

A large, colorful hot air balloon with a checkered pattern of red, orange, yellow, green, and blue, floating in a blue sky over a body of water. Other smaller hot air balloons are visible in the distance.

WASHOE COUNTY GREEN RECOVERY PLAN

Office of Emergency Management

& Homeland Security, April 2022

Prepared for the Office of the County
Manager, Emergency Management Division

June 2022



MISSION

The purpose of the mission statement is to clearly articulate why we exist as an organization.

Working together regionally to provide and sustain a safe, secure, and healthy community.

VISION

The purpose of the vision is to establish a concrete picture of the future:

Washoe County will be the social, economic and policy leadership force in Nevada and the western United States.

GUIDING PRINCIPLES

As Washoe County employees, we approach our work by putting first our community responsibility to:

Support and represent the people we serve.

Elevate the quality of life so our community is a great place for everyone to live, regardless of means. We support and believe in diversity, inclusivity, and accessibility to all.

Be forward thinking.

We will make decisions that are future looking, support economic diversification and are financially sustainable.

Protect our natural resources.

Be caretakers of the environment so we preserve our region for future generations.

Collaborate within and across the County.

Nurture and strengthen collaboration regionally with citizens, community organizations, nonprofits, business, and government agencies.

Commit to digital delivery.

Drive a fundamental change through the value chain of County services by continuing digital delivery of services and processes where the outcomes for citizens and staff are improved.

Reduce redundancies and non-value adds.

Reduce non-value add steps in the process. Stop non-essential services by deconstructing and reconstructing where we can.

Show up as "One County" externally and internally.

Promote the idea that we are "One County" instead of independent entities, while also celebrating the uniqueness of each department.

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INTRODUCTION

In response to the COVID-19 pandemic, Washoe County developed the **COVID19 – 2021 Recovery Action Plan**. The plan recognizes that disasters do not occur within jurisdictional boundaries. Emergency management, hazard mitigation, and recovery plans are developed with the cities and other regional partners affected.

This green recovery plan focuses on specific recovery strategies identified in the **COVID19 – 2021 Recovery Action Plan** that help to build on Washoe County’s environmental and sustainability initiatives, and address the identified impacts associated with infectious disease in the Regional Hazard Mitigation Plan.

The plan was developed by members of the Regional Emergency Operations Center and coordinated by Washoe County’s Emergency Management Program.

The **COVID19 – 2021 Recovery Action Plan** identifies three main objectives, to:

- 1. Promote the physical and mental health and financial wellbeing of residents.**
- 2. Facilitate business continuity and resilience within the Washoe County and partner organizations to return to a more normal state by integrating disaster risk reduction measures into the revitalization of livelihoods, economies, and the environment.**
- 3. Learn from the organizational response to the pandemic to better prepare for a similar event in the future.**

The recovery plan supports the county’s mission, vision and guiding principles to **provide and sustain a safe, secure, and healthy community**. And the recovery plan can help to inform

Envision Washoe 2040, Washoe County’s Master Plan update.

*In response to the opportunities and challenges facing our region, we are re-envisioning our approach to growth. **ENVISION WASHOE 2040** is a community driven process to update our Master Plan and Development Code to focus on the goals, policies, codes, and programs needed for our diverse and dynamic community to thrive in the next ten to twenty years.*

GREEN RECOVERY

The pandemic illuminated the links between air pollution and increased mortality. Increased exposure to air pollution caused by wildfires and vehicle emissions resulted in an estimated 18 percent of COVID-19 deaths in the United States. Mortality rates were higher for groups that are disproportionately affected by air pollution, low-income and communities of color.

In Reno, researchers reported a 17.7 percent increase in COVID-19 from August 16 to October 10, 2020 that was attributable to air pollution caused by wildfire smoke. Climate change increases the frequency and intensity of wildfires. Warming temperatures have contributed to a nearly doubling of the land area burned in the western U.S. over the past three decades.

Conversely, climate actions can improve air quality. Communities are finding that investments in strategies that reduce climate pollution help to strengthen resilience, accelerate economic recovery, and improve equity outcomes.

Prior to the pandemic, Nevada had made significant progress toward lowering the unemployment rate as well as hunger. COVID-19 dealt a significant setback to Nevada's progress. In April 2020, Nevada's COVID-related unemployment rate was the highest in the nation at 29.5 percent in April 2020. Unemployment was highest and slowest to recover among low-wage workers. As people lost their jobs, Nevada's food insecurity rate increased to 17 percent.

The pandemic also disproportionately affected workers who commuted to work using public transportation. Transit ridership had been increasing over the past two decades, an important outcome for communities tackling climate change. The pandemic reversed this national trend.

Fortunately, through research we learned that best practices in sanitation and ventilation are effective against the spread of COVID for those that rely on public transit. This information will help in efforts to address climate change. In Nevada, the transportation sector is the leading source of greenhouse gas emissions. Reducing automobile dependence is one of the most important strategies for reducing carbon emissions and for improving air quality.

The pandemic renewed interest in the public health benefits of urban forests. More people visited parks and urban green space during the pandemic, including more young people and families with children. Changes in behavior resulted in residents placing a higher value on urban forests and the need to prioritize green space as a public service.

Trees also offer a nature-based solution that strengthens climate resilience by pulling carbon dioxide out of the atmosphere. Tree canopies can cool cities by up to 10 degrees.

The goals and strategies outlined in this plan will help to hasten recovery and strengthen resilience from future events with wide-ranging impacts to the community.

TABLE KEY

The **table key** defines how to interpret the Green Recovery Goals & Strategies table on pages 4 and 5. The table was designed to offer a visual representation of the degree of effort required to develop and implement each strategy measured in estimated staffing resources needed.

The table key also offers a representation for the magnitude of **potential** impact specific strategies can have toward achievement of goals and the desired outcomes of strengthening recovery and community resilience and improving equity and access to services and public investments.

DEGREE OF EFFORT	Cost	Effort
LOW COST / LOW EFFORT: < \$50,000 and/or < 0.1 FTE		
MEDIUM COST / MEDIUM EFFORT: \$50,000 to < \$100,000; 0.1 to < 0.25 FTE		
HIGH COST / HIGH EFFORT: > \$100,000 and/or > 0.25 FTE		
DEGREE OF IMPACT	Recovery & Resilience	Equity & Access
HIGH POTENTIAL IMPACT		
MEDIUM POTENTIAL IMPACT		
LOW POTENTIAL IMPACT		

DEPARTMENTS

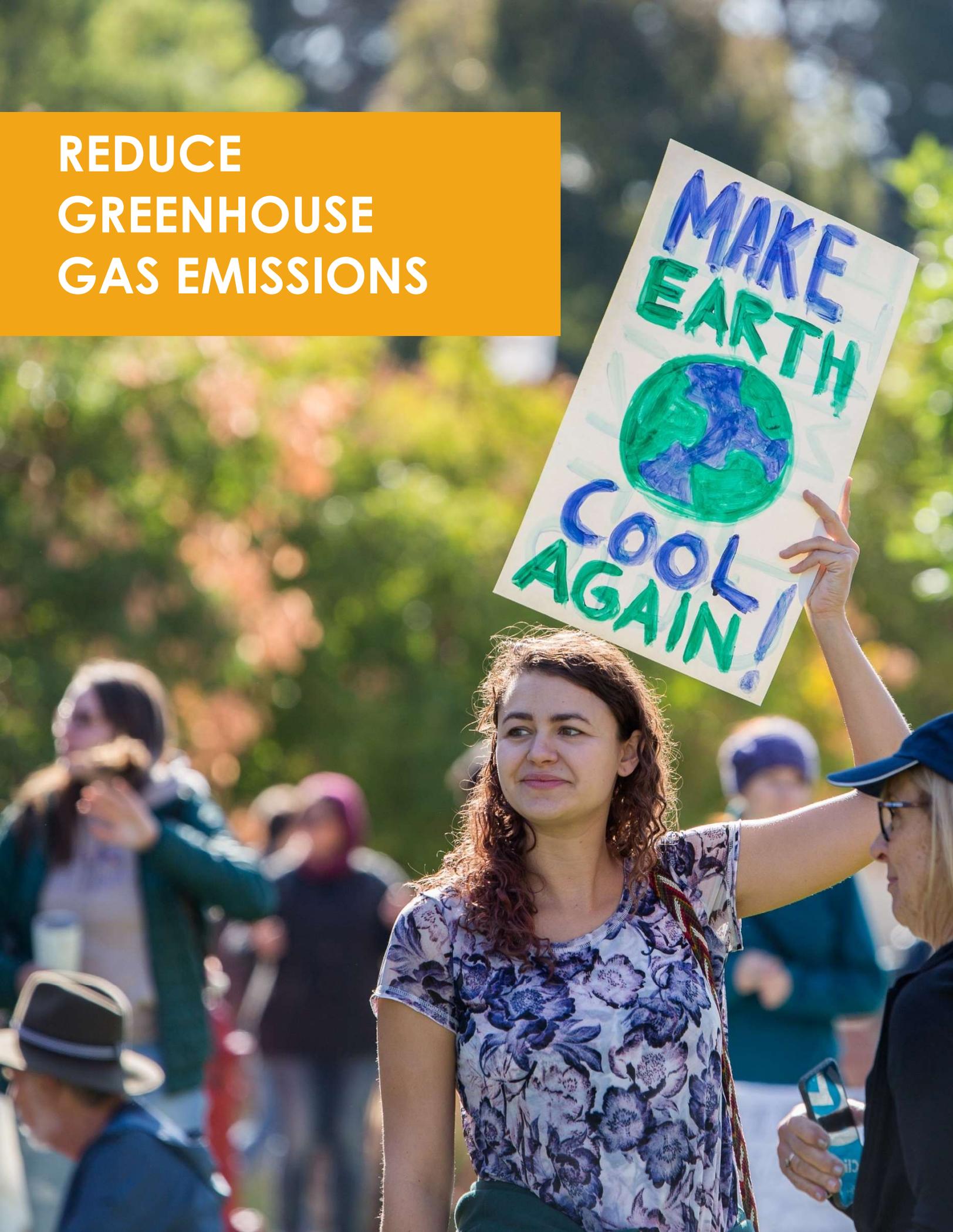
CMO	County Manager's Office
CSD	Community Services Department
EM	Emergency Management
HR	Human Resources
HSA	Health Services Agency
PARKS	Regional Parks and Open Space
WCHD	Health District

