

## **COMBINED SPECIAL MEETING/WORK SESSION AGENDA**

**CITY COUNCIL COMBINED SPECIAL  
MEETING/WORK SESSION  
TUESDAY  
JUNE 26, 2018**

**COUNCIL CHAMBERS  
211 WEST ASPEN AVENUE  
6:00 P.M.**

### **SPECIAL MEETING**

#### **1. Call to Order**

#### **NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION**

*Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this combined special meeting/work session, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).*

#### **2. Pledge of Allegiance and Mission Statement**

##### **MISSION STATEMENT**

*The mission of the City of Flagstaff is to protect and enhance the quality of life for all.*

#### **3. Roll Call**

*NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.*

MAYOR EVANS  
VICE MAYOR WHELAN  
COUNCILMEMBER BAROTZ  
COUNCILMEMBER MCCARTHY

COUNCILMEMBER ODEGAARD  
COUNCILMEMBER OVERTON  
COUNCILMEMBER PUTZOVA

#### **4. Public Participation**

*Public Participation enables the public to address the council about items that are not on the prepared agenda. Public Participation appears on the agenda twice, at the beginning and at the end of the special meeting/work session. You may speak at one or the other, but not both. Anyone wishing to comment at the meeting is asked to fill out a speaker card and submit it to the recording clerk. When the item comes up on the agenda, your name will be called. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone to have an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.*

#### **5. Presentation of Life Saving Award by the Flagstaff Fire Department**

6. **Consideration and Adoption of Resolution No. 2018-38:** A resolution of the City Council of the City of Flagstaff, Arizona repealing the existing Flagstaff Sign Free Zone adopted by the City Council on June 7, 2016, through Resolution No. 2016-21, and designating a revised Flagstaff Sign Free Zone pursuant to A.R.S. § 16-1019(F) and establishing an effective date.

**STAFF RECOMMENDED ACTION:**

- 1) Read Resolution No. 2018-38 by title only
- 2) City Clerk reads Resolution No. 2018-38 by title only (if approved above)
- 3) Adopt Resolution No.2018-38

7. **Adjournment**

## **WORK SESSION**

1. **Call to Order.**

2. **Review of Draft Agenda for the July 3, 2018, City Council Meeting.**

*Citizens wishing to speak on agenda items not specifically called out by the City Council may submit a speaker card for their items of interest to the recording clerk.*

3. Discussion and possible direction from City Council regarding desired changes to current Concept Zoning Ordinance.

4. **Climate Action and Adaptation Plan: June Update**

5. **Public Participation**

6. **Informational Items To/From Mayor, Council, and City Manager; future agenda item requests.**

7. **Adjournment**

### **CERTIFICATE OF POSTING OF NOTICE**

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on \_\_\_\_\_, at \_\_\_\_\_ a.m./p.m. in accordance with the statement filed by the City Council with the City Clerk.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2018.

\_\_\_\_\_  
Elizabeth A. Burke, MMC, City Clerk

## **CITY OF FLAGSTAFF**

### **STAFF SUMMARY REPORT**

**To:** The Honorable Mayor and Council  
**From:** Dan Folke, Planning Director  
**Date:** 06/18/2018  
**Meeting Date:** 06/26/2018



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#### **TITLE**

Discussion and possible direction from City Council regarding desired changes to current Concept Zoning Ordinance.

#### **STAFF RECOMMENDED ACTION:**

Staff recommends no changes to the Concept Zoning process.

#### **EXECUTIVE SUMMARY:**

Last year a Councilmember requested a F.A.I.R. item to discuss Concept Zoning and possible desired changes, and on June 20, 2017, others agreed to move this to a future agenda for discussion. Staff presented information on the Concept Zoning process at the March 6, 2018, Council meeting; however, staff did not receive direction from Council. The item is being presented tonight as another opportunity to provide direction to staff.

The Flagstaff Zoning Code provides two options when preparing a Zoning Map Amendment, commonly known as a rezoning. Applicants may choose between a Direct Ordinance or Concept Zoning Plan. The Direct Ordinance is completed in conjunction with a site plan review, so the request includes the specific details of the development. The Concept Zoning Plan provides general information that allows flexibility for the future use.

#### **INFORMATION:**

The Concept Zoning Plan process decouples a zoning map amendment application from an application for site plan review and approval. In this case, a concept zoning plan would be developed and submitted in support of the zone change request, and, assuming Council approval of the Zoning Map amendment, then a complete site plan application would be submitted at a later time.

The Direct Ordinance with a Site Plan process provides an applicant with a shorter approval process with fewer steps. This process enables an applicant to submit fully developed site plans with all supporting information required for site plan review and approval concurrently with the Zoning Map amendment application. Once the Zoning Map amendment is approved by the Council, then the applicant may proceed directly to construction plan and building permit review, and no additional site plan review is required.

A Concept Zone Plan application provides general information on potential development. The application requires the submission and evaluation of a vicinity map, context analysis map, site analysis map, concept phasing plan, building types and a project narrative. A Direct Ordinance application requires more detailed information of the proposed development through the submission and review of a site plan.

Submittal requirements include the building footprint, building elevations, building floor plans, grading and drainage plan, landscaping plan, natural resource survey, natural resource protection plan and a lighting plan. Both zoning map amendment applications require a public participation plan with neighborhood notification and meetings, impact analysis of transportation, water and sewer utilities and stormwater. The detailed information for each of these is found in the attached application.

Staff finds both application types are appropriate depending on the circumstances. Property owners who have a known end use can process Direct Ordinance with the site plan, which provides some efficiencies and allows the public to know exactly what is proposed to be built. The Concept Zone Plan is appropriate when the development plan is not known or is a residential subdivision where a site plan is not required. Residential subdivisions typically process a plat and the concept zone plan will include sample home designs. The Concept Zone Plan process provides for a future choice, from among all Council-approved uses within the adopted zone, through an Administrative site plan review. Direct Ordinance approvals not only lock in a site plan but also typically include a specific use approval. The Concept Zone Plan assists small business owners who are seeking a new location by removing the time and costs associated with amending or rezoning an already constructed commercial building. The recent use of the Concept Zone Plan to rezone two city parcels for affordable housing demonstrates the value of this option. It allowed the City to get the required zoning in place prior to selecting a builder with their specific site plan.

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**Attachments:**     Concept Zone Plan



# Concept Zoning Map Amendment

June 26, 2018







# Concept Zoning Map Amendment

## Zoning Map Amendment – Two Approaches

- **Direct to Ordinance with a Site Plan**
  - Site plan review first, then proceed with rezoning application
- **Concept Zoning Plan**
  - Consider the rezoning request first, then proceed with administrative site plan review



# Concept Zoning Map Amendment

## Included in Both Applications

### • General

- Project Narrative
- Legal Description
- Development Agreement
- Vicinity Map
- Site Analysis

### • Impact Analysis

- Traffic
- Water/Sewer
- Stormwater

### • Public Participation

- Participation Plan
- Neighborhood Notification
- Neighborhood Meeting (x2)
- Participation Report

### • Cultural Resource Study



# Concept Zoning Map Amendment

## Application Specific

### • Direct to Ordinance

- Site Plan
- Specific building details
  - Elevations and floor plans
- Grading and Drainage Plan
- Landscape Plan
- Natural Resource Survey and Protection Plan
- Lighting Plan

### • Concept Zone Plan

- Context Analysis Map
- Site Analysis Map
- Concept Phasing Plan
- Concept Zone Plan
- Conceptual Building Types



# Concept Zoning Map Amendment

## Concept Zone Plan Cases

- Aspen Heights
- McMillan Mesa
- Timber Sky
- Scattered Site Affordable Housing



# Concept Zoning Map Amendment



CONCEPTUAL PLAN

## McMILLAN MESA BUNGALOWS

### YIELD DATA

Unit Type	Yield	Mk %
1 Bedroom	42	30%
2 Bedroom	70	50%
3 Bedroom	26	20%
	138	100.0%

Total Area: 15 +/- Acres  
Density: 9.2 Du/Ac

"Disclaimer: All features, dimensions, drawings, renderings, plans and specifications are conceptual and subject to change without notice".







# Concept Zoning Map Amendment



Street Scene



# Concept Zoning Map Amendment

## **When is the Concept Zone Plan Appropriate?**

- Owner wants to change property entitlement
- Do not know the end use
- Do not have a builder or proposed site plan
- Limit the upfront costs to the owner
- Provide more options for local businesses





# Concept Zoning Map Amendment



Questions?

## CITY OF FLAGSTAFF

### STAFF SUMMARY REPORT

**To:** The Honorable Mayor and Council  
**From:** Jenny Niemann, Climate & Energy Specialist  
**Co-Submitter:** Nicole Antonopoulos  
**Date:** 06/20/2018  
**Meeting Date:** 06/26/2018




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#### TITLE:

**Climate Action and Adaptation Plan: June Update**

#### DESIRED OUTCOME:

This is an informational update on the development of the Climate Action and Adaptation Plan.

#### EXECUTIVE SUMMARY:

To achieve the City Council's goal of meaningful climate action, City staff are working with community members, technical experts and a Steering Committee to develop the Flagstaff Climate Action and Adaptation Plan (Plan).

Staff will provide an update on the status of the Plan and distribute a concept document to Council members for review.

#### Completed plan development activities since the April update:

- Two community open houses in April and May: 115 participants.
- Prioritization survey on the Flagstaff Community Forum: 94 participants.
- Technical Committee workshop with City Staff from 15 sections.
- Seven focus area meetings, to bring together staff and community feedback.
- Development of a concept document, including proposals for Plan goals and strategies.

#### Concept Document:

The concept document provides Councilmembers an opportunity to review community, steering committee, and technical experts' recommendations for the Plan.

#### Contents:

- Background
- Climate change in Flagstaff
- Focus area goals and strategies
  - Natural Environment
  - Water Resources
  - Energy
  - Transportation and Land Use
  - Waste and Consumption
  - Public Health, Services, and Safety
  - Economic Prosperity and Recreation

- Schedule and timeline

Staff seeks feedback and comments from Councilmembers on the concept document by August 21st.

### Upcoming Activities:

- July and August:
  - July Community Open House Series to review goals, strategies and actions:
    - **Tuesday, July 17th**, 4:30 - 6:30 pm
    - **Thursday, July 19th**, 7:30 - 9:00 am
    - **Saturday, July 21st**, 9:30 - 11:30 am
  - Development of the Implementation Plan
  - Refining action items, target-setting, evaluation of greenhouse gas emissions impacts
  - Meetings and workshops with stakeholder groups
  - Community workshops for each focus area
  - Revisions to goals, strategies and actions based on stakeholder and community feedback
  - Presentations to various Commissions
- Fall: Draft Review with Council and Community

September 19th	Draft review with the community begins
September 25th	Council work session #1
October 9th	Council work sessions #2
October 23rd	Council work sessions #3
November 7th	Final Plan presented to Council and community
November 20th	Council meeting to adopt the Plan

### INFORMATION:

#### Connection to Council Goal and/or Regional Plan:

##### Council Goals:

Take meaningful climate change action.

##### Regional Plan:

Goal E.1. Increase energy efficiency.

Goal E.2. Expand production and use of renewable energy.

Goal E&C.1. Proactively improve and maintain the region's air quality.

Goal E&C.2 Reduce Greenhouse gas emissions.

Goal E&C.3 Strengthen community and natural environment resiliency through climate adaptation efforts.

Goal E&C.4. Integrate the best available science into all policies governing the use and conservation of Flagstaff's natural resources.

#### Financial Impact:

The Plan will recommend climate mitigation and preparedness projects, which will require a financial investment by the City of Flagstaff.

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**Attachments:**     Concept Document  
                              PowerPoint

# Flagstaff Climate Action and Adaptation Plan

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## Concept Document

June 20, 2018

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### Contents:

1. Background	page 2
○ How we got here	
○ Overarching vision, goals and targets	
○ Building on a foundation of other activities and plans	
2. Climate Change in Flagstaff	Page 10
○ Climate change impacts	
○ Vulnerability assessment	
○ Flagstaff's greenhouse gas emissions	
3. Focus Area Goals and Strategies	Page 20
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○ Public Health, Services, and Safety	
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4. Schedule and Timeline	Page 35

## Background

Global greenhouse gas (GHG) emissions are changing the climate in ways that threaten Flagstaff's unique amenities and way of life. Projected changes in temperature, snowpack, water availability, and wildfire risk exacerbate existing challenges and introduce new challenges to Flagstaff's natural resources, economy, infrastructure systems, and quality of life. By taking action now to reduce the community's emissions and prepare for climate risks, the City of Flagstaff can better protect the wellbeing of its citizens for decades to come.

