



Update on Climate Action Planning

Draft Framework and Collaboration

April 17, 2019

Presentation Overview

- 1 Town Action Today
- 2 Draft Climate Action Framework
- 3 Next Steps & Council Feedback

Sustainability

**Environment
& Climate**



**Equity, Diversity
& Inclusion**

**Economic
Vitality**

Sustainability

**Environment
& Climate**



**Equity, Diversity
& Inclusion**

**Economic
Vitality**

Climate Commitments

An aerial photograph of a city, likely Asheville, North Carolina, featuring a prominent white church steeple with a dark spire. The city is surrounded by lush green trees, and various brick and stone buildings are visible. The sky is filled with large, white, fluffy clouds. In the foreground, there are two text overlays: a dark blue one and a green one, both containing carbon reduction goals.

60% carbon reduction by 2050

26-28% carbon reduction by 2025

A photograph showing a public transit scene. On the left, a man in a blue jacket and sunglasses is loading a black bicycle onto a rack on the back of a white bus. The bus has a digital display at the top that reads "CHAPEL HILL TRIMING". On the right, another man wearing a dark jacket and a large black backpack is carrying a young child on his back. They are standing on a sidewalk next to the bus. In the background, there is a brick building, a street with a white van, and other pedestrians. A green banner at the bottom of the image contains the text "6.7% carbon reduction".

6.7% carbon reduction

Buildings

A modern, multi-story building with a prominent cantilevered upper floor, surrounded by trees and a grassy hillside. The building features a mix of brick, wood, and metal cladding. The cantilevered section has a glass facade and is supported by a thick concrete base. The building is set on a hillside with several trees, some of which are bare, suggesting a cooler season. The sky is overcast.

Green building ordinance



LED lighting upgrades



CHAPEL HILL
TOWN HALL

Guaranteed energy savings contract
\$164k in utility savings within 2 years

A large, rectangular prefabricated concrete panel is being hoisted by a yellow crane. The panel's top surface is finished with a light-colored, textured material, likely straw bales or a similar insulation. The bottom surface reveals a grid of steel reinforcement bars (rebar) within a concrete frame. The panel is suspended by several thick black cables. In the background, a multi-story building under construction is visible, featuring green formwork and numerous window openings. A string of colorful triangular flags is strung across the lower part of the frame. The sky is clear and blue.

Energy management plans



Northside Energy Saver Initiative

Transportation

CHAPEL HILL FIRE STATION 2



Green municipal fleet



6.5 million rides annually

Hybrid buses + 2 all-electric soon



Town-wide Mobility Plan

A photograph of a tunnel entrance with a vibrant, colorful mural. The mural features a rainbow-colored border at the top and sides, and a central blue area with various geometric shapes, patterns, and symbols. The tunnel is illuminated by a series of lights along the ceiling, and a paved path leads through it. The surrounding walls are made of stone.

