
100W HPS Cobrahead	117	121	35W_3000K_LED Cobrahead Replacement	35	121	70%
250W HPS Cobrahead	296	110	80W_3000K_LED Cobrahead Replacement	80	110	73%
400W HPS Cobrahead	482	3	135W_3000K_LED Cobrahead Replacement	135	3	72%
100W HPS Cobrahead	117	63	35W_3000K_LED Cobrahead Replacement	35	63	70%
250W HPS Cobrahead	296	3	80W_3000K_LED Cobrahead Replacement	80	3	73%
400W HPS Cobrahead	482	1	135W_3000K_LED Cobrahead Replacement	135	1	72%
Pre-Existing LED (39W)	39	969	25W_3000K_LED Cobrahead Replacement	25	969	36%
Pre-Existing LED (65W)	65	1,907	35W_3000K_LED Cobrahead Replacement	35	1,907	46%
Pre-Existing LED (65W)	65	5	35W_3000K_LED Cobrahead Replacement	35	5	46%
Pre-Existing LED (65W)	65	19	35W_3000K_LED Cobrahead Replacement	35	19	46%
Total (Cobras)		**3,352**			**3,352**	**53%**
FLOOD & DECORATIVE FIXTURES						
Baseline Fixture Type	**Baseline System Wattage**	**Baseline Qty**	**LED Luminaire Type**	**LED System Wattage**	**LED Qty**	**Energy Savings**
100W - HPS - Acorn Post Top	117	2	35W_3000K_LED Acorn Post Top Replacement	35	2	70%
100W - HPS - Lantern Post Top	117	1,077	35W_3000K_LED Lantern Post Top Replacement	35	1,077	70%
100W - HPS - Shoe Box	117	13	35W_3000K_LED Shoe Box Replacement	35	13	70%
100W - HPS - Top Hat	117	382	35W_3000K_LED Top Hat Replacement	35	382	70%
150W - HPS - Acorn Post Top	171	510	50W_3000K_LED Acorn Post Top Replacement	50	510	71%
150W - HPS - Bell Downlighting	171	357	50W_3000K_LED Bell Downlighting Replacement	50	357	71%

150W - HPS - Curvilinear	171	139	50W_3000K_LED Curvilinear Replacement	50	139	71%
150W - HPS - Tear Drop	171	94	50W_3000K_LED Tear Drop Replacement	50	94	71%
150W - HPS - Lantern Post Top	171	34	50W_3000K_LED Lantern Post Top Replacement	50	34	71%
150W - HPS - Shoe Box	171	27	50W_3000K_LED Shoe Box Replacement	50	27	71%
150W - HPS - Top Hat	171	31	50W_3000K_LED Top Hat Replacement	50	31	71%
200W - HPS - Shoe Box	229	13	65W_3000K_LED Shoe Box Replacement	65	13	72%
250W - HPS - Curvilinear	296	375	80W_3000K_LED Curvilinear Replacement	80	375	73%
250W - HPS - Tear Drop	296	16	80W_3000K_LED Tear Drop Replacement	80	16	73%
400W - HPS - Curvilinear	482	31	135W_3000K_LED Curvilinear Replacement	135	31	72%
100W - HPS - Lantern Post Top	117	497	35W_3000K_LED Lantern Post Top Replacement	35	497	70%
150W - HPS - Acorn Post Top	171	11	50W_3000K_LED Acorn Post Top Replacement	50	11	71%
150W - HPS - Curvilinear	171	26	50W_3000K_LED Curvilinear Replacement	50	26	71%
150W - HPS - Lantern Post Top	171	281	50W_3000K_LED Lantern Post Top Replacement	50	281	71%
150W - HPS - Top Hat	171	7	50W_3000K_LED Top Hat Replacement	50	7	71%
250W - HPS - Curvilinear	296	42	80W_3000K_LED Curvilinear Replacement	80	42	73%
150W - HPS - Acorn Post Top	171	20	50W_3000K_LED Acorn Post Top Replacement	50	20	71%
150W - HPS - Bell Downlighting	171	109	50W_3000K_LED Bell Downlighting Replacement	50	109	71%
150W - HPS - Curvilinear	171	68	50W_3000K_LED Curvilinear Replacement	50	68	71%
150W - HPS - Tear Drop	171	23	50W_3000K_LED Tear Drop Replacement	50	23	71%
150W - HPS - Lantern Post Top	171	36	50W_3000K_LED Lantern Post Top Replacement	50	36	71%
150W - HPS - Other Post Top	171	108	50W_3000K_LED Other Post Top Replacement	50	108	71%
150W - HPS - Shoe Box	171	306	50W_3000K_LED Shoe Box Replacement	50	306	71%
Pre-Existing LED B (39W) Lantern Post Top	39	142	25W_3000K_LED Lantern Post Top Replacement	25	142	36%
Pre-Existing LED B (39W) Top Hat	39	17	25W_3000K_LED Top Hat Replacement	25	17	36%
Pre-Existing LED (65W) Curvilinear	65	7	35W_3000K_LED Curvilinear Replacement	35	7	46%
Total (Decos)		**4,801**			**4,801**	**71%**
Total (Cobras+Decos)		**8,153**			**8,153**	**66%**

Color Coding Convention by Ownership:

Color Code	Current Ownership	Qty of Lights
	Xcel Energy	6,287
	GVP	1,110
	City	756
Total		**8,153**

Notes:

1) *System wattages for existing HPS lights are the combination of the lamp and ballast wattage and is an amount defined by the utility company, as the wattage amount used for billing purpose. For example, a 150W HPS cobrahead is billed at 171W (150W lamp wattage + 21W ballast factor considered by Xcel Energy). Xcel Energy ballast factors used for analysis purposed on the complete baseline inventory.*
2) *Replacement LEDs were projected based on a 1-1 preliminary replacement approach, targeting in the low 70% savings (HID:LED), on average. RTE Energy Solutions typically achieves approximately 70% savings following the photometric designs, which would be part of a future project task. Overall energy savings in table above are below 70% due to the quantity of pre-existing LEDs.*

5.2. OPERATING COST SAVINGS ANALYSIS

Utility Operating Hours

Streetlights are generally not metered, but rather deemed to be 'on' and are therefore billed based on a load profile, determined by the utility company. The annual operating hours billed by the utility is a critical part of the baseline calculation, used to project the actual energy consumption and future energy savings that will be realized after the upgrade. The yearly billing hours, utilized by Xcel Energy for both the Rate SL and ESL is 4,140 hours (yearly hours used for complete inventory).

Utility Rate Summary

The electricity cost savings were calculated based on Xcel Energy current rates[1] valid at the date of the preparation of this Feasibility study. The annual energy and cost savings associated with the new LED streetlighting system were calculated taking into consideration both existing and sample LED inventories. The table below summarizes the approach used to calculate the baseline and post-upgrade operating costs.