**The Climate Action and Adaptation Plan (CAAP) will establish a vision and strategic roadmap for the Flagstaff community to address these risks by reducing greenhouse gas emissions and adapting to a changing climate.** It will build on our knowledge of projected local climate changes, sources of greenhouse gas emissions, and community vulnerabilities, priorities, ideas and concerns. It will focus on activities that achieve the greatest emission reductions or do the most to increase our community preparedness and in the most cost-effective and equitable manner. The entire community—Flagstaff businesses, residents, and visitors—will have a role in both implementing the plan and enjoying its benefits.

This foundational document represents the beginning of an ongoing and iterative conversation between the City of Flagstaff and the community it serves. The goals and strategies proposed reflect priorities and needs as articulated by residents, City staff and organizations who have participated in the development process so far. As a community plan, many different groups - neighborhoods, businesses, families, nonprofits, the City of Flagstaff and partner institutions - will implement the recommended strategies and contribute to achieving the goals in this plan.

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## How we got here

The goals and strategies presented in this document were developed through collaboration with Flagstaff residents, the Climate Action and Adaptation Plan Steering Committee, City of Flagstaff staff, and partner organizations.

Public and stakeholder engagement processes have included:

- Three community open houses.
- Two online surveys via the Flagstaff Community Forum.
- Regular meetings with a 16-member steering committee.
- Workshops with City staff across divisions to vet and evaluate plan goals, strategies and actions.
- Meetings with partners including Coconino County, the Flagstaff Climate Action Council, and other community groups.

Plans for ongoing community outreach are detailed in the concluding *Schedule and Timeline* section.

**Climate Action and Adaptation Plan Steering Committee Members:**

Amanda Ormond, the Ormond Group, LLC  
Jeff Bousson, American Conservation Experience  
George Koch, Center for Ecosystem Science, Northern Arizona University  
Rick Moore, Grand Canyon Trust  
Brian Petersen, Northern Arizona University and City of Flagstaff Sustainability Commission  
Jed Westover, Loven Contracting  
Brad Hill, Water Services Division, City of Flagstaff  
Deb Harris, Southside Community Association  
Kate Morley, NAIPTA  
Dave McIntire, Community Investment, City of Flagstaff  
Nicole Antonopoulos, Sustainability Section, City of Flagstaff  
Jeff Hall, Lowell Observatory  
Daisy Purdy, Ethnic Studies and Applied Indigenous Studies, Northern Arizona University  
Amanda Acheson, Sustainable Building Program, Coconino County  
Brian Wallace, APS  
Matthew Millar, Flagstaff Fire Department, City of Flagstaff

**City of Flagstaff Staff:**

*Technical Committee:*

Jennifer Mikelson, Housing Section, City of Flagstaff  
Amanda Richardson, Stormwater Section, City of Flagstaff  
Sara Dechter, Comprehensive Planning, City of Flagstaff  
David Wessel, Flagstaff Metropolitan Planning Organization  
Todd Hanson, Solid Waste, City of Flagstaff  
Martin Ince, Flagstaff Metropolitan Planning Organization  
Erin Young, Water Resources and Conservation, City of Flagstaff  
Dylan Lenzen, Sustainability Section, City of Flagstaff  
McKenzie Jones, Sustainability Section, City of Flagstaff  
Alaxandra Pucciarelli, Current Planning Program, City of Flagstaff  
Gino Leoni, Parks and Recreation, City of Flagstaff  
Shawn Mullaney, Parks and Recreation, City of Flagstaff  
Betsy Emery, Sustainability Section, City of Flagstaff  
Amy Palmer, Building Safety Program, City of Flagstaff  
Carlton Johnson, Comprehensive Planning, City of Flagstaff  
Rebecca Sayers, Parks and Recreation, City of Flagstaff  
Jim Huchel, Water Reclamation, City of Flagstaff  
Daniel Folke, Planning and Development Services, City of Flagstaff  
Tiffany Antol, Current Planning Program, City of Flagstaff  
Robert Wallace, Sustainability Section, City of Flagstaff  
Andy Bertelsen, Public Works Division, City of Flagstaff  
Kevin Treadway, City Manager's Office, City of Flagstaff  
Tamara Lawless, Water Conservation Section, City of Flagstaff

*Planning team:*

Nicole Antonopoulos, Sustainability Manager, Sustainability Section  
Jenny Niemann, Climate and Energy Specialist, Sustainability Section  
  
Larrea Cottingham, Climate Education AmeriCorps VISTA, Sustainability Section  
Sam Salgado, Climate and Transportation Intern, Sustainability Section  
Rebecca Wagner, Climate and Energy Data Management Intern, Sustainability Section  
Ryan Turley, Climate Intern, Sustainability Section

**Partner contributors:**

Coconino County  
Conservation Study Forum  
Flagstaff Climate Action Council

**Prepared for the Flagstaff community by:**

Cascadia Consulting Group  
Andrea Martin, Senior Associate  
Nora Nickum, Director  
Olivia Ashmoore, Project Assistant

Sincere gratitude to the Flagstaff community for their time and dedication to this ongoing process.

# Overarching Vision, Goals and Targets

## Vision

The Flagstaff community proactively preserves the natural environment, works towards carbon neutrality, and enhances the quality of life for all residents while ensuring equity, self-sufficiency, and climate resiliency.

## Overarching Goals and Targets

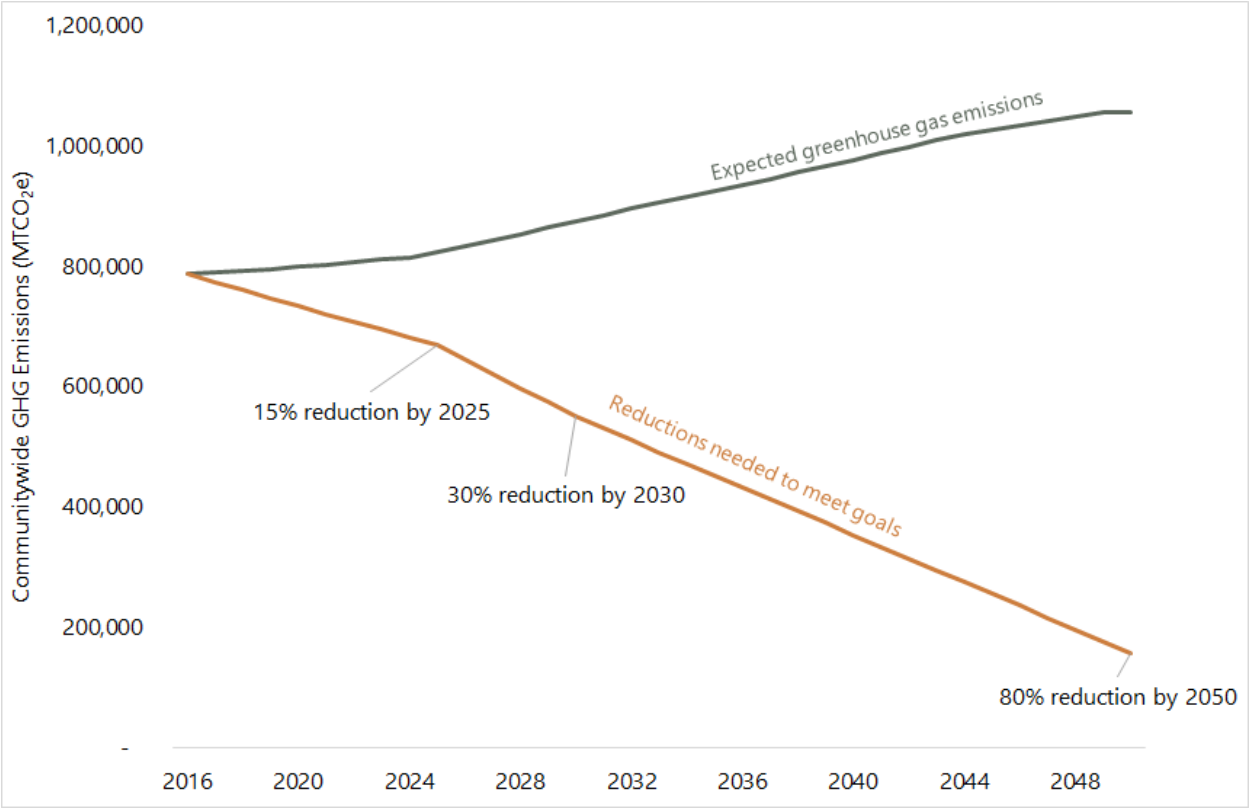
The Climate Action and Adaptation Plan centers on achievement of the following overarching goals.

### Goal #1: Reduce Flagstaff's contribution to climate change by reducing community greenhouse gas emissions.

- Overarching target: 80% reduction in GHG emissions by 2050 compared to 2016 levels.
  - Interim targets, compared to 2016 levels:
    - 15% reduction by 2025
    - 30% reduction by 2030
  - Per-capita goals to be established
- Per-capita target: An equivalent reduction to the overarching target, given anticipated population growth. This reduction equates to an 85% reduction in GHG emissions by 2050 compared to 2016 levels.
  - Interim targets, compared to 2016 levels:
    - 25% reduction by 2025
    - 41% reduction by 2030

Key Performance Indicator	Baseline (2016)	2025 Target	2030 Target	2050 Target
Communitywide greenhouse gas emissions (MTCO <sub>2</sub> e)	787,315	669,218	551,121	157,463
Per-capita communitywide greenhouse gas emissions (MTCO <sub>2</sub> e/capita)	11.0	8.3	6.5	1.7





**Goal #2: Prepare the city's communities, systems, and resources to be more resilient to climate change impacts.**

**Goal #3: Address climate change in a manner that prioritizes those most impacted and ensures the costs and benefits of climate adaptation and mitigation are equitably distributed.**

## Related Activities and Plans

Flagstaff has already made notable progress toward reducing both its community emissions and its vulnerability to the potential impacts of climate change. Flagstaff has a variety of plans, policies, programs, and studies that are connected to the needs and solutions for addressing climate change issues and challenges.

Some things the community is already doing to address climate change include the following:

- The City regularly tracks and reports on its **greenhouse gas emissions inventory**.<sup>1</sup>
- Community volunteers support ongoing **invasive weed removal** efforts on Flagstaff Open Space properties.
- The City of Flagstaff has been using **reclaimed water** for irrigation since 1971.
- Several local companies are installing residential and commercial **rooftop solar systems** throughout Flagstaff.
- Flagstaff voters approved a \$10M bond to support the **Flagstaff Watershed Protection Project** - a partnership effort between the State, City, and Coconino National Forest to help reduce the risk of devastating wildfire and post-fire flooding in the Rio de Flag and Upper Lake Mary watersheds.
- The **Azulita Project**, a local non-profit, is partnering with local businesses to eliminate the use of plastic straws and other single-use plastic.
- The City of Flagstaff provides home energy efficiency and rainwater harvesting tank **rebates** for residents, and has **tiered water rates** for the residential sector.
- A private company, SPIN, has recently introduced **bike sharing** to the City of Flagstaff and the NAU campus, making bike trips possible for more residents.
- Through the **Woods Watch program**, the City of Flagstaff, Coconino County and the U.S. Forest Service partner with citizens to monitor for careless fire behavior on forested lands, to protect the community from wildfire.
- The **Innovate Waste Challenge** is incentivizing businesses to discover new ways to convert waste into marketable products.
- The **Mountain Line bus system** has recently added a weekend bus route to Snowbowl to serve both residents and tourists who ski and snowboard.

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<sup>1</sup> Reports can be found on the City website at this link: <http://flagstaff.az.gov/3625/Greenhouse-Gas-Emissions-Reporting>. More information on other City sustainability activities can be found here: <http://www.flagstaff.az.gov/1605/Sustainability-Section>.

### Relationship to Other City Plans

The list below presents other City plans that inform or could be informed by the Climate Action and Adaptation Plan. Some of these documents already emphasize climate solutions described in this plan, while others will need to be updated to integrate climate change and climate action. Where linkages are clear, this plan will highlight “levers” in existing plans and programs and brings them together to address a common goal.