GREEN RECOVERY GOALS & STRATEGIES

	Department Lead	Cost	Effort	Recovery & Resilience	Equity & Access
REDUCE GREENHOUSE GAS EMISSIONS (GHG)					
1. Conduct a community-wide GHG inventory to monitor and report progress.	CMO	Green	Green	Blue	Light Blue
2. Establish GHG reduction targets that align with state and federal targets.	CMO	Green	Green	Blue	Light Blue
3. Create Master Plan goals and policies that guide the community's response to climate change.	CSD	Green	Green	Blue	Light Blue
4. Gain SolSmart designation to facilitate solar expansion.	CSD	Green	Green	Light Blue	Light Blue
5. Launch a Commercial Property Assessed Clean Energy (C-PACE) program.	CSD	Green	Green	Light Blue	Light Blue
ENHANCE RESILIENCE & MITIGATE CLIMATE CHANGE IMPACTS					
1. Fund and hire a Hazard Mitigation Program Coordinator to lead a regional, strategic, and coordinated program.	EM	Red	Green	Blue	Blue
2. Develop initiatives that mitigate climate impacts including wildfire, drought, flooding, and extreme heat.	EM	Green	Red	Blue	Light Blue
3. Coordinate a collaborative, regional defensible space pilot program.	EM	Green	Red	Blue	Light Blue
4. Evaluate the feasibility and cost/benefits of a regional green waste collection and composting program.	WCHD	Green	Green	Blue	Light Blue
5. Pilot a curbside green waste collection and composting program to facilitate fuels reduction.	CMO	Green	Green	Blue	Light Blue
STRENGTHEN FOOD SECURITY & INCREASE ACCESS TO HEALTHY FOODS					
1. Create Master Plan goals and policies that expand food security and access to healthy food.	CSD	Green	Green	Blue	Blue
2. Increase utilization, retain participation, and expand access to WIC food assistance benefits.	WCHD	Green	Orange	Light Blue	Light Blue
3. Expand the Healthy Corner Store Initiative and access to healthy foods at convenience stores.	WCHD	Green	Green	Light Blue	Light Blue
4. Provide financial support to the Food Bank of Northern Nevada and collaborate with food services providers.	HSA	Orange	Green	Blue	Blue
5. Expand the community garden program.	PARKS	Green	Green	Light Blue	Light Blue

STRATEGIES	Department Lead	Cost	Effort	Recovery & Resilience	Equity & Access
INVEST IN EQUITABLE, MULTIMODAL TRANSPORTATION INFRASTRUCTURE					
1. Create Master Plan goals and policies that increase access and encourage use of alternative transportation.	CSD	■	■	■	■
2. Demonstrate leadership by implementing a SMART Trips commuter program for county employees.	HR	■	■	■	■
3. Develop a green fleet policy and goals to transition the county's fleet to electric and alternative fuel vehicles.	CSD	■	■	■	■
4. Invest in electric vehicle (EV) infrastructure on county property and public rights-of-way.	CSD	■	■	■	■
5. Amend the development and building code to include EV-ready requirements.	CSD	■	■	■	■
6. Advocate for multimodal transportation infrastructure that increases equitable access to mobility options.	CMO	■	■	■	■
ESTABLISH AN URBAN FORESTRY PROGRAM					
1. Create Master Plan goals and policies that promote urban forestry and expand the tree canopy and street trees.	CSD	■	■	■	■
2. Amend the Development Code to strengthen tree planting, maintenance, and preservation requirements.	CSD	■	■	■	■
3. Establish an urban forestry program.	PARKS	■	■	■	■
4. Utilize a data-driven approach with the TreeKeeper® urban forestry management system.	PARKS	■	■	■	■
5. Advocate for trees in NDOT and RTC Washoe transportation projects.	CMO	■	■	■	■
6. Develop community engagement programs such as ReLeaf and the Arbor Day Energy-Saving Trees give-away.	PARKS	■	■	■	■
7. Prioritize tree planting in underserved communities and areas with high urban heat vulnerability.	PARKS	■	■	■	■

**REDUCE
GREENHOUSE
GAS EMISSIONS**



STRATEGIES

1. *Conduct a community-wide GHG inventory to monitor and report progress.*
2. *Establish GHG reduction targets that align with state and federal targets.*
3. *Create Master Plan goals and policies that guide the community's response to climate change.*
4. *Gain SolSmart designation to facilitate solar expansion.*
5. *Launch a Commercial Property Assessed Clean Energy (C-PACE) program.*

OVERVIEW

A clear link exists between air pollution and an increase in mortality from COVID-19. In the U.S., increased exposure to particle pollution resulted in an estimated 18 percent of COVID-19 deaths. Particle pollution is caused by wood stoves, forest fires, power plants, construction activities, and cars and trucks. COVID-19 mortality rates are even higher for historically disadvantaged and frontline communities who are disproportionately affected by air pollution, including low-income and communities of color.

Following the Great Recession, Nevada invested in diversifying its economy. While significant gains were made, Nevada's COVID-related unemployment rate was the highest in the nation at 29.5 percent in April 2020. Unemployment was highest and slowest to recover among low-wage workers.

Climate action can simultaneously improve air quality while also addressing the public health

and economic impacts caused by the pandemic. Communities are finding that investments in strategies that reduce climate pollution help to strengthen resilience, accelerate economic recovery, and improve equity outcomes.

Climate Mayors, a bipartisan network of over 470 U.S. mayors, reported that investments in low-carbon transportation options will produce more high-quality jobs than conventional infrastructure investments. Public transit, bicycle infrastructure, and pedestrian infrastructure will respectively create 17.9, 11.4, and 9.9 direct, indirect, and induced jobs every \$1M invested, whereas road projects will create 9.9. (Climate Mayors, 2021)

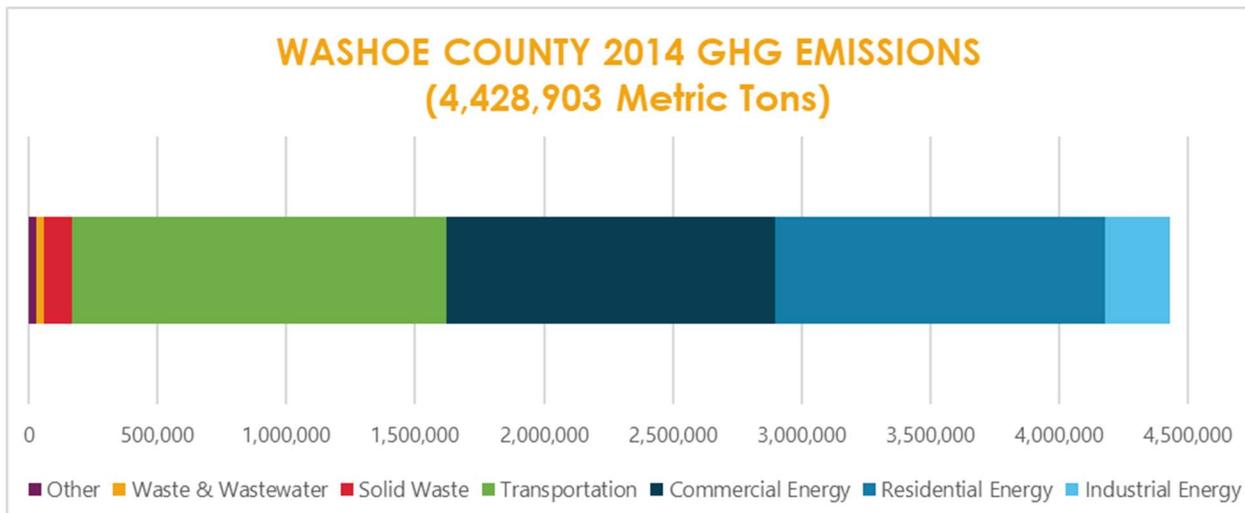
Climate change is one of the most-significant threats facing Nevada's economy. The State of Nevada Climate Initiative reports that actions that drive down emissions will also generate more and better jobs while improving the state's economic resilience. The 2020 State Climate Strategy provides a framework for achieving aggressive emission reduction targets and creating new, high-quality jobs.

Nevada's strategy calls for a transition to low- and zero-emission vehicles and commutes. Clean energy and investments in energy efficiency are needed to reduce emissions from building energy use. Urban forestry and natural resource protection will help to sequester carbon and lower ambient temperatures.

Climate investments to achieve the State's targets will amplify efforts to diversify the economy. Identified strategies will also prevent between \$172 and \$786 million in economic damages by 2030.

As we continue our recovery from the COVID-19 pandemic, climate action must play a key role in rebuilding a stronger, more climate-friendly and equitable economy for Nevada. Put simply, we must build back stronger.

– Governor Steve Sisolak



ACTIONS

Conduct a community-wide GHG inventory to monitor progress.

Washoe County has taken the bold step to track and report carbon emissions from county facilities and fleets. The county launched a new public-facing dashboard. The carbon management platform, developed by Reno-based nZero, monitors progress toward emission reduction goals.

Tracking and reporting community-scale greenhouse gas (GHG) emissions is also needed. In 2016, the City of Reno, Washoe County Health District and Reno-Tahoe Airport Authority gathered 2014 data and measured community-scale emissions utilizing the **Global Protocol for Community-scale Greenhouse Gas Emission Inventories**.

The data was entered into a software tool developed by ICLEI USA called ClearPath. It offers an easy-to-use online platform for gathering, analyzing, and reporting community-scale emissions. ClearPath also forecasts emission reductions for identified actions and helps communities monitor and report progress toward adopted targets. ICLEI USA will complete a GHG inventory for its members for a small fee as well as membership dues.

Establish GHG reduction targets that align with state and federal targets.

In 2019, the State of Nevada Legislature passed Senate Bill 254, establishing the following GHG emission reduction targets:

- **28 percent by 2025**
- **45 percent by 2030**
- **Net-zero by 2050**

The U.S. set an economy-wide target of reducing GHG emissions by 50 to 52 percent by 2030. The target aligns with the Paris Climate Agreement, which aims to limit the increase in global average temperature to 1.5° Celsius above pre-industrial levels.

