

CLARK COUNTY'S SUSTAINABILITY AND CLIMATE ACTION PLAN

COUNTY OPERATIONS

TABLE OF CONTENTS

Letter from Commissioner Marilyn Kirkpatrick	3
Acknowledgements	4
Overview	6
Sustainability Work To-Date	12
Plan Objectives	13
Key Areas	14
Guiding Principles and Sustainability Framework	15
Action Summary Matrix	16
Developing the Plan	21
Summary of Engagement	22
Clean & Reliable Energy	24
Resilient County Operations	34
Smart Waste Management & Reduction	41
Sustainable Transportation	48
Water Conservation & Protection	56
What's Next for Clark County?	67
Appendices	73

Dear fellow Clark County residents,

In 2019, the Clark County Board of Commissioners made recommendations that Clark County develop and adopt its first ever Sustainability and Climate Action Plan. Today, I'm thrilled to introduce you to **All-In Clark County**, our initiative to create a sustainable community for the well-being and prosperity of all, today and into the future. This plan is a comprehensive roadmap aimed at increasing the sustainability of our County's internal operations and represents the first step in what will be a multi-phased, multi-year effort. It's our way of looking inward at what we can be doing better within our operations to lead the southern Nevada region toward a more sustainable future.

**Letter from Commissioner
Marilyn Kirkpatrick**



The impacts of climate change are very real, and they are upon us. As of the writing of this plan (December 2020), 100% of our state's population is experiencing drought and Las Vegas is the fastest warming city in the country.^{1,2} As a county set in the deserts of the southwest, we know what's at stake with our water and energy supply and intensifying urban heat island impacts. This plan recognizes those unique challenges. Clark County has worked hard to build resilience into our social, economic, and environmental systems, but to achieve long-term success, we need to do more. It's a long road ahead of us to ensure Clark County thrives in the face of these challenges brought on by climate change, and **All-In Clark County** is the next step to us getting there.

Additionally, **All-In Clark County** comes at a time where we've had to become the most adaptive and nimble to changing scenarios we've ever been. COVID-19 has taught us new ways of thinking, working, and operating so that we can continue to serve our community well. This plan lays the groundwork for how we can integrate that thinking into all that we do, so that we can be prepared for any kind of future event.

On behalf of the Board of County Commissioners, I am proud to launch this County effort. But we can't do this alone. We need action from all of our County leaders, employees, and partners, in order to successfully implement this plan. With your support, we can ensure Clark County is resilient, resourceful, and ready in the face of challenges.

Sincerely,

Marilyn Kirkpatrick

Marilyn Kirkpatrick
Chairwoman
Board of County Commissioners

ACKNOWLEDGEMENTS

All-In Clark County would not have been possible without the time, effort, and dedication of County leadership and staff, and our community partners. The Department of Environment and Sustainability would like to thank the following individuals for their contributions to the development of this plan.

BOARD OF COUNTY COMMISSIONERS

Marilyn Kirkpatrick, Chairwoman
James Gibson, Vice-Chairman
Michael Naft
Ross Miller
William McCurdy II
Tick Segerblom
Justin Jones

Lawrence Weekly (former Vice-Chairman)
Larry Brown (former Commissioner)

EXECUTIVE MANAGEMENT

Yolanda King, County Manager
Randy Tarr, Assistant County Manager
Les Lee Shell, Chief Administrative Officer

DEPARTMENTS

Administrative Services

Adriane Garcia, Purchasing Administrator

Building and Fire Prevention

Jerry Stueve, Director

Comprehensive Planning

Nancy Amundsen, Director
Mario Bermudez, Planning Manager
Shane Ammerman, Assistant Planning Manager

Finance

Jessica Colvin, Chief Financial Officer
David Johnson, Manager – Automotive Services

Fire Department

Billy Samuels, Deputy Fire Chief –
Office of Emergency Management

Parks and Recreation

Daniel Hernandez, Director

Public Works

Denis Cederberg, Director
Robert Thompson, Deputy Director

Real Property Management

Lisa Kremer, Director
Edward Hilts, Energy Program Administrator



REGIONAL PARTNERS

Clark County Regional Flood Control District

Steve Parrish, General Manager/Chief Engineer
John Tennert, Environmental Mitigation Manager

Las Vegas Valley Water District

Katie Horn, Management Services Manager

Southern Nevada Water Authority

Doug Bennett, Conservation Manager
Keely Brooks, Climate Change Policy Analyst
Patrick Watson, Conservation Services Administrator

Clark County Water Reclamation District

Tom Minwegen, General Manager

Regional Transportation Commission

Craig Raborn, Director, Metropolitan Planning Organization
Brij Gulati, Principal Project Engineer

CONSULTANT



Kim Lundgren Associates, Inc.



OVERVIEW

CLIMATE CHANGE IN CLARK COUNTY

As Southern Nevada fights to rebuild its economy after the impacts of COVID-19 and anticipates adding another 820,000 residents by 2060, it does so in the midst of unprecedented threats from **climate change**, including drought and extreme temperatures.³ These challenges demand bold action to ensure Clark County's future is healthy, livable, prosperous, and climate resilient. The good news is that all of the solutions needed to endure and embrace the changes exist today and provide many benefits beyond climate protection. With **All-In Clark County**, the County is committing to a healthy, sustainable community for all its current and future residents. This plan aims to demonstrate that commitment by addressing climate change risks and contributions within the County's own operations.

<p>Climate <i>noun</i></p> <p>The weather conditions prevailing in an area in general or over a long period, from months to thousands of years.</p>	<p>Climate Change <i>noun</i></p> <p>A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which goes beyond natural climate variability observed over comparable time periods.</p>
--	--

For a full list of defined terms, see Appendix A.

2 WAYS
CLARK COUNTY
CAN ADDRESS
CLIMATE CHANGE



1 Reduce greenhouse gas emissions

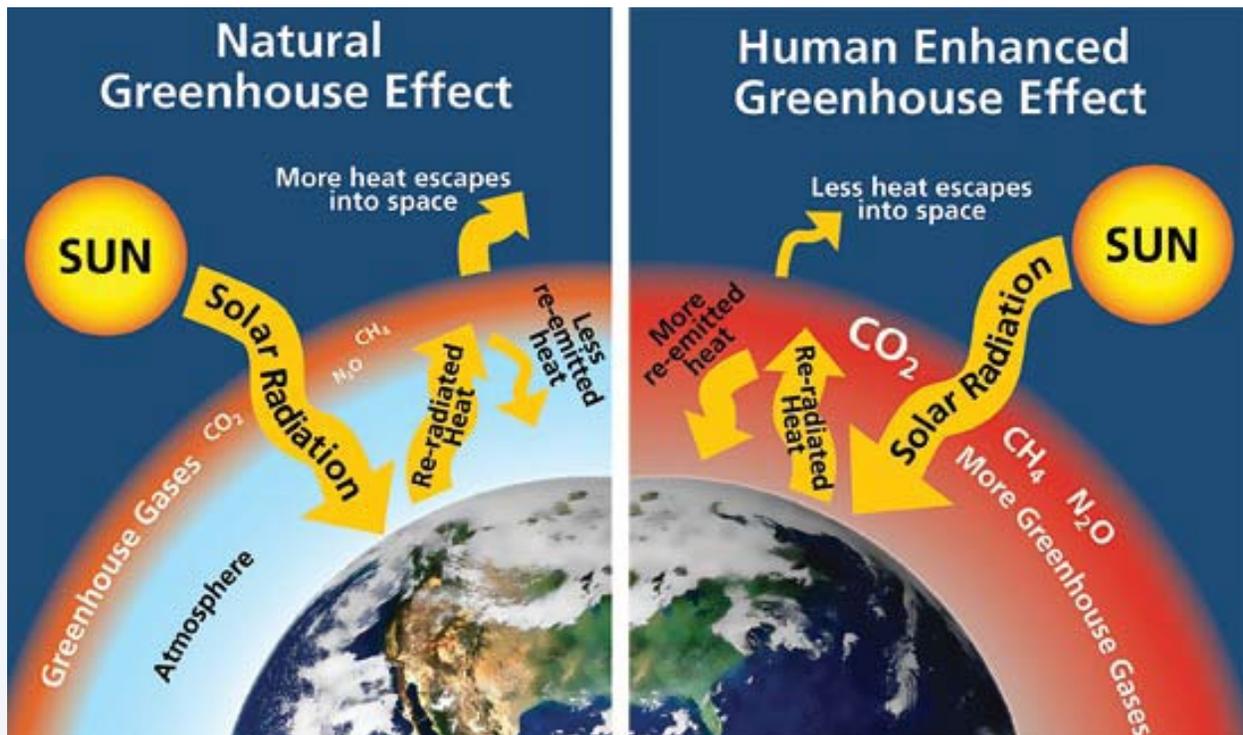


2 Prepare for impacts of climate change

REDUCING EMISSIONS

WHAT ARE GREENHOUSE GAS EMISSIONS?

Greenhouse gases (GHGs) are essential to life on Earth. They provide a “blanket” in the atmosphere, trapping heat and regulating the Earth’s temperature—making it possible for life to exist here. However, when fossil fuels (like natural gas, coal, and gasoline) are burned to power homes, businesses, and vehicles and when material is placed in landfills to decompose, the level of GHGs in the atmosphere increases. This increase in gases has created a much thicker “blanket,” which increases the global average temperature and has led to disruptions in the Earth’s climate. This results in the increases in temperature and drought already being experienced in Nevada and throughout the country.



Source: US Global Change Research Program

WHERE ARE GREENHOUSE GAS EMISSIONS COMING FROM?