- The **Rethink Waste Plan** outlines initiatives toward achieving the city’s waste prevention and recycling goals.
- The **High Occupancy Housing Plan** encourages higher-density housing that is more compatible with existing neighborhoods.
- The City is currently developing a **Water Conservation Strategic Plan** to set water conservation targets and identify and prioritize actions to achieve those targets.
- The **Sustainability Section Strategic Plan** establishes detailed strategies for accomplishing sustainability program area goals.
- The **Flagstaff Regional Plan 2030** presents a comprehensive, long-term plan for the Flagstaff community.

#### Important ties to the 2030 Regional Plan

This document will build upon goals outlined in the current *Flagstaff Regional Plan 2030* and will inform potential priority areas for the next regional plan update. Reducing greenhouse gas emissions and adapting to climate change will improve the local economy, support public health, and benefit ecosystems. There is strong overlap between the goals of the *Regional Plan* and the CAAP. **The following *Regional Plan* goals are furthered by CAAP strategies:**

**Goal E&C.2** Reduce greenhouse gas emissions.

**Goal E&C.3** Strengthen community and natural environment resiliency through climate adaptation efforts.

**Goal E&C.6.** Protect, restore and improve ecosystem health and maintain native plant and animal community diversity across all land ownerships in the Flagstaff region.

**Goal E&C.10.** Protect indigenous wildlife populations, localized and larger-scale wildlife habitats, ecosystem processes, and wildlife movement throughout the planning area.

**Goal OS.1.** The region has a system of open lands, such as undeveloped natural areas, wildlife corridors and habitat areas, trails, accesses to public lands, and greenways to support the natural environment that sustains our quality of life, cultural heritage, and ecosystem health.

**Goal WR.1.** Maintain a sustainable water budget incorporating regional hydrology, ecosystem needs, and social and economic well-being.

**Goal WR.2.** Manage a coordinated system of water, wastewater, and reclaimed water utility service facilities and resources at the City level and identify funding to pay for new resources.

**Goal WR.5** Manage watersheds and stormwater to address flooding concerns, water quality, environmental protections, and rainwater harvesting.

**Goal WR.6** Protect, preserve, and improve the quality of surface water, groundwater, and reclaimed water in the region.

**Goal LU.8.** Balance future growth with available water resources.

**Goal E.1.** Increase energy efficiency.

**Goal E.2.** Expand production and use of renewable energy.

**Goal LU.1.** Invest in existing neighborhoods and activity centers for the purpose of developing complete, and connected places.

**Goal LU.2.** Develop Flagstaff's Greenfields in accordance with the Regional Plan and within the growth boundary.

**Goal LU.5.** Encourage compact development principles to achieve efficiencies and open space preservation.

**Goal LU.6.** Provide for a mix of land uses.

**Goal LU.10.** Increase the proportion of urban neighborhoods to achieve walkable, compact growth.

**Goal LU.18.** Develop well designed activity centers and corridors with a variety of employment, business, shopping, civic engagement, cultural opportunities, and residential choices.

**Goal NH.3.** Make available a variety of housing types at different price points, to provide housing opportunity for all economic sectors.

**Goal T.1.** Improve mobility and access throughout the region.

**Goal T.2.** Improve transportation safety and efficiency for all modes.

**Goal T.5.** Increase the availability and use of pedestrian infrastructure, including FUTS, as a critical element of a safe and livable community.

**Goal T.6.** Provide for bicycling as a safe and efficient means of transportation and recreation.

**Goal T.7.** Provide a high-quality, safe, convenient, accessible public transportation system, where feasible, to serve as an attractive alternative to single-occupant vehicles.

**Goal T.9.** Strengthen and support rail service opportunities for the region's businesses and travelers.

# Climate Change in Flagstaff

Climate change is a shift in the long-term, average weather pattern. When climate changes over thousands of years, plants and animals often adapt. When climate changes rapidly—over hundreds of years—drastic changes including mass extinctions have occurred. Our climate is changing rapidly. Decades of burning fossil fuels and other human activities have released dangerous levels of heat-trapping gases into the atmosphere. These greenhouse gases—carbon dioxide, methane, nitrous oxides, and others—are driving abrupt changes in our climate.

This section presents the context of climate change in Flagstaff, including an overview of anticipated climate changes and associated impacts, as well as an introduction to the sources of greenhouse gas emissions produced by the Flagstaff community. More information on anticipated climate changes can be found in the *Climate Profile for the City of Flagstaff*, available at [www.Flagstaff.AZ.gov/ClimatePlan](http://www.Flagstaff.AZ.gov/ClimatePlan).

## Climate Change Impacts

Climate change threatens to destabilize global weather patterns and ecosystems, impacting Flagstaff and communities globally. Coconino County is already experiencing climate changes, and many of these changes are projected to worsen in the future. Key changes include the following:



### Hotter temperatures.

- Longer and hotter summers.
- Difficulty for sensitive populations and those without air conditioning.
- Increased risk of disease or illness from mosquitoes and other pests.



### Less snowpack.

- More rainfall instead of snowfall.
- Increased flooding of infrastructure and buildings from more intense rainstorms.
- Increased risk of post-wildfire floods.



### Less healthy forests.

- Increased wildfire risk for local forests.
- Increased damage from forest pests due to hotter temperatures and drought-stressed trees.



### Drier conditions.

- More severe drought conditions as temperatures rise.
- Lower water quality of reservoirs.

### *What Do These Changes Mean for Flagstaff?*

These changes in local climate carry cascading implications for the Flagstaff community. Some anticipated impacts include:



### Climate Vulnerability Assessment

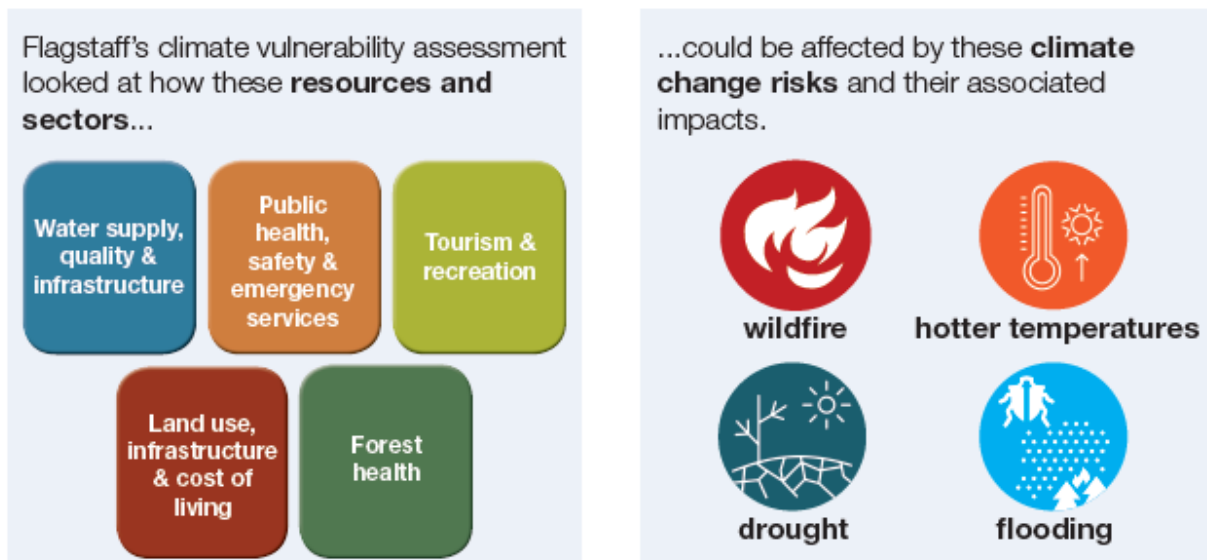
To better understand the extent to which these climate changes will affect Flagstaff, this plan includes a Flagstaff-specific **climate vulnerability assessment**. The vulnerability assessment identified key climate-related risks to Flagstaff's resources, systems, and populations. This section details outcomes from that vulnerability assessment.

#### What is Climate Vulnerability?

Flagstaff's vulnerability to climate change is a function of its exposure, sensitivity, and adaptive capacity:



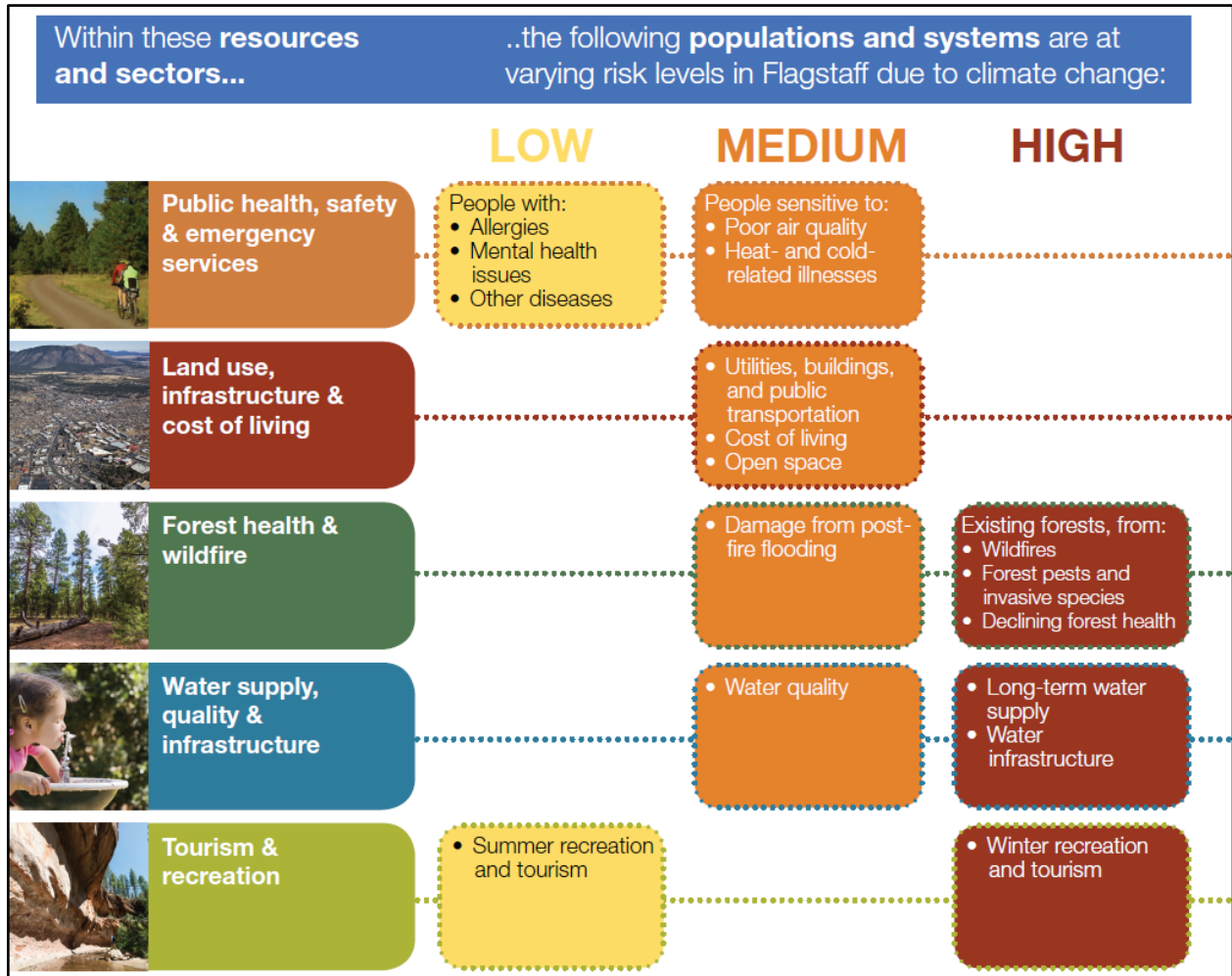
Flagstaff's climate vulnerability assessment looked at how key resources and sectors could be impacted by identified climate risks:





## What is At Risk?

Flagstaff's climate vulnerability assessment ranked the relative climate vulnerability of several resources and sectors. The table and graphics below summarizes the outcomes from that assessment.