Item	Baseline	Post-Acquisition
Fixture Ownership	Combination of: Xcel Energy, GVP, City.	City
Tariff	Service Classification Rate SL (Xcel Energy)	Service Classification Rate ESL
	SYL (GVP)	Service Classification Rate Non-Metered Service Tariff
Annual Inflation Rates	Energy (4%), Maintenance (3%)	

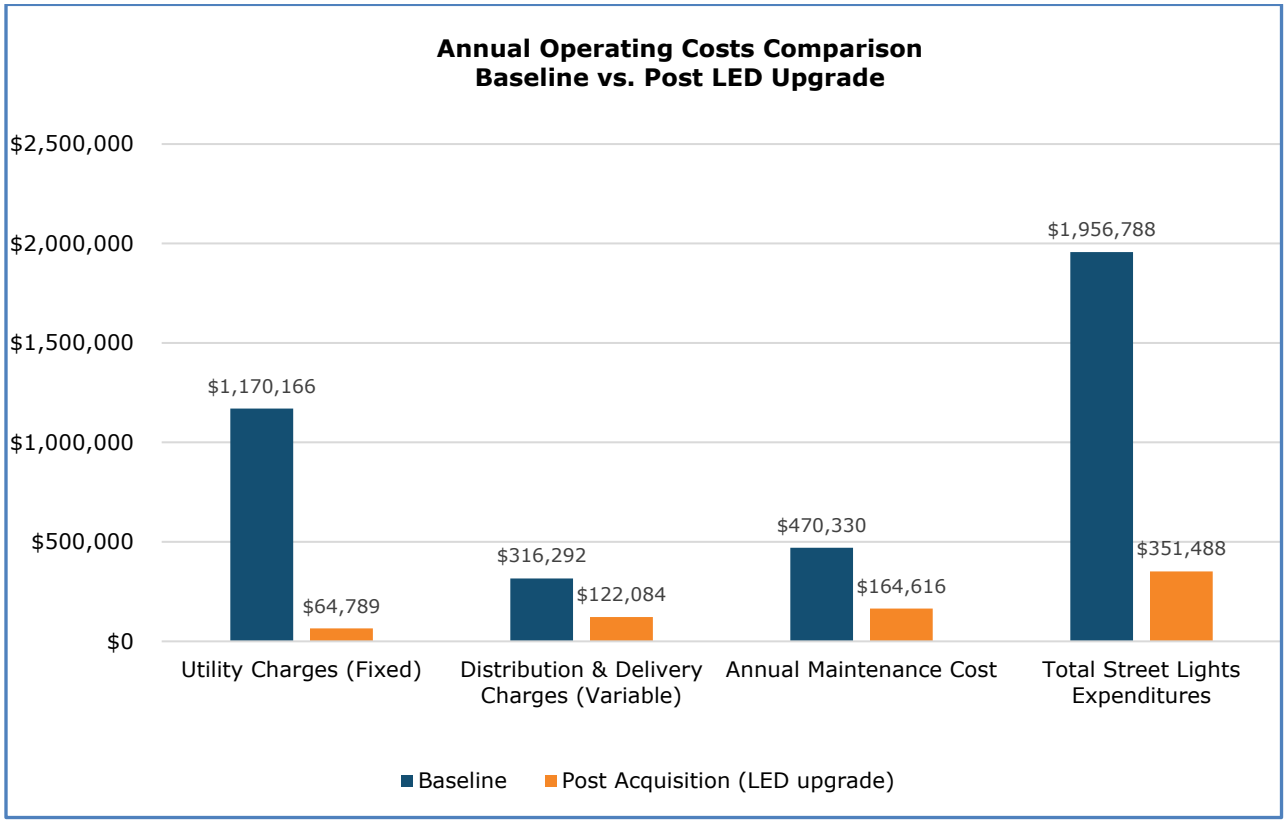
5.3. Operating Cost Comparison

Operating Cost Savings Opportunity:

PARAMETER (Yr. 1)	BASELINE	POST-ACQUISITION	VARIANCE	PERCENT
Annual Electricity Consumption (kWh)	**4,140,157**	**1,393,628**	**2,746,530**	**66%**
Utility Charges (Fixed)	$1,170,166	$64,789	$1,105,377	94%
Distribution & Delivery Charges (Variable)	$316,292	$122,084	$194,208	61%
Annual Maintenance Cost	$470,330	$164,616	$305,715	65%
Total Street Lights Expenditures	**$1,956,788**	**$351,488**	**$1,605,300**	**82%**

Note: *In the table above, fixed charges are those billed on a defined amount per fixture per month, variable charges are those billed on a per kWh basis.*

[1] Xcel Energy Tariff and GVP. Retrieved December 2023.



5.4. Project Costs and Investment Return

The project summary is presented below with the use of photocells as the lighting control device. Photocells are the common dusk-to-dawn devices that would be present on existing HPS today. They are the devices with a photosensor that turns on lights on/off as a function of light levels.

PROJECT COSTS	Estimated Total
Number of Fixtures	8,153
LED Lighting Upgrade Project Cost (Photocell Option)	**$5,335,873**
Acquisition Cost from Utility	$5,362,825
Total Project Cost	**$10,698,698**
Incentive (Xcel Energy rebate)	$39,509
Net Project Cost	**$10,659,189**

The payback period of the project, before including any financing cost is **6.0 years**. The payback is a cashflow payback which assumes yearly inflation factors of 3% (maintenance) and 4% (energy). For more details on Xcel Energy rebate associated with the LED upgrade, refer to the rebate analysis section.

Note on the Xcel Energy Underground Fund

Please note that from our discussions with Kissinger & Fellman, we understand that Xcel Energy has been accumulating 1% of its electric revenue from the City for infrastructure upgrades. These are potential funds that may be negotiated and made available to the City to assist with covering certain portions of this project cost.

5.5. Project Costs and Investment Return: Smart Controls (Alternative Option)

Adding smart controls can help municipalities make the most of their LED streetlight conversion. By including smart controls from the outset, you open yourself up to more energy savings, less light pollution, and increased safety on City streets. You also "future-proof" your streetlight network and open the possibility of adding a myriad of additional Smart City applications later on without having to spend the time and money going back to streetlights that have already been installed.

The table below presents the additional costs associated with the implementation of a smart control system for the City of Grand Junction.

ROJECT COSTS	Estimated Total
Number of Fixtures	8,153
LED Lighting Upgrade Project Cost (Smart Controls Option)	**$6,142,781**
Acquisition Cost from Utility	$5,362,825
Total Project Cost	**$11,505,606**
Incentive (Xcel Energy rebate)	$39,509
Net Project Cost	**$11,466,097**

The payback period of the project with Smart Controls, before including any financing costs is **6.5 years**. The payback is a cashflow payback which assumes yearly inflation factors of 3% (maintenance) and 4% (energy).

Notes and Assumptions on Smart Controls:

- Includes smart nodes for the complete LED Luminaire Inventory.
- Includes Start-up and Training.
- Connectivity and Central Management Software (CMS) for the first year. The ongoing cost of the Software-as-a-service (SaaS) after the first year, which grants access to the CMS, varies by manufacturer but is typically in the range of $3.00-$7.00/node/year based on system network architecture (RF Mesh, Cellular, etc.).

5.6. Greenhouse Gas Reduction

ESTIMATED GREEN HOUSE GAS REDUCTION	
Current Annual Energy Consumption (kWh)	4,140,157
Projected LED Annual Energy Consumption (kWh)	1,393,628
Annual kWh Savings	**2,746,530**
Estimated Annual GHG Reduction (metric tonnes)	2,372
GHG Reduction over Luminaire Life (metric tonnes)	**54,559**

GHG Reductions factor from EPA's Avoided Emissions and Generation Tool (AVERT), latest factors (Sept 2020). Source : https ://www.epa.gov/statelocalenergy/avoided-emission-factors-generated-avert-0.

5.7. Calculation Assumptions

- Project cost is subject to change based on Photometric Design, results of Xcel Separation Study, and Investment Grade Audit (IGA) results including but not limited to Manufacturer and Electrical Contractor selection.
- This Feasibility Study includes an estimated acquisition cost from the Utility companies. The acquisition cost is provided solely for analysis purposes and is not included in RTE Energy Solution's total project cost.
- Total project cost includes wiring allowance (20%) and cobrahead bracket replacement (1%). RTE recommends including certain installation allowances as part of the LED upgrade to reduce future maintenance costs.
- Total project cost does not include modification of fixture mounting, relocation of fixture (unless otherwise noted), the replacement of the fixtures near high tension located in the restricted zone, upgrades to supporting infrastructure (besides the wiring and bracket allowance mentioned in the point above), and any applicable tax.
- LED technology specified: Smart ready LED luminaires with 7-PIN receptacles and dimmable drivers. Luminaire and control warranty: 10 years.
- Incentive is estimated based on published rates at the time of proposal development and are subject to final scope of work confirmation, incentive application approval and availability of funds.
- Energy escalation rate (annual): 4% and O&M savings escalation rate (annual): 3%.
- Baseline maintenance costs are estimated at $70.00/fixture/year for Xcel Energy owned lights (non-routine maintenance), and $40.00/fixture/year for current City-owned lights.
- Cost for Xcel to conduct a Separation Study is not included in the analysis. Cost will be specific to the City and would be provided by Xcel Energy.