Greenways Master Plan

Resilience



Regional Resilience Assessment

Trees & Natural Areas

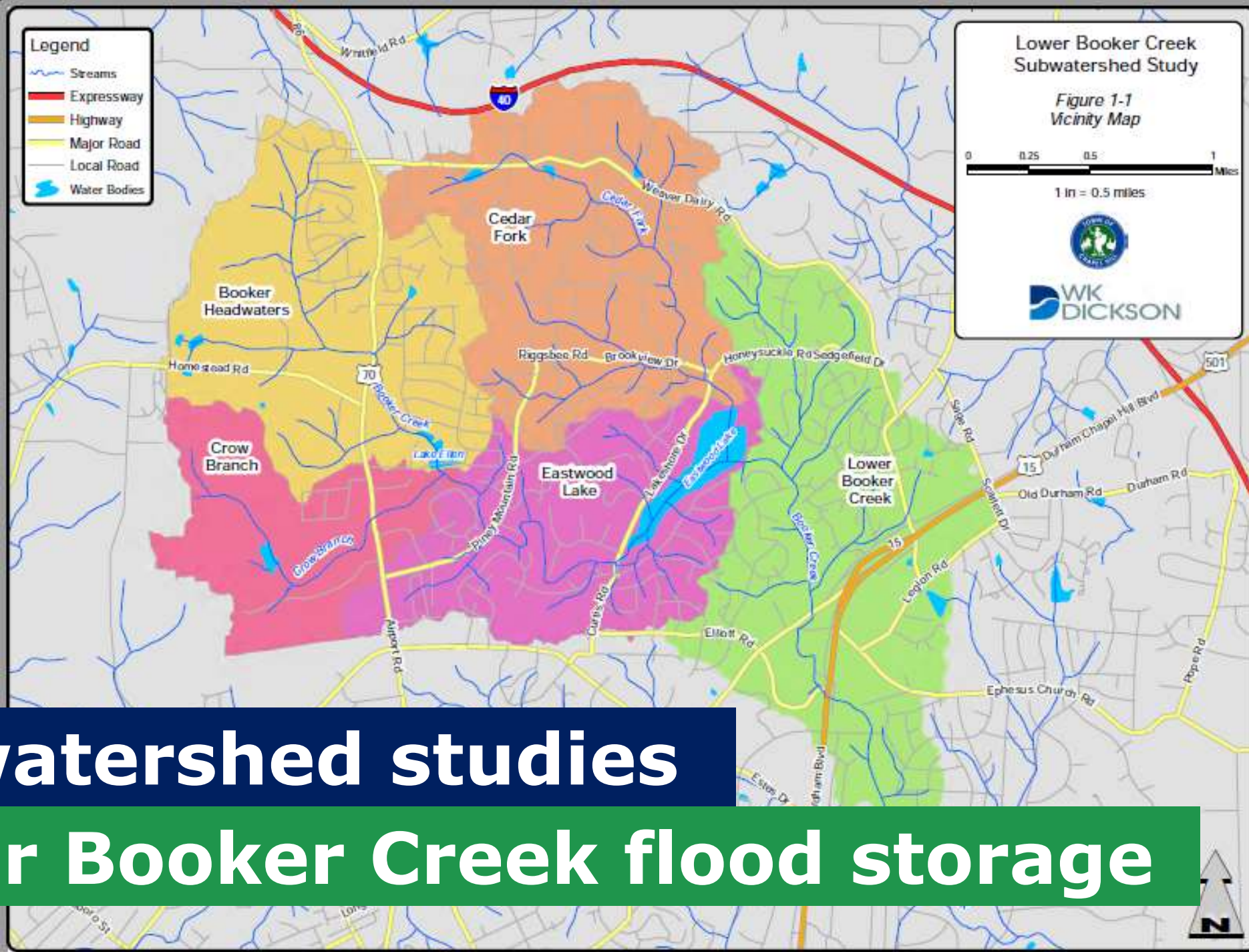
A photograph of a forest stream with autumn foliage. The water is brownish, and the banks are lined with trees showing yellow, orange, and red leaves. A paved path curves along the right side of the stream. The scene is captured in a natural, open space setting.

Natural Areas & Open Space

A photograph of a tree trunk with rough, dark bark and bright green maple leaves in the foreground. The tree trunk is the central focus, showing a deeply textured, fissured bark. Several thin, brown branches with vibrant green, lobed leaves extend across the frame from the left and right. The background is a soft-focus forest with more trees and green foliage. At the bottom of the image, there is a dark green horizontal bar containing white text.

Tree Replenishment Committee

Water



Subwatershed studies

Lower Booker Creek flood storage



Mayors Save Water Challenge

Draft Climate Action Framework



**Renewable
Energy**



**Tree & Natural
Area Protection**



**Water Conservation
& Protection**



**Transportation
Infrastructure**



**Building
Efficiency**



**Waste
Reduction**

Next Steps

2 Parallel Paths Through June 2020:

- ➔ Continue taking local action under Framework
- ➔ Create and adopt an official Climate Action Plan
 - Research best practices
 - Collaborate with UNC, Schools, County
 - Develop draft Plan with community input
 - Adopt official plan by June 2020

By 2025, Minneapolis will

Reduce energy use by **17%**.

Generate **10% of our electricity** from local, renewable sources.

Construct **30 miles** of on-street, protected bicycle facilities
and raise the bicycle commute mode share to **15%**.

Help **double** regional transit ridership
and support safe, **walkable** neighborhoods.

Hold total waste generation **flat** and recycle **half** of all waste citywide.
Reach a composting rate of **15%** of the entire waste stream.