County-Wide

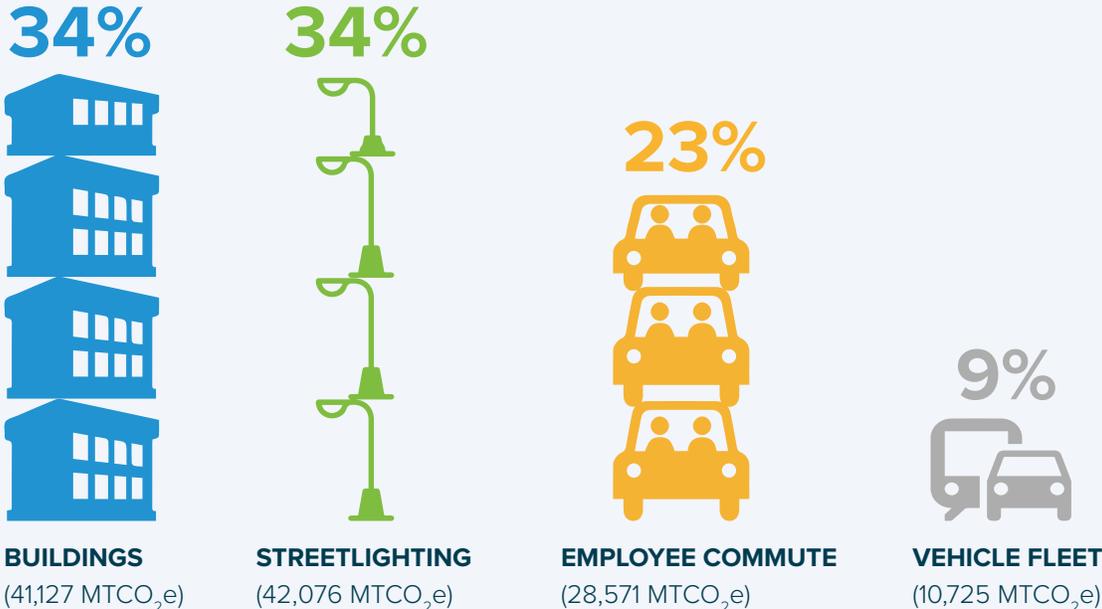
The Southern Nevada Regional Planning Coalition has tracked GHG emissions throughout Clark County from 2005 through 2014. Clark County has seen a steady increase in overall emissions of a little over 9% from 2005 to 2014. The transportation sector has generated the most emissions and is steadily growing, while emissions from the residential, commercial, industrial, and waste sectors have seen slight fluctuations over time. Clark County will be leading a regional update to the community-wide GHG emissions inventory starting in early 2021.

Government Operations

In summer 2020, Clark County conducted a GHG emissions inventory for its own operations for calendar year 2019. While two important sectors (water and waste) were not included due to unavailability of data at the time of completion, the results indicate that County operations were responsible for approximately 100,000 metric tons of carbon dioxide equivalent (MTCO₂e). The graph below provides a breakdown of emissions by sector, demonstrating that buildings and streetlights were the largest emitters within County operations.

CLARK COUNTY OPERATIONAL GREENHOUSE GAS EMISSIONS (MTCO₂e)

The County is working to enhance this most recent inventory by integrating missing data and expects to have updated numbers and new proposals for improved data collection and tracking in the near future.



PREPARING FOR IMPACTS

CHANGING CLIMATE TRENDS AND VULNERABILITIES

The climate is still being disrupted by GHGs emitted decades ago. GHGs tend to linger in the atmosphere, allowing the disruptions they cause to continue well beyond their initial release date. For this reason, taking action now to reduce emissions is imperative to minimizing the future impacts to the region and its people.

The increased GHG emissions in the atmosphere lead to two specific changing climate conditions related to temperature and precipitation. For Clark County, an increase in temperatures could lead to more heat-related illness and strain energy systems as the demand for cooling continues to increase. Regarding precipitation, Clark County can expect the snowpack that feeds the Colorado River to significantly diminish and the amount of rain falling in extreme events to increase. These **hazards** will contribute to the ongoing drought in the region, impact infrastructure, and lead to more intense and localized flash flooding. The exacerbated drought could also contribute to increased wildfire risks, which will continue to reduce air quality in the region.⁴

Hazard

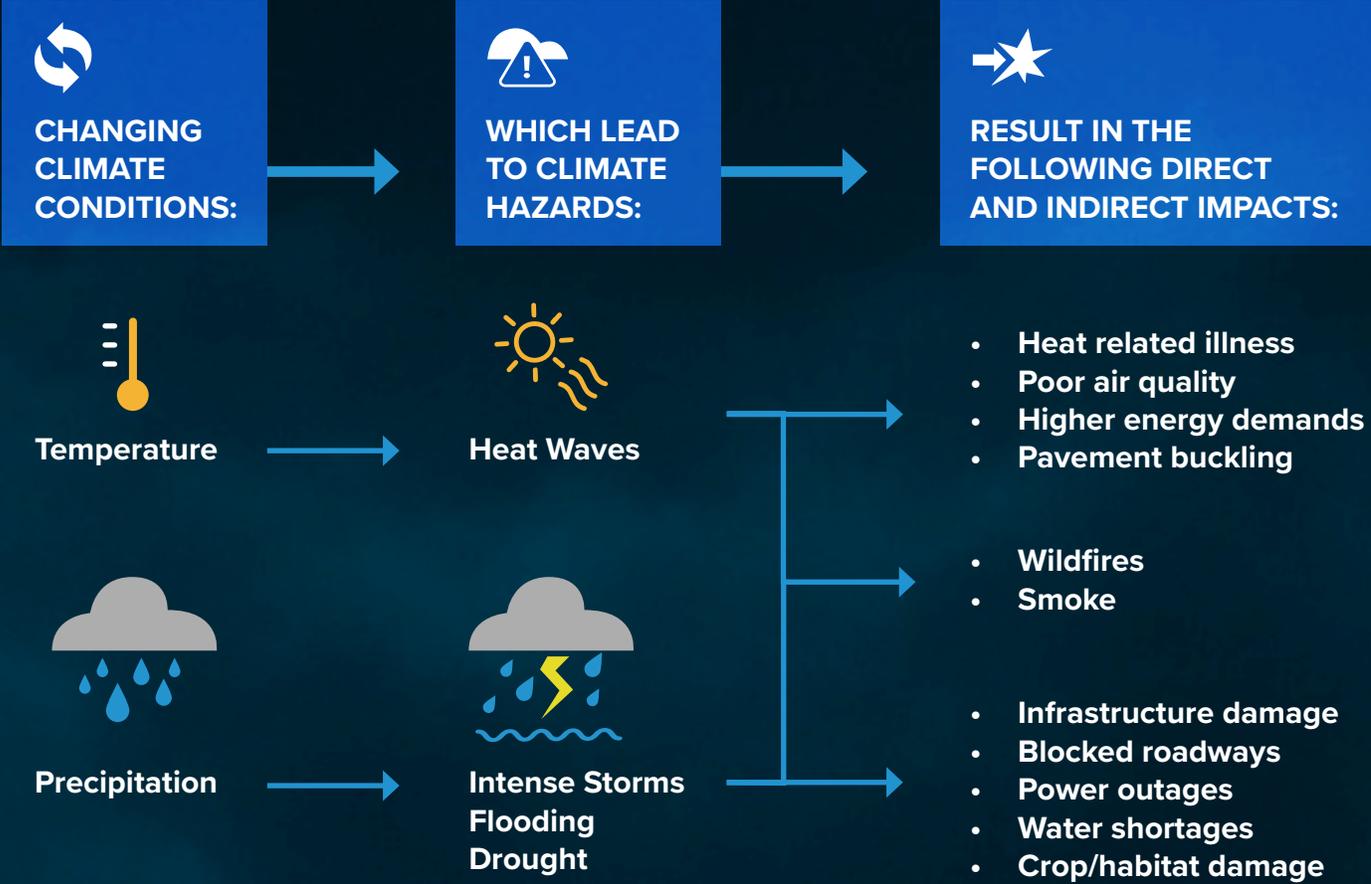
noun

A natural or human-induced physical event or trend that may cause loss of life, injury, or other health impacts, as well as damage to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources.

Hazard Mitigation

noun

Any action taken to reduce or eliminate the long-term risk to human life and property from natural hazards.



Drought
noun

A condition of long-term dryness in a given area, determined by observations of how much water is available in streams, lakes, and soils compared to usual for the same time of year.

SUSTAINABILITY WORK TO-DATE

2001

Development of plan to promote energy conservation in Clark County operations

2003

Incorporation of hybrid vehicles into the Fleet

Adoption of Energy Management Policy to reduce energy consumption by promoting energy efficiency, raising energy awareness, and monitoring energy-related policy

2007

Adoption of resolution to encourage sustainability in Clark County

2008

Launch of the Eco Initiative

2009

Creation of the Sustainability Task Force

2011

Installation of Solar Panels at Government Center Building

2013

June: Urban Forest Resource Analysis of Inventoried Park Trees completed

2015

Development of Clark County Regional Greenhouse Gas Emissions Inventory for 2014

Incorporation of plug-in electric hybrid vehicles into the Fleet

2018

August: Clark County Multi-Jurisdictional Hazard Mitigation Plan completed

2019

March: State of Nevada joins the Climate Alliance in support of the Paris Agreement

2019 (cont'd)

September: Board of County Commissioners directs staff to hire a sustainability program administrator; relocate the Office of Sustainability to the Department of Environment & Sustainability; initiate a sustainability audit of County operations; and prepare a County Sustainability & Climate Action Plan

October: SB254 goes into effect, requiring the State Department of Conservation and Natural Resources to provide annual reports on greenhouse gas emissions in the State

Board of County Commissioners approves resolution to join the County Climate Coalition; commits to uphold the Paris Agreement to combat climate change and promote environmental sustainability

2020

Incorporation of all-electric vehicles into the Fleet

March: SNRPC requests Clark County (Department of Environment & Sustainability) update the 2014 Regional GHG Inventory

June: Sustainability Audit launched

Governor Sisolak announces the Clean Cars Nevada Initiative, which seeks to provide Nevadans with more choices for low and zero emission electric passenger cars and trucks; Clark County signs on to support

July: County Operations Greenhouse Gas Emissions Inventory developed using 2018 data

August: Kick off **All-In Clark County**, County Operations Plan

County participates in RTC/SNRPC's Inventory of Regional Sustainability Planning Tools & Techniques work task



PLAN OBJECTIVES

Clark County is many things to many people, but at its core, it is resilient and bold. From the Las Vegas Strip to Red Rock Canyon, Clark County is a vibrant place to work, live, and play. Residents and visitors enjoy welcoming neighborhoods, pristine lands, cultural treasures, year-round outdoor activities, and world-class entertainment.