6. MAINTENANCE ANALYSIS

Given the long life of LED streetlights (rated at 100,000 hours of operation), proper maintenance of the lighting assets is imperative to guarantee the highest return on investment for your conversion project. Having a maintenance program in place ensures that the streetlights remain in good condition, operate as designed and continue to meet and exceed the expectations of the City while promoting LED adoption from its residents.

The table below presents the approximate failure rates encountered with routine/typical maintenance throughout RTE's experience managing long term maintenance contracts for more than 30 municipalities in the US.

Failure Rates – Routine Maintenance	**Qty Lights: 8,153**	
Description	**Est. Yearly Failure Rate – Photocell**	**Est. Yearly Failure Rate – Smart Controls**
LED Luminaire Replacement	0.50%	0.50%
Control Device	0.50%	2.50%
Fuse	1.50%	1.50%
Fuse Holder	0.50%	0.50%
Rewiring	1.00%	1.00%
Misc. Other Call Outs	2.00%	2.00%
Total Estimated Failure Rate	**6.00%**	**8.00%**
Estimated Quantity of Cases per Year	489	652

Based on the above project experiences, below are various scenarios for projected costs to the City:

Yearly Maintenance Cost (Photocell Scenario)			
Ownership	**City Maintenance**	**City Hiring a Contractor**	**City Hiring an ESCO to Manage a Contractor**
Ongoing Costs (storage, material, and labor costs)	**$77,500**	**$104,500**	**$124,100**
City Back Office Cost Estimate	$53,300	$53,300	$20,000
Total City Cost	**$130,800**	**$157,800**	**$144,100**

Ongoing costs is for contractor costs and miscellaneous materials (fuse kits, wiring, etc.) associated with routine maintenance. City back-office cost would be approximate cost associated with City staff administering the maintenance program. Refer to *Notes and Assumptions on Maintenance Analysis* section below for additional information.

The following provides a description of the advantages and disadvantages of each option, including assumptions within the above analysis. Some of the factors to consider in evaluating maintenance service contract options include complexity and newness of the proposed equipment/technology, and the City's in-house maintenance capabilities.

1. **City Maintenance:** The City will be responsible for maintaining the streetlights. This entails using the City's equipment and crews/personnel to conduct the ongoing maintenance. This adds some logistical complications for the City unless bucket truck(s) and qualified staff are readily available. Setting up a maintenance program can be challenging and needs to be well thought out, such as how to organize incoming calls/complaints, logging cases, managing a spare inventory, and procuring equipment, among others.

   Maintenance responsiveness and customer service may be slower, depending on available City resources. In addition to possible liability concerns if the streetlights are not properly maintained, more complex work may require specialized equipment and more qualified staff that would still likely require certain outsourcing to a contractor.

   A benefit for this option is that the overall maintenance cost may be lower, and the City is fully in control of scheduling work and establishing priorities.

2. **City Hiring a Third-party Contractor:** This entails the City managing an electrical contractor. A bid package would be needed to obtain competitive pricing from qualified contractors for streetlight maintenance, therefore a Request for Proposal (RFP) would need to be executed, which can be costly and lengthy, to select an electrical contractor. The package should detail several requirements such as acceptable fixture replacements, workmanship, electrician qualifications, on-hand materials and supplies, material warranties, allowable working schedule/hours, emergency response time, traffic control and safety requirements.

   Although with this option, the City can determine its own level of service for maintenance issues such as response times for burnouts and obstructions, but it does require substantial amount of back-office paperwork, reviewing of invoices and quality control.

3. **City Hiring an ESCO:** The City would subcontract the maintenance management work to an Energy Service Company (ESCO) who would take care of managing the service requests and coordinating with the electrical contractor.

   This scenario removes a lot of the back-office work for the City. The ESCO deals with the electrical contractor directly and dispatches the electrical contractor effectively to address multiple cases in the same call out. The ESCO can help reinforce best practices such as bringing spares to the call out to avoid costly secondary trips to the pole. The advantage to such a program is that total maintenance costs can be reduced and general service quality improved.

RTE Energy Solutions is an ESCO, performing maintenance services and has a map-based online outage reporting system which:

- Simplifies the reporting of any streetlight issues
- Maintains the accuracy of your GIS database
- Creates outage map for EC detailing equipment needed for repairs
- Allows tracking of repairs throughout the process

Please see RTE's example of a municipality's maintenance map: https://arcg.is/18LvLX0

Notes and Assumptions on Maintenance Analysis:

- Ongoing costs include 60 minutes of bucket truck and crew time for each case, in addition to allowance for material costs (fuse, fuse holder, wiring) for addressing typical maintenance issues.
- Back-office City cost estimate is based on 120 minutes of time per case for City maintenance and for City hiring a contractor directly. Back-office cost estimate is based on 45 minutes per case under the scenario where the City hires an ESCO.
- All scenarios include a cost estimate for managing a spare inventory and for ongoing software charges.
- The ESCO scenario is based on approximately 20% markup on third-party contractor costs.
- Assumption on material and labor rates are based on RTE's experience from managing over 25 long-term maintenance contracts.
- A reason for higher failure rates for the smart controls is due to potential connectivity issues that require further in field system commissioning.

Note on Xcel Energy Maintenance Charges

Presently, we estimate the City of Grand Junction is paying approximately $70.00/fixture/year for non-routine maintenance services to Xcel Energy. To further estimate the amount the City will pay once the lights are converted and City-owned is partially dependent on underground wiring maintenance which is difficult to accurately estimate. However, this risk can be further analyzed and costed at the Investment Grade Audit phase. Based on our experience, the three major causes for underground wiring maintenance are: Wire theft, damage from construction or accident pole hits, and age of system.

The best method to determine the costs that the City has paid is to research incident reports, review of police records for theft cases, and a larger sample size review of utility maintenance bills/records. In addition, a deeper review of the system's infrastructure age would be required.

For the purpose of the Feasibility Study, we have estimated ongoing maintenance costs at approximately 35% of the baseline maintenance (65% savings). Therefore, this provides some contingency above the maintenance projection we have included in the prior section and is a more conservative approach for the City's planning purposes and to provide some budgetary allowance to address non-routine maintenance.

7. FINANCING ANALYSIS

Providing better, safer, and more aesthetically pleasing lighting for residents is a goal that many cities across the world have undertaken, yielding a variety of positive results for their citizens. Better streetscapes also help stimulate commercial activity. The state of the technology of LED lights today offers significant energy and maintenance savings, resulting in one of the faster paybacks for the capital invested to perform the upgrade. Despite the initial costs, a properly structured streetlight conversion will go a long way to alleviating the pressures on the City of Grand Junction's finances.

In this report, RTE Energy Solutions analyzes some of the financing options available to the City of Grand Junction for the LED conversion, specifically:

- Self-financing using existing civic funds or proceeds from a bond issuance,
- Tax Exempt Lease Purchase structures (also known as Municipal Leases or TELPs),
- Energy Performance Contracts (EPC), and
- Public Private Partnerships (PPP).

This review will highlight the differences of each of these financing methods, and we will also provide comparative summaries using current indicative market rates as provided by lenders, which will detail the financial costs and benefits, including an analysis for various typical lengths of term, payback periods and return on investment.