## Land Use, Infrastructure, and Affordable Housing

### Vulnerability to Climate Change

*As our population continues to grow, we may have more people living in wildfire- and flood-prone areas despite the goals of our regional growth plan. Hotter temperatures may increase energy costs.*

**In a changing climate, Flagstaff communities are likely to face:**

#### MEDIUM-HIGH VULNERABILITY



**Wildfires and hotter, drier conditions** may make healthy open space more difficult to sustain.

#### LOW-MEDIUM VULNERABILITY



Greater **population density** is planned away from wildfire- and flood-prone areas, with more city parks and open space to provide shade.

#### MEDIUM VULNERABILITY



**Hotter temperatures** may stress buildings, utilities, and roads.

#### MEDIUM VULNERABILITY



**Hotter temperatures** may increase energy costs and make summer cooling out of reach for many households.

## Forest Health and Wildfire

### Vulnerability to Climate Change

*A longer warm season and drier climate are likely to reduce overall forest health, lead to more damaging and hazardous wildfires and floods, and enable worsening pine beetle infestations. Forest management and emergency response systems will need to be ready to respond to these growing threats.*

**In a changing climate, Flagstaff communities are likely to face:**

#### VERY HIGH VULNERABILITY



Overall **declines in forest health and widespread forest loss** due to wildfires, drought, pests, and invasive species.

#### HIGH VULNERABILITY



Larger, more frequent stand-replacing **wildfires**.

#### MEDIUM-HIGH VULNERABILITY



Larger, more frequent **flooding** after wildfires. More floods in general.

#### HIGH VULNERABILITY



More **beetle infestations and invasive species** due to warmer, drier conditions.

## Water Supply, Quality, and Infrastructure Vulnerability to Climate Change

*Our water comes from forests at high risk of significant wildfire damage. As our population grows, tourism increases, and the climate changes, our water resources will be stressed despite progress in water conservation. Our community will need to be ready.*

**In a changing climate, Flagstaff communities are likely to face:**

**HIGH  
VULNERABILITY**



**Reduced water availability and increased demand** could cause water shortfalls.

**MEDIUM-HIGH  
VULNERABILITY**



More **wildfire, drought, and flooding** are likely to impair water quality.

**HIGH  
VULNERABILITY**



More **wildfire and flooding** are likely to significantly damage natural and human-made water infrastructure.

## Tourism and Recreation Vulnerability to Climate Change

*As snowpack declines, losses are expected to snow-based tourism and recreation. Visitors may increase in the summer, when wildfire or drought could pose temporary threats. Our businesses and services will need to continue to diversify tourism and recreation activities and prepare for low-snow years.*

**In a changing climate, Flagstaff communities are likely to face:**

**HIGH  
VULNERABILITY**



Significant **snowpack loss** will decrease winter recreation and tourism.

**LOW-MEDIUM  
VULNERABILITY**



More **wildfire, drought, or extreme heat** may temporarily reduce visitation in summer, spring, and fall.

## Public Health, Safety, and Emergency Services

### Vulnerability to Climate Change

*A longer warm season and more intense wildfires may increase the risk of some diseases, mental illness, and respiratory health problems. Emergency response systems will need to be ready to respond to these risks.*

**In a changing climate, Flagstaff communities are likely to face:**

#### MEDIUM VULNERABILITY



More periods of **poor air quality** due to larger, more frequent wildfires.

#### MEDIUM VULNERABILITY



More extreme heat days (>90°F) could increase the risk of **heat-related**

#### LOW VULNERABILITY



Increased **exposure to allergens** is possible as spring grows warmer and more dry weather increases dust.

#### LOW-MEDIUM VULNERABILITY



More frequent extreme events could increase the **risk of mental health issues.**

#### LOW-MEDIUM VULNERABILITY



Increased **exposure to valley fever and West Nile virus** is possible as the warm season lengthens. Existing response resources may be adequate.

## Flagstaff's Greenhouse Gas Emissions

Activities in Flagstaff release greenhouse gas emissions when fossil fuels are burned for transportation and energy, when solid waste breaks down, and through the treatment of wastewater.

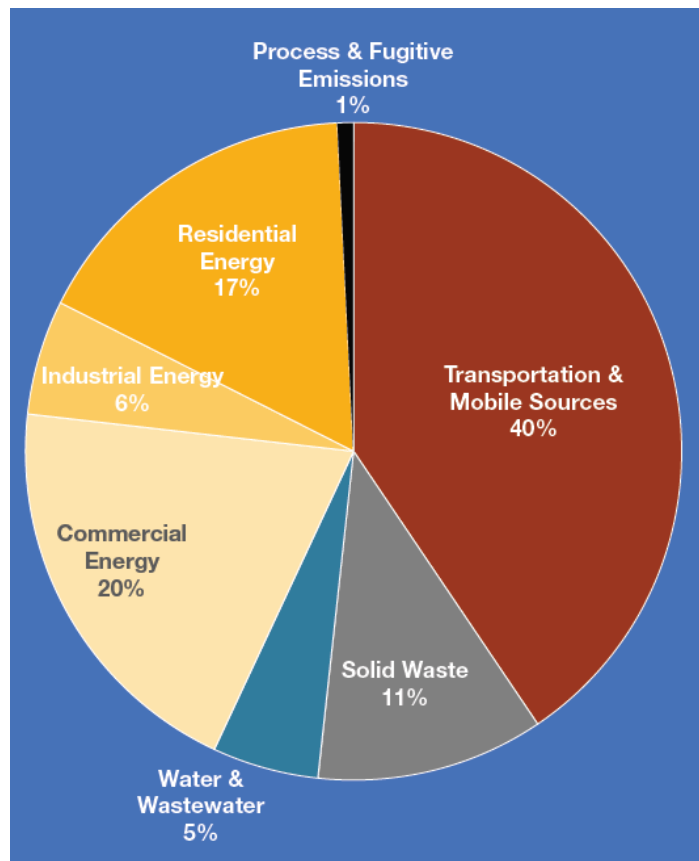
To avoid the most dangerous impacts of climate change, the international community came together to ratify the Paris Agreement, which recognizes the need to reduce greenhouse gas emissions to keep global temperature rise below 2 degrees Celsius.<sup>2</sup>

Flagstaff has committed to meeting the intentions of the Paris Agreement. This Plan sets an ambitious target to reduce greenhouse gas emissions by 80% below baseline by 2050. To track progress on implementing climate and sustainability strategies, Flagstaff has been tracking community-wide greenhouse gas emissions since 2009. In 2016, community-wide emissions were 787,315 metric tons carbon dioxide equivalent (MTCO<sub>2</sub>e).

### *Where do emissions come from?*

In 2016, Flagstaff's greenhouse gas emissions were primarily from transportation and energy use, with solid waste, water & wastewater treatment, and fugitive emissions making up small portions of Flagstaff's total inventory.

- Emissions from the **transportation** sector made up 40% of Flagstaff's overall greenhouse gas emissions in 2016. Local, on-road transportation of passengers in residential-owned vehicles accounts for the majority (98%) of these transportation emissions in Flagstaff.
- **Energy** consumption accounts for almost half of Flagstaff's total greenhouse gas emissions. These emissions come from residential, commercial, and industrial buildings consuming electricity and burning natural gas.
- The treatment and conveyance of Flagstaff's **water supply and wastewater** also emit considerable greenhouse gas emissions, contributing 5% to overall emissions.
- The disposal of **solid waste** contributed 11% to Flagstaff's 2016 greenhouse gas emissions footprint.

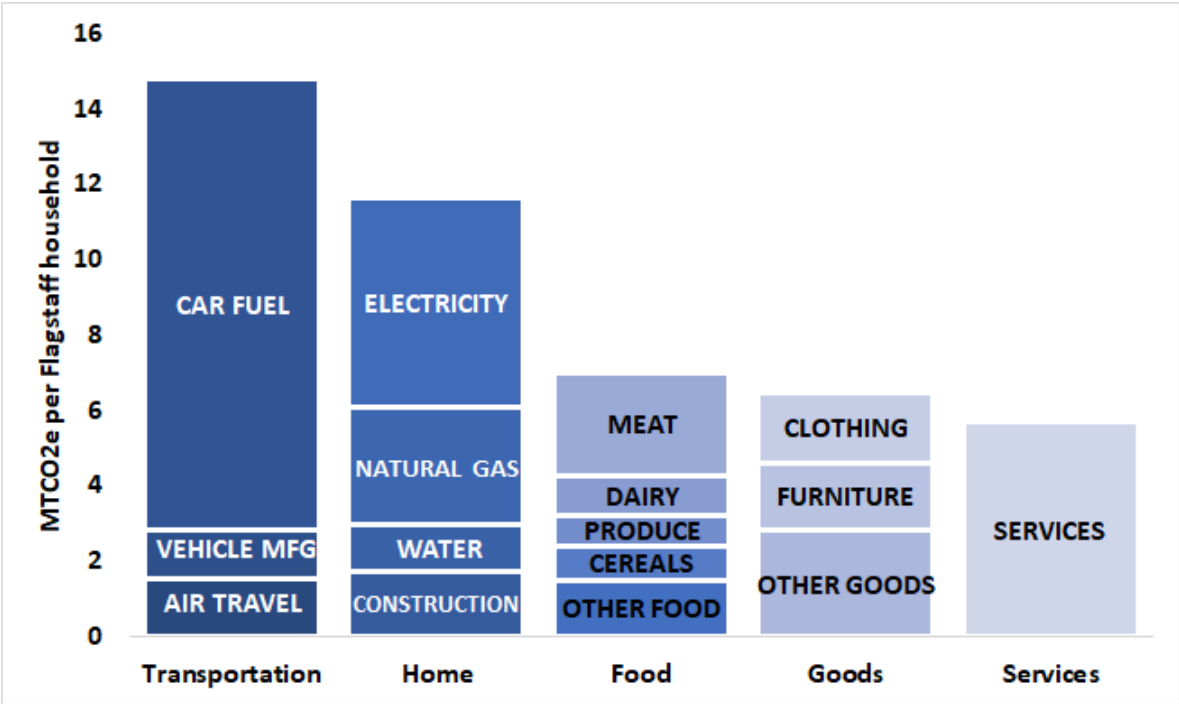


<sup>2</sup> "The Paris Agreement." UNFCCC. <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

**Consumption-based emissions**

While Flagstaff’s community inventory accounts for emissions released directly within the City or from closely related community activities, consumption-based emissions convey the upstream greenhouse gas impacts of consuming household products. Global economic trade results in the U.S. importing many of the goods that homes consume. As a result, the U.S. has essentially exported greenhouse gas emissions related to manufacturing.

Consumption-based emissions inventories approximate upstream impacts so individuals can understand how to reduce their personal carbon footprints, taking into account the emissions associated with manufacturing and transporting goods and services they consume. The figure below represents an estimated profile of one household’s consumption-based emissions in Flagstaff.<sup>3</sup>



<sup>3</sup> “Average Annual Household Carbon Footprint.” UC Berkeley CoolClimate Network. (2013).

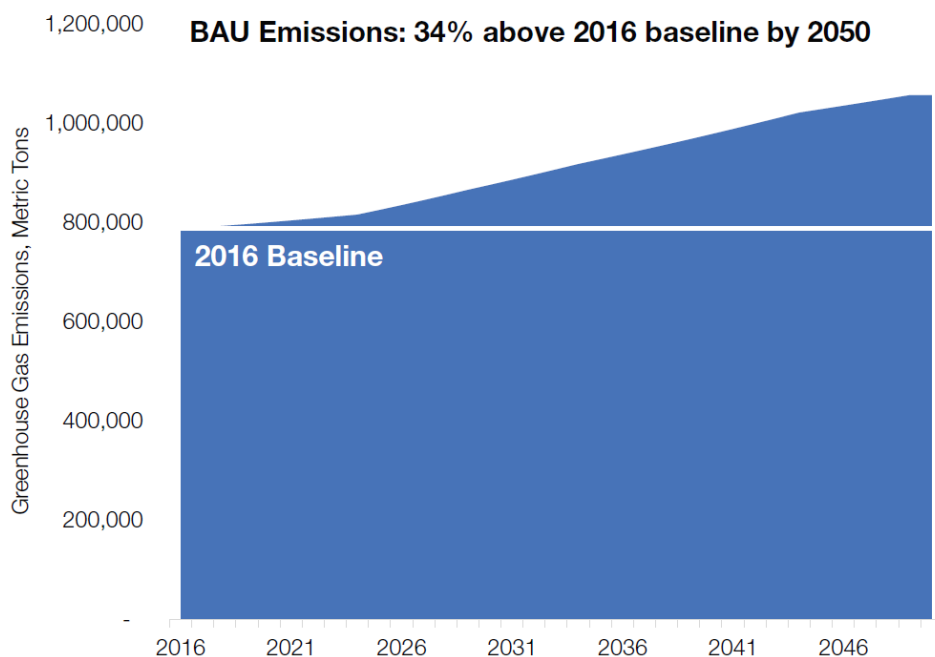
### *How will emissions change in the future?*

A business-as-usual forecast provides an estimate of potential future emissions, assuming that the city takes no further action. It considers the influence of external factors on Flagstaff's emissions, such as population growth, changes in the regional electricity fuel mix, and energy demand.