With **All-In Clark County**, the County aims to promote sustainable practices and climate action within the County’s operations to ensure that it can continue to thrive in the face of climate change. Through the development and implementation of codes, policies, and procedures that improve the resilience of its operations, the County improves its ability to serve the community while also serving as a model for sustainable action in the region. **Sustainability** is much more than just clean air and water. It means more affordable housing and energy costs, diverse jobs, economic vitality, and a livable climate, and all of that starts first with making sure Clark County operates efficiently.

Sustainability

noun

A sustainable Clark County balances resource efficiency, social well-being, and environmental stewardship while equitably meeting the needs of a growing community and thriving economy.



CLEAN & RELIABLE ENERGY



RESILIENT COUNTY OPERATIONS



SMART WASTE MANAGEMENT & REDUCTION



SUSTAINABLE TRANSPORTATION



WATER CONSERVATION & PROTECTION

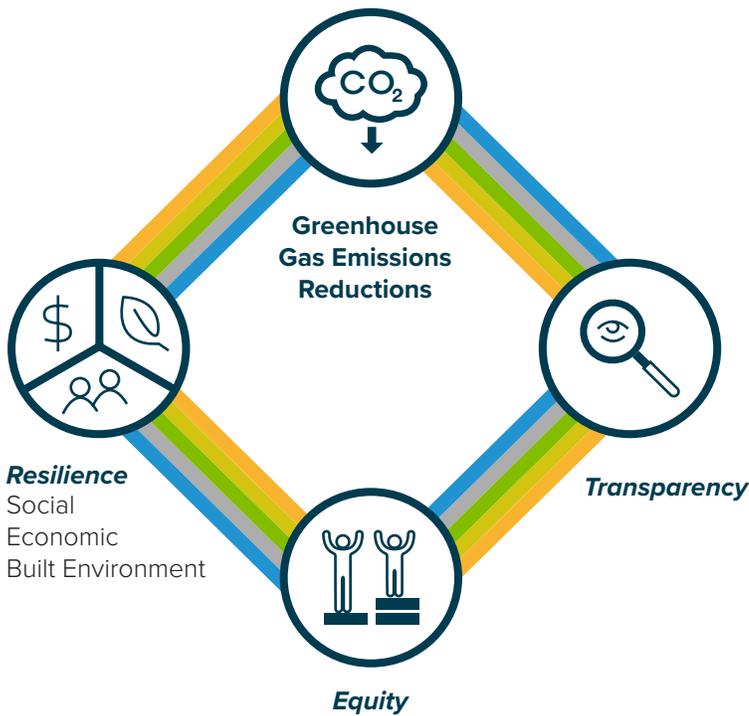
5

KEY AREAS

With this Plan, Clark County will focus on these five key areas as they relate to County operations:

4 GUIDING PRINCIPLES AND SUSTAINABILITY FRAMEWORK

To ensure that all actions included in this plan are reflective of the County’s values and priorities, four guiding principles were identified and developed into a Sustainability Framework. This framework, found in Appendix B, was used as a lens to evaluate actions for inclusion in this Plan and can also be used as a decision-making tool for the County for future projects. Actions that had the potential for the highest impact in the four guiding principle areas became priority actions for **All-In Clark County**.



Equity *noun*

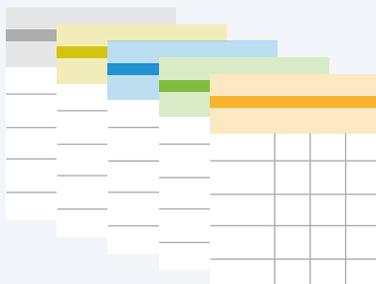
The inclusivity and empowerment of diverse populations, both internal to Clark County staff and external to the broader community. Equity incorporates inclusive, accessible, and authentic engagement and representation, fair distribution of benefits and burdens, structural accountability, and consideration of generational impacts.

Resilience *noun*

A resilient Clark County supports residents, businesses, and visitors to be healthy, successful, and adaptable to changing climate conditions.

Transparency *noun*

The openness and honesty with which County resources are allocated and why. Accessible information is proactively disseminated.



The following tables summarize the goals and actions for each of the five key areas. All actions are scored according to the four guiding principles.





CLEAN & RELIABLE ENERGY

GOALS

- Reduce energy consumption in County buildings and operations.
- Increase the use of clean, renewable energy to power County operations.
- Promote policies and programs that improve energy efficiency in residential and commercial buildings.
- Promote policies and programs that increase reliance on renewable energy sources for powering residential and commercial buildings.

ACTIONS	● Favorable ● Neutral ● Unfavorable	GHG Reduction Potential	INCREASED RESILIENCE			Transparency	Equity Considerations
			Social	Economic	Built Environment		
Staff an energy management team for all County facilities and operations.		●	●	●	●	●	●
Continue to upgrade all lighting in County buildings to LED.		●	●	●	●	●	●
Assess the need to expand outdoor lighting control systems (sensors, timers) to all exterior lighting.		●	●	●	●	●	●
Continue to implement energy conservation measures for the highest energy intensity County buildings and continue to conduct energy audits on other high energy intensity buildings.		●	●	●	●	●	●
Establish an employee energy awareness and conservation program.		●	●	●	●	●	●
Establish a revolving energy fund that leverages savings from efficiency projects to continue to fund additional investments.		●	●	●	●	●	●
Continue to expand building management system (BMS) to all County buildings and integrate data into new Energy Management System.		●	●	●	●	●	●
Retrofit all occupied County facilities with solar glazing and energy efficient windows.		●	●	●	●	●	●
Pilot battery storage for critical County facilities.		●	●	●	●	●	●
Develop partnerships with stakeholders to identify innovative technologies for clean energy production.		●	●	●	●	●	●



RESILIENT COUNTY OPERATIONS

GOALS

- Ensure that County operations are resilient to the impacts of climate change.
- Design all Clark County-developed infrastructure to support community resilience to future climate conditions.

ACTIONS	● Favorable ● Neutral ● Unfavorable	GHG Reduction Potential	INCREASED RESILIENCE			Transparency	Equity Considerations
			Social	Economic	Built Environment		
Conduct a climate vulnerability assessment of all County critical assets and operational functions.		●	●	●	●	●	●
Assess existing County operations emergency management plans for increased exposure to hazards associated with climate change.		●	●	●	●	●	●
Enhance existing emergency communication protocols and ensure communication is accessible to all County staff.		●	●	●	●	●	●
Adopt criteria for ensuring that all County capital projects are screened for resilience to climate change-related hazards.		●	●	●	●	●	●
Assess number of cooling stations provided by Clark County and continue to ensure equitable distribution.		●	●	●	●	●	●
Ensure County infrastructure equitably minimizes contributions to urban heat islands.		●	●	●	●	●	●
Preserve and enhance tree canopy and green infrastructure throughout Clark County, ensuring equitable distribution of such assets across all neighborhoods.		●	●	●	●	●	●



SMART WASTE MANAGEMENT & REDUCTION

GOALS

- Reduce generation of solid waste from County buildings and operations.
- Increase the diversion of County-generated solid waste.
- Support policies and programs that reduce residential and commercial waste throughout Clark County.

ACTIONS	● Favorable ● Neutral ● Unfavorable	GHG Reduction Potential	INCREASED RESILIENCE			Transparency	Equity Considerations
			Social	Economic	Built Environment		
Conduct an audit of County waste processes from contracting through to disposal and of the County's operational waste stream.		●	●	●	●	●	●
Centralize County waste management by assigning one department to oversee all services.		●	●	●	●	●	●
Establish a waste management program and communications materials to support recycling within County facilities and operations.		●	●	●	●	●	●
Create a sustainable purchasing policy and requirements for County purchasing.		●	●	●	●	●	●
Implement a paper reduction program that encourages online/digital application processes and document storage.		●	●	●	●	●	●
Incorporate requirements in waste hauler contracts for enhanced reporting/tracking of solid waste and recycling.		●	●	●	●	●	●
Continue to incorporate sustainable materials and waste management requirements into County project RFPs.		●	●	●	●	●	●
Eliminate single-use plastics from all County facilities and events.		●	●	●	●	●	●



SUSTAINABLE TRANSPORTATION

GOALS

- Reduce emissions from vehicles in County operations.
- Support County employee commuting alternatives.
- Promote policies, programs, and infrastructure investments that prioritize multi-modal, clean, efficient transportation options throughout Clark County.

ACTIONS	● Favorable ● Neutral ● Unfavorable	GHG Reduction Potential	INCREASED RESILIENCE			Transparency	Equity Considerations
			Social	Economic	Built Environment		
Adopt policies and employ technology that allows for remote work/meetings where practical and appropriate.		●	●	●	●	●	●
Expand employee commuting programs that incentivize and encourage alternative commuting modes.		●	●	●	●	●	●
Establish a formal vehicle purchasing and replacement policy that considers right-sizing of vehicles, assesses life-cycle costs and benefits, and shifts the County fleet to low-/zero-emission vehicles.		●	●	●	●	●	●
Install electric vehicle charging infrastructure needed to support County staff vehicles.		●	●	●	●	●	●
Support the development and implementation of Complete Streets policies, improvement projects, and innovative technologies.		●	●	●	●	●	●
Apply to become a Clean City through the Clean Cities Coalition.		●	●	●	●	●	●
Expand access of Assetworks M5 data to all County departments to track vehicle mileage and performance and train staff on efficiencies.		●	●	●	●	●	●
Promote state and federal zero-emission vehicle rebate/incentive programs.		●	●	●	●	●	●
Provide secure bicycle parking at all County facilities and showering facilities for employees at main County facilities.		●	●	●	●	●	●
Promote the RTC electric bike-share program for County staff for County business use.		●	●	●	●	●	●



WATER CONSERVATION & PROTECTION

GOALS

- Decrease water consumption in County operations.
- Improve area water quality by reducing impacts from County operations.
- Support policies, programs, and regional collaboration for improved water quality, water conservation, and drought management.