In addition, we will discuss a customized service offered by RTE Energy Solutions called Smart Infrastructure as a Service (SiAAS), which utilizes a TELP structure as the financing vehicle, but adds a number of Smart City IOT devices into the City, all monitored on a customized platform to provide operational information and data analytics that can be used for planning purposes by the City of Grand Junction.

7.1. Self-Financing

A self-financed upgrade sees the City fund the project through its own existing reserves, or by raising the funds through levies or from the proceeds of a Municipal bond. Municipal bonds are debt securities issued by governmental jurisdictions to fund capital projects or to finance day-to-day operations. The jurisdiction promises to pay regular interest payments, usually semi-annually in addition to the return of the principal borrowed. The most common form of Municipal bonds is the General Obligation Bond (or GO bond). GO bonds are not secured by specific assets, but rather are backed by the full faith and credit of the issuer, which has the power to tax residents to pay the bondholders.

The interest rate is determined based upon the credit rating of the borrower and like any debt instrument, the most favorable rates are achieved by those jurisdictions with better credit ratings. Borrowers with poorer credit will need to pay higher interest rates. In most jurisdictions, a GO bond financing represents the lowest cost of borrowing in financing capital projects, at least in terms of the annual interest rate. Bond terms are generally long in duration, from ten years to twenty or more years, depending upon the use of the funds.

However, despite bonds representing the lowest cost of funds, aside from the interest and principal payments, there can be substantial setup and issuance costs in obtaining a bond.

The "face rate" of the bond, or annual interest rate is not representative of the total cost of borrowing, because of these issuance costs (legal counsel, investment banking fees and commissions, administrative costs, and the associated time to execute).

Further, in many cases, voter approval is required before a jurisdiction can issue a bond, as the promise to repay a GO bond depends exclusively upon the ability of the issuer to raise taxes on its citizens if needed. The voters within the jurisdiction are affected, are thus given an opportunity to debate and authorize this power and the financial consequences to capital projects planned from the proceeds. All of this adds to the costs and the time delay before the funds are made available for a project. Seldom is a bond a viable financing vehicle for a standalone streetlight upgrade project. For smaller jurisdictions, separate bond financing is available for streetlighting projects, but again, the issuance costs are usually prohibitive, and still require the time and energy to obtain permission from the voters.

When a City self-finances, RTE Energy Solutions terms this the "Design, Upgrade and Transfer" (DUT) option, and is the one most used by our clients. Under a DUT contract, the City provides its own funds (either on hand or borrowed through public finance vehicle like a bond) to cover the entire project cost.

Advantages of DUT

- City receives a full turn-key program to manage the entire project, including a GIS audit, lighting design, IGA, procurement, installation, and final commissioning.
- Easy to administer, no need for third-party involvement unless desired.
- Turnkey services greatly minimize staff time over the life of the project.
- If City reserve (cash) funds are employed in the project, there is no additional debt.
- If the City elects to finance the project from a bond, this is likely the option with the lowest financing costs, which accelerates the payback period.
- Able to enjoy 100% of the savings upon project completion.

Disadvantages of a DUT

- Requires upfront, available capital to fund the project.
- The City must evaluate other uses for the funds by examining the Opportunity Cost of committing the funds to a DUT project (i.e., as funds are allocated to the LED upgrade, as opposed to alternative City projects/initiatives).
- If the City finances the DUT, the interest costs should be taken into account when calculating the payback.
- If financed through a bond, the project cost will show up as additional debt on the City's balance sheet, which could impact the City's borrowing capacity or its credit rating, or both.

Should the city have an approximate (indicative) bonding rate available, RTE can run a sample financing scenario on behalf of the City (upon request). Appropriate rate and term to be confirmed by City.

7.2. Tax Exempt Lease-Purchase Agreement (TELP)

Many of our latest City-wide upgrade projects have been accomplished using Tax Exempt Lease Purchase (TELP) financing, also known as a Municipal Lease. We have been successful funding these projects over the last several years. Because TELP lenders are exempt from paying federal taxes on their funds, their rates are considerably lower than conventual borrowing rates, and in fact rival municipal bond rates once all of the setup and bond issuance costs are accounted for. For example, for an AAA rated City, TELP rates tend to be about 50-60 basis points higher than the face rate of an equivalent term-matched bond financing, *before* including the issuance costs described above.

Because it matches closely to the borrowing costs implicit in bond financing, TELP financing is extremely common for all types of government uses, not just streetlight upgrades. Fleet vehicles, schools, public buildings like libraries or recreational centers, energy and water projects are only a few examples of successful TELP financings. We even know of one jurisdiction that used a TELP vehicle to repaint all of the school interiors within a school board.

In terms of the process involved for an LED upgrade, RTE Energy Solutions will work with one or more TELP lenders to structure the lease payments to match the project savings. The ultimate TELP lender then transfers the project funds to an escrow account, where the City may make authorized progress payments to the contractors performing the work until the project is complete. TELP funds have to be fully utilized within three years of their release.

The structure of TELP financing is basically a lease, rather than a loan. The City temporarily transfers ownership of the funded assets to the borrower, who receives lease payments of principal and interest for the specified term until the project costs have been repaid. At that time, for a nominal fee (usually $1.00), the ownership of the assets is restored to the City, who then benefits from 100% of the savings of the LED upgrade.

TELP lease payment structures are flexible and can be adapted to be timed to the receipt of the savings from the project. Lease payments are annual, and computed in arrears, and must be annually apportioned by the City in order to maintain the lease. In this way, the lease is not capitalized, and does not show up on the balance sheet as debt. The City need only add a note to its annual financial statements stating the upcoming year’s lease payment. Should the City wish to terminate the lease, it may do so by paying a small penalty in addition to the outstanding balance. This payment is generally around 103% of the remaining lease payments and occurs on one of the anniversary dates of the agreement.

RTE Energy Solutions can facilitate the introduction to several third-party TELP brokers or financiers, but it will be the responsibility of the City to complete all administrative tasks in collaboration with the TELP financer.

Advantages of TELP

1. No up-front capital is required by the City.
2. All project costs, including asset acquisition costs (buying the lights from a utility), soft costs and consulting fees can be included in the TELP financing.

3. The TELP financing can be repaid solely from the energy and maintenance savings of the new LEDs.
4. The term of the lease is flexible, but because of the significant savings involved with LED upgrades, terms usually range from 5 to 15 years.
5. The TELP structure is used extensively in all 50 states for LED streetlight upgrades as a proven and cost-effective financing method to finance the retrofits.
6. No debt shows up on the City's balance sheet so that your borrowing capacity is not affected.
7. Properly structured, the lease payments over the term are usually significantly less than the actual savings, which results in a cash-flow positive financing alternative immediately upon completion.
8. The Lease appropriates annually, as the lease payments are less than the current operational budget, so no future funds are needed be raised or apportioned to pay the lease.
   Ties to the useful life of the equipment.
9. TELP setup costs are negligible, and making this form of financing considerably faster, cheaper, and easier to administer than a bond.
10. Provides effective solutions during revenue shortfalls and other unexpected situations.
11. Enables the prompt acquisition of modern equipment and technology upgrades and continues to provide quality public services.

Because of the extremely low-interest rate environment in the last few years, many municipalities have taken advantage of TELP financing for their capital needs. Despite the likelihood of interest rate increases in the future, a TELP financing remains a fast and efficient way to finance a project to produce a positive cashflow with immediate, recurring, and escalating savings over today's lighting expenses.

The City will receive top quality luminaires and lighting designs to optimize aesthetics, safety, and operational efficiency, all delivered and installed by our firm with the experience of having upgraded almost 350 cities and towns across North America.

Disadvantages of TELP

- TELP agreement does not include a maintenance program, as TELP funds must be used within three (3) years from the funding date.
- A separate maintenance agreement and costs will be necessary to maintain the new luminaires with a maintenance service provider. However, the maintenance costs to the City, while not funded within the TELP itself can still be structured to show a net savings to the City including the lease payment. RTE Energy Solutions can work with the City to establish a separate maintenance budget, as required.
- Complete savings will not be fully achieved until the TELP term is completed.