The county can support the State of Nevada and U.S. efforts by adopting a similarly ambitious emission reduction target. Regular reporting will ensure the county stays on track in its efforts to achieve its GHG emissions reduction target.

Create Master Plan goals and policies that guide the community's response to climate change.

Envision Washoe 2040 is an initiative to update the County Master Plan and Development Code. The Master Plan reflects the community's vision and values for growth to ensure access to housing, transportation, employment, public



Turquoise Solar Energy Project, Estuary Capital Partners

services, and recreation. The County also identified climate change as a significant change since the last Master Plan update.

The American Planning Association (APA) emphasizes the critical role of planning in addressing the challenge of climate change. The APA developed the *Climate Change Policy Guide* that offers local and regional climate policies, standards, and regulations. The APA shares that “planning is the only profession working at the intersection of transportation, development, and land use—the sectors most critical to climate mitigation and adaptation.”

Envision Washoe 2040 aims to incorporate goals and policies that reflect the role of land use, development, and transportation in short- and long-term responses to climate change.

Gain SolSmart designation to facilitate solar expansion.

SolSmart is a program funded by the U.S. Department of Energy and led by the International City/County Management Association. SolSmart recognizes cities and counties for making it faster, easier, and more affordable to go solar. Recommended best practices have been shown to save solar customers as much as \$2,500 in soft costs.

SolSmart offers no-cost technical assistance to help municipalities evaluate their processes and

adopt best practices in permitting, inspection, planning and zoning.

More than 400 U.S. towns, cities, and counties have gained a SolSmart designation including Las Vegas, Henderson, and Reno.

Launch a Commercial Property Assessed Clean Energy (C-PACE) program.

Expanding C-PACE programs is identified as a priority in Nevada’s Climate Strategy. C-PACE is an innovative financing model that enables low-cost, long-term loans for energy efficiency and renewable energy projects. The loan is repaid as an assessment on the property tax bill.

The State of Nevada enables a governing body to implement PACE financing programs for commercial, industrial, and multifamily properties (NRS 271.265-271.630). This innovative financing model allows property owners to finance 100 percent of the hard and soft costs of clean energy improvements and repay the loan through a voluntary assessment. The loan is attached to the property and is transferrable to a new owner upon sale.

Las Vegas was the first city to implement a PACE program and hired an administrator to manage the program. Washoe County can join Las Vegas, Reno, and Fernley by passing a PACE program resolution and joining the contract with the program administrator.

IMPLEMENTATION SCHEDULE & BUDGET

ACTION	FY 23				FY 24				BUDGET SUMMARY	BUDGET ESTIMATE
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Conduct a community-wide greenhouse gas inventory.									ICLEI Dues & Service Fees	\$21,000
Establish Washoe County operations GHG reduction targets.										
Establish community-wide GHG reduction targets.										
Create Master Plan goals and policies to address climate change.										
Gain SolSmart designation.										
Launch a C-PACE program.										
TOTAL										\$21,000

AGENCY PARTNERS

- Community Services Department
- County Manager’s Office
- Washoe County Health District

COMMUNITY PARTNERS

- City of Reno and City of Sparks, Incline Village, Sun Valley GIDs
- Dept. of Conservation & Natural Resources
- Governor’s Office of Energy
- RTC Washoe
- Tahoe Regional Planning Agency
- Truckee Meadows Regional Planning Agency

FUNDING CLIMATE ACTION

The Nevada Governor’s Office of Energy offers a few grant programs that help government entities reduce operational energy use and incentives for low-income solar projects.

The most significant funding opportunities to advance a county climate initiative will come

through the \$1.2 trillion American Infrastructure Investment and Jobs Act. The Biden Administration published a guidebook to help state, local, and tribal leaders navigate funding opportunities.

Funds for climate, energy and the environmental will help to modernize the power grid and expand renewable, distributed energy systems; weatherize and upgrade homes and commercial buildings; upgrade wastewater facilities; and invest in workforce development.

RESOURCES & FUNDING

- Nevada Governor’s Office of Energy programs: https://energy.nv.gov/Programs/Active_Programs/
- Building a Better America Infrastructure Law and funding guidebook: <https://www.whitehouse.gov/build/>
- National Association of Counties Analysis of Bipartisan Infrastructure Law: <https://www.naco.org/resources/legislative-analysis-counties-bipartisan-infrastructure-law>



RENO START-UP nZERO HELPS WASHOE COUNTY TRACK MUNICIPAL CARBON EMISSIONS

Business guru Peter Drucker famously observed, “If you can’t measure it, you can’t improve it.”

That’s important for businesses, and it’s even more important for the essential campaign to reduce emissions of greenhouse gases in Washoe County. Smart initiatives to reduce greenhouse gas emissions by the county government require sophisticated tools that provide county leaders with detailed information about the sources of carbon emissions.

Thanks to the innovative nZero measurement technology developed by a company in Reno, Washoe County today receives a constant, 24/7 flow of data that tracks carbon emissions from facilities ranging from parks and office buildings to maintenance facilities. It tracks emissions from the hundreds of vehicles operated by county employees – everything from giant road graders to the economy cars driven by social workers.

The technology doesn’t just measure direct emissions such as the gasoline burned by county vehicles or the natural gas that fires the boilers that heat county office buildings. It also tracks indirect emissions – for example, from the generating plant many miles away that produces the electricity to power that light bulb over the reference desk at a Washoe County library.

Even better, the nZero software crunches millions of data points, providing county managers with an up-to-the-minute dashboard of useful information in an easy-to-understand format. The dashboard shows, too, the financial savings that might be possible as the county reduces its emissions.

Accurate, detailed, and current information allows the county staff to see opportunities to reduce emissions of greenhouse gases, and it provides the data they need to make the best- possible decisions.

The dashboard might point out, for example, opportunities to shift activities that require a lot of power into work hours when supplies of electricity generated by renewable sources are most available. (The county has installed carbon- free generation including solar panels at three of its sites, including its Administrative Complex.)

The decisions that Washoe County makes to meet or exceed its goals for greenhouse-gas reduction will be only as good as the information that’s available. With the nZero technology, county leaders are using some of the best information available.

Learn more at <https://public.nzero.com/washoe/>

ENHANCE RESILIENCE & MITIGATE CLIMATE CHANGE IMPACTS



STRATEGIES

- 1. Fund and hire a Hazard Mitigation Program Coordinator to lead a regional, strategic, and coordinated program.**
- 2. Develop initiatives that mitigate climate impacts including wildfire, drought, flooding, and extreme heat.**
- 3. Coordinate a collaborative, regional defensible space pilot program.**
- 4. Evaluate the feasibility and cost/benefits of a regional green waste collection and composting program.**
- 5. Pilot a curbside green waste collection and composting program to facilitate fuels reduction.**

OVERVIEW

The Center for Disease Control and Prevention reports that wildfire smoke can make residents more prone to COVID-19 infection. Researchers found a substantial increase in COVID-19 cases and deaths caused by fine particulate air pollution (PM2.5) from wildfire smoke. During the period from August 16 to October 10, 2020, the Desert Research Institute reported a 17.7 percent increase in COVID-19 cases in Reno attributable to PM2.5 caused by wildfire smoke. Children, seniors, pregnant women, people with chronic health conditions, outdoor workers, and lower income residents are more at risk from the effects of wildfire smoke.

Wildland Firefighters are exposed to increased risk and severity of COVID-19 infection. Work and living conditions in camps are defined by close quarters and limited access to hygiene supplies. Camp proximity to wildfires leads to increased exposure to PM2.5.

Climate change increases the frequency and intensity of wildfires. The increase in average annual temperatures has contributed to a nearly doubling of the land area burned by forest fires in the western U.S. over the past three decades.

Warmer temperatures and less spring rainfall increase dryness. More dry vegetation creates more fuel that feeds fires. Each degree of warming leads to an exponential increase in wildfire area. The cost for battling wildfires, land area burned, and property loss is likely to grow from year to year.

Mitigating the effects of climate change will build Washoe County's capacity to resist and "bounce back" after climate-related hazardous events such as wildfire and drought. Climate resilience reduces risk associated with climate impacts. The risks affect everyone: city government, businesses, and residents. They include economic disruptions from property loss, damage to infrastructure or communication assets, increased health and public safety concerns, and population displacement.

Climate change in Washoe County will bring more rain and less snow each year. Even though the total amount of precipitation may not change, the region's water infrastructure has been designed to capture the dependable flow of melting snow. The fire danger will rise as precipitation patterns shift, and spring, summer and autumn months become dryer. More fires, in turn, will bring more bad-air days.

The Nevada Division of Forestry (NDF) is an important partner that provides wildfire protection statewide through its Wildland Fire Protection Program. The program helps local government and residents to reduce the risk of wildfire through education on prevention tactics such as defensible space.

NDF also reduces fuels that increase wildfire risk, such as cheatgrass and other invasive species. Washoe County and the Truckee Meadows Fire Protection District looks to the Wildland Fire Protection Program to provide financial assistance with wildland fire costs and increased suppression resources to help reduce the risk of wildfire in the county.

The year 2020 brought unimaginable challenges in public health, with the convergence of the COVID-19 pandemic and wildfires across the western United States. ...we are providing the evidence that climate change—which increases the frequency and the intensity of wildfires—and the pandemic are a disastrous combination.

– Francesca Dominici, Clarence James Gamble Professor of Biostatistics, Population and Data Science, Harvard Chan School of Public Health

ACTIONS

Fund and hire a Hazard Mitigation Program Coordinator to lead a regional, strategic, and coordinated program.

In 2017, Nevada ranked second among the 50 states in the number of acres burned by wildfires. There were 768 wildfires across Nevada that burned 1,329,289 acres. The Bureau of Land Management alone spent an average of \$52 million annually over the past five years in Nevada on preparation, wildfire suppression, and wildfire rehabilitation. The Verisk Wildfire Risk Analysis ranked Nevada the 12th most wildfire prone state in 2017—63,500 households faced high or extreme risk from wildfire.

The USDA Forest Service reports that wildfire education and prevention programs pay for themselves many times over. A study found that every one dollar spent on wildfire prevention education can reduce wildfire damages and firefighter costs by as much as \$35.