ACTIONS	● Favorable ● Neutral ● Unfavorable	GHG Reduction Potential	INCREASED RESILIENCE			Transparency	Equity Considerations
			Social	Economic	Built Environment		
Continue to retrofit existing County facilities with water smart fixtures and technology.		●	●	●	●	●	●
Assess areas on County facilities where existing ornamental turf can be converted to xeriscaping.		●	●	●	●	●	●
Reduce non-point source pollution at County facilities by ensuring the County is meeting National Pollutant Discharge Elimination System (NPDES) permit requirements.		●	●	●	●	●	●
Promote SNWA's Joint Water Conservation Plan (2019).		●	●	●	●	●	●
Revise Title 30 during Transform Clark County to strengthen water conservation requirements during land use approval.		●	●	●	●	●	●
Continue to enhance the tracking of water consumption to analyze consumption trends at the building level and create a dashboard to educate staff and encourage conservation.		●	●	●	●	●	●
Continue to modify design guidelines for County facilities, as necessary, that emphasize locally appropriate green infrastructure and low-impact design techniques and require adoption for all new County facilities.		●	●	●	●	●	●

DEVELOPING THE PLAN

All-In Clark County is a dual-phase plan led by the Department of Environment and Sustainability.

Phase 1 of **All-In Clark County** focuses on increasing the sustainability and resilience of County operations. To-date, a sustainability audit of County operations has been completed, along with this County Operations Plan. The development of the County Operations Implementation Strategy will directly follow this Plan. Concurrent with each of these efforts is a regional greenhouse gas inventory, a comprehensive effort by the County and in partnership with regional cities. Finally, utilizing best practices and lessons learned throughout the many stages of Phase 1, the County will move into developing a Community-Wide Sustainability and Climate Action Plan in late 2021.

All-In Clark County Planning Timeline



This plan, which is Phase 1: County Operations Plan, was developed through a collaborative planning process that included:

- Board of County Commissioners;
- County executive management;
- County departments;
- Sustainability leaders in the resort corridor; and
- Regional organizations

Building off County progress to-date, this Plan incorporated previous and concurrent planning efforts and regional studies, including those from Transform Clark County and Southern Nevada Water Authority. This background work was completed to ensure the resulting plan was comprehensive and informed.

SUMMARY OF ENGAGEMENT

Throughout the seven-month planning process, All-In Clark County utilized a comprehensive approach to engage stakeholders. Engagement of County staff and initial engagement of the broader public were conducted via diverse methods.

12

INTERVIEWS

Select Clark County staff were invited to participate in 1:1 interviews and complete an online survey as part of the pre-planning phase for the County Operations Plan. These interviews were an avenue to ask participants about past and current County sustainability work, as well as their priorities, concerns, and opportunities regarding this Plan. A total of 12 interviews were conducted, including with three Commissioners, three executive managers, and six department leads.

6

FOCUS GROUPS

County staff participated in focus groups for each of the five key topic areas (Energy, Transportation, Resilience, Water, and Waste), based on their expertise and knowledge of relevant County operations. These conversations were important to ensuring the proposed goals and actions appropriately accounted for prior County efforts, were ambitious, and fit within department visions for a future Clark County. Sustainability leaders from local hotels and resorts participated in an additional focus group. This group met to share best practices for the County to consider in their own operations and to allow the County to celebrate what these organizations have accomplished.



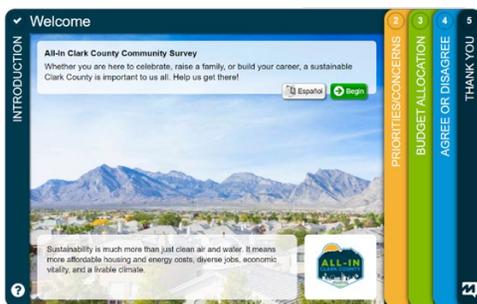
3

SURVEYS

A total of three surveys were distributed as part of the overall engagement effort for **All-In Clark County**. Surveys to County staff, regional organizations, and the general public sought input on:

- Prioritizing the Plan’s focus areas;
- Defining sustainability for Clark County; and
- Understanding opportunities of alignment with existing work.

A third survey gathered broader perspectives from the public about the All-In program as a whole, kicking off a community-scale engagement effort that will span both phases. In this survey, participants were asked what they thought were the most important sustainability and climate action areas the County should address first, as well as the degree to which they supported specific goals identified by the County. Participants were also asked questions on their own personal experiences with climate change impacts. Appendix C provides a summary of results.



A community survey via MetroQuest asked the public to provide feedback on the plan and discuss their own personal experiences with climate change impacts.

PARTICIPANT INPUT

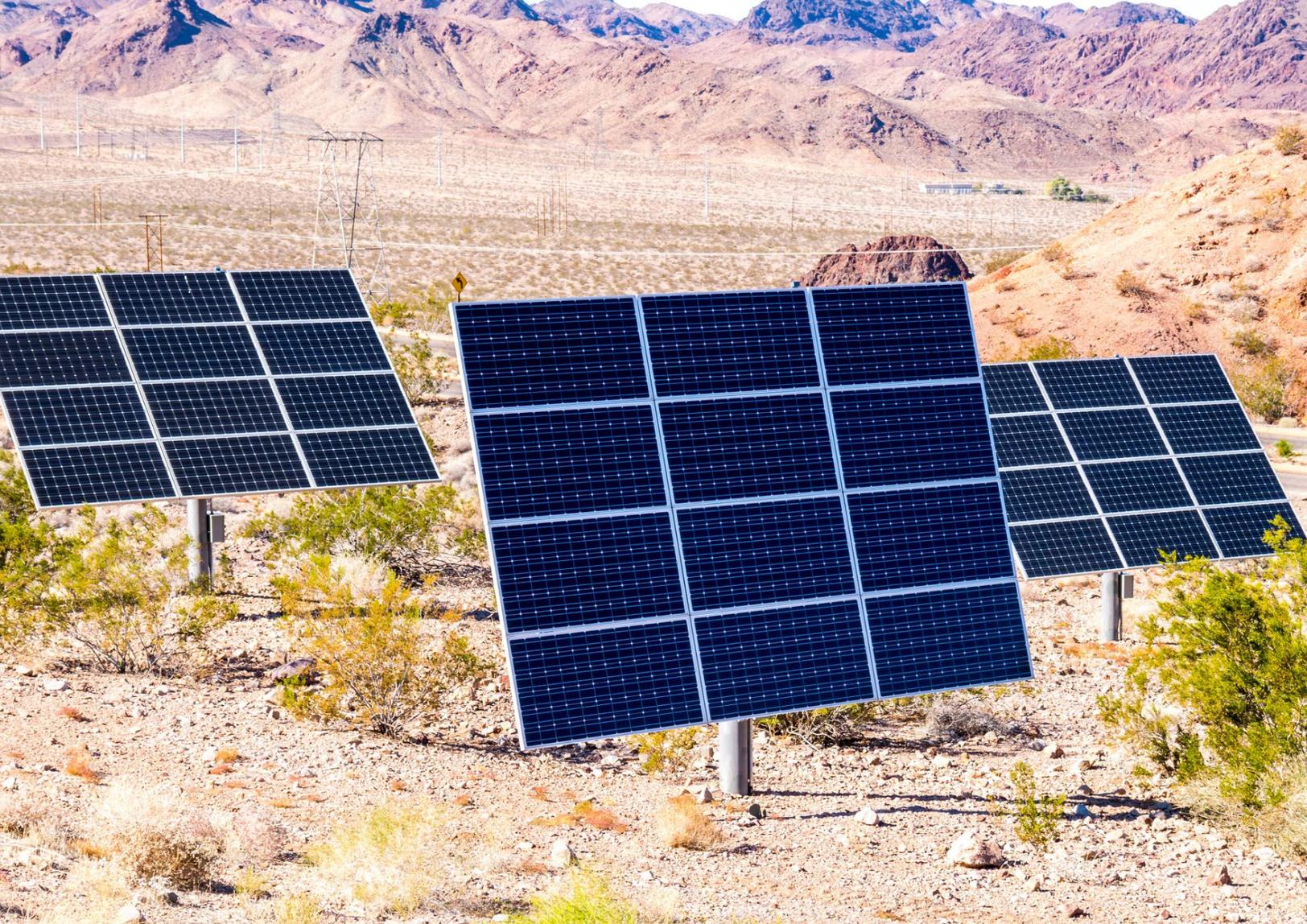
"I love living here and want to be able to stay for decades to come."

"I work in the environmental regulatory field. Climate change impacts how we do our jobs directly. We have to consider the changes and how best to account for that in our regulations."

REGARDING CARBON NEUTRALITY:

"I believe we can set the bar and should be pushing to progress this movement before 2050."

"Many of my family members work outside. If the city continues to warm, their employment will become unsustainable or put them at extreme health risk."



CLEAN & RELIABLE ENERGY

GOALS

- Reduce energy consumption in County buildings and operations.
- Increase the use of clean, renewable energy to power County operations.
- Promote policies and programs that improve energy efficiency in residential and commercial buildings.
- Promote policies and programs that increase reliance on **renewable energy** sources for powering residential and commercial buildings.

Renewable energy

noun

Energy produced from non-fossil fuel, renewable sources, such as the sun, wind, waves, and geothermal heat.



Energy use in Clark County’s operations comes in many forms, from cooling the County’s 112 buildings in the summer months and powering traffic signals to lighting office space and using appliances. In 2019, energy use accounted for 68% of County operational greenhouse gas emissions.⁵ If the County is to achieve its goals of 20% energy reduction from efficiency measures by 2023 and zero-emissions by 2050, it must significantly reduce its building and operations energy consumption while simultaneously paving a new path forward for how it uses energy. By pursuing measures now to achieve these goals for its own operations, Clark County can lead by example and demonstrate to the broader community the many benefits of energy reduction, as well as provide lessons learned for future projects. The County has already achieved an 8% improvement in energy performance between 2013 and 2019 and expects to continue this trend through continued efficiency investments and the achievement of the goals and actions in this Plan.