Cost of Financing (TELP)

The rates below were provided in December 2023, are based on current market rates and are subject to change. The project cost estimate ($10M) used for requesting the TELP quote was a high-level cost and for budget purposes only. Please see Appendix D for a sample TELP proposal, including general terms and conditions around this financing option.

Term (Years)	Indicative Interest Rate (TELP)
5	4.95%
7	4.87%
10	4.89%

Sample TELP Cash Flow - 10 Year Amortization (Photocell Option – Fuse Kits)

Financial Analysis - 10 Year Amortization - Photocell Option

Year	1	2	3	4	5	6	7	8	9	10	Total
Current Utility Costs	$1,486,458	$1,545,916	$1,607,753	$1,672,063	$1,738,946	$1,808,503	$1,880,844	$1,956,077	$2,034,320	$2,115,693	$17,846,574
Current Maintenance	$470,330	$484,440	$498,973	$513,942	$529,361	$545,241	$561,599	$578,447	$595,800	$613,674	$5,391,806
Total Current Operating Cost (A)	$1,956,788	$2,030,356	$2,106,726	$2,186,005	$2,268,306	$2,353,745	$2,442,442	$2,534,524	$2,630,120	$2,729,367	$23,238,380
Post Upgrade Utility Cost	$1,161,562	$194,348	$202,122	$210,207	$218,615	$227,359	$236,454	$245,912	$255,748	$265,978	$3,218,305
Post Upgrade Maintenance Cost	$393,901	$169,554	$174,641	$179,880	$185,276	$190,834	$196,560	$202,456	$208,530	$214,786	$2,116,418
Total Post Upgrade Operating Cost (B)	$1,555,463	$363,902	$376,762	$390,086	$403,891	$418,194	$433,013	$448,368	$464,278	$480,764	$5,334,723
Lease Payment (C)	$401,325	$1,481,019	$1,481,019	$1,481,019	$1,481,019	$1,481,019	$1,481,019	$1,481,019	$1,481,019	$1,481,019	$13,730,494
Total Post Upgrade Cost (B+C)	$1,956,788	$1,844,921	$1,857,781	$1,871,105	$1,884,910	$1,899,213	$1,914,032	$1,929,387	$1,945,297	$1,961,783	$19,065,216
Cash Flow (A-B-C)	$0	$185,436	$248,945	$314,900	$383,396	$454,532	$528,410	$605,137	$684,823	$767,584	**$4,173,164**
Cumulative Cash Flow	$0	$185,436	$434,381	$749,281	$1,132,677	$1,587,209	$2,115,620	$2,720,756	$3,405,580	**$4,173,164**	

Sample TELP Cash Flow - 10 Year Amortization (Smart Control Option – Fuse Kits)

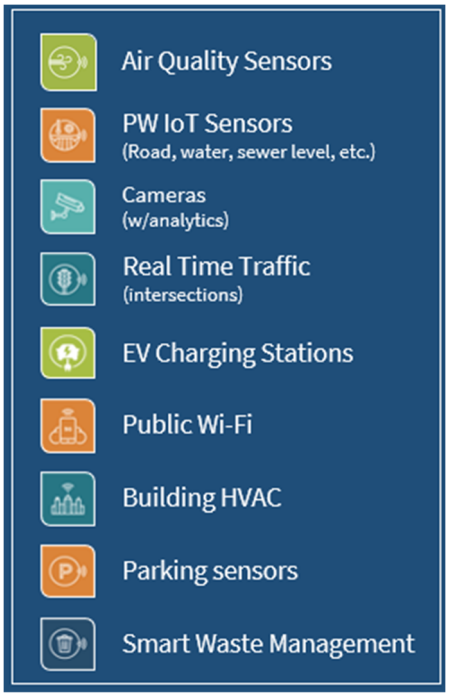
Financial Analysis - 10 Year Amortization - Smart Controls Option

Year	1	2	3	4	5	6	7	8	9	10	Total
Current Utility Costs	$1,486,458	$1,545,916	$1,607,753	$1,672,063	$1,738,946	$1,808,503	$1,880,844	$1,956,077	$2,034,320	$2,115,693	$17,846,574
Current Maintenance	$470,330	$484,440	$498,973	$513,942	$529,361	$545,241	$561,599	$578,447	$595,800	$613,674	$5,391,806
Total Current Operating Cost (A)	$1,956,788	$2,030,356	$2,106,726	$2,186,005	$2,268,306	$2,353,745	$2,442,442	$2,534,524	$2,630,120	$2,729,367	$23,238,380
Post Upgrade Utility Cost	$1,161,562	$194,348	$202,122	$210,207	$218,615	$227,359	$236,454	$245,912	$255,748	$265,978	$3,218,305
Post Upgrade Maintenance Cost	$393,901	$169,554	$174,641	$179,880	$185,276	$190,834	$196,560	$202,456	$208,530	$214,786	$2,116,418
Smart Controls Ongoing Cost		$28,536	$28,536	$28,536	$28,536	$28,536	$28,536	$28,536	$28,536	$28,536	$256,820
Total Post Upgrade Operating Cost (B)	$1,555,463	$392,437	$405,298	$418,622	$432,427	$446,729	$461,549	$476,904	$492,814	$509,300	$5,591,542
Lease Payment (C)	$401,325	$1,596,509	$1,596,509	$1,596,509	$1,596,509	$1,596,509	$1,596,509	$1,596,509	$1,596,509	$1,596,509	$14,769,901
Total Post Upgrade Cost (B+C)	$1,956,788	$1,988,946	$2,001,806	$2,015,130	$2,028,935	$2,043,238	$2,058,057	$2,073,412	$2,089,322	$2,105,808	$20,361,444
Cash Flow (A-B-C)	$0	$41,410	$104,920	$170,875	$239,371	$310,507	$384,385	$461,112	$540,798	$623,559	**$2,876,936**
Cumulative Cash Flow	$0	$41,410	$146,330	$317,205	$556,576	$867,083	$1,251,468	$1,712,580	$2,253,378	**$2,876,936**	

The sample financing analysis table above shows the City would be cash flow positive starting in Year 1 with the photocell option over a 10-year TELP term. Note that the Year 1 savings and lease payments have been adjusted to reflect a project implementation timeline of approximately 9 months (for analysis purpose), thus the first-year yields 3 months (25%) of the expected cost savings. The difference between the standard payment amounts not captured in Year 1 would be deferred and added (averaged) across the subsequent years.

7.3. Smart Infrastructure as a Service

Another finance offering that may be of interest to the City of Grand Junction is our Smart Infrastructure As A Service offering (SiAAS). The SiAAS is a fully wrapped 10-year service offering, combining a completely upgraded lighting system with a variety of smart City sensors and services selected by the City to meet their unique requirements. It also includes a comprehensive maintenance package with the selected smart City services.