The Infrastructure Law will invest \$131 million in the USDA Forest Service’s 10-year wildfire strategy: ***Confronting the Wildfire Crisis: A Strategy for Protecting Communities and Improving Resilience in America’s Forests.***

An increase in staff capacity will improve Washoe County’s ability to benefit from federal funding and investments designed to reduce costs associated with wildfire. Currently, there is

no unifying mitigation force in the region. As a result, efforts are piecemeal, and services are underutilized by residents.

Develop initiatives that mitigate climate impacts including wildfire, drought, flooding, and extreme heat.

In *What Climate Change Means for Nevada*, the National Climate Assessment paints a grim picture of Washoe County’s future. Higher temperatures will lead to decreased snowpack, shorter ski and winter sports seasons, and reduced economic activity related to tourism.

Snowpack is our primary source of water. Less water will be available for people and industry. Higher temperatures and less water will result in longer and more severe droughts, less water for ranching and farming, and more frequent and intense wildfires that put people and property at risk. Nevada’s unique ecosystems and landscapes will be at risk, as will the health of residents, especially the vulnerable—children, seniors, the chronically ill, and the poor.

Guidance resources are available through FEMA, the American Planning Association, and ICLEI USA’s Climate Adaptation and Community Resilience Network to name just a few. Smart Growth America recommends building compact and energy-efficient neighborhoods connected by transit and multimodal transportation infrastructure. FEMA’s guide ***Building Community Resilience with Nature-Based Solutions*** can also provide a pathway for increased federal funding.

Coordinate a collaborative, regional defensible space pilot program.

The Nevada Division of Forestry, U.S. Forest Service, U.S. Bureau of Land Management, Truckee Meadows Fire Protection District, North Lake Tahoe Fire Protection District, University of Nevada, Reno, and other key stakeholders, work closely on a range of wildfire prevention programs. Defensible space, fire adapted communities, and fuels reduction such as Junk



Truckee Meadows Fire Protection District

the Junipers are a few of the well-established programs that are helping to reduce the threat of wildfire in urban neighborhoods, the urban-wildland interface, and forests.

A regional mitigation coordinator can unify, coordinate, support, and help to amplify these efforts through a range of initiatives, including: education and outreach, communication campaigns, pilot programs, and tools and resources.

Evaluate the feasibility and cost/benefits of a regional green waste collection and composting program.

Fuels reduction is a primary wildfire prevention strategy that focuses on highly combustible vegetation. The TMFPD Fuels Program offers access to free or reduced-rate work forces and equipment to help residents reduce fuels. TMFPD also hosts a twice-per-year green waste recycling program. Residents can bring green waste to designated drop-off sites for disposal.

In 2018, Washoe County Health District conducted a waste composition study and found that more than 40 percent of municipal solid waste is comprised of organic materials that can easily be recycled into compost. A feasibility study on curbside green waste recycling can examine the costs and benefits of

collecting and composting green waste. Regular curbside collection of green waste, combined with education and outreach on the importance of fuel reductions, may lead to better fuels reduction outcomes than current programs.

Pilot a curbside green waste collection and composting program to facilitate fuels reduction.

If the cost/benefit analysis of green waste recycling are favorable, Washoe County can test this strategies effectiveness in reducing fuels through a pilot program. The pilot program can target high-risk communities located in the urban-wildland interface.

Implementing a green waste recycling program will require an investment in time and equipment for collection services and composting. Time is needed to draft and enter into contracts, purchase equipment, invest in infrastructure, and ready the community for the new service. However, a pilot program can be deployed quickly by contracting with Waste Management for collection services and a local composting facility to process the green waste. The pilot program can be designed to test and validate specific questions and concerns.

IMPLEMENTATION SCHEDULE & BUDGET

ACTION	FY 23				FY 24				BUDGET SUMMARY	BUDGET ESTIMATE
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Hire a Climate Mitigation Program Coordinator.									Salary + Benefits	\$110,000
Develop and implement climate mitigation initiatives.										
Coordinate a regional defensible space pilot program.									Revegetation	\$5,000
Evaluate feasibility of a regional green waste recycling program.									Professional Services	\$25,000
Pilot curbside green waste collection for fuels reduction.									Potential Revenues	
TOTAL										\$140,000

AGENCY PARTNERS

- County Manager's Office
- Office of Emergency Management
- Truckee Meadows Fire Protection District
- Washoe County Health District

COMMUNITY PARTNERS

- Nevada Division of Forestry
- Reno Fire Department
- Sparks Fire Department
- University of Nevada, Reno
- USDA Forest Service
- U.S. Bureau of Land Management

FUNDING CLIMATE ACTION

The USDA Forest Service and Nevada Division of Forestry provide grants to for hazard fuel reduction, restoration of fire adapted ecosystems, prevention education, and community wildfire protection planning.

FEMA offers hazard mitigation grants and the Building Resilient Infrastructure and

Communities (BRIC) grants. BRIC grants help communities increase resilience and become better prepared against climate-change related and other hazards.

RESOURCES & FUNDING

- Nevada Division of Forestry grant programs at <https://forestry.nv.gov/grants>
- Western States Fire Managers & Hazardous Fuel Grants. <https://forestry.nv.gov/western-states-hazardous-fuels-grants>
- FEMA Hazard Mitigation Grant Program. <https://forestry.nv.gov/fema-hazard-mitigation-grant-program>
- FEMA Resources for Climate Resilience and grants: Building Resilient Infrastructure and Communities Program. <https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities>.
- Building a Better America Infrastructure Law and funding guidebook: <https://www.whitehouse.gov/build/>



MANAGING WILDFIRE RISK TO PROTECT LIVES AND PROPERTY

The risk from wildfires that have ripped through suburban and rural areas alike in Washoe County presents one of the most dramatic manifestations of the effects of climate change.

Droughts are becoming more persistent and deeper. Temperatures are rising. Fire seasons extend across more months as trees, brush and grasses dry out sooner and soaking rains arrive later. And fires seemingly become more intense each year.

Washoe County works closely with the Truckee Meadows Fire Protection District (TMRPD) along with state and federal partners to mitigate the risks of wildfire and prepare residents to protect their lives and property from fire.

Wildfire planning and preparation initiatives focus on the important steps that Washoe County residents can take to manage the risks. Living With Fire — a collaborative effort of federal, state, and local firefighting agencies managed by University of Nevada, Reno, Extension — plays a key role.

Community meetings, school programs, social media posts and published materials educate property owners about the important need for defensible and survivable space around their homes and other buildings.

And they emphasize that wildfire danger isn't just a worry in rural areas. Fires have swept down into residential neighborhoods inside city limits as well.

The TMFPD further supports property owners with "green waste days" when vegetation removed from defensible space can be dropped off at fire stations.

The creation of "Washoe ALERTS" — a partnership of Washoe County and the cities of Reno and Sparks — provides timely and potentially lifesaving telephone notifications of evacuations in the face of wildfire or other natural disasters.

Larger initiatives undertaken by the county's regional, state, and federal partners focus on fuels-management projects that use scientifically sound approaches to reduce the amounts of combustible materials in wildlands. Well-trained crews using specialized equipment work with private landowners as well as public agencies to reduce wildfire risks.

With climate change, the risks from wildfire continue to grow. But community planning, science-based programs of fuels reduction and well-focused fire suppression are helping to manage the risks to Washoe County's ecosystems and communities alike.

**STRENGTHEN FOOD
SECURITY & ACCESS
TO HEALTHY FOODS**



STRATEGIES

- 1. Create Master Plan goals and policies that expand food security and access to healthy food.**
- 2. Increase utilization, retain participation, and expand access to WIC food assistance benefits.**
- 3. Expand the Healthy Corner Store Initiative and access to healthy foods at convenience stores.**
- 4. Provide financial support to the Food Bank of Northern Nevada and collaborate with food services providers.**
- 5. Expand the community garden program.**

OVERVIEW

Feeding America defines food insecurity as the “lack of consistent access to enough food for every person in a household to live an active, healthy life.” A number of factors can increase food insecurity, including poverty, unemployment, low wages, lack of affordable housing, limited access to health care, chronic health conditions, and racial discrimination.

Prior to the pandemic, food insecurity in America was at a 20-year low. The national food insecurity rate in 2019 was 11 percent for individuals and 14 percent for children. The State of Nevada also made progress in reducing food insecurity through state policies and initiatives coordinated by the Office of Food Security. Nevada’s food insecurity rate decreased to 12.5 percent for individuals and 20 percent for children.

COVID-19 dealt a significant setback to the people and organizations dedicated to addressing hunger. In April 2020, Nevada’s unemployment rate was the highest in the nation having risen to 28 percent. Nevada’s food insecurity rate rose to 17 percent. The child

food insecurity rate was the fifth highest in the nation and rose to nearly 27 percent.

In response, the U.S. Department of Agriculture increased access to food assistance, distribution of food boxes, and meal services to school children. Nonprofit organizations like the Food Bank of Northern Nevada (FBNN) experienced a significant jump in the number of people served. These organizations quickly responded to the needs of the community while also changing the ways in which they distributed food to protect employees, volunteers, and clients in the midst of the pandemic. Federal funding, private philanthropy, and donations from individuals and companies supported the FBNN and others in address the severity of food insecurity.

The Washoe County Human Services Agency (HSA) and Washoe County Health District (WCHD) have a few programs that help to fight hunger. HSA helps seniors to access services such as Meals on Wheels. WCHD’s programs are focused on nutrition and access to healthy foods. WCHD helps clients access Women, Infants, and Children (WIC) Supplemental Nutrition Program benefits. WCHD also launched a Healthy Corner Store Initiative to increase access to healthy foods in areas where residents do not live within walking distance of a grocery store and may not have access to transportation.

The 2018-2020 Washoe County Community Health Needs Assessment reports that participation in the Supplemental Nutrition Assistance Program (SNAP) is low. Only 65 percent of eligible residents participate in the program. Nevada has one of the lowest rates of participation in the nation, while also having one of the nation’s highest rates of food insecurity.

Washoe County can play a more significant role in helping to address hunger and reduce food insecurity. For example, the county and WCHD can collaborate with the State Office of Food Security to achieve shared goals for improving

the quality of life and health of Nevadans by increasing food security.

Create Master Plan goals and policies that expand food security and access to healthy food.