1,500

LED retrofits completed for traffic signals



11,010

streetlights upgraded to LED



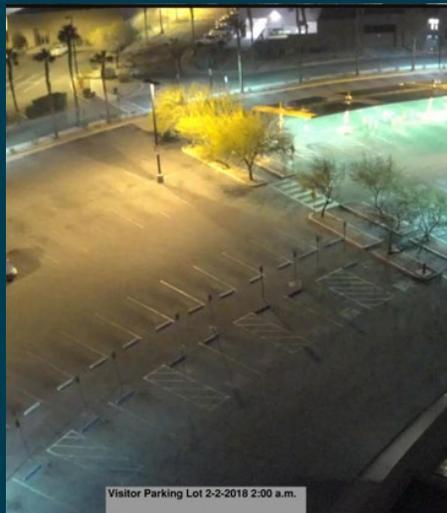
57,120

streetlights left

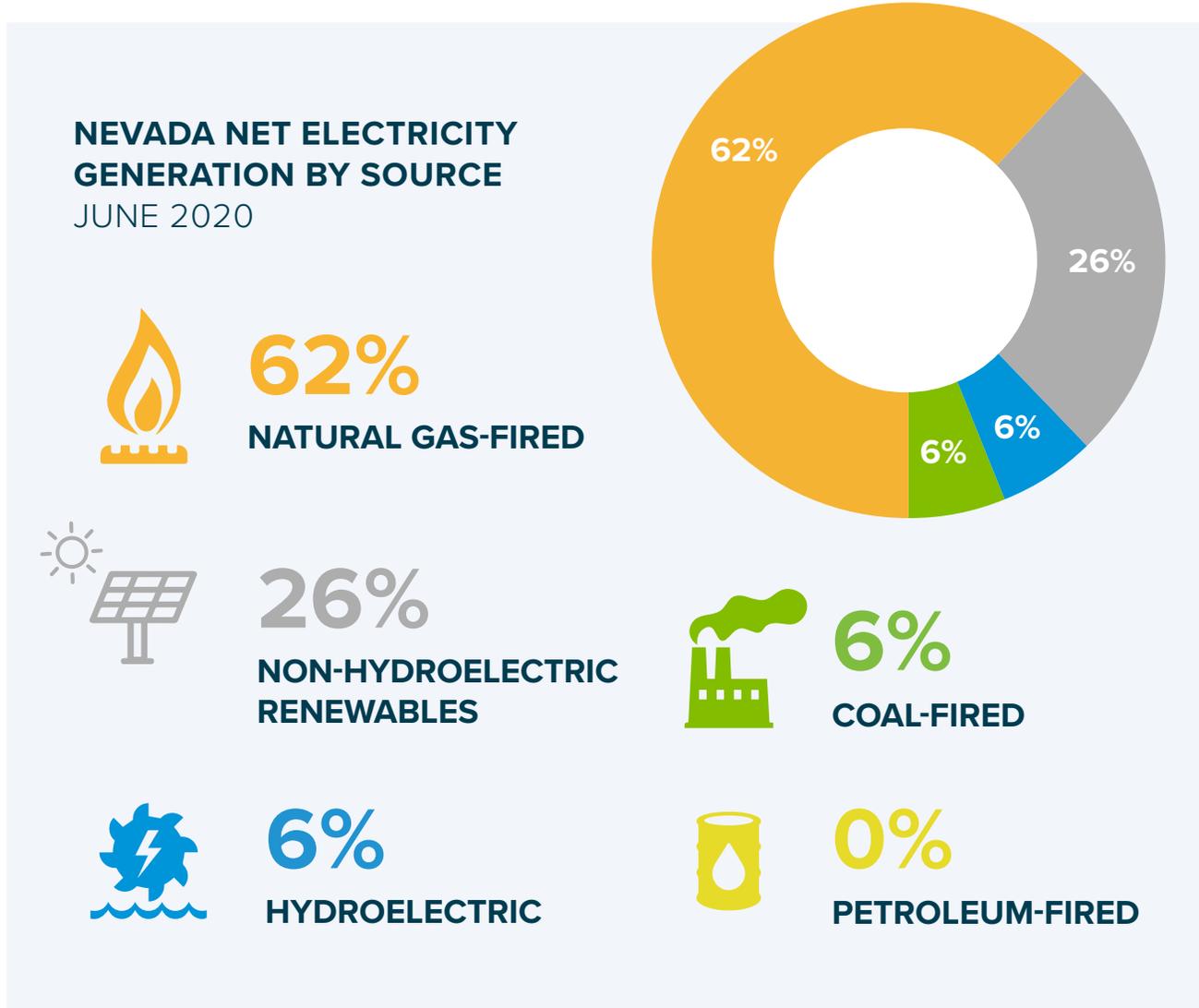
Once upgraded to LED, these lights could generate an additional savings of more than **28,000 MWh** and a GHG reduction of **13,000 MTCO₂e**.



LED upgrades at the Government Center Visitor Parking Lot not only save the County energy costs, but also improve safety by providing increased illumination.



Clark County must also shift the source of its operational energy from fossil fuels, such as natural gas, to clean, renewable energy, like solar. The County will be supported in meeting its renewable energy goals by the recently enhanced state-wide Renewable Portfolio Standard, which is currently set to 50% energy production by renewable sources by 2030, a doubling of the previous goal. Further, as Nevada currently has the nation’s highest solar capacity per capita rate in the country, and ranked 4th for solar electric growth (between 2007-2016), Clark County has ample opportunity to leverage solar growth in the state and the region for sourcing clean electricity.⁶ As of the writing of this plan, Clark County’s operational energy is expected to be sourced by 100% Nevada-based solar energy through NV Energy’s Optional Pricing Program Rate, beginning in 2021. NV Energy has also commissioned an additional 1,190 MW of solar generation and 590 MW of battery storage to be constructed within Clark County boundaries that will come online in 2024.⁷





DID YOU KNOW?

Clark County has six solar arrays, five rooftop and one ground-mounted, totaling 341 kilowatts (kW) in generation capacity.

Government Center	36 kW
Development Services Russell Road	38 kW
Hollywood Rec Center	40 kW
Desert Breeze Recreational Center	42 kW
Spring Mountain Youth Camp	35 kW
Torrey Pines	150 kW

Solar Array on the Hollywood Recreation Center



IF THE COUNTY COMPLETES LIGHTING UPGRADES THROUGHOUT ALL ITS FACILITIES, IT COULD RESULT IN AN ESTIMATED SAVINGS OF 1,600 MWH AND REDUCTION OF 750 METRIC TONS CO₂E. THAT'S AN ANNUAL COST SAVINGS OF APPROXIMATELY \$149,500.



Real Property Management staff install LED lighting.

As Clark County makes strides toward its operational energy goals, it can enhance existing systems to ensure that building design standards are not only met with each retrofit and new construction, but continue to evolve and improve as best practices and capabilities for sustainable design also advance. County projects are currently expected to meet or exceed one of three options: 20% improvement over IECC 2018 Section C401.2, LEED Silver, or SITES Silver, though actual certifications are not required. By setting high design standards for its own facilities, the County can lead the community by example, demonstrating the benefits of efficient building design, acting as a testbed for best practices, and promoting the use of these practices to the residential and commercial sectors. This will be an increasingly important focus for the County as it moves toward a community-wide plan, and conversations with residents and developers will be essential to framing the needs of the community.



WHAT ARE IECC, LEED, AND SITES?



International Energy Conservation Code (IECC)⁸

The IECC is a set of model requirements that cities and towns can adopt to achieve energy-efficient buildings throughout design and construction.



Leadership in Energy and Environmental Design (LEED)⁹

LEED is a set of standards for siting, design, and construction that emphasize resource efficiency and human well-being. Projects must meet credit requirements across several categories, such as Water Efficiency, Energy & Atmosphere, and Materials & Resources.



SITES¹⁰

SITES is a set of development standards that emphasize sustainable landscaping. SITES certification credits require measures such as stormwater filtration and habitat maintenance to protect ecosystems and improve human health.

While equipment upgrades and efficiency measures are important for the County to reduce its energy use, the County’s staffing capacity to manage these operations is equally critical. Staffing an energy management team for the County will set the County up for continued success, particularly as it brings on its new energy management systems and as new buildings are constructed and maintained.

Finally, the need for employee training and education was a common theme heard throughout interviews and surveys. Engaging County staff, whether by training energy managers on operating HVAC control systems or educating administrators on energy-friendly behaviors, will support ongoing energy improvements.



DID YOU KNOW?

In Spring 2021, Clark County will launch a comprehensive energy management system called EnergyCAP, which will give the County new insight and control into its buildings’ energy use. With dashboards that easily display energy use and locations, capabilities for accounting and data analysis, and the ability to tie GHG emissions to energy use, Clark County will be well-equipped as it continues to improve the way it tracks and reduces its energy use. If building efficiency is optimized through this system, the County could see an estimated savings of more than 16,000 MMBtu (a cost savings of \$293,000) and a GHG reduction of 1,690 MTCO₂e.

POTENTIAL ACTIONS

Shifting how the County consumes energy; sourcing its energy from clean, renewable sources; and empowering its employees to make smarter energy choices will be critical to reducing the County’s energy-related greenhouse gas emissions, saving on operating costs, and meeting its energy goals. The following actions have been identified to help the County achieve its goals for clean and efficient energy use.

ACTION

Staff an energy management team for all County facilities and operations.

Continue to upgrade all lighting in County buildings to LED.

Assess the need to expand outdoor lighting control systems (sensors, timers) to all exterior lighting.

Continue to implement energy conservation measures for the highest energy intensity County buildings and continue to conduct energy audits on other high energy intensity buildings.

Establish an employee energy awareness and conservation program.

DESCRIPTION

Increasing staff capacity for energy management within County operations can help expand opportunities for operational optimization, maintenance savings, management of energy contracts and relationships, and tracking cost savings. Currently, a single County staff position manages energy administration for all of the County’s 112 buildings and accounts with 20 different utilities.