How it Works

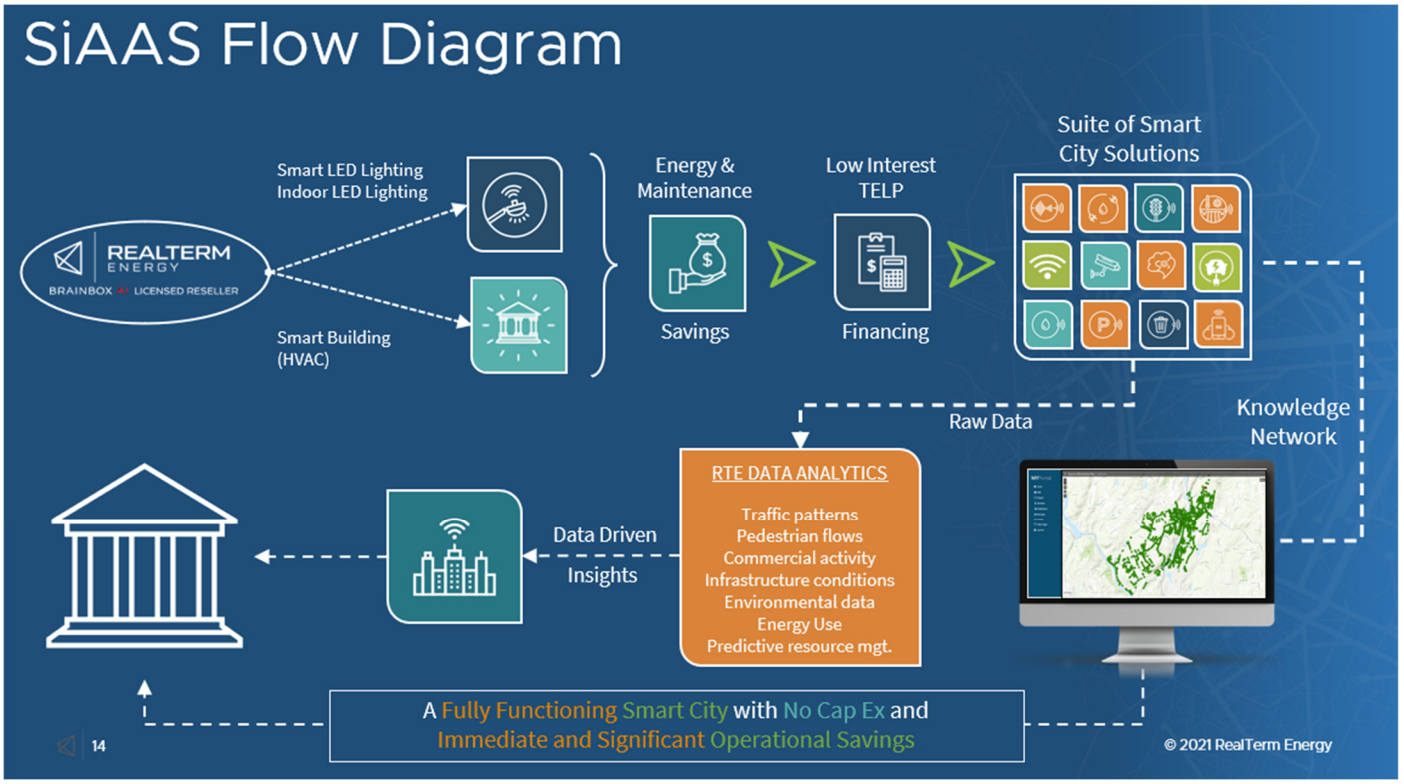
The LED streetlight upgrade generates a large cost savings opportunity that offers options for including smart City devices as part of the update.

The first step is to upgrade the streetlights to Smart LED lighting to start seeing a reduction in energy consumption and generating significant and immediate savings for the City. Then if you install Smart Controls and IoT sensors, the streetlights become networked nodes/sensors which allows to operate an efficient, cost-effective Smart City.

We believe a streetlight network provides an excellent base on which to build a platform for consolidating data from the field and distributing information where it is needed. This is above and beyond the many benefits of adding smart controls themselves, which includes scheduling control and dimming, automated outage notifications, asset management, and ability to respond to resident concerns.

RTE Energy Solutions would assist with calculating the savings opportunity and associated budget for selecting smart City devices, also known as an Investment Grade Audit. The City would then execute on a TELP agreement for the capital cost portion of the project (including smart City components). RTE Energy Solutions would maintain the lighting system and smart City devices through a maintenance agreement and provide the Municipality with access to the Knowledge Network.

The Knowledge Network Platform is a closed platform that consolidates IoT data into one space and creates a channel for the City to learn about the latest technology in the sustainability space and make more informed, data-based decisions. The number of applications making use of the network platform will only continue to grow over time, so the platform will evolve to the ever-increasing growing data and speed requirements. This capability positions the City to provide additional energy and greenhouse gas reductions, reduced maintenance costs, and form a City-wide network for other Smart City applications to enhance the livability for residents and visitors both today, and in the future.



Advantages:

- Requires no upfront capital by the City.
- Reduces operating costs by up to 30% in the first year.
- Ownership of all assets is retained by the City during the term of the contract (subject to the lease term).
- Achieved savings over life of the project.
- Consolidates multiple initiatives into one project.
- Helps meet sustainability objectives.
- Increases response time and citizen satisfaction.
- Ease of including smart City devices within the project.
- Makes use of competitive TELP financing rates.

Disadvantages:

- Not all cities need smart devices at the present time.
- The energy savings will be in part determined by the streetlight tariff. If the utility LED rates do not fully reflect the energy consumption savings, the pool of savings available to fund additional IOT devices and services may be eroded, limiting the scope of the SiAAS option without additional funds being required.
- Additional time and involvement needed by the City to select the smart City devices and their locations.
- Overall savings are less than a typical TELP as the funds are partially re-allocated to smart City devices which reduces slightly the positive cash flow of the project.

7.4. Energy Performance Contract (EPC)

The cash flows associated with implementing energy efficiency projects create unique opportunities for alternative financing structures. One option the City of Grand Junction may wish to consider is the Energy Performance Contract (EPC).

Under an EPC, an ESCO (Energy Services Company) funds the entire upgrade and operates the lighting network, guaranteeing performance and a minimum energy consumption savings. The project is repaid over a specified term (typically 10 years) and the funds to repay the financing come directly from the energy and maintenance savings generated by the LED and related equipment.

Generally, because of the high savings potential of an LED upgrade, the ESCO and the City will share in the savings over the term until the project costs, including financing are repaid. The City's share is always less than the ESCO's, and varies between 0% and 50%, depending upon a variety of factors and the available pool of savings created by the upgrade.

The cost of the funds (interest rate) charged by the ESCO contractor will depend upon the credit rating of the borrower (City) and come either from the contractor itself or as a conduit from a conventional lender. If the ESCO uses its own funds to finance the project, the imputed interest rate in the payments will include its cost of capital, or desired rate of return on the project. If the ESCO uses a conventional lender for its funds, it may or may not mark up the cost of the debt. If not, the ESCO charges the same interest rate in its calculations for the repayment of the project costs by the City.

However, if it elects to add a financing charge to the debt it is able to secure, thereby "making money on money", the City will pay more for the debt than the contractor, creating a profit center for the ESCO.

In either circumstance, the EPC financing rate is almost always higher than the Self-financed or TELP structures (including RTE Energy Solutions' SiAAS program). In addition, these contracts require the ESCO to conduct maintenance of the equipment, issue annual Measurement & Verification certificates and generally administer the contract, requiring a management fee, which erodes the City's share of the savings potential.

At the end of the EPC term, the City enjoys 100% of the energy and savings from the upgrade.

Advantages

- An ESCO finances 100% of the up-front capital investment by the City with an agreement to provide a fixed repayment structure, based on the calculated energy and maintenance savings.
- Guarantees the LED upgrade will yield a specified reduction in energy consumption over a contracted term.
- Ensures the guaranteed savings generated will be sufficient to finance the total project without pursuing additional capital funding.
- Directs a share of the energy and maintenance savings to the City from year one, depending upon the actual savings potential of the project, and duration of the contract.
- Incorporates the maintenance program to provide maintenance services over the full contract term with no additional outlays, thereby transferring maintenance risk to the ESCO over the contracted term.
- Ensures that at contract completion, the City retains the full value of the energy and maintenance savings.
- With an EPC, the City can immediately take advantage of energy-efficient LED technology without having to add stress to its ratepayer base or borrow project funds. This frees up municipal resources that can then be assigned to other uses deemed important by the City.