Continue to **grow sustainably and equitably** with
more residents, jobs, and opportunity across **all of Minneapolis**.



Action	CO2 impact per Household (lbs)	Annual Savings per Household
Buy green power from your utility	2,052	\$0
Reduce your heating temperature by two degrees	568	\$52
Increase your cooling temperature by two degrees	401	\$19
Replace five incandescent bulbs with compact fluorescent (CFL) or LED bulbs that use 75% less energy	535	\$26
Use fans instead of A/C on cool summer nights	540	\$26
Leave your car at home and take the bus once a week for work, school or errands	881	\$154
Wash your clothes in cold water to save money and preserve clothing	385	\$35
Dry your clothes outside on a line	1,845	\$91
Turn your water heater down to 120F	111	\$10
Install a high efficiency showerhead	381	\$35
Drive the speed limit and maintain tire pressure for easy gas savings	1,102	\$209
Try composting to turn food waste into dirt	80	\$0

Sign up for a low-cost home energy visit to find out more ways to save: visit www.mncee.org/hes-mpls



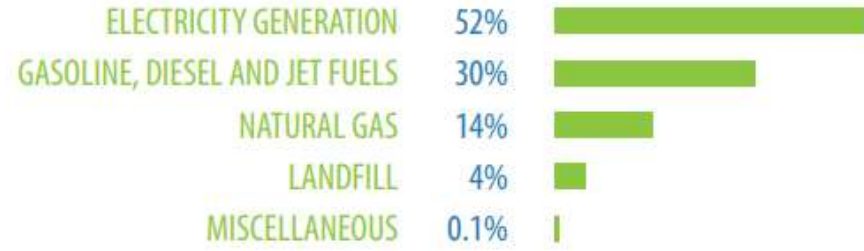
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WHERE WE ARE
2015
1,848,741 MT

OUR GOAL IS AN
80%
REDUCTION
BELOW 2005 LEVELS

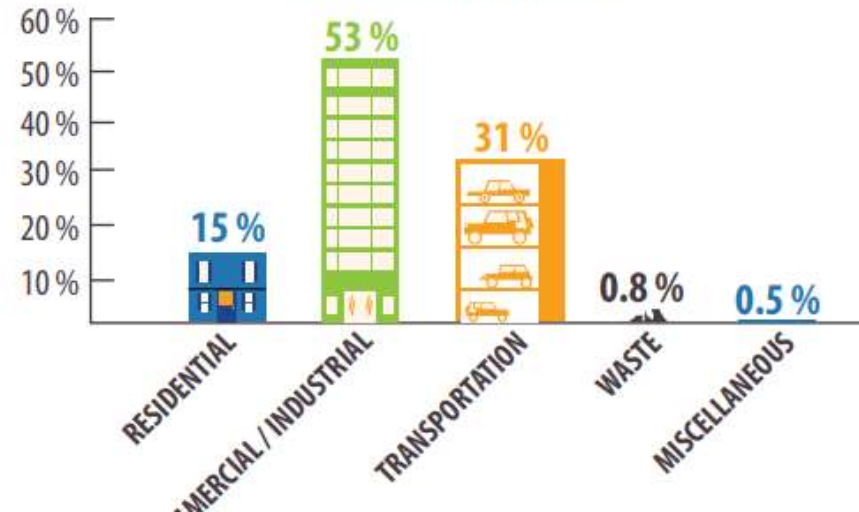
WHERE WE
WANT TO BE
2050
390,000 MT

EMISSIONS BY SOURCE



**96% of Boulder's emissions
come from burning fossil fuels.**

EMISSIONS BY SECTOR



Climate Change on the Front Range

In a recent analysis of past and future climate conditions along the northern Front Range, University of Colorado Boulder's Western Water Assessment team constructed a temperature history and projections. This analysis shows a clear warming trend since 1950, with temperatures already nearly 2 degrees F above average. This is, in part, responsible for fire seasons that are now nearly five weeks longer than the 1970s and average flowering dates for plants that are one to two weeks earlier than 20 to 30 years ago. By 2050, temperatures are projected to rise by a minimum of 2 degrees with a possible increase as high as 6 degrees. At 2 degrees, Boulder's climate would resemble Pueblo, Colorado. At 6 degrees, the closest comparison would be Albuquerque, New Mexico.