LED lighting currently offers the highest efficiency, longest lifespan, and lowest annual cost on the market. Transitioning all County buildings to LED lighting can have significant operations and maintenance savings. LEDs also release minimal heat compared to CFLs or incandescents, which can emit up to 80% of the energy they use as heat,¹¹ so switching to LEDs can decrease the amount of cooling needed in County buildings.

Installing lighting control systems can help the County automate when and for how long lighting is required based on occupancy and safety needs, while eliminating unnecessary lighting. While Synergy software currently controls interior lighting, and Maxicom software controls most exterior lighting for parks, ball fields, and parking lots, there may be additional opportunities for automation.

Clark County has already conducted energy audits of its three highest energy consumers, as well as of 22 other major facilities. Selected measures from these audits are submitted for capital funding. Additional energy audits will allow the County to identify causes of high energy use and prioritize energy upgrade projects that will have the most impact. Targeting special use facilities like pools, auditoriums, or 24-hour-operation buildings may help identify unique opportunities for energy savings.

Educating employees on energy awareness and conservation can empower employees to take action, as well as amplify the positive benefits of technology upgrades. While Clark County has established energy conservation policies for its employees, it has not engaged them with accompanying awareness programs and campaigns.



ACTION

Establish a revolving energy fund that leverages savings from efficiency projects to continue to fund additional investments.

Continue to expand building management system (BMS) to all County buildings and integrate data into new Energy Management System.

Retrofit all occupied County facilities with solar glazing and energy efficient windows.

Pilot battery storage for critical County facilities.

Develop partnerships with stakeholders to identify innovative technologies for clean energy production.



DESCRIPTION

By reinvesting savings from efficiency projects, the County creates space within its operational budget to incorporate innovation as well as demonstrate the County’s commitment to efficiency. Having a dedicated funding stream will keep efficiency as a priority because it will not have to compete with other costs. It also means that when a piece of equipment fails, it can be replaced with the most efficient option instead of the cheapest.

BMS systems can help the County automate and streamline the operation of large-scale energy-users like HVAC, lighting, and pumps and increase the efficiency of systems that would otherwise need to be manually operated. This can save on operating costs as well as ensure connected systems operate smoothly together. Currently, the County’s BAS system, Metasys, controls 70 of the County’s 112 buildings. Expanding the BMS to all County buildings can help optimize building equipment and use. Digital and remote control as well as alarms/notifications of malfunctions also enhance the resilience of County buildings and operations.

Solar glazing and energy efficient windows can help maintain building temperature and occupant comfort while reducing heating and cooling costs for the County. While these features are addressed via County design guidelines in new construction, existing County buildings will need to be retrofitted.

Replacing fuel-based backup generators with solar power plus battery storage can move the County towards clean reliable technology. Battery storage can extend the benefits of the County’s six on-site solar PV systems by storing clean energy when demand is low and supplementing the energy supply during peak use times or when grid energy supply is interrupted. This use case can help reduce the strain on utilities during extreme heat events and may be financially rewarded by the utility.

Identifying and collaborating with stakeholders across the valley can position the County to act as a testbed for piloting new energy technologies and keep the County at the forefront of innovation while supporting and attracting local clean energy businesses.

METRICS AND TARGETS

To ensure the County can track its progress towards clean and efficient energy, the following metrics and targets have been identified. Note, where possible, **All-In Clark County** has aligned its metrics and targets with existing County, state, or regional plans to ensure efforts for sustainability and climate resilience are aligned.

Metric	Baseline	2030 Target	2050 Target
Total energy consumption (MMBtu) from County facilities	570,897 MMBtu (2019)	20% reduction	40% reduction
Building energy intensity (kBtu/sq ft)	207 kBtu/sq ft	25% reduction (155.25 kBtu/sq ft)	50% reduction (103.5 kBtu/sq ft)
GHG emissions from County energy consumption	67,953 MtCO ₂ e (2019)	50% reduction	Zero emissions
On-site renewable energy generation	341 kW	Upward Trend	
% of County facilities meeting energy efficient/green building standards	New Metric	Upward Trend	100%





RESILIENT COUNTY OPERATIONS

GOALS

- Ensure that County operations are resilient to the impacts of climate change.
- Design all Clark County-developed infrastructure to support community resilience to future climate conditions.

CLARK COUNTY IS ALREADY EXPERIENCING THE IMPACTS OF CLIMATE CHANGE IN MANY WAYS. AS OF THE WRITING OF THIS PLAN, 100% OF NEVADA'S POPULATION IS EXPERIENCING DROUGHT AND LAS VEGAS IS THE FASTEST WARMING CITY IN THE COUNTRY.^{1,2}



As a county set in the desert southwest, Clark County has much at stake with regard to water and energy supply and intensifying urban heat island impacts. Further, projections estimate that southern Nevada could experience a 3-5°F temperature increase by 2030-2050 (relative to 1976-2005) and an estimated 40-50 more days above 100°F by 2050.¹² Clark County is not new to the climate conditions of desert-living. However, what the County will need to prepare for is more extreme climate conditions – higher temperatures for more extended periods of time, extreme flooding events, exacerbated **urban heat island** effects, and the subsequent impacts to the community it serves, energy and water demand, and infrastructural stress. Targeted emergency plans, knowledgeable employees, and resilient infrastructure will be required for the County to operate, and more nimbly, as it provides services to the community in more extreme and never-before experienced conditions.

Urban Heat Island

noun

Significantly hotter conditions in urban areas compared to surrounding rural areas, due largely to the presence of surfaces that absorb and retain heat (such as dark pavement, concrete, and asphalt) in cities.

DID YOU KNOW?



437

Heat-related deaths in Southern Nevada between 2007 and 2016



104°F

Average daytime high during summer months in Southern Nevada between 2015 and 2019



23

Excessive heat warnings issued in Southern Nevada between 2015 and 2019

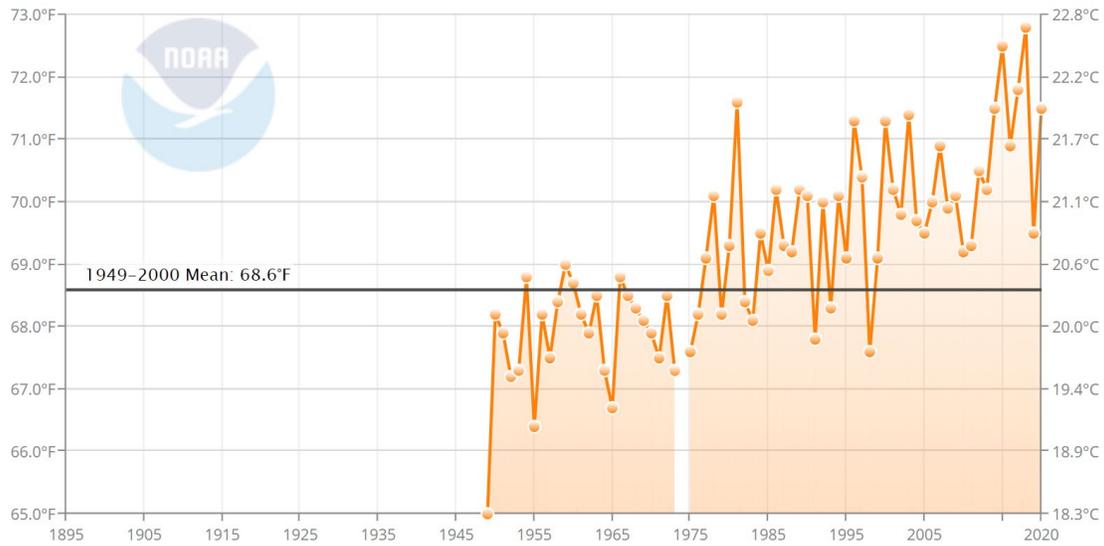


84

Days exceeding 100°F in Southern Nevada in 2019

According to a recent analysis completed by Southern Nevada Strong and the Regional Transportation Commission of Southern Nevada.

LAS VEGAS, NEVADA AVERAGE TEMPERATURE 12-MONTH AVERAGE (NOVEMBER-OCTOBER)



Rising average temperatures in Las Vegas, NV. Powered by **ZingChart**¹³

Operational resilience for the County starts with planning. In 2018, eleven jurisdictions within Clark County came together to assess the region’s vulnerability to a wide range of hazards and identify strategies for mitigation,¹⁴ and in 2019, the County released an emergency response plan. However, neither provides Clark County with an operations-focused vulnerability assessment and contingency plan for targeted emergencies and threats due to events such as prolonged extreme heat or extreme winds (not previously addressed as a hazard). A complete County operations vulnerability assessment can position the County to make informed decisions for building and infrastructure resilience, as well as inform climate-specific emergency responses within and across its many departments.



**A RESIDENT ENJOYS THE
BREEZE AT A COOLING
CENTER IN LAS VEGAS.**

Source: Rachel Aston, Las Vegas Review Journal

Clark County has a significant responsibility to serve not only its community, but its nearly 10,000 employees. The County plays a critical role in educating and equipping its employees to manage extreme heat and poor air quality conditions, both as it relates to ensuring employee well-being as well as in outlining how employees should adapt their County roles and responsibilities during times of stress to conduct their jobs safely.

POTENTIAL ACTIONS

To ensure the County can better serve its employees and the community, particularly in times of emergency, the following set of actions have been identified.

ACTION

Conduct a climate vulnerability assessment of all County critical assets and operational functions.

Assess existing County operations emergency management plans for increased hazards associated with climate change.

Enhance existing emergency communication protocols and ensure communication is accessible to all County staff.

Adopt criteria for ensuring that all County capital projects are screened for resilience to climate change-related hazards.

DESCRIPTION

By assessing the strengths and vulnerabilities of critical assets and operational functions, the County can prioritize upgrades and outline contingency operational procedures needed prior to an emergency event occurring.