Local food policy has risen in importance in planning. In fact, an American Planning Association (APA) study, *Planning for Food Access and Community-Based Food Systems*, places planning for food access as equally important as access to shelter, transportation, housing, and jobs. This study offers a range of innovative goals and policies, implementation strategies, and metrics to evaluate outcomes.

The APA established its Food Systems Division to offer best-in-class planning resources to planners. It also partnered with the U.S. Department of Agriculture (USDA) and others to create the *Growing Food Connections* web-based resources to encourage innovative public policy designed to enhance food security and promote local, sustainable food systems.

The Nevada Revised Statutes encourages local food systems by allowing cities and counties to establish urban agriculture zones. And developers can earn points toward Low-Income Housing Tax Credits if a development includes a community garden space.

Increase utilization, retain participation, and expand access to WIC food assistance benefits.

The USDA provides a number of food assistance programs to increase food security, expand access to healthy foods, and improve nutrition. These programs include the Supplemental Nutrition Assistance Program (SNAP); Women, Infants, and Children (WIC); School Breakfast Program and National School Lunch Program; Commodity Supplemental Food Program for low-income seniors; and Food Distribution Program on Indian Reservations.

Of these programs, WCHD helps residents access WIC benefits. During the pandemic, WCHD launched the WIC Shopper Program that allowed for groceries pick-up at designated locations. This program offered a safe shopping alternative to families. A goal of the program was to increase utilization of WIC benefits during the pandemic.

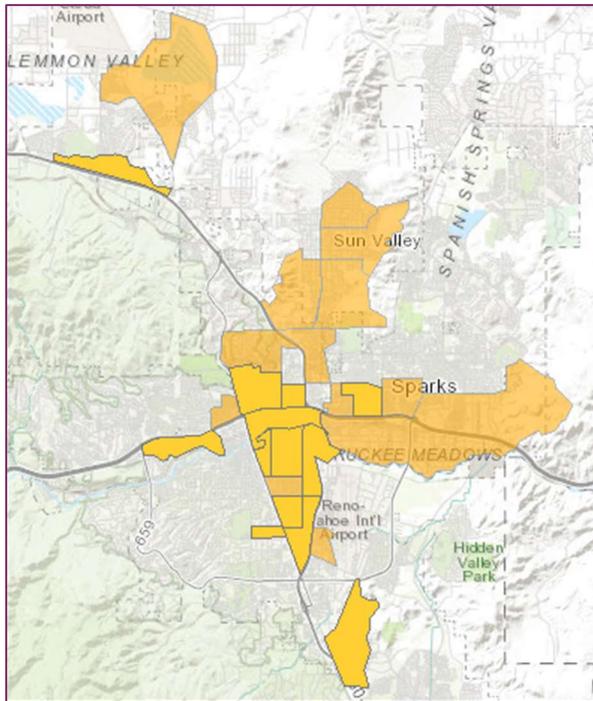
A new report evaluated ways to expand access to the WIC program. Because many low-income residents live in food deserts—areas with low access to affordable and healthy foods—expanding WIC participation at discount or corner stores can increase utilization. WCHD can also work with the State of Nevada to support computer upgrades and cashier training at targeted locations to allow for electronic WIC transactions. Innovative strategies such as these can increase utilization of WIC benefits.

Expand the Healthy Corner Store Initiative and access to healthy foods at convenience stores.

In April 2022, WCHD launched a new program to increase access to healthy foods in underserved communities. The Healthy Corner Store Initiative—Grab Healthy is a collaboration with convenience store owners to increase the selection of healthy foods. It offers assistance to help store owners stock and market healthy food in neighborhood corner stores.

WCHD utilizes data from the USDA's Food Access Research Atlas to identify areas where access to healthy food is limited, and further evaluates locations by focusing on stores that accept SNAP benefits. This program has the potential to also increase utilization of SNAP benefits, another food assistance program that is underutilized in Washoe County. This program can also be highlighted to encourage more corner stores to accept SNAP benefits.

The Food Access Research Atlas maps low-income and low-access census tracts where more than 100 housing units do not have a



USDA Food Access Research Atlas

vehicle and are more than a half-mile from the nearest supermarket, or a significant percentage of residents are more than 20 miles from the nearest supermarket.

Provide financial support to the Food Bank of Northern Nevada and collaborate with food services providers.

The Food Bank of Northern Nevada (FBNN) serves residents across northern Nevada, encompassing 14 counties within their service area. Its' vision for the future is, "***Healthy food. Every person. Every day.***" Prior to the pandemic, the FBNN served 91,000 people each month. That number increased to an average of 107,000 people served each month. More than 60 percent of their clients reside in Washoe County, and more than half are seniors and children.

During recent years the FBNN distributed enough food for over 15 million meals annually. The FBNN also provides nutrition education and helps people access SNAP benefits through outreach and education. The FBNN partners with the Washoe County School District to

reduce child food insecurity through school food pantries, the Kids Café after school, and summer food assistance program. And it manages senior food assistance programs.

During the pandemic, Nevada's level of food insecurity was ranked among the most severe in the nation. The county can improve the health outcomes of residents by collaborating with the FBNN in its efforts to reduce food insecurity.

Washoe County can also provide annual food assistance funding. The Healthy Food Policy Project reports an increase in municipal funding that supports efforts to provide food to individuals and families. Funding ranges from CARES allocations that supported an expansion in food distribution programs and use general funds or existing special use funds. One city passed a tax on sweetened beverages and uses a portion of the revenues to expand access to emergency food and reduce food insecurity.

Expand the community garden program.

The pandemic not only increased food insecurity rates, it also affected the food supply. Shortages were caused by panic-buying, supply chain and distribution challenges, and even changes in shopping behaviors. And record numbers of Americans turned to gardening. In fact, "pandemic gardens" led to seed shortages.

Home grown food is more nutritious and can help to reduce hunger. However, not all residents have access to a garden area. Community gardens offer a solution that is growing in popularity. The American Community Garden Association reports more than 2,200 community gardens in the U.S. and Canada.

Washoe County has partnered with schools and community groups to locate community gardens at schools and in parks. More recently, the county partnered with nonprofits to build and manage community gardens that serve low-income and vulnerable populations. These projects serve as models for new community gardens at parks, schools, and public property.

IMPLEMENTATION SCHEDULE & BUDGET

ACTION	FY 23-24				FY 24-25				BUDGET SUMMARY	BUDGET ESTIMATE
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Create Master Plan goals to expand food access and security										
Increase utilization and access to WIC food assistance benefits.									Program Costs	\$27,500
Expand the Healthy Corner Store Initiative.									Operations	\$15,000
Provide financial support to the Food Bank of Northern Nevada.									Annual Funds	\$75,000
Expand the community garden program.									0.25 FTE & Program Funds	\$47,500
TOTAL										\$165,000

AGENCY PARTNERS

- Community Services Department
- County Manager’s Office
- Human Services Agency
- Regional Parks and Open Space
- Washoe County Health District

COMMUNITY PARTNERS

- Food Bank of Northern Nevada
- Nevada Department of Agriculture
- Nevada Department of Health & Human Services
- Nevada Office of Food Security
- U.S. Department of Agriculture
- University of Nevada, Reno

FUNDING CLIMATE ACTION

The federal government Healthy Food Financing Initiative provides grants, low-interest loans, financial assistance, tax credits, and specialized training and technical assistance to

organizations and businesses that are providing healthy food options in underserved communities.

Community Development Block Grants can be used to fund community gardens

RESOURCES & FUNDING

- Nevada Department of Agriculture
Community Food Access grants:
https://agri.nv.gov/Administration/Grant_Opportunities/
- Nevada Health & Human Services grants:
<https://dhhs.nv.gov/Programs/Grants/GMU/>
- Nevada Office of Food Security grants:
https://dpbh.nv.gov/Programs/OFS/Home_-_Office_of_Food_Security/
- National Institute of Food and Agriculture:
<https://www.nifa.usda.gov/grants/funding-opportunities/community-food-projects-cfp-competitive-grants-program>
- USDA grants:
<https://www.usda.gov/topics/urban/grants>



WASHOE COUNTY HELPS TO IMPROVE SUSTAINABILITY THROUGH NUTRITION

Our healthy and resilient community begins with access to healthy foods and people whose nutritional habits sustain their everyday wellbeing. Sadly, not all members in the community have access to healthy food and many suffer from hunger, including children and seniors.

With initiatives ranging from gardens that teach elementary school students the joys of growing their own nutrition-packed food to collaboration with owners of corner stores who agree to stock more nutritional food items, the Washoe County Health District supports the wellbeing of thousands of people.

Nutritional wellbeing, however, is under threat.

Recent data finds 22.5 percent of the men and 26.3 percent of the women in Washoe County suffer from obesity. Equally alarming, nearly 19 percent of students in Washoe County schools are obese, and obesity rates typically are higher in areas with a high percentage of students from low-income families.

Obesity is linked to health issues ranging from cardiovascular disease to diabetes to osteoarthritis. And even simple tasks such as walking or shopping often are difficult for people with obesity.

Better nutrition builds a more vibrant community, and it begins with education and access to healthy foods.

School gardening programs such as an initiative at Lemmon Valley Elementary incorporate gardening into classroom lessons. Working with the Washoe County School District and nonprofits such as Urban Roots, students and their families experience the satisfactions of gardening and homegrown produce for youngsters.

Adults, especially those living in housing without space for a traditional vegetable garden, learn to grow nutritional produce for their families at community gardens established with nonprofit partners such as Soulful Seeds at parks and neighborhood locations including the Our Place campus in Sparks.

Nutritional food initiatives have been a priority, too, for the Health District's WIC nutritional program. WIC participants, for instance, can request vouchers to purchase fresh, locally grown fruits and vegetables at a number of community farmers markets.

And the Health District works closely with convenience stores and corner markets in neighborhoods with few traditional grocery stores to ensure that shoppers still can find nutritional alternatives even in smaller markets.

A sustainable world requires healthy people, and the Washoe County Health District is focused on the nutritional wellbeing of all the county's residents.