Disadvantages of an EPC

- EPC will have higher interest rates compared to TELP but will include standard maintenance.
- Certain costs are required to administer the financing and accounting during the term of the EPC.
- Reduced savings (if any) are achieved by the City during the EPC, as savings are shared (or completely paid to the ESCO) to pay for the project cost and is dependent on the savings opportunity of the project and the duration of the EPC.
- Financing rates can easily be 200-300 basis points higher (or more) as compared to TELP financing. RTE can assist in requesting project specific rates and depicting an EPC scenario upon request.

7.5. Public Private Partnerships (PPPs)

As is well known, investing in an energy-efficient street lighting system can be a huge opportunity for municipalities, specifically for lowering energy consumption, operation and maintenance costs while reducing the overall carbon footprint. More importantly, well-lit streets make people feel safe. Attracting private capital via Public-Private Partnerships (PPPs) can help municipalities raise the funds needed to implement smart streetlighting systems that secure efficiency and high technical standards in the long run. RTE Energy Solutions can help with this PPP financing option if the City so chooses, by focusing on a long-term approach and sharing the risk with the City.

In a PPP, a long-term concession is granted to the concessioner (contractor) who provides the complete construction and operation of the streetlighting assets over a fixed term (usually coinciding with the useful life of the equipment, or approx. 20 years). The term is somewhat flexible, but almost always exceeds the warrantied life from the manufacturer (10 years).

The lighting system becomes the sole responsibility of the PPP contractor, who guarantees the performance, savings, and maintenance over the term.

These are extremely complicated structures to set up and administer, typically requiring multiple parties for the finance, construction, operation, and administration of the PPP. A Special Purpose Vehicle and extensive contracting requirements are created between the contracting parties, including the City in order for this structure to be viable. As in most PPPs, there is a minimum amount, in terms of contract size that is necessary to justify the initial and ongoing setup and administrative costs. This amount is in the neighborhood of $30 million, which is much larger than most streetlight upgrade project costs. Only a few cities have used a PPP for their lighting upgrade projects, such as Atlanta, GA.

Advantages of PPP

- Under a PPP, private sector partner raises the required financing, does the construction, and operates the asset during the term of the concession.
- Can present a flexible opportunity to include various capital projects under the PPP investment.
- Project risks are shared with the contractor.

Disadvantages of PPP

- Typically for very large investments (excess of $30M) and based around assets with long useful lights (20-35 years). Not typically tailed solely to streetlight implications unless it was included with other capital infrastructure projects.
- Because the PPP contractor is responsible for all costs to maintain the system over a long (20 year) period, there is a high degree of risk and potential exposure to unknown or unforeseen costs. For example, the concession period will usually last much longer than the manufacturer's 10-year warranty. The PPP contractor will need to estimate into its pricing structure the failure rate and potential costs to replace any failing equipment that is out of warranty. There is no incentive to the PPP contractor to underestimate what this potential exposure might be, leading to pricing that in fact overestimates what this potential exposure might be, and charge accordingly.
- While the City may cede the entire responsibility for the lighting system to the PPP contractor, the eventual pricing and terms will quite likely lead to a much more expensive project than any other type of financing alternative discussed above.

8. REBATE ANALYSIS

Xcel Energy currently offers both prescriptive and custom rebates for LED upgrades. The table below presents the current published LED prescriptive rates for street lighting. The second column depicts the required LED wattage range in order to qualify (as replacing an HPS fixture). The first column with the per fixture rates is for non-DLC listed products, while the second column is for DLC listed products (example, line #1 is for an LED between 55W-79W, if the product used is DLC listed, it can qualify for $25.00/fixture, if it is not DLC listed, it would qualify for $18.75/fixture). We have assumed DLC listed products would generally be used in the LED upgrade.

DLC-listed products are LED products that have been tested at a DLC-approved laboratory and comply with specified performance and energy efficiency criteria. For further information please visit the DesignLights Consortium website at www.designlights.org.

Street Lighting Xcel Energy Prescriptive Rebates

LED street and area lighting fixtures

Customers must be on a metered rate to qualify for LED Street Lighting rebates. **Rebates are based on replacement of HID fixtures with new LED fixtures rated for exterior use.** Non-DLC products must meet the DLC product eligibility category definition, **"Outdoor Pole/Arm-Mounted Area and Roadway Luminaire"** or **"Bollard"**. Rebates are based on total new fixture wattage. LED fixture must replace HID** fixture.

Street Lighting	55W–79W	HID fixtures	$18.75/fixture	$25/fixture		
	80W–109W		$18.75/fixture	$25/fixture		
	110W–139W		$30/fixture	$40/fixture		
	140W–209W		$37.50/fixture	$50/fixture		
Area Lighting	45W–65W		$26.25/fixture	$35/fixture		
	66W–89W		$26.25/fixture	$35/fixture		
	90W–119W		$30/fixture	$40/fixture		
	120W–140W		$37.50/fixture	$50/fixture		
	141W–199W		$45/fixture	$60/fixture		
	200W–550W		$67.50/fixture	$90/fixture		

If a product does not meet the minimum 55W threshold to qualify for a published prescriptive rate, then it can qualify for a custom incentive. A custom incentive would be reviewed by the Xcel Energy evaluators to confirm the applicable incentive rate; However, Xcel does provide general guidelines that one of the evaluation approaches that would typically apply for streetlights under the prescriptive track is $100/non-peak demand (kW) reduced.

In this feasibility study, we have presented an estimated incentive based on prescriptive rebates (when applicable) and custom rebates, when the prescriptive does not apply. The final incentive would be based on the final designed bill of material and would be subject to Xcel Energy review/approval prior to material procurement. The estimated incentive is included for analysis purpose only at this stage.

Note that our team inquired and GVP does not currently offer incentives for LED upgrades.

9. CONCLUSION AND RECOMMENDATION

From our analysis in this Feasibility Study report, the economics of this project are compelling, as substantiated by the overall operating cost savings on your streetlight expenditures in the first year. We have provided a project scenario based on available inventory data, appropriate market material and labor rates and a one-for-one educated design replacements centered on the average top tier manufacturer pricing. The report also presented a budgetary cost-benefit analysis including calculation of estimated total conversion cost, acquisition and system separation from Xcel Energy's grid, energy reduction, savings, return on investment, and project payback period as well as calculation of greenhouse gas (GHG) reduction.

As a next step for the City of Grand Junction after the Feasibility Study Report is reviewed and approved, we strongly recommend the City embark on a Separation Study with Xcel Energy to create an accurate system inventory and to assess the separation scope of work. For the acquisition and separation undertaking, the City may also elect to hire an Owner's Agent to assist with purchase and negotiations with Xcel Energy. Thereafter, an Investment Grade Audit Report should be completed which is a detailed and comprehensive cost analysis based on precise, fixture-by-fixture inventory and photometric design, and provides the optimal fixture types, wattages, light distributions, dimming profiles (if applicable) and quantities for approval by the City in preparation for procurement and installation of the LED streetlight Conversion.