The business-as-usual forecast for Flagstaff is presented below. Key assumptions for Flagstaff's business-as-usual forecast are as follows:

- 35% forecasted Flagstaff population growth rate.<sup>4</sup>
- Residential electricity demand expected to grow by 60% by 2030.<sup>5</sup>
- Commercial electricity demand expected to grow 50%.<sup>6</sup>
- Industrial electricity demand expected to grow 1%.<sup>7</sup>
- Electricity carbon intensity expected to change at the same rate as national electricity carbon intensity, declining 37% by 2050.<sup>8</sup>
- 50% growth in vehicle miles traveled.<sup>9</sup>

The forecast estimates that Flagstaff's overall emissions will increase 34% by 2050 compared to a 2016 baseline—equivalent to a 2% per capita increase over that time period. This scenario conveys the need for ambitious climate action to meet the City's short- and long-term emission reduction goals.



<sup>4</sup> "Population Projections." *Arizona Office of Economic Opportunity* <https://population.az.gov/population-projections>

<sup>5</sup> "2017 Integrated Resources Plan." APS. April 2017.

<sup>6</sup> "2017 Integrated Resources Plan." APS. April 2017.

<sup>7</sup> "2017 Integrated Resources Plan." APS. April 2017.

<sup>8</sup> "Annual Energy Outlook 2018. *U.S. Energy Information Association*. 2018.

<sup>9</sup> "Blueprint 2040: Regional Transportation Plan." Flagstaff Metropolitan Planning Organization. May 2017.

## Goals and Strategies

The following sections detail the specific goals and strategies the City and community can adopt to help reach its carbon pollution reduction and climate resiliency goals.

Goals and strategies are organized under seven focus areas:

- **Natural Environment** refers to ecosystem health, environmentally sensitive lands, plants, soils, and wildlife in the context of natural systems worthy of conservation and protection. This focus area also includes open spaces that protect environmental quality and biodiversity, support tourism, and protect historic and cultural resources.
- **Water Resources** refers to surface water, groundwater, and reclaimed water that serves our residential, commercial, industrial, recreational, and agricultural needs. It includes conservation planning with the intent to sustain our water supplies and quality for future generations.
- **Energy** refers to community energy consumption and efficiency, clean and renewable energy sourcing, and a more climate-resilient energy grid. It includes strategies for renewable energy sources and efficient building standards.
- **Transportation and Land Use** refers to the form and function of transportation systems, including ways to reduce greenhouse gas emissions through design and clean and efficient transportation systems.
- **Waste and Consumption** refers to the lifecycle of goods and materials, including opportunities to reduce emissions associated with manufacturing, use, and disposal.
- **Public Health, Services, Facilities, and Safety** refers to facilities and services focused on community health, safety, security, and emergency response.
- **Economic Prosperity and Recreation** refers to community and economic health, including opportunities to reduce emissions and prepare the community's tourism and recreational sectors for climate change.



# Natural Environment

**Focus Area definition:** Natural Environment refers to ecosystem health, environmentally sensitive lands, plants, soils, and wildlife in the context of natural systems worthy of conservation and protection. This focus area also includes open spaces that protect environmental quality and biodiversity, support tourism, and protect historic and cultural resources.

## *Background Information*

Flagstaff is blessed with a bounty of beautiful natural spaces that provide multiple benefits for the community, including the provision of clean air and water, recreational opportunities, and wildlife habitat. Many of Flagstaff's natural systems and surrounding natural areas will be impacted by climate change, threatening important services such as water filtration, flood abatement, recreation, and fire protection. Changes in temperature, snowpack, and the abundance of diseases and pests will stress Flagstaff's surrounding forests and the species that depend on them. Although not formally accounted for in Flagstaff's greenhouse gas emissions inventory, natural ecosystems such as forests capture and store carbon, acting as a greenhouse gas "sink." Proper ecosystem management can optimize this process of carbon sequestration, as well as minimize the potential risk of greenhouse gas emissions from wildfires.

## *Vision*

In 2030, Flagstaff has thriving local ecosystems that are resilient to climate change, publicly accessible, and store carbon dioxide.

## *Goals*

1. **Maintain ecosystems within and outside of the City of Flagstaff as a dependable source of recreation, economic prosperity, biodiverse plant and wildlife habitat, cultural identity, and spiritual connection in the face of a changing climate and expected ecosystem transitions.**
2. **Strengthen ecosystem resilience to climate change with a focus on benefits provided by local ecosystems, including forests, watersheds, and wildland-urban interface areas.**
3. **Incorporate the use of climate-adapted native plants into the built environment.**

## *Strategies*

### **Strategy 1. Protect existing forests, resources, and meaningful open spaces.**

Environmental systems—including the Rio de Flag watershed, grasslands, wildlife corridors, cultural sites, sites of community significance, and biodiverse wildlife and plant habitats—provide benefits to the Flagstaff community. Protecting ecosystems can increase resilience to climate change.

### **Strategy 2. Improve forest management through collaboration with regional partners.**

Ensuring the forests in and around Flagstaff are healthy can reduce wildfire risk and sequester carbon by facilitating the historic ponderosa pine ecosystem. Actions include promotion of markets that increase forest restoration and strengthening existing partnerships.



**Strategy 3. Educate the public on forest health risk and prevention.**

Public engagement and education can help prevent human-caused wildfires. While fire is a critical part of the ponderosa pine ecosystem, as Flagstaff's populations grows and vulnerabilities increase, there may be an increase in human-caused fires. Educational outreach programs can help to prevent unnatural, high-severity wildfires caused by human activity.

**Strategy 4: Encourage diverse native plant ecosystems in the built environment.**

Incorporating native landscaping into Flagstaff's developed areas and neighborhoods helps to conserve water resources, provides habitat for animals and pollinators, and increases community resilience.

**Strategy 5: Proactively manage for expected ecosystem transitions in local ecosystems, including the potential threats to ponderosa pine forests.**

A changing climate will stress Flagstaff's dominant ponderosa pine ecosystem. Proactive land management can include collaborations to help Flagstaff plant communities adapt to a changing climate or restore areas after disturbances.

*Examples of Current Community Efforts*

- In 2012, residents of Flagstaff, AZ overwhelmingly approved a \$10 million bond to support forest restoration work within key watersheds on the Coconino National Forest and on State and City lands. The Flagstaff Watershed Protection Project is one of a few examples in the country where forest restoration work on the National Forests is being funded by a municipality, and the only known instance where such an effort is funded from voter-approved municipal bonds.
- The Greater Flagstaff Forest Partnership is an alliance of environmental, governmental, and business organizations working on forest ecosystem restoration in and around Flagstaff.
- Community volunteer events on Flagstaff Open Space properties remove invasive weeds that threaten natural ecosystems.

# Water Resources

**Focus Area definition:** Water Resources refers to surface water, groundwater, and reclaimed water that serves our residential, commercial, industrial, recreational, and agricultural needs. It includes conservation planning, with the intent to sustain our water supplies and quality for future generations.

## *Background Information*

The treatment and conveyance of Flagstaff's water supply and wastewater emit a considerable quantity of greenhouse gas emissions in the community. Actions to minimize water use and optimize treatment and conveyance processes can help lower the community's greenhouse gas footprint.

Flagstaff's water comes from forests at high risk of significant wildfire damage. As the population grows, tourism increases, and the climate changes, the community's water resources will be stressed despite progress in water conservation.

## *Vision*

In 2030, water resources are distributed equitably and sustainably, the community is empowered to use water efficiently, and wastewater treatment minimizes greenhouse gas emissions.

## *Goals*

1. **Ensure a secure and sustainable water supply that is accessible and affordable in light of climate change impacts.**
2. **Conserve community water resources, maximize water efficiency, and support innovations in water resources, including stormwater, groundwater, surface water and reuse.**
3. **Reduce greenhouse gas emissions from water production, water delivery and wastewater treatment in the public and private sectors.**

## *Strategies*

### **Strategy 1. Improve water infrastructure and expand water reuse.**

Infrastructure that enables and expands water reuse can help conserve water resources. Actions include incorporating new reclaimed water treatment technology and continuing energy efficiency upgrades in the water system.

### **Strategy 2. Improve ecosystem management for conservation of water resources.**

Maintaining forest and ecosystem health, such as through forest thinning, is vital for watershed function and health. Actions include encouraging groundwater recharge and evaluating landscaping codes.

### **Strategy 3. Continue to support water conservation efforts across the Flagstaff community.**

Reducing water use through conservation reduces the use of energy for water delivery and treatment, and protects vital resources. Actions include continued public outreach on water conservation and increased incentives for water efficiency.

**Strategy 4: Maximize passive and active community rainwater infiltration.**

Promotion of natural drainage systems and low impact development can curb flooding and stormwater issues that may be exacerbated under future climate conditions, as well as recharge aquifers that serve as a critical water source for humans and ecosystems.

*Examples of Current Community Efforts*

- The City of Flagstaff has been using reclaimed water for irrigation since 1971.
- Flagstaff voters approved a \$10M bond to support the Flagstaff Watershed Protection Project - a partnership effort between the State, City, and Coconino National Forest to help reduce the risk of devastating wildfire and post-fire flooding in the Rio de Flag and Upper Lake Mary watersheds.
- The City's Water Services Division provides rainwater harvesting tank rebates for Flagstaff water metered customers.
- The City's Water Services Division has conducted energy audits of their water and wastewater treatment facilities to identify ways to reduce energy consumption. They have been proactive at replacing aging inefficient equipment with more energy efficient equipment.

# Energy

**Focus Area definition:** Energy refers to the ways energy usage impacts and is impacted by climate change. It includes strategies related to community energy consumption and efficiency, clean and renewable energy sourcing, future energy grid resilience, and energy-related land use, transportation, and building standards.

## *Background Information*

Energy consumption accounts for almost half of Flagstaff's total greenhouse gas emissions. These emissions come from residential, commercial, and industrial buildings consuming electricity and burning natural gas. Emissions forecasts show that without action, emissions from energy will grow 35% by 2030. Climate change will shift building heating and cooling demands. By 2050, Flagstaff will likely see hotter temperatures and longer summers. This growth in cooling needs will increase energy use and costs, which may stress lower-income families.

## *Vision*

In 2030, Flagstaff residents, businesses and organizations have access to affordable clean energy, new building construction is designed to minimize energy use, and existing buildings have been upgraded to maximize energy efficiency.

## *Goals*

1. **Reduce energy consumption and associated greenhouse gas emissions from heating, cooling, and powering buildings.**
2. **Increase renewable energy generation within the community and City municipal organization.**
3. **Lower the proportion of fossil fuels in the regional energy mix.**
4. **Strive to become self-sufficient for Flagstaff's energy needs.**

## *Strategies*

### **Strategy 1. Expand renewable energy generation and use.**

Clean energy generation presents a key opportunity to cut greenhouse gas emissions, enhance resiliency and promote long-term economic security. Actions include developing local renewable energy and supporting the use of home battery systems.

### **Strategy 2. Enhance energy efficiency.**

Constructing and upgrading buildings to meet the highest thresholds for green building performance can dramatically reduce long-term energy use and emissions. Actions include development of financing mechanisms, working with businesses and incentivizing energy upgrades by homeowners.

**Strategy 3. Reduce peak demand for energy use in residential, commercial, and industrial sectors.**

Reducing peak energy demand helps energy providers reduce total electricity generation. This serves as an important step in reducing emissions from Flagstaff's energy usage. Actions include partnering with large energy users to reduce consumption and expanding demand-side management programs.