INVEST IN EQUITABLE, MULTIMODAL TRANSPORTATION INFRASTRUCTURE



Image: University of Nevada, Reno

STRATEGIES

- 1. Create Master Plan goals and policies that increase access and encourage use of alternative transportation.**
- 2. Demonstrate leadership by implementing a SMART Trips commuter program for county employees.**
- 3. Develop a green fleet policy and goals to transition the county's fleet to electric and alternative fuel vehicles.**
- 4. Invest in electric vehicle (EV) infrastructure on county property and public rights-of-way.**
- 5. Amend the development and building code to include EV-ready requirements.**
- 6. Advocate for multimodal transportation infrastructure that increases equitable access to mobility options.**

OVERVIEW

During the pandemic, many American workers were able to perform their duties remotely, lowering potential exposure to COVID-19. Workers who commuted to work using public transportation were disproportionately affected by the pandemic. And while transit ridership had been steadily increasing over the past three decades, COVID-19 negatively impacted growth in ridership.

Public concerns about safety may have a lasting effect on ridership. As ridership drops, fuel usage, congestion, and air pollution will increase. Vulnerable populations – low-income and people of color – are more likely to experience exposure to higher concentrations of air pollution. Public transportation can reduce exposure and provide equitable access to mobility services.

Best practices in sanitation and ventilation have been shown to be effective against the spread

of COVID. Effective communication about safety efforts will help transit riders feel comfortable.

In Nevada and the U.S., the transportation sector is the leading source of greenhouse gas emissions generating one-third of all emissions. Reducing automobile dependence and transitioning to electric vehicles are two of the most important climate strategies that communities can adopt. The Truckee Meadows metropolitan region is auto dependent: 77.2 percent of workers drive alone for their commutes, 13 percent carpool, 1.8 percent ride public transit, 3.1 percent walk or bicycle, and 5.4 percent work from home.

Investments in multimodal transportation infrastructure can reduce drive-alone commutes. These investments will also help to strengthen the local economy. Public transit, bicycle infrastructure, and pedestrian infrastructure will respectively create 17.9, 11.4, and 9.9 direct, indirect, and induced jobs every \$1M invested, whereas road projects will create 9.9. (Climate Mayors, 2021)

Land use policies that encourage Smart Growth and Transit-Oriented Development (TOD) can also help to increase access to affordable housing. TOD can also increase transit ridership and encourage other modes of transportation like walking and bicycling.

TOD combines moderate and high-density housing concentrated in mixed-use developments. The developments, or density nodes, are located along transit routes that support a higher order transit service such as bus rapid transit.

Much of the development that is projected to occur in unincorporated Washoe County are identified as Tier 2 suburban areas with nodes of density and Tier 3 low-density and undeveloped lands. In these areas, the housing and transportation costs combined far exceed the recommended 45 percent of income and can be as high as 70 to 80 percent.



Green Fleets, Washoe County Health District

ACTIONS

Create Master Plan goals and policies that increase access and encourage use of alternative transportation.

Envision Washoe 2040 will help the county and residents to re-envision the county's approach to growth. The Master Plan is intended to ensure access to housing, transportation, employment, public services, and recreation in a manner that is consistent with the community's values regarding natural resources and social equity. A significant change in those values is reflected by an increased demand for alternative transportation.

The Master Plan's Land Use and Transportation Element adopted in 2011 contained a range of goals and policies designed to limit sprawl and reduce automobile dependence. An evaluation of the effectiveness of these goals and policies can help to inform Envision Washoe 2040. Identifying specific performance measures related to TOD, multimodal transportation infrastructure, and mode split can also lead to better outcomes.

Demonstrate leadership by implementing a SMART Trips commuter program for county employees.

RTC Washoe's SMART Trips program helps organizations identify employee benefits that

improve commutes and save money and time. For the county, commuter benefits can help to attract and retain employees. RTC SMART Trips offers an easy to use, menu-based system that allows employers to select the right measures for their organization. For example, offering on-site food service such as a cafeteria or food truck for lunch is a measure that reduces employee vehicle trips mid-day.

Washoe County can build on its current employee trip reduction program for events by joining SMART Trips and offering employee benefits for work commutes. Employees can receive a tax-free deduction of up to \$110 per month for transit and vanpool expenses. RTC matches employer contributions toward bus passes up to 20 percent and subsidized van pool up to \$3.60 per person, per day. Ridesharing is facilitated through a web-based carpool matching service and RTC ameliorates an important worry by paying for Guaranteed Ride Home service if a worker misses their ride.

The Washoe County Green Team has already recommended participation in SMART Trips. The 2021 SMART Commute Survey highlighted measures that are meaningful to employees – a subsidized rideshare program; dedicated rideshare and carpool parking; an incentive for non-driving commutes; compressed work week schedules; telecommuting; and expanded EV charging infrastructure in County parking facilities.

Develop a green fleet policy and goals to transition the county's fleet to electric and alternative fuel vehicles.

Washoe County's fleet consists of more than 585 vehicles. As nZero was deployed to measure the county's carbon footprint, data was collected to measure emissions from the county fleet. This information can be used to establish fleet specific carbon reduction goals by transitioning to low- and zero-emission vehicles.

This strategy supports the State of Nevada's Clean Cars initiative that sets emission standards for light-duty cars and trucks and will go into effect in 2025. There are a broad range of resources available to support a green fleet program including policy examples, resources such as toolkits, fleet analysis tools, cost of ownership calculators, and cooperative purchasing agreements such as Climate Mayors electric vehicle (EV) Purchasing Collaborative.

Invest in EV infrastructure on county property and public rights-of-way.

Installing a network of EV charging stations will reduce one of the main barriers to EV adoption. RTC Washoe's Advanced Mobility Plan outlines a goal to support EV and alternative fuel vehicle adoption by making charging and alternative fueling sites as accessible and convenient as gasoline fueling stations. As of February 2020, 90 EV charging stations had been installed in Washoe County.

This is likely to change quickly. Nevada is poised to receive \$38 million to invest in EV charging stations through the Bipartisan Infrastructure Investment and Jobs Act. The Nevada Public Utility Commission approved a \$100 million investment by NV Energy in EV charging infrastructure. Some of the funding will support local government in their efforts to deploy EV infrastructure.

Washoe County will be better positioned to take advantage of these investments by developing a roadmap for EV charging stations, including

policies and identification of charging sites at County facilities, rights-of-way, and on private property such as gas stations, retail locations, and high-employment areas.

Amend the development and building code to include EV-ready requirements.

Washoe County can further accelerate utilization of EVs by adopting EV-ready building codes. EV-ready building codes reduce the installation costs for EV chargers by 75 percent when compared to installing EV chargers in a home or building retroactively. The Southwest Energy Efficiency Alliance (SWEET) offers an EV Infrastructure Building Codes Adoption Toolkit that includes cost/benefit analysis and model language and requirements. Washoe County can adopt EV-ready building code provisions for new construction and major renovation.

For local governments, EV building codes are one of the easiest and most affordable strategies to support vehicle electrification in their communities.

– Southwest Energy Efficiency Alliance

Advocate for multimodal transportation infrastructure that increases equitable access to mobility options.

Half of Americans and an even higher percentage of Millennials want to live in walkable neighborhoods. TOD with multimodal infrastructure offer greater economic opportunities due to proximity to jobs.

Washoe County can help to catalyze investment in TOD by advocating for RTC Washoe to increase investments in Complete Streets. New investments in Complete Streets will create safe environments for pedestrians, bicyclists, transit riders and motorists. Research shows that protected and separated bicycle and pedestrian infrastructure encourages people to leave their cars behind.

IMPLEMENTATION SCHEDULE & BUDGET

ACTION	FY 23				FY 24				BUDGET SUMMARY	BUDGET ESTIMATE
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Create Master Plan goals and policies on alt transportation.										
Implement a SMART Trips program for county employees.									Benefits; On-site Food	\$100,000
Develop a green fleets policy and goals.										
Invest in EV infrastructure on county property, rights-of-way.									Estimate Needed	TBD
Amend codes to include EV-ready requirements.										
Advocate for multimodal transportation infrastructure.	<i>ongoing</i>									
TOTAL										\$100,000

AGENCY PARTNERS

- Community Services Department
- County Manager's Office
- Human Resources
- Washoe County Health District

COMMUNITY PARTNERS

- American Planning Association NV Chapter
- Builders Association of Northern Nevada
- Reno, Sparks, Incline Village, Sun Valley GIDs
- NV DCNR
- NV Energy
- RTC Washoe
- Southwest Energy Efficiency Alliance
- TRPA, TMRPA