Estimated Timeline for Next Steps

Activity	Estimated Time (months)
Phase 1	
City of Grand Junction to engage with Xcel Energy on a Separation Study / GIS Audit.	TBD
RTE to provide review of the Separation Study and provide formal recommendations for how to proceed in light of the study's outcomes.	1
Material & Labor Bids (Running Bids, Material/Labor Selection)	2
RTE to complete photometric designs based on RP-8 recommendations.	2
RTE to Provide an Investment Grade Audit Report.	1
Total (Phase 1)	**6**
Phase 2	
Procurement of Fixtures: RTE to carry out all services related to ordering, delivery, receipt, verification and inspection of all equipment purchases, including inventory control.	4
Installation[1]: RTE to provide project management services, construction administration, handle permits, provide quality control / verification, removal and disposal of fixtures to appropriate recycling facilities; Ensure streetlight system is functioning.	5
Commissioning / Close Out: RTE to process all payments, finalize billing change, Transfer final GIS map and warranty documents.	1
Total (Phase 2)	**10**
Total (Phase 1 and 2)	**16**

[1] *Installation/Construction timeline may vary and is dependant on the scope of work around separation points and relocation of lights from utility distribution poles, in addition to the City's selected timeline given Xcel Energy's grace period around these requirements. The major milestones can be described as follows: 1) Negotiation of Agreements; 2) Approval of Agreements; 3) Closing; 4) Conversion and Separation 5) Completion. There are a few milestones we know the date range, typically: Closing happens 30 days after approval of all necessary agreements conversion and separation must be finished 18 months after closing (or other alternatively negotiated-upon timeline with Xcel/GVP).*

These next steps can be implemented by the City of Grand Junction with assistance from RTE Energy Solutions in close collaboration with our sub-consultants HR Green, and Kissinger & Fellman (K&F). We encourage the City of Grand Junction to take advantage of RTE's extensive and practical experience. With over 300 streetlighting projects completed across North America, we have tried, tested, and refined to overcome many of the obstacles and shortcomings that accompany an LED streetlight conversion. RTE is currently working with Boulder to support their municipalization process.

HR Green has spent over 100 years providing engineering, technical, and management solutions across geographies and markets and has successfully served the City of Grand Junction on a wide variety of assignments. K&F has participated in rate cases and other proceedings at the Colorado Public Utilities Commission (PUC), advising and advocating on legislative matters, and other issues related to utilities and has also successfully served the City of Grand Junction on a variety of assignments.

The experience and skills acquired by all three companies over the years render us uniquely qualified to help the City of Grand Junction navigate through the steps of acquiring and converting an LED streetlighting system while offering cost-effective service excellence.

APPENDIX A: VALUE-ADDED SERVICES

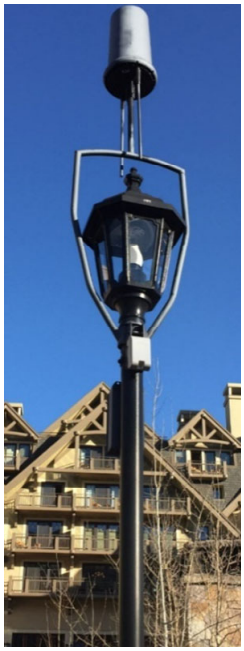
Conduit Value Potential (In Collaboration with Consulting Engineering)

From our Team's experience, certain configurations of **conduit** can be highly valuable for future fiber optic / smart City uses often overlooked in such reviews. In other words, the Team recommends a future inventory be conducted to include an assessment of the type of underground feeds when conduit is involved.

Such an initiative should include, for example, detailing the diameter and type (e.g., 2-inch metal, buried 12 inches) conduit in addition to the type and gauge of the conductors (e.g., 10-gauge, copper, grounded). In such a configuration (example: a 10-gauge conductor in a 2-inch conduit), there should be adequate "room" in the conduit to feed a non-conductive fiber optic cable between pull boxes.

Likewise, since one of the goals of the project is to convert the luminaires to LED which require far less power, it may be possible to reduce the diameter (e.g., higher gage number of wire, from for example 10 gauge to 14 gauge), further increasing the available conduit space for a fiber optic cable. While we expect the number of such configurations may be as little as perhaps 10%, the value of such underground conduit/fiber could be substantial.

Small cell value potential



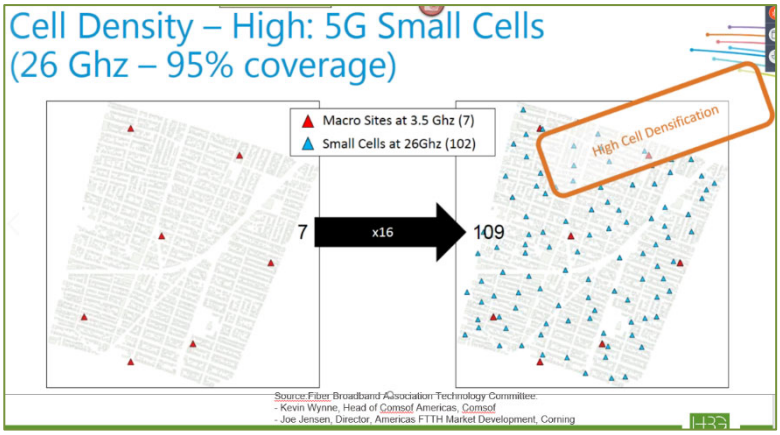
Streetlight 4G transmitter in Vail

In addition to the value of underground "dark fiber" in underground conduits, the FCC has established a "safe harbor rate" of about $270 per light per year for leasing public masts for small cell (4G/LTE/5G) telecommunications purposes. In other words, the City should be able to charge a telecommunications provider $270 per light per year for leasing only a streetlight with no fiber connection. Depending on the demand for this infrastructure, there could be significant revenue potential for leasing "bare" streetlight masts, perhaps millions per year as millimeter wave 5G is deployed over time.

More importantly, in our experience, the value of a streetlight with "dark fiber" available for small cell "plug and play" purposes can be roughly 5-10 times the $270 safe harbor rate. Moreover, creating a P3 with an outside owner/operator such as RTE can add additional value since the private sector is not limited to the FCC's $270 safe harbor rate. We understand, for example, infrastructure in some high demand locations in Nevada are yielding more than $3,000 per light per year per carrier.

Some estimates of density of 5G millimeter wave transmitters reflect as many as 109 transmitters per square mile per carrier will be required for wireless gigabit service. Even if the conservative "unlit" safe harbor rate of $270 per year is used and applied, this would indicate a potential annual revenue of $270 x 109 = $29,430 per square mile, per carrier, per year. Again, providing either dark or lit fiber to the City's streetlights could significantly increase this potential revenue generation.

It is important to note this latent value would largely be dependent on the desire to install fiber throughout the City, and would require re-lamping, installing fiber/vaults and other related expenses. While an in-depth assessment is beyond our scope, we nonetheless thought it would be important to point out the magnitude of the value of such an approach involving the underground conduits should the City decide to pursue further review in this area.



Consideration of the potential of re-purposing the street lighting infrastructure for telecommunications purposes at the onset of the City's initiative relative to potential future revenue generation would be valuable as we explore the configuration of disconnection points. That is, should the City wish to reserve a pre-defined number of streetlights for telecommunications purposes, the configuration of those conductors/demarcation points can be done once versus twice, further reducing future costs.

APPENDIX B: RTE GIS AUDIT PACKAGE

APPENDIX C: 1-PAGER PROJECT SCENARIOS (HID CONVERSION ONLY)

APPENDIX D: MLC TELP FINANCING PROPOSAL

Grand Junction City Council

Workshop Session

Item #1.d.

Meeting Date:	June 3, 2024
Presented By:	Andrea Phillips, Interim City Manager, Jennifer Tomaszewski, Finance Director
Department:	City Manager's Office
Submitted By:	Jennifer Tomaszewski, Finance Director

Information

SUBJECT:

Budget Policy Development and Preliminary 2025 Budget Considerations

EXECUTIVE SUMMARY:

This is time for City Council to discuss Budget Policy Development and Preliminary 2025 Budget Considerations

BACKGROUND OR DETAILED INFORMATION:

Staff is working towards development of a Budget Policy, which is recognized by the Government Finance Officers Association (GFOA) as a best practice for municipalities, as it establishes principles and strategies for budget planning and monitoring. As staff begins development of this policy, staff will discuss the purpose of this policy, as well as major elements with City Council in order to gather feedback.

In addition, as staff begin the 2025 budget preparation processes, staff will share some of the early considerations going into the 2025 budget season.

FISCAL IMPACT:

There is no fiscal impact as a result of this discussion.

SUGGESTED ACTION:

This item is for discussion purposes.

Attachments

None