*Examples of Current Community Efforts*

- The City of Flagstaff provides home energy efficiency rebates for residents who upgrade equipment or weatherize their homes.
- Several local companies are installing residential and commercial rooftop solar systems throughout Flagstaff.

# Transportation & Land Use

**Focus Area definition:** Transportation and Land Use refers to the form and function of transportation systems and the layout of a community, including ways to reduce greenhouse gas emissions through design and clean and efficient transportation systems.

## *Background Information*

Emissions from the transportation sector made up 40% of Flagstaff's overall greenhouse gas emissions in 2016. Local, on-road transportation of passengers in residential-owned vehicles accounts for the majority (98%) of these transportation emissions in Flagstaff.

Flagstaff's roads, bridges, and real estate could be at risk from wildfires, floods, and heat impacts. With increased temperatures and smoke, biking and walking may become more hazardous and people may rely more on vehicles.

## *Vision*

In 2030, people predominantly use multi-modal transportation and alternative fuel vehicles to get around because they are more attractive and convenient than traditional single occupancy vehicles.

## *Goals*

1. **Reduce greenhouse gas emissions from vehicle use.**
2. **Increase the proportion of vehicles that are electric or high-efficiency.**
3. **Prioritize transportation modes and infrastructure such as walking, biking, and public transit that promote public health, maintain Flagstaff's clean air status, and reduce emissions.**
4. **Promote vibrant and affordable neighborhoods and infill development, in order to enable residents to easily walk, bus or bicycle to meet basic daily needs; decrease the distance needed to drive to reach services, schools, parks, and businesses; and improve quality of life.**
5. **As population grows and visitation increases, ensure a higher proportion of Flagstaff workers can find adequate housing in the city.**

## *Strategies*

**Strategy 1. Encourage land use planning that minimizes the distance people have to travel by car and increases community resiliency.**

Creating vibrant activity centers with a dense and diverse mix of services, amenities, jobs and housing types in areas well served by the Permanent Transit Network can reduce transportation emissions and support vibrant neighborhoods.

**Strategy 2. Prioritize, incentivize and promote transportation by biking, walking and transit.**

Traveling by biking, walking and transit has far less of a climate impact than traveling by personal vehicle. Actions that improve the convenience of multi-modal transportation can encourage a shift in transportation preferences.

**Strategy 3. Support the growth of clean, energy-efficient vehicles.**

Clean, energy-efficient vehicles such as hybrid and electric vehicles reduce emissions of greenhouse gases and other pollutants that can affect human health.

**Strategy 4: Encourage efficient driving practices**

Transportation contributes a large portion to greenhouse gas emissions. Through actions like reducing vehicle idling, the City and the community can reduce emissions and improve air quality.

**Strategy 5: Manage transportation demand and reduce driving alone.**

The largest portion of Flagstaff's transportation emissions stem from people driving alone in their cars. Transportation demand management helps to reduce single-occupant vehicle trips, helping people more efficiently use the transportation infrastructure that already exists. This includes actions to encourage carpooling, ridesharing, and alternative modes of transportation.

**Strategy 6: Increase the supply of housing that is affordable to Flagstaff residents and located in areas that support biking, walking, and transit access to goods and services.**

The provision of affordable housing in pedestrian, bicycle, and transit-friendly areas close to goods and services reduces transportation related greenhouse gas emissions and builds community resilience. People who can afford to live, work, and play in areas near their homes drive less and are more able to withstand impacts that climate change may bring, such as increased energy and food costs and infrastructure damage.

**Strategy 7: Foster community conversations regarding how land use is related to greenhouse gas emissions and climate change.**

Community dialogue about density, infill, parking and other land use issues will help the Flagstaff community to achieve the goals of the Regional Plan.

*Examples of Current Community Efforts*

- The High Occupancy Housing Plan encourages higher-density housing that is more compatible with existing neighborhoods.
- A private company, SPIN, has recently introduced bike sharing to the City of Flagstaff and the NAU campus, making bike trips possible for more residents.
- The City is exploring an adaptive reuse incentive program, to encourage infill and the reuse of existing structures.

# Waste & Consumption

**Focus Area definition:** Waste and Consumption refers to the lifecycle of goods and materials, including opportunities to reduce emissions associated with manufacturing, use, and disposal.

## *Background Information*

Greenhouse gas emissions from the disposal of solid waste contributed 11% to Flagstaff's 2016 greenhouse gas emissions footprint. The consumption of goods and services by residents and businesses can also carry a significant carbon footprint—notably from meat consumption, home construction, and the purchase of furniture, clothing, and vehicles.

Agriculture may become stressed from pests, disease, and drought under future climate change, potentially reducing the availability of regional food. Climate change may also disrupt global supply chains and thereby affect the cost of household goods and services.

## *Vision*

In 2030, governments, residents, tourists, and businesses are thoughtful material consumers and managers who minimize waste generation and optimize waste diversion.

## *Goals*

1. **Reduce greenhouse gas emissions associated with material consumption.**
2. **Reduce community waste generation in residential, commercial, and industrial sectors.**
3. **Increase diversion of waste from the landfill.**
4. **Optimize landfill management to minimize greenhouse gas emissions.**

## *Strategies*

### **Strategy 1. Increase waste diversion.**

Diverting waste keeps material out of landfills, where it would break down and generate greenhouse gases. Reduction, recycling, reuse, and composting offer climate-positive alternatives to sending waste to the landfill.

### **Strategy 2. Support sustainable and accessible production and consumption.**

Consuming goods, services, and food can contribute to greenhouse gas emissions. Supporting sustainable business practices, improving City procurement and educating consumers can reduce emissions.

### **Strategy 3. Optimize collection and disposal systems to minimize greenhouse gas emissions.**

Maximizing the efficiency of waste processing can reduce emissions associated with solid waste. Actions include improving the fuel efficiency of the waste collection fleet and landfill gas capture.



**Strategy 4: Improve data collection on consumption, waste and diversion.**

Current gaps in available waste and consumption data reduce the effectiveness of waste reduction efforts.

**Strategy 5: Increase local food production through partnerships and policies.**

Food consumed by Flagstaff residents and visitors often travels significant distances before arriving at grocery store shelves. Actions to encourage local food production cut these transportation emissions. Local food production also helps build a more resilient community as global food supply chains may become disrupted by climate shocks and food prices fluctuate.

*Examples of Current Community Efforts*

- The City developed a Rethink Waste Plan that outlines initiatives toward achieving the city's waste prevention and recycling goals.
- The Azulita Project, a local non-profit, is partnering with local businesses to eliminate the use of plastic straws and other single-use plastic.
- The Flagstaff Master Recycler program provides training to community members on waste prevention and composting practices.

# Public Health, Services, Facilities & Safety

**Focus Area definition:** Public Health, Services, Facilities, and Safety refers to facilities and services focused on community health, safety, security, and emergency response.

## *Background Information*

Emissions associated with public health, safety, and security services are encapsulated in other sectors of the greenhouse gas inventory, and do not make up a large proportion of overall emissions. Nonetheless, actions to increase the efficiency of these services can help reduce the community's carbon footprint.

Flagstaff's outdoor workers, the elderly, the very young, and low-income populations will be especially vulnerable to health impacts from wildfire smoke and extreme heat. Increased wildfire risk will also stress emergency services and expand wildfire risk areas to encompass more homes.

## *Vision*

In 2030, the community feels comfortable and safe, with reliable access to health services and facilities to support physical and mental well-being in the face of climate change impacts.

## *Goals*

1. **Anticipate climate change impacts that will affect public health by identifying at-risk community groups and neighborhoods, and planning appropriate responses.**
2. **Prioritize public safety and health services in the face of anticipated climate change impacts.**
3. **Improve the resiliency of building infrastructure to climate hazards.**

## *Strategies*

### **Strategy 1. Identify and target support for at-risk populations.**

The elderly, homeless, and low-income populations are most vulnerable to climate change impacts. Identifying and protecting vulnerable communities now can help reduce the negative impacts of climate change for populations especially in need.

### **Strategy 2. Adequately fund services for disaster preparedness.**

Preparing for climate change hazards and how they impact public services will allow the Flagstaff community to be more prepared for climate impacts.

### **Strategy 3: Increase community awareness of climate change impacts.**

Fostering community resilience starts with building awareness of the anticipated risks. Actions that build community awareness will give community members the knowledge needed to plan and take action.

### **Strategy 4: Improve the resiliency of public infrastructure.**

Functional public infrastructure such as roads, shelters, and utility services are critical for sustainable economic and social wellbeing in the face of climate change. Actions to improve the resiliency of public

infrastructure such as through improved maintenance and planning will enable the community to withstand unanticipated shocks and disruptions such as from flood events.

**Strategy 5: Prepare for changing risks to public health due to climate change.**

As climate change increases the risk of some diseases, collaborations across agencies will enable more efficient response. Actions include understanding how vulnerable community members may be especially sensitive to climate change-related health impacts.

**Strategy 6: Increase community awareness and capacity to respond to new or expanding risks to public health.**

Community outreach will help the Flagstaff community to better prepare for changing public health risks. Actions include improving information on the interaction of heat risks and poor air quality.

*Examples of Current Community Efforts*

- The Ready Set Go campaign encourages residents to be more informed about potential wildfire emergencies, mitigation measures and evacuation preparations.
- Through the Woods Watch program, the City of Flagstaff, Coconino County and U.S. Forest Service partner with citizens to monitor for careless fire behavior on forested lands, to protect the community from wildfire.
- The Coconino County Public Health Services Department is currently developing a Mosquito Management Plan for Coconino County.

# Economic Prosperity & Recreation

**Focus Area definition:** Economic Prosperity and Recreation refers to community and economic health, including opportunities to reduce emissions and prepare the community's tourism and recreational sectors for climate change.

## *Background Information*

Tourists contribute to Flagstaff's energy use, water consumption, and transportation emissions. Efforts to minimize the environmental impact from tourism and recreation makes good business sense and can position Flagstaff as a visible leader in sustainability.

Losses are expected to snow-based tourism and recreation as snowpack declines. Visitors may increase in the summer, when wildfire or drought could pose temporary threats. Our businesses and services will need to continue to diversify tourism activities and prepare for low-snow years.

## *Vision*

In 2030, Flagstaff is a prosperous and stable economy with abundant and equitable access to employment and recreational opportunities.

## *Goals*

1. **Build a diverse, strong, resilient, and equitable economy in the face of threats from climate change and support the creation of jobs in renewable energy and energy efficiency.**
2. **Support community members whose jobs are at risk from climate change impacts.**
3. **Manage and enhance recreation and outdoor opportunities to maximize resilience to the impacts of climate change.**
4. **Accommodate the increased use of City Parks and Recreation facilities and changing maintenance needs.**

## *Strategies*

### **Strategy 1. Build an economy that reduces emissions and can effectively adapt as the climate changes.**

By promoting a sustainable local economy, Flagstaff can support businesses as they reduce emissions and plan for a changing climate. Actions include evaluating vulnerabilities, identifying new opportunities for economic diversification and helping visitors to enjoy Flagstaff as a car-free destination.

### **Strategy 2. Protect natural areas and ecosystem services that are most vulnerable to impacts of increased visitation and climate change.**

Ensuring Flagstaff's ecological resources can sustain increases in visitation improves both climate and economic resiliency.

**Strategy 3: Plan for and respond to the impacts of climate change on current Parks and Recreation facilities and operations.**

Climate change may increase demands for recreation services while stressing park resources. Preparations include understanding how fields will respond to increased temperatures, evaluating health risks and preparing for increased electricity demand.

*Examples of Current Community Efforts*

- The Innovate Waste Challenge is incentivizing businesses to discover new ways to convert waste into marketable products.
- The Sustainable Economic Development Initiative (SEDI) promotes sustainable economic prosperity in northern Arizona
- The Mountain Line bus system has recently added a weekend bus route to Snowbowl to serve both residents and tourists who ski and snowboard.