FUNDING TRANSPORTATION PROJECTS

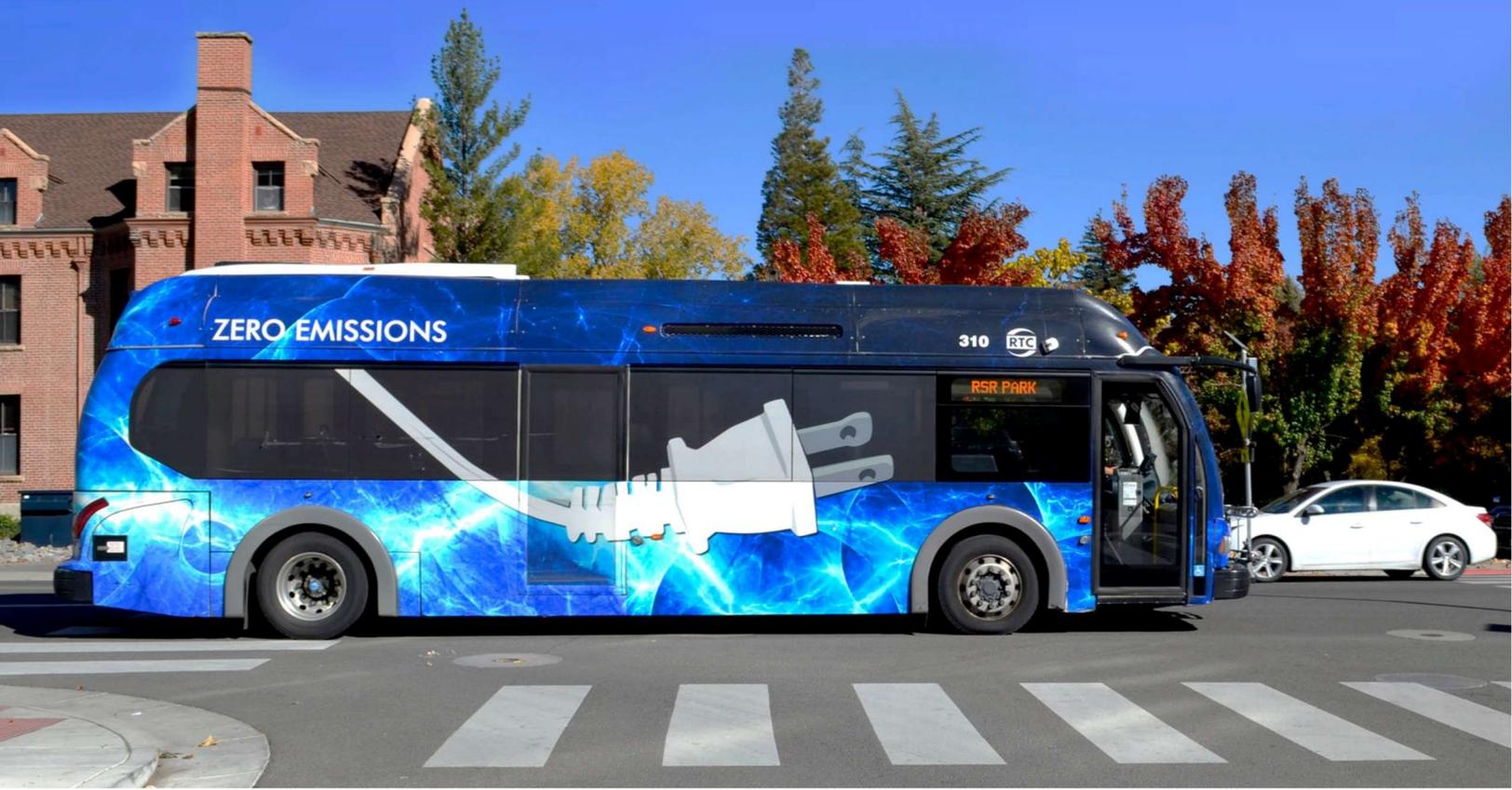
New investment in transportation infrastructure for local and state government will be available through the Infrastructure Investment and Jobs Act. Two programs that offer funding for planning and construction grants are the Safe

Streets and Roads for All (SS4A) and the Carbon Reduction Program.

These programs will provide funding for a range of planning and construction projects, including: pedestrian, bicycle, trails, and micro mobility infrastructure; electric vehicle infrastructure; and development of a carbon reduction strategy.

RESOURCES & FUNDING

- Nevada Department of Transportation grants: <https://www.dot.nv.gov/projects-programs/discretionary-federal-funding-opportunities/available-grant-opportunities>
- U.S. Department of Transportation Bipartisan Infrastructure Law: <https://www.transportation.gov/bipartisan-infrastructure-law>
- FHWA Carbon Reduction Program: https://www.fhwa.dot.gov/environment/sustainability/energy/policy/crp_guidance.pdf
- NV Energy Public Charging Station Incentives: <https://www.nvenergy.com/cleanenergy/electric-vehicles/publiccharging>



TRANSPORTATION OPTIONS BECOME A SNAP WITH RTC SMART TRIPS PROGRAM

Growing numbers of commuters who want to make a real difference in reducing their carbon footprint — while saving money at the same time — rely on sophisticated tools provided by the RTC Smart Trips initiative of the Regional Transportation Commission of Washoe County.

A Washoe County transportation survey showed 73 percent of employees are unaware of the RTC Smart Trips program.

Nealy 60 percent of employees reported driving alone four or more times a week. When asked what incentives might encourage consideration of other options, the results were clear: telecommuting, compressed workweeks, guaranteed ride home, employer incentives, an organized effort promoting alternative commute options, and onsite gym and shower facilities.

Affordable and convenient alternative transportation including carpools, vanpools, mass transit and bicycling becomes a snap with RTC Smart Trips.

Commuters looking to share a ride and reduce the costs of workday travel turn to Commute Match on the RTC Smart Trips Website to find others traveling in the same direction at the same time.

Among the commuting alternatives growing in popularity are RTC Vanpools, which provide attractive financial subsidies to groups that commute together.

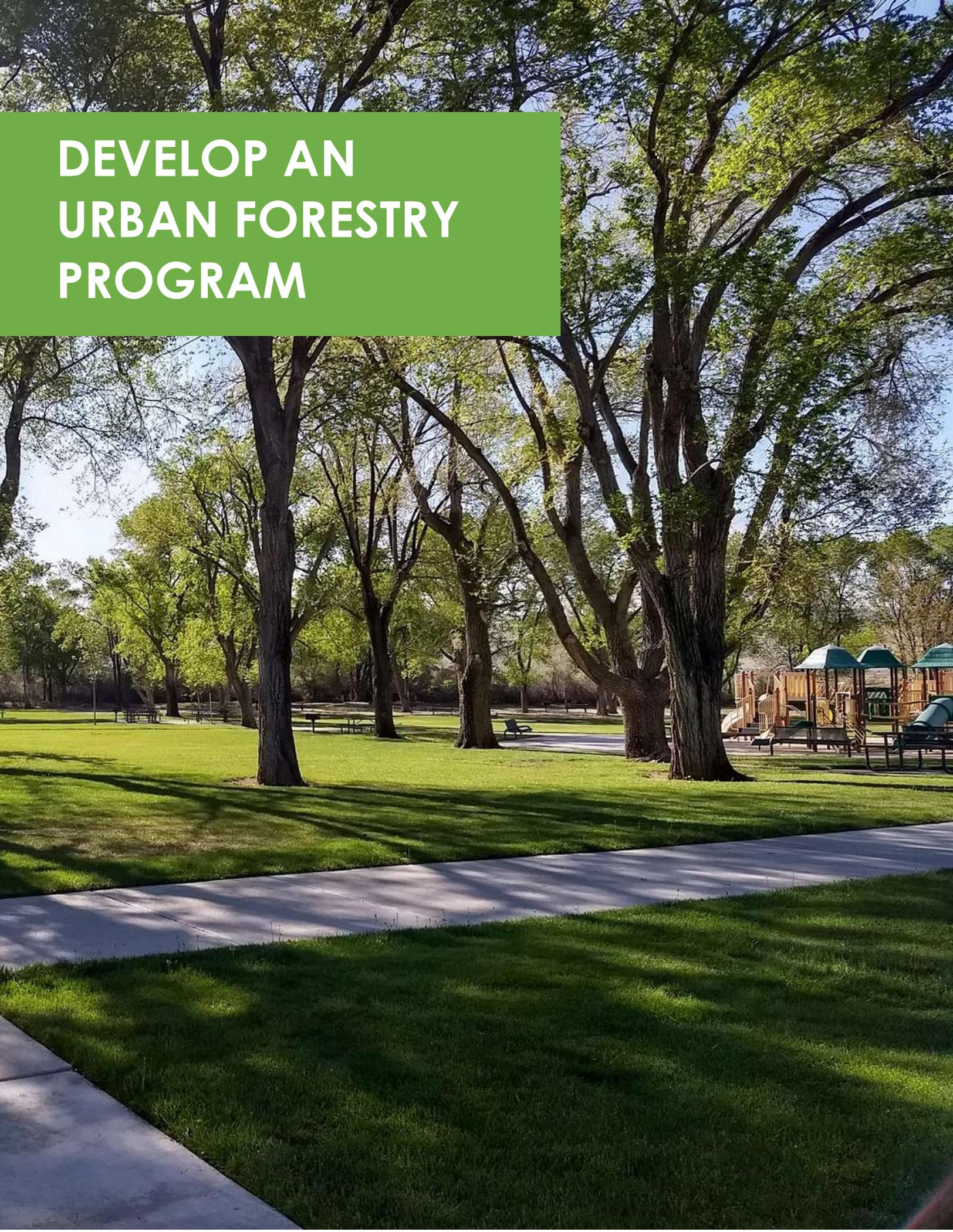
Other commuters, meanwhile, join together to carpool every day or occasionally. Even carpooling just once a week saves 20 percent of the pollutants from a single-person trip, and participants know they're making a difference in the battle against climate change every time they share a ride.

RTC Smart Trips even addresses a common worry among users of vanpools and carpools: What happens if I'm stranded because I have to stay late at work or have to leave early? The Guaranteed Ride Home program reimburses the cost of a trip in a taxi or ride-sharing service to participants in registered vanpools and carpools.

No matter what alternative transportation commuters select, they'll be saving money. A calculator on the RTC Smart Trips Website computes the costs of commuting and spells them out in detail on a monthly and annual basis. The savings can be even greater if the participant's employer is among the many that subsidize the cost of a monthly bus pass — a subsidy that often is matched by RTC to reduce the cost even more.

In fact, RTC Smart Trips keeps track of all of participants' financial savings, the impact they've made in reducing in greenhouse gas emissions — even the calories that they burn when they decide to walk to the movies with a buddy rather than taking the car.

DEVELOP AN URBAN FORESTRY PROGRAM



STRATEGIES

1. *Create Master Plan goals and policies that promote urban forestry and expand the tree canopy and street trees.*
2. *Amend the Development Code to strengthen tree planting, maintenance, and preservation requirements.*
3. *Establish an urban forestry program.*
4. *Utilize a data-driven approach with the TreeKeeper® urban forestry management system.*
5. *Advocate for trees in NDOT and RTC Washoe transportation projects.*
6. *Develop community engagement programs such as ReLeaf and the Arbor Day Energy-Saving Trees give-away.*
7. *Prioritize tree planting in underserved neighborhoods and areas with high urban heat vulnerability.*

OVERVIEW

Trees provide environmental benefits to communities, improve community health and wellbeing, and enhance prosperity. The COVID pandemic renewed interest in the public health benefits of urban forests. Data shows that more people visited parks and urban green space during the pandemic, including young people and families with children. And surveys show a shift in public perception towards urban green spaces and shade trees. Residents are placing a higher value on urban forests and the need to prioritize green space as a public service.

Trees improve quality of life by filtering air pollutants to improve air quality. They reduce stormwater impacts, filter and recharge groundwater, provide shade during hot summers, and block chilling winds in winter. Urban forests offer a nature-based solution for managing stormwater events, a solution that

is supported by FEMA and other federal agencies through grant programs. The nature-based solution that urban forests provide can also strengthen climate resilience by pulling carbon dioxide out of the atmosphere. Trees can also cool cities by up to 10 degrees.