Already nearly 2 degrees F above average.



Flowering dates are one to two weeks earlier.



Fire seasons nearly five weeks longer.



Projected to be 2 to 6 degrees warmer by 2050.

What does this look like for Boulder? ←

+2°

Fahrenheit



PUEBLO, CO

+6°

Fahrenheit



ALBUQUERQUE, NM

¹ <http://www.noaa.gov/news/july-was-hottest-month-on-record-for-globe>

² <http://planthardiness.ars.usda.gov>

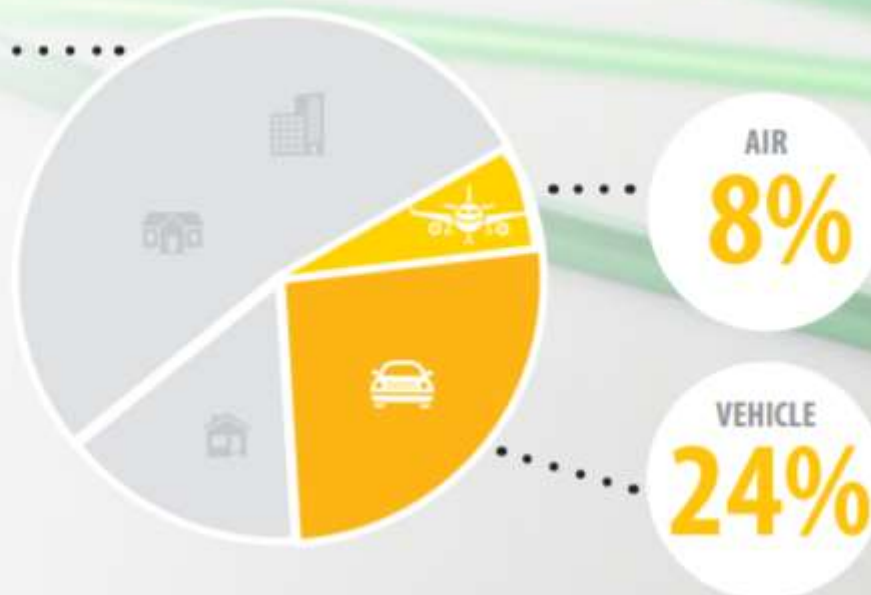
Targets & Time frame

	METRIC	2015	2020	2035 ¹	2050 ²
Vehicle Miles Traveled (VMT)	Millions of Miles	2.65	2.32	1.95	1.59
Walk/Bike/Transit Rideshare	% of trips	64%	69%	80%	92%
Vehicle Energy Efficiency	MPGe	22	40	61	88
% Complete Neighborhoods	% of Census Blocks	26%	N/A	80%	N/A
Electric and alternative Fuel Vehicles	% Light-Duty Fleet	1%	15%	45%	75%

Transportation Share of Total Emissions

Buildings

The proportion of total emissions from buildings and their related energy sources are discussed in the section on "High Performance Buildings."



Zero Waste Partners

Eco-Cycle operates the Center for Hard-to-Recycle materials (CHaRM), keeping tons of large appliances and other difficult to recycle materials out of the landfill. It also organizes the community and volunteers in support of zero waste initiatives, including a network of block leaders throughout the community.

Western Disposal partners with the city to provide yard and wood waste drop-off centers. It is also an active collaborator with the city on pilot projects and innovation solutions, such as the launch of bear resistant trash cans and compost carts.

Boulder County owns and manages regional facilities, including Boulder County Recycling Center, the primary sorting and distribution for the community's recycling materials. It also operates the Hazardous Materials Management Facility, which diverts thousands of pounds and gallons of otherwise toxic materials out of our landfills. The county also jointly supports (with the City of Boulder) the Partners for a Clean Environment (PACE) service, providing zero waste services to Boulder businesses.

The **Center for ReSource Conservation** operates ReSource, which sells reclaimed building materials and runs a community tool lending library. In 2014, ReSource reclaimed more than 3.3 million pounds of building materials.

University of Colorado is an important waste management partner with city by providing outreach to the student community through its student staffed "green teams." These teams provide face-to-face information and education to thousands of students each year, discussing both energy efficiency and waste reduction.