# Schedule and Timeline

## Plan Development Continues

Over the next two months, the following Plan components will be developed:

- An implementation plan, which will include:
  - o Specific actions to achieve the goals and strategies.
  - o An implementation timeline identifying items for implementation in 2019, in the next five years, and over the long term.
  - o Identification of responsible parties and policy levers for each action.
  - o **Quantitative and qualitative assessments of strategies**, including greenhouse gas emissions impacts, estimated costs, co-benefits, funding opportunities, and equity impacts.
- A Community Action Toolkit, detailing strategies individuals and households can implement.
- An equity analysis to ensure equity is considered throughout implementation.
- A staffing analysis to enable achievement of Plan goals.
- An outreach strategy to communicate with the public and preserve momentum of this Plan.
- Discussion of possible funding sources.
- A tracking and reporting structure so that City staff can report progress to City Council, update the community, measure success and ensure accountability.

## Summer and Fall Plan Development:

### Summer 2018:

- July Community Open House Series to review goals, strategies and actions. Three Open House sessions will be held at the Murdoch Center:
  - o Tuesday, July 17th, 4:30 - 6:30 pm
  - o Thursday, July 19th: 8:00 am - 10:00 am
  - o Saturday, July 21st: 9:30 am - 11:30 am
- Meetings and workshops with stakeholder groups
- Revisions to goals, strategies and actions based on stakeholder and community feedback
- Presentations to various Commissions

### Fall 2018:

September 19th	Draft review with the community begins
September 25th	Council work session #1
October 9th	Council work sessions #2
October 23rd	Council work sessions #3
November 7th	Final Plan presented to Council and community
November 20th	Council meeting to adopt the Plan



# TEAM FLAGSTAFF



# Climate Action and Adaptation Plan Quarterly Update

June 26, 2018

Jenny Niemann





# TEAM FLAGSTAFF



## Agenda

- Refresher
- Completed activities
- Concept document
- Schedule and timeline







# TEAM FLAGSTAFF



## Planning Timeline

Fall  
2017

Winter  
2018

Spring  
2018

Summer  
2018

Award of  
Contract  
+  
Begin  
Technical  
Analysis



Community  
Engagement  
+  
Vulnerability  
Assessment



Plan  
Development  
+  
Spring Open  
Houses



Concept  
Document  
+  
Public Review



# TEAM FLAGSTAFF



## What climate changes can we expect?



Hotter temperatures

Lower snowpack

Less healthy forests

Drier conditions



# I. Completed Activities Since April 3, 2018







- Discussion of potential goals and strategies with the community.
- Two Open Houses:  
**115** attendees
- Flagstaff Community Forum:  
**90** participants





# TEAM FLAGSTAFF



## Flagstaff Youth Climate Summit

- April 30<sup>th</sup>, 2018
- Students presentations on climate action
- Project focus areas: Water, Energy, Food, Biodiversity





# TEAM FLAGSTAFF



## Established Overarching Goals

### Mitigation

- Reduce Flagstaff's community greenhouse gas emissions by 80% by 2050
  - 2016 emissions as a baseline
  - Also known as an **80x50** goal

### Adaptation

- Prepare the city's communities, systems, and resources to be more resilient to climate change impacts.



# TEAM FLAGSTAFF



## Established Focus Area goals, strategies, and actions

- Goal-setting:
  - What are barriers to getting there?
  - What are key intervention points?
- Development:
  - Steering committee workshop
  - Community feedback (Open Houses and survey)
  - City staff workshop
  - Discussions with City staff, steering committee members, other stakeholders



## II. Concept Document

Replant  
Pla





- Background
- Climate change in Flagstaff
- Focus areas



# TEAM FLAGSTAFF



## Background

- How we got here
- Overarching vision, goals, targets
- Building on a foundation of other activities and plans



# TEAM FLAGSTAFF



## Climate change in Flagstaff

- Climate change impacts
- Vulnerability assessment
- Greenhouse gas emissions inventory



# TEAM FLAGSTAFF



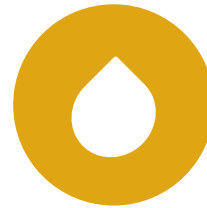
## Focus Area Goal and Strategies



Energy



Natural  
Environment



Water  
Resources



Waste &  
Consumption



Public Health  
& Emergency  
Services



Transportation  
& Land Use



Economic  
Prosperity &  
Recreation

# Natural Environment

## Goals

- Maintain ecosystems in the face of a changing climate and expected ecosystem transitions.
- Strengthen ecosystem resilience to climate change.
- Incorporate the use of climate-adapted native plants in the built environment.

# Water Resources

## Goals

- Ensure a secure and sustainable water supply in light of climate change impacts.
- Conserve community water resources, maximize water efficiency, and support innovations in water resources.
- Reduce greenhouse gas emissions from water production, water delivery and wastewater treatment.



# Energy

## Goals

- Reduce energy consumption for heating, cooling, and powering buildings.
- Increase renewable energy generation.
- Lower the proportion of fossil fuels in the regional energy mix.
- Strive to become self-sufficient for Flagstaff's energy needs.

# Transportation and Land Use

## Goals

- Reduce greenhouse gas emissions from vehicle use.
- Increase the proportion of vehicles that are electric or high-efficiency.
- Prioritize transportation modes and infrastructure such as walking, biking, and transit.
- Promote vibrant and affordable neighborhoods in order to enable residents to easily walk, bus or bicycle to meet daily needs.
- As population grows ensure a higher proportion of Flagstaff workers can find adequate housing in the city. 18

# Waste and Consumption

## Goals

- Reduce greenhouse gas emissions associated with material consumption.
- Reduce community waste generation.
- Increase diversion of waste from the landfill.
- Optimize landfill management to minimize greenhouse gas emissions.

# Public Health and Emergency Services

## Goals

- Anticipate climate change impacts that will affect public health by identifying at-risk community groups and neighborhoods.
- Prioritize public safety and health services in the face of anticipated climate change impacts.
- Improve the resiliency of building infrastructure to climate hazards.

# Economic Prosperity and Recreation

## Goals

- Build a diverse, strong, resilient, and equitable economy in the face of threats from climate change.
- Support community members whose jobs are at risk from climate change impacts.
- Manage and enhance recreation and outdoor opportunities to maximize resilience.
- Accommodate the increased use of City Parks and Recreation facilities and changing maintenance needs.

A hand wearing a grey puffer jacket sleeve points to a sticky note on a board. The board is covered with numerous other sticky notes of various colors (yellow, orange, green, pink) and handwritten text. The text on the sticky notes is mostly illegible due to blurring, but some words like 'Energy', 'use/capita', 'interest', and 'Mandatory recycling' are visible. The background is a light-colored wall or board.

# III. Schedule and Timeline



- Action items to accomplish each strategy
- Evaluation of greenhouse gas emissions impacts for each action item
- Target-setting
- Implementation details





# TEAM FLAGSTAFF



## July Open House Series

**Tuesday, July 17<sup>th</sup>** 4:30 - 6:30 pm

**Thursday, July 19<sup>th</sup>** 7:30 - 9:00 am

**Saturday, July 21<sup>st</sup>** 9:30 - 11:30 am

- At the Murdoch Community Center
- Review of goals, strategies and actions with the community
- Online Flagstaff Community Forum topic





# TEAM FLAGSTAFF



## Continued Outreach

- Stakeholder interviews
- Focus area workshops
- Presentations to community groups and organizations
- CAAP Steering Committee
- Monthly Coffee and Climate
- Monthly Newsletter



## Plan Completion Timeline

September 19 <sup>th</sup>	Community <b>draft</b> review begins
September 25 <sup>th</sup>	Council work session #1
October 9 <sup>th</sup>	Council work sessions #2
October 23 <sup>rd</sup>	Council work sessions #3
November 7 <sup>th</sup>	<b>Final Plan</b> presented to Council and community
November 20 <sup>th</sup>	Council meeting to adopt the Plan



# TEAM FLAGSTAFF



## Questions?

## Thank You!

[www.flagstaff.az.gov/ClimatePlan](http://www.flagstaff.az.gov/ClimatePlan)

Jenny Niemann

City of Flagstaff

JNiemann@FlagstaffAZ.gov

928-213-2150

## CITY OF FLAGSTAFF

### STAFF SUMMARY REPORT

**To:** The Honorable Mayor and Council  
**From:** Dan Folke, Planning Director  
**Co-Submitter:** Kevin Fincel  
**Date:** 06/15/2018  
**Meeting Date:** 06/26/2018



#### TITLE:

**Consideration and Adoption of Resolution No. 2018-38:** A resolution of the City Council of the City of Flagstaff, Arizona repealing the existing Flagstaff Sign Free Zone adopted by the City Council on June 7, 2016, through Resolution No. 2016-21, and designating a revised Flagstaff Sign Free Zone pursuant to A.R.S. § 16-1019(F) and establishing an effective date.

#### STAFF RECOMMENDED ACTION:

- 1) Read Resolution No. 2018-38 by title only
- 2) City Clerk reads Resolution No. 2018-38 by title only (if approved above)
- 3) Adopt Resolution No.2018-38

#### Executive Summary:

The Flagstaff Sign Code prohibits the placement of portable signs in City right-of-way. However, Arizona Revised Statutes (A.R.S.) section 16-1019(C) prohibits cities from removing, altering, defacing, or covering political signs placed in public right-of-way if certain conditions outlined in the statute are met. Despite that general prohibition, pursuant to A.R.S. section 16-1019(F), cities are authorized to designate areas of the city as sign-free zones, thereby allowing cities to remove political signs that are placed in city right-of-way within the designated sign free zones.

On June 7, 2016, the City Council adopted Resolution 2016-21, which designated the Flagstaff Sign Free Zone. In light of new construction in Flagstaff and expanded tourist and commercial centers, Staff is recommending that Council designate a revised Flagstaff Sign Free Zone to further protect the scenic and aesthetic appeal of the area within the revised zone and maintain its appeal to tourists.

#### Financial Impact:

The Sign Free Zone will be enforced by the existing Code Compliance staff.

#### Policy Impact:

Adoption of the Flagstaff Sign Free Zone will provide Staff with greater enforcement authority over political signs illegally placed in City right-of-way. In particular, Staff will be able to remove political signs illegally placed in City right-of-way if those signs are also located in the Flagstaff Sign Free Zone.

#### Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

**Regional Plan:**

**Goal ED. 6.** Tourism will continue to provide a year-round revenue source for the community while expanding specialized tourist resources and activities.

**Goal ED.7.** Continue to promote and enhance Flagstaff 's unique sense of place as an economic development driver.

**Policy ED.7.4.** Invest in attractive community gateways, main corridors, and public spaces to draw the business and workforce the region desires.

**Goal CC.1.** Reflect and respect the region's natural setting and dramatic views in the built environment.

**Policy CC.1.4.** Identify, protect, and enhance gateways, gateway corridors, and gateway communities.

The revised Flagstaff Sign Free Zone supports these goals and policies by ensuring the aesthetic beauty of the City's natural and built environment is protected.

**Council Goals:****CODE COMPLIANCE**

Achieve comprehensive and equitable code compliance.

**Has There Been Previous Council Decision on This:**

The existing Flagstaff Sign Free Zone was designated by the City Council on June 7, 2016, through the adoption of Resolution 2016-21 and is depicted on Map 10-90.40.010 in the Flagstaff City Code.

**Options and Alternatives:**

City Council may adopt the revised Flagstaff Sign Free Zone map as presented.

City Council may amend the revised Flagstaff Sign Free Zone map as presented and adopt.

City Council may take no action and keep the Flagstaff Sign Free Zone as it exists today.

City Council may repeal the existing Flagstaff Sign Free Zone map.

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**Attachments:**     Resolution 2018-38  
                             Sign Free Zone Map

## **RESOLUTION NO. 2018-38**

### **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA REPEALING THE EXISTING FLAGSTAFF SIGN FREE ZONE ADOPTED BY THE CITY COUNCIL ON JUNE 7, 2016, DESIGNATING A REVISED FLAGSTAFF SIGN FREE ZONE PURSUANT TO A.R.S. § 16-1019(F) AND ESTABLISHING AN EFFECTIVE DATE**

#### **RECITALS:**

WHEREAS, Arizona Revised Statutes (A.R.S.) section 16-1019(C) prohibits cities from removing, altering, defacing, or covering political signs placed in public right-of-way if certain conditions outlined in the statute are met;

WHEREAS, despite that general prohibition, pursuant to A.R.S. section 16-1019(F), cities are authorized to designate areas of the city as sign free zones, thereby allowing cities to remove political signs that are placed in city right-of-way within the designated sign free zones;

WHEREAS, on June 7, 2016, the City Council adopted Resolution 2016-21, which designated the Flagstaff Sign Free Zone;

WHEREAS, the City Council has determined that it is in the best interest of the City to designate a revised Flagstaff Sign Free Zone to further protect the scenic and aesthetic appeal of the area within the revised zone and maintain its appeal to tourists;

WHEREAS, the City Council desires to identify by this resolution the location and extent of the rights-of-way areas to be designated as the Flagstaff Sign Free Zone;

#### **ENACTMENTS:**

#### **NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:**

##### **SECTION 1.**

The City Council hereby repeals the Flagstaff Sign Free Zone that was designated through the adoption of Resolution 2016-21.