Mature trees increase property values by 10 percent, and reduce heating and cooling costs by 12 percent. Street trees can attract new businesses and increase retail sales by as much as 12 percent. And every \$1 spent on planting and care returns two to five times the investment.

Trees also improve safety. A Salt Lake City study found that street trees located at high-risk intersections calmed traffic and reduced the number of bicycle and pedestrian accidents by 1.6 incidents.

Washoe County is on the precipice of exceeding the federal ozone standard, which will trigger federal enforcement of activities such as development that may negatively impact the economy. Ground level ozone is exacerbated by the urban heat island effect (UHI). UHI is caused by a warming climate, loss of urban forests, and an increase in heat-absorbing impervious surfaces. Urban heat islands disproportionately affect vulnerable populations – low-income and communities of color and people with medical conditions, such as children with asthma and seniors with chronic health conditions.

Trees can help. WCHD recommends a significant increase in the urban tree canopy, investments in cool corridor infrastructure projects, and an expansion in green space as elements in its plan to meet standards for ground level ozone.

The enjoyment of scenery employs the mind without fatigue and yet exercises it; tranquilizes it and yet enlivens it; and thus, through the influence of the mind over the body gives the effect of refreshing rest and reinvigoration to the whole system.

– Fredrick Olmstead

ACTIONS

Create Master Plan goals and policies that promote urban forestry and expand the tree canopy and street trees.

Envision Washoe 2040, the Master Plan update aims to establish goals and policies consistent with the community's values regarding natural resources and social equity. These values are changing as the demographic character of the community changes. Younger residents want more outdoor recreation opportunities.

An audit of the existing Master Plan led to a recommendation for development of policies that will reduce the impacts of urban heat islands such as an expansion of the county's tree canopy. The American Planning Association offers guidance on the role of planning in urban forestry. This guidance led to a 58 percent rise in urban forestry policies across the county.

Amend the Development Code to strengthen tree planting, maintenance, and preservation requirements.

A tree planting and preservation ordinance is an important tool for protecting the public interest. Successful tree ordinances support tree health and longevity, and enhance the benefits communities derive from trees. The county can update its codes to include tree planting requirements, tree protection standards, maintenance responsibilities, and streamline procedures and enforcement. Consider joining Reno's amended Tree Protection Ordinance process to standardize acceptable tree species, specifications for tree quality, details for tree planting and irrigation installation, and agreements on maintenance expectations.

The Washoe County Community Services Department can ensure the appropriate incorporation of trees and urban forestry in new developments and public rights-of-way by engaging an Urban Forester in review of landscaping plans as an element of the position's responsibilities.

Establish an urban forestry program to expand Washoe County's tree canopy.

Washoe County Regional Parks and Open Space manages over 10,000 acres of open space, 49 parks, an Arboretum, trails, athletic fields, golf courses, a campground, a shooting facility, and more. An urban forestry program will require staff and funds to manage county trees, tree canopy, and urban forests. Collaboration with the City of Reno can amplify regional efforts.

The USDA Forest Service's National Urban and Community Forestry Advisory Council published its *Ten-Year Urban and Community Forestry Action Plan 2016 – 2026*. This plan serves as a framework for increasing investments in urban forests through a national challenge grant program. The plan offers a range of goals and benefits that can support efforts in establishing an urban forestry program.

Utilize a data-driven approach with the TreeKeeper® urban forestry management system.

Washoe County values the use of technology to improve services and processes. TreeKeeper is a tree inventory management tool. It helps foresters to manage, maintain, and assess community trees. The mobile app facilitates the capture of data such as tree health, maintenance, GPS coordinates and photos. The tool creates maintenance schedules, tracks progress, and calculates the environmental, economic and social benefits of trees and urban forests.

A data-driven, asset management approach will help the county to measure and protect the value of trees and urban forests. The City of Reno uses TreeKeeper to appraise city-owned trees and determine the median value of Reno's trees. That value is \$300 per diameter inch.

Advocate for trees in NDOT and RTC Washoe transportation projects.

Street trees improve walkability and livability. They have been shown to reduce traffic speeds



ReLeaf Reno Tree Planting Event

and improve safety through a traffic calming effect. Pedestrians experience a greater sense of safety and security, which increases walking and social interactions. Trees shade sidewalks to improve comfort and offer a connection to nature, improving health and wellbeing. With an increase in the number of extreme heat days, trees can create cool areas for residents.

RTC Washoe made a commitment to incorporate street trees into transportation projects and meet local landscaping regulations. This commitment resulted in the planting of 600 trees in the Southeast Connector project. Street trees were also an element of the 4th Street/ Prater Way and Virginia Street RAPID Extension.

By advocating for street trees and landscaping in regional transportation projects, the county will ensure that these investments provide lasting benefits to people, neighborhoods, and the community for generations to come.

Develop community engagement programs such as ReLeaf and the Arbor Day Energy-Saving Trees give-away.

The county can partner with Reno to launch a regional ReLeaf program that educates and engages the community. Through ReLeaf Reno, residents and businesses make donations that support tree planting and care and pledge to maintain the health of street trees and plant and care for trees on their property.

The county can also partner with Reno and the Arbor Day Foundation to participate in the annual Energy-Saving Trees program to distribute trees to homeowners. Since 2011, more than 450,000 trees have been distributed to U.S. households. Homeowners apply for trees and use an interactive web-based program that sites tree planting on their properties to maximize the energy-saving benefits. In 2021, Reno distributed 300 trees. The city paid 75 percent of the cost and allowed homeowners to purchase a 5-gallon-sized tree for \$16.25. The total cost to Reno was \$15,000.

Prioritize tree planting in underserved neighborhoods and areas with high urban heat vulnerability.

American Forests recommends a 15 percent canopy cover as a baseline for desert cities. In most American cities, street trees and urban forests are not equitably distributed. Wealthier communities typically have more trees and tree-lined streets. Neighborhoods with poor canopy coverage are denied the benefits trees provide – lower ambient temperatures, increased property values, lower rates of childhood asthma, reduced crime, and improved quality of life.

The county can use tools that help to identify and prioritize tree planting areas that address local disparities. WCHD used a GIS application to identify areas with the highest UHI vulnerability index. This data can be used to prioritize tree planting areas.

IMPLEMENTATION SCHEDULE & BUDGET

ACTION	FY 23				FY 24				BUDGET SUMMARY	BUDGET ESTIMATE
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Create Master Plan goals and policies to promote trees.										
Amend development code to strengthen tree requirements.										
Establish a community forestry program.									Salary, Benefits Vehicles, Equip	\$110,000 \$100,000
Utilize the TreeKeeper urban forestry management tool.										\$5,000
Advocate for trees in NDOT and RTC infrastructure projects.	<i>ongoing</i>									
Develop community engagement program.									Tree Planting Program	\$10,000
Prioritize tree planting in underserved neighborhoods.									Prioritized Tree Planting	\$50,000
TOTAL										\$275,0

AGENCY PARTNERS

- Community Services Department
- County Manager’s Office
- Regional Parks and Open Space
- Washoe County Health District

COMMUNITY PARTNERS

- American Planning Association NV Chapter
- American Society of Landscape Architects-NV
- City of Reno
- Keep Truckee Meadows Beautiful
- Reno, Sparks, Incline Village, Sun Valley GIDs
- NAIOP Northern Nevada
- Nevada Division of Forestry
- RTC Washoe
- TRPA, TMRPA
- Truckee Meadows Parks Foundation
- University of Reno, Nevada

FUNDING URBAN FORESTRY PROGRAMS

In *Funding Trees for Health*, The Nature Conservancy (TNC) estimates an investment of \$8 per person is needed to capture the benefits trees provide to communities. The TNC report and *Funding Your Urban Forest Program* guide offer a range of funding sources from grants and private philanthropy to tax assessments, stormwater utility fees, land development fees, and mitigation and environmental fines.

RESOURCES & FUNDING

- Nevada Division of Forestry grants: <https://forestry.nv.gov/natural-resource-management/urban-and-community-forestry>.
- USDA Forest Service Urban and Community Forestry Program: <https://www.fs.usda.gov/managing-land/urban-forests/ucf>



WILBUR D. MAY ARBORETUM OFFERS A PLACE FOR DISCOVERY AND REFLECTION

Highly inspirational even while it's intensely practical, The Wilbur D. May Arboretum & Botanical Garden provides a unique showplace of trees and plants that succeed in Washoe County's dry, high-elevation climate.

More than 4,600 native and adaptive plant species live on 13 of the 23 total acres of the arboretum established nearly 40 years ago at Rancho San Rafael Park in Reno through a generous grant from the Wilbur May Foundation. Under the management of Regional Parks and Open Space in Washoe County's Community Services Department, The May Arboretum has become a nationally recognized jewel treasured by residents and visitors alike.

Plant-lovers stroll through the flourishing groves and gardens of the arboretum, discovering species of trees and plants and learning how gardeners help them thrive in the transitional zone between the Sierra Nevada and the Great Basin Desert.

Visitors listen carefully in the quiet seclusion of the Songbird Garden. They breathe deeply of the beauty of the Rose Garden. They meditate and find healing in The Labyrinth. They observe the birds and wildlife of the wetlands along Evans Creek, and they humbly experience

the majesty of the oaks and hardwoods in the Kleiner Groves.

Down a short stroll on one of the many pathways that wind through The May Arboretum, the open landscape and vine-covered gazebo of the Columbus Garden provide a taste of the fields of Italy. Blooming perennials in Burke Garden inspire visions of English country homes.

It's little wonder that the romantic Evans Creek bridge or flower-filled locations such as Dixie's Plaza Garden and Honey's Garden are beloved locations for weddings and special celebrations.

Environmental educational tools at The May Arboretum, meanwhile, meet the needs of visitors ranging from toddlers and schoolchildren to older adults, and researchers carefully track the progress of each plant introduced to The May Arboretum.

The May Arboretum is home, too, to an initiative to grow sustainable colonies of northern Nevada's rare, threatened, and endangered plant species.

But most important, it's dreams that flourish at The May Arboretum—dreams of the possibilities when tiny seeds are nourished into a greener, more verdant Washoe County.

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