Emergency management plans that address hazards related to climate change can position Clark County to be proactive in addressing such hazards and have a suite of well-planned responses and trained employees ready for implementation when needed. By assessing existing plans, such as Clark County’s 2018 hazard mitigation plan and 2019 basic emergency response plan, Clark County can identify additional gaps and opportunities to further strengthen its emergency management planning and increase its resilience to potential hazards associated with changing climate conditions.

An internal County emergency communication protocol, such as a text notification system, can ensure all employees receive emergency communications, whether in the office or out in the field, and understand how to act accordingly. The County rolled out the Startup in Residence Program’s August 2020 call for solutions for employee emergency notifications. The outcomes of this could serve as a starting point for enhancing emergency communications.

Integrating resilience criteria into County capital projects allows the County to build in preparedness features and resilient design for its facilities. While the County currently aligns with FEMA’s 100-year criteria for infrastructure design, the County will want to consider additional resilience criteria to adjust for potential impacts informed by more recent climate change projections. This gives the County the opportunity to modify project design as needed in its earlier stages before it becomes too costly to do so later on. This minimizes the County’s need for reactive “band-aid” solutions when impacts occur in the future.



ACTION

Assess number of cooling stations provided by Clark County and continue to ensure equitable distribution.



DESCRIPTION

Cooling stations provide shelter and water to the public during extreme heat days. By offering these stations and distributing them equitably across the county, Clark County can increase the community's resilience to the impacts of climate change. The County should also consider the type of buildings best suited for cooling centers and how they are operated.

Ensure County infrastructure equitably minimizes contributions to urban heat islands.

Urban heat island is an increasing issue in Clark County. While the County's Title 30 regulations currently mandate it to build using materials and colors that complement the natural landscape, further minimizing the use of dark surfaces can aid in reducing urban heat island. Increasing the use of green infrastructure, as well as high albedo pavement and roofing across County facilities, can reduce elevated temperatures, infrastructure stress, and cooling demands, and improve community well-being. Using criteria such as a social vulnerability index can help the County prioritize project areas so that they are equitably distributed.

Preserve and enhance tree canopy and green infrastructure throughout Clark County, ensuring equitable distribution of such assets across all neighborhoods.

Trees and green infrastructure, such as low-maintenance and drought-tolerant roadside vegetation, reduce urban heat islands, provide shading, improve air quality, and provide stormwater management benefits, particularly in urban areas. Preserving and enhancing these systems throughout the county is one low-cost solution the County can pursue to ensure all residents receive its benefits.

METRICS AND TARGETS

To ensure the County can track its progress towards operational resilience the following metrics and targets have been identified. Note, where possible, **All-In Clark County** has aligned its metrics and targets with existing County, state, or regional plans to ensure efforts for sustainability and climate resilience are coupled. In the case of resilience, tracking progress often means establishing new metrics and defining them, which will be an important outcome of a County operations vulnerability assessment.

Metric	Baseline	2030 Target	2050 Target
# of County assets vulnerable* to climate risks	New Metric	Downward trend	Zero
\$ value of resilience investments (compared to property loss risk \$)	New metric	TBD	TBD
% of County property area shaded or vegetated	New metric	Upward trend	
# of trees planted on County property	24,552 in 2013 (only accounts for parks)	25% increase	50% increase
# of cooling stations	New metric	TBD (based on future needs assessment)	
% of capital projects meeting resilience guidelines	New metric	50%	100%

*Level of vulnerability to be defined for tracking purposes.





SMART WASTE MANAGEMENT & REDUCTION

GOALS

- Reduce generation of solid waste from County buildings and operations.
- Increase the diversion of County-generated solid waste.
- Support policies and programs that reduce residential and commercial waste throughout Clark County.

Home to both the country's largest landfill and the largest residential recycling facility,⁵ Clark County is constantly working to divert waste from a growing population while educating on smart consumption practices to reduce the generation of waste. Committed to aligning with the State of Nevada's recycling rate goal of 25%, Clark County has achieved moderate success increasing diversion rates at the community scale – from 8% in 2008 to just under 20% in 2019, but a lack of County operational data has prevented the County from tracking its internal diversion rates. Through the development of a streamlined waste and recycling tracking program for its operations, procurement policies, and employee education programs, Clark County can easily contribute to reaching this recycling goal by reducing its operational waste and serving as a model for its community by illustrating that large-scale waste reduction is achievable.



CASE STUDY

Food Waste Prevention at MGM Resorts

One example of how large-scale waste reduction is already being achieved locally is through the efforts at MGM Resorts. Through a partnership with Three Square Food Bank in Las Vegas, MGM Resorts minimizes its food waste while supporting the community. MGM flash freezes leftover food from its events to get it safely to community members in need. Since 2016, MGM Resorts has donated 1.5 million meals.

Photo source: Chase Stevens Las Vegas Review Journal



The County is demonstrating the positive results of innovative waste diversion programs. In 2005, the Pulverize and Pave Program through the Department of Public Works completed three million miles of paved road using asphalt recycled from previous projects. The department also recycles brass from the County's shooting complex and auctions off to the public surplus items that would otherwise be sent to landfill. The County composts some yard waste from its parks and landscaping. Cell phones are recycled and laptops, computers, and other electronics are donated for use at the Blind Center of Nevada. These programs go above and beyond the recycling services contracted through Republic Services. At the same time, the County can strengthen these existing activities (for example, by using composted materials in park maintenance or expanding eligible electronics recycling) and enhance overall waste management procedures.

The most significant opportunity the County has to manage operational waste is to centralize its waste management policies and processes into one department. By assigning

management to an individual department, the County can more effectively track and maintain all aspects of County operations waste – from contracting requirements to placement of receptacles. Subsequent to this centralization is the County's ability to set more definitive policies and procedures around procurement and waste minimization. These will need to be enforced across departments and supported through data tracking. The County will need to work more closely with its waste haulers to collect and track data on waste tonnage and diversion rates. Procurement will also need to adopt and implement specific requirements around material and equipment purchasing. All County staff will need to be engaged and trained in order to be held accountable to waste reduction requirements. Once these standards are in place for County operations, the County can utilize its knowledge to inform policies and programs to support residential and commercial waste reduction in the broader community. Clark County's leadership role in this sector will be critical to achieving large-scale results across the county.



37

WATER BOTTLE FILLING STATIONS INSTALLED

11
MORE TO COME

These stations provide cold, crisp filtered water and encourage employees to bring reusable bottles, thereby reducing the County's reliance on single-use plastic bottles.



Clark County proudly partners with Opportunity Village which provides professional cleaning services and paper recycling and shredding services throughout County facilities. Opportunity Village is a non-profit organization dedicated to empowering adults with disabilities through services such as vocational training, advocacy, and arts and social recreation. Clark County has partnered with Opportunity Village since 2009.



An Opportunity Village staffer bundles clothes deemed as unsellable at the Opportunity Village Thrift Shop. The clothes will be sent to a third-party company where the materials will be recycled instead of sent to landfill.



Bales of shredded paper from Opportunity Village shredding services.

POTENTIAL ACTIONS

Setting policies and programs to guide the County's waste efforts is the next step to achieving its reduction and management goals. The following actions have been identified to help Clark County meet its recycling goal and reduce waste going to landfill.



ACTION

Conduct an audit of County waste processes from contracting through to disposal and of the County's operational waste stream.



DESCRIPTION

In order to identify gaps and opportunities for waste reduction and diversion, the County needs to assess the current logistical flow of its waste generation, management, and disposal. This includes how waste and recycling services are contracted, what kinds of services are provided, costs associated with them, and what training and procedures departments are implementing. Further, the County will need to understand the composition of its actual waste stream via a recycling audit in order to characterize and benchmark diversion rates and further inform programming needs. The County should consider detailing this information at the department level.

Centralize County waste management by assigning one department to oversee all services.

With current processes, County operations waste management is poorly understood due to dispersal of responsibilities across several departments. In order to streamline programming and create accountability for policies and procedures, the County must explicitly assign a central department with managing waste services. This may include creation of a waste management coordinator position.

Establish a waste management program and communications materials to support recycling within County facilities and operations.

While the County provides recycling disposal services through Republic Services, it needs to develop a robust on-site waste management program to maximize its waste reduction and diversion opportunities. Communications and signage regarding proper disposal guidelines and County goals, as well as the availability of placement of receptacles, is currently inconsistent. Establishing a comprehensive program that pairs appropriate infrastructure with active staff engagement and unified messaging will enable the County to more effectively manage its waste and to divert recyclable items.

Create a sustainable purchasing policy and requirements for County purchasing.

A formal sustainable purchasing policy and requirements can inform employees of County standards on smart purchasing behavior (e.g. bulk buys), product standards (e.g. ENERGY STAR, recycled content), and life cycle considerations.



ACTION



DESCRIPTION

Implement a paper reduction program that encourages online/digital application processes and document storage.

Setting a County-wide policy on the types of documents that should be distributed or stored digitally rather than by print can help standardize printing behavior across operations. This policy would also reduce the volume of paper and ink required, as well as the resources required to maintain office equipment. Implementing online application processes, such as ePermit Hub used in Comprehensive Planning, across all departments can further reduce paper use.

Incorporate requirements in waste hauler contracts for enhanced reporting/tracking of solid waste and recycling.

Requiring waste haulers to maintain and provide solid waste and recycling data to the County on a regular basis ensures the County has the ability to accurately assess its waste management and reduction progress and adjust programs as needed.

Continue to incorporate sustainable materials and waste management requirements into County project RFPs.

The County can leverage its position to encourage/require vendors and contractors to minimize waste and manage it responsibly. Incorporating waste management requirements into County project RFPs can help the County control the amount of waste generated by those projects which contribute to the County’s overall waste load. Best practices from local and regional jurisdictions can provide additional guidance on effective specific requirements.

Eliminate single-use plastics from all County facilities and events.

By eliminating single-use plastics and transitioning to reusable or biodegradable materials, Clark County can significantly decrease both the amount of waste generated, particularly of plastics such as straws, plastic cutlery, and food packaging that cannot be recycled, and contribute to pollution.

METRICS AND TARGETS

To ensure the County can track its progress towards waste management and reduction, the following metrics and targets have been identified. Note, where possible, **All-In Clark County** has aligned its metrics and targets with existing County, state, or regional plans to ensure efforts for sustainability and climate resilience are coupled.