##### **SECTION 2.**

The City Council has determined that based on a predominance of commercial tourism, resort, and hotel uses within the area to be designated as a sign free zone, the placement of political signs within the City rights-of-way in the designated zone will detract from the scenic and aesthetic appeal of the area within the zone and deter its appeal to tourists.

##### **SECTION 3.**

The City Council, pursuant to A.R.S. section 16-1019(F), hereby designates the area identified in Exhibit A, attached hereto and incorporated herein by reference, the Flagstaff Sign Free Zone.



SECTION 4.

This resolution shall become effective thirty (30) days following adoption by the City Council.

SECTION 5.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 26th day of June, 2018.

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MAYOR

ATTEST:

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CITY CLERK

APPROVED AS TO FORM:

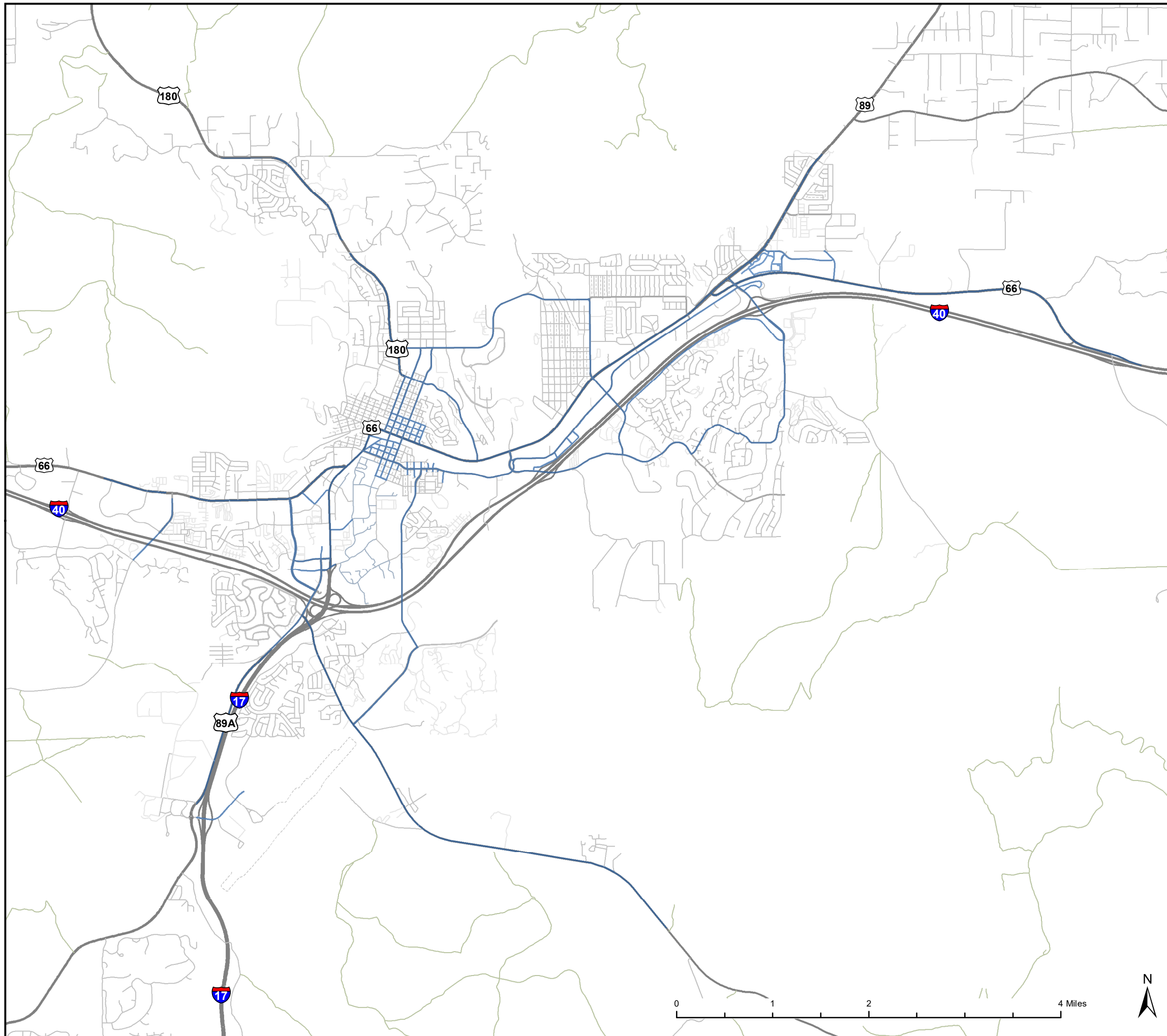
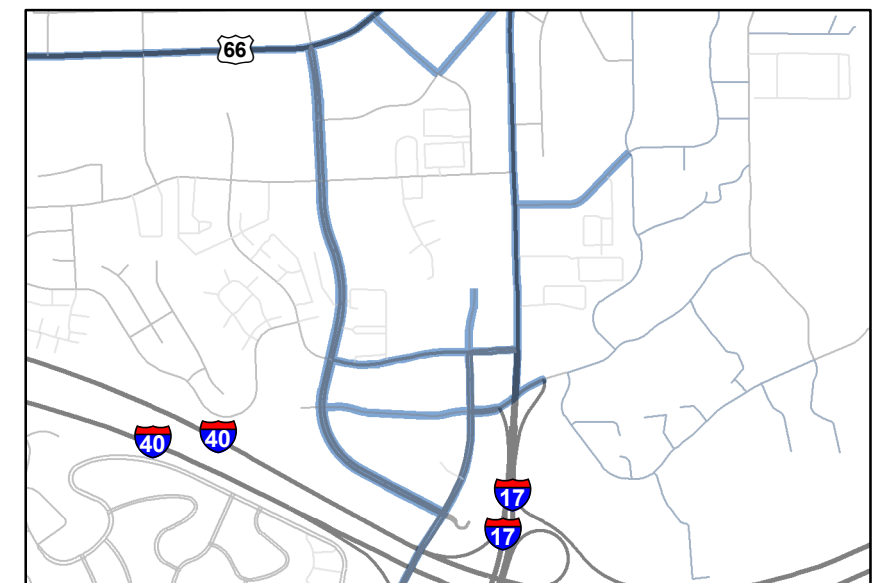
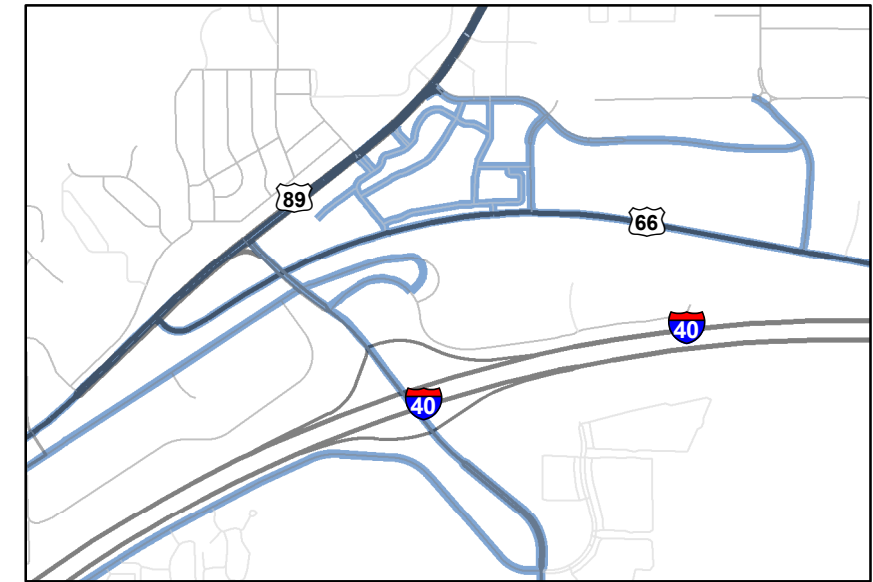
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CITY ATTORNEY

# Exhibit A

# Section 10-90.40.010: Flagstaff Sign Free Zones

Sign Free Zones



Street Names with Segment Descriptions	
Beulah Boulevard - Interstate 40 to End	Country Club Dr - Highway 89 to Continental Drive
Lucky Ln - Butler Avenue to Huntington Drive	Fort Valley Rd - Humphreys Street to City Limits
Jay St - Lucky Lane to Huntington Drive	San Francisco St - Franklin Avenue to Forest Avenue
Bronco Dr - Lucky Lane to Huntington Drive	Switzer Canyon Dr -Columbus Avenue to Route 66
Elden St - E Route 66 to Cherry Avenue	Woody Mountain Rd - Route 66 to Kiltie Lane
Verde St - E Route 66 to Cherry Avenue	State Route 89A - Beulah Boulevard to Fort Tuthill Road
Aspen Ave - Humphreys Street to Elden Street	John W Powell Blvd - Fort Tuthill Road to Pullman Drive
Leroux St - Franklin Avenue to Cherry Avenue	Flagstaff Auto Park
Cherry Ave - Humphreys Street to Elden Street	Flagstaff Mall and Marketplace District
Birch Ave - Humphreys Street to Elden Street	Route 66 - Milton Road to City Limits
Phoenix Ave - Milton Road to San Francisco Street	Cedar Ave - Gemini Drive to Fourth Street
Humphreys St - Butler Avenue to Cottage Avenue	Continental Dr - Butler Avenue to Country Club Drive
Mikes Pike St - Milton Road to Phoenix Avenue	Fourth St - Cedar Avenue to Butler Avenue
Benton Ave - Mikes Pike to San Francisco Street	Highway 89 - E Route 66 to City Limits
Kendrick St - Butler Avenue to Benton Avenue	Humphreys St - Route 66 to Fort Valley Road
Cottage Ave - Mikes Pike to San Francisco Street	Frankin Ave - Beaver Street to San Francisco Avenue
Soliere Ave - Country Club Drive to Fourth Street	Yale St - Route 66 to Plaza Way
Ponderosa Pkwy - E. Route 66 to Butler Avenue	Plaza Way - Yale Street to Milton Road
Route 66- Phoenix Ave to I-40 Westbound/ E Route 66	University Dr - Milton Road to Knolles Drive
Milton Rd - Mc Connell Drive to W Route 66	Agassiz St - Butler Avenue to Dupont Avenue
Agassazi St - E Route 66 to Cherry Avenue	O'Leary St - Brannen Avenue to Ashurst Avenue
Forest Ave - North Fort Valley Road to Gemini Drive	Elden St - Brannen Avenue to Fuller Way
Huntington Dr - Ponderosa Parkway to Fourth Street	Colorado St -Brannen Avenue to Butler Avenue
Industrial Dr - Fourth Street to Nestle Purina Avenue	Gabel St - Brannen Avenue to Butler Avenue
John W Powell Blvd - Lake Mary Road to Loan Tree Road	Lumber St - Butler Avenue to End
Nestle Purina Ave - Country Club Drive to Industrial Drive	Windsor Ln - Butler Avenue to Alleyway
Interstate 40 to Route 66 Connector	Regent St - Butler Avenue to Alleyway
Lake Mary Rd - Beulah Boulevard to City Limits	Cambridge Ln - Butler Avenue to Alleyway
Beaver St - Franklin Avenue to Forest Avenue	Sawmill Rd - Butler Avenue to Kensington Drive
Butler Ave - Milton Road to Mount Pleasant Drive	McConnell Dr. - Woodlands Village Boulevard to NAU
Woodlands Village Blvd - W. Route 66 to Beulah Boulevard	Forest Meadows St - Woodlands Village Boulevard to Milton Road
Lone Tree Rd - Butler Avenue to John W Powell Boulevard	Columbus Ave - Humphreys Street to San Francisco Street