Metric	Baseline	2030 Target	2050 Target
% employees trained on sustainable waste management	New metric	100%	
Total tons waste generated by County operations annually	New metric	25% reduction	50% reduction
% of County operations waste diverted annually	New metric	30%	90%
Volume of County-generated waste collected through compost annually	New metric	Upward trend	
% of purchasing meeting sustainability guidelines	New metric	75%	100%
% of contracts containing sustainable materials/waste diversion requirements	New metric	75%	100%





SUSTAINABLE TRANSPORTATION

GOALS

- Reduce emissions from vehicles in County operations.
- Support County employee commuting alternatives.
- Promote policies, programs, and infrastructure investments that prioritize multi-modal, clean, efficient transportation options throughout Clark County.

30 MILES

**THE DAILY DISTANCE
THE AVERAGE CLARK
COUNTY EMPLOYEE
COMMUTES TO WORK**

In 2019, this accounted for over 23% of Clark County’s greenhouse gas emissions.⁵

5 MILLION

COMMUTING MILES REDUCED TO-DATE

As a result of the four-day work week policy for Clark County, established in July 2020, not accounting for reductions from COVID-related telecommuting.

**That's equivalent
to 2,100 MTCO₂e
avoided!**



The County’s vehicle fleet emissions, when combined with employee commuting, account for more than a third of the County’s operational greenhouse gas emissions. If the County is to achieve its zero-emissions goal by 2050 and lead by example for the community as a whole, it must evaluate alternative solutions to employee commuting and transportation infrastructure, while also transitioning to low-/zero-emission vehicles. As a substantial employer in the region, Clark County can demonstrate that alternative transportation technology and strategies can reduce costs and emissions and move innovation on a large scale, all while continuing to operate seamlessly.

	% OF EMPLOYEES	% OF EMPLOYEE COMMUTE EMISSIONS
DRIVE THEIR OWN VEHICLES	78.9%	86%
CARPOOL	9.9%	11%
MASS TRANSIT	3.6%	3%

Source: Clark County Sustainability Inventory and Emissions Report



Nevada is already leading in the transition to clean transportation options in the country. In fact, in 2017, the state had the second-highest growth rate of electric vehicles purchased in the country, and Las Vegas led as the first.⁶ The County itself operates the largest alternative fuel fleet in the state, with 55% of its fleet comprised of hybrids and biodiesel vehicles. The County also participates in the US EPA's SmartWays program for fuel efficient logistics and freight operations. The County currently has a total of 21 charging stations, nine reserved for County fleet across two facilities and 12 for public use located at Government Center. There are currently no charging stations at employee parking areas.



A County hybrid fleet vehicle at a charging station.

Clark County has the unique opportunity to take advantage of this state-wide transition by promoting policies and programs that encourage the same shift with its own employees and within its operations. County investments in infrastructure that make clean and alternative modes of transportation easy, affordable, and accessible to all can accelerate the County in meeting its GHG reduction goal while setting the foundation for similar actions and impacts in the community. Further, encouraging transportation modes such as biking and mass transit can reduce traffic congestion and infrastructure stress, and improve community health.

GHG REDUCTION POTENTIAL IN TRANSPORTATION:

It has been estimated that incorporating GPS into County trip-routing, further promoting alternative commutes among employees, and transitioning the County's fleet to all-electric could reduce emissions by nearly 800 metric tons CO₂e.

As County electricity sources shift to renewables, that number increases to an approximate reduction of 2,000 metric tons CO₂e.

RE:THINK

Get rewarded when you carpool, work from home, ride the bus, or work a 4-10 schedule.

CLICK HERE TO REPORT OR SIGN UP!

Download our **Club Ride Rewards** app for easy reporting!

CLUB RIDE
ALTERNATIVE TRANSPORTATION
ClubRideLV.com

RTC

Available on the App Store and Google Play.



JOIN CLUBRIDE

Bike, bus, carpool, or work from home? Employees who commute via these, and other alternative commuting methods, can log their commutes and get a chance to earn monthly raffle prizes. Visit the ClubRide homepage to learn more and sign up.

BREAKDOWN OF COUNTY FLEET

= 100 Vehicles

6 Electric Vehicles

130 SmartWays

391 Hybrids

954 BioDiesel

990 Non-Alt Fuel

2,471 TOTAL

POTENTIAL ACTIONS

Shifting the way the County’s employees commute, the composition of its vehicle fleet, as well as the way the County thinks about transit-oriented development can significantly reduce the County’s greenhouse gas emissions. The following actions have been identified to help the County achieve its goals for transportation.

ACTION

Adopt policies and employ technology that allows for remote work/meetings, where practical and appropriate.

DESCRIPTION

Technology and software for remote work options have become robust and readily available in recent years. While practicality and optimization of service must be taken into consideration, transitioning appropriate County employees to flexible work arrangements can reduce transportation emissions and traffic congestion. Given demands for remote work during the current pandemic, the County has already begun identifying and implementing additional telecommuting practices and policies that will be further expanded upon in the coming months.

Expand employee commuting programs that incentivize and encourage alternative commuting modes.

By expanding incentives programs, including the County’s participation in ClubRide, the County can encourage commuters who have the ability to take alternative modes of transportation to do so. Many employee commuting programs offer rewards such as gift cards, tax benefits, social recognition, and subsidies.

Establish a formal vehicle purchasing and replacement policy that considers right-sizing of vehicles, assesses life-cycle costs and benefits, and shifts the County fleet to low-/zero-emission vehicles.

Establishing a formal policy for County fleet purchasing and replacement can help the County set centralized standards for vehicle performance, type, cost, and emissions potential, such that the County can easily monitor fleet contributions to greenhouse gas emissions and other embodied costs. While the County currently follows a framework for these procedures, it is informal.

Install electric vehicle charging infrastructure needed to support County staff vehicles.

While the County currently has infrastructure in place for fleet and public charging, there are no stations dedicated for employee use. Installing electric charging infrastructure can encourage employees to make the transition to electric vehicles knowing there is charging available at the workplace.

Support the development and implementation of Complete Streets policies, improvement projects, and innovative technologies.

To make alternative modes of transportation safer and widely available for both employees and community members, Clark County can collaborate with local partners like the Regional Transportation Commission of Southern Nevada and Southern Nevada Strong to refresh transit-oriented development in the region.

**ACTION**

Apply to become a Clean City through the Clean Cities Coalition.

**DESCRIPTION**

The Clean Cities Coalition supports transportation efficiency at local, state, and national levels. Clark County can amplify its transportation efforts and funding opportunities by joining the Coalition as a Clean City.

Expand access of Assetworks M5 data to all County departments to track vehicle mileage and performance and train staff on efficiencies.

Automotive Services has already been tracking metrics such as lifetime costs and fuel mileage to ensure optimal performance with the County's fleet using the Assetworks M5 program. This data alerts the County to when vehicles may need to be serviced or replaced or when employee training may be needed to optimize vehicle performance. The next step for the County is to provide departments with fleet reports in order for each department to track and manage their own use and performance of the County's fleet, as well as train staff on the new GPS system to optimize efficient routing for travel.

Promote state and federal zero-emission vehicle rebate/incentive programs.

The County can further drive the region's leadership in low-/zero-emission vehicles by utilizing its extensive reach within the community and communications channels to further promote existing state and federal rebate and incentive programs.

Provide secure bicycle parking at all County facilities and showering facilities for employees at main County facilities.

By providing these simple facilities for bicyclists, the County signals to its employees that it recognizes the value in alternative modes of transportation and supports employees to participate in a way that also allows them to work comfortably.

Promote the RTC electric bike-share program for County staff for County business use.

With on-site, conveniently located electric bicycles available for employee use, the County can encourage more employees to travel on-site and locally without the need to hop into a car or bring their own bicycles to work.

METRICS AND TARGETS

To ensure the County can track its progress towards waste management and reduction, the following metrics and targets have been identified. Note, where possible, **All-In Clark County** has aligned its metrics and targets with existing County, state, or regional plans to ensure efforts for sustainability and climate resilience are coupled.

Metric	Baseline	2030 Target	2050 Target
% of alternative fuel vehicles in County fleet	55% (hybrid and biodiesel)	80%	100%
Gasoline/diesel-powered Vehicle Miles Traveled (VMT) by County vehicles	5,989,200 gasoline-powered VMT 4,778,145 diesel-powered VMT (FY20)	Downward Trends	
GHG emissions from County vehicles	10,737 MtCO ₂ e (FY19)	50% reduction	Zero
% of employees commuting via mode other than driving alone	14%	30%	50%
# of trips made for County business by e-bike	48 (2015-2020)	Upward Trend	





WATER CONSERVATION & PROTECTION

GOALS

- Decrease water consumption in County operations.
- Improve area water quality by reducing impacts from County operations.
- Support policies, programs, and regional collaboration for improved water quality, water conservation, and drought management.



Located in the Mojave Desert and serving more than 2.3 million residents and 45.6 million visitors per year,¹⁵ Clark County understands that water supply, use, and management, including **stormwater management**, are essential to supporting life in the valley. That’s why the County became a leader in water conservation and management efforts – to ensure not only long-term viability, but prosperity for the County, its operations, and all those that it serves. It has transitioned to xeriscaping on County facilities and adopted and implemented numerous water waste ordinances, including Chapter 24.30 (wasting water), 24.34 (water use restrictions), Title 30 (unified development code), and Las Vegas Valley Water District Service Rules.¹⁶ In 2018, Clark County came together with the Southern Nevada Water Authority and the six municipalities and water districts in the valley to develop a joint water conservation plan to reach its conservation goal of 105 gallons of water per capita per day by 2035, among other goals. With a single main source of water – Lake Mead, fed by the Colorado River – Clark County understands the critical nature of conserving a resource that has continued to decline in the face of booming population growth and drought impacts from the effects of climate change. Significant work will be required to maintain water supply and quality with the addition of approximately 400,000 more residents by 2030 and 820,000 residents by 2060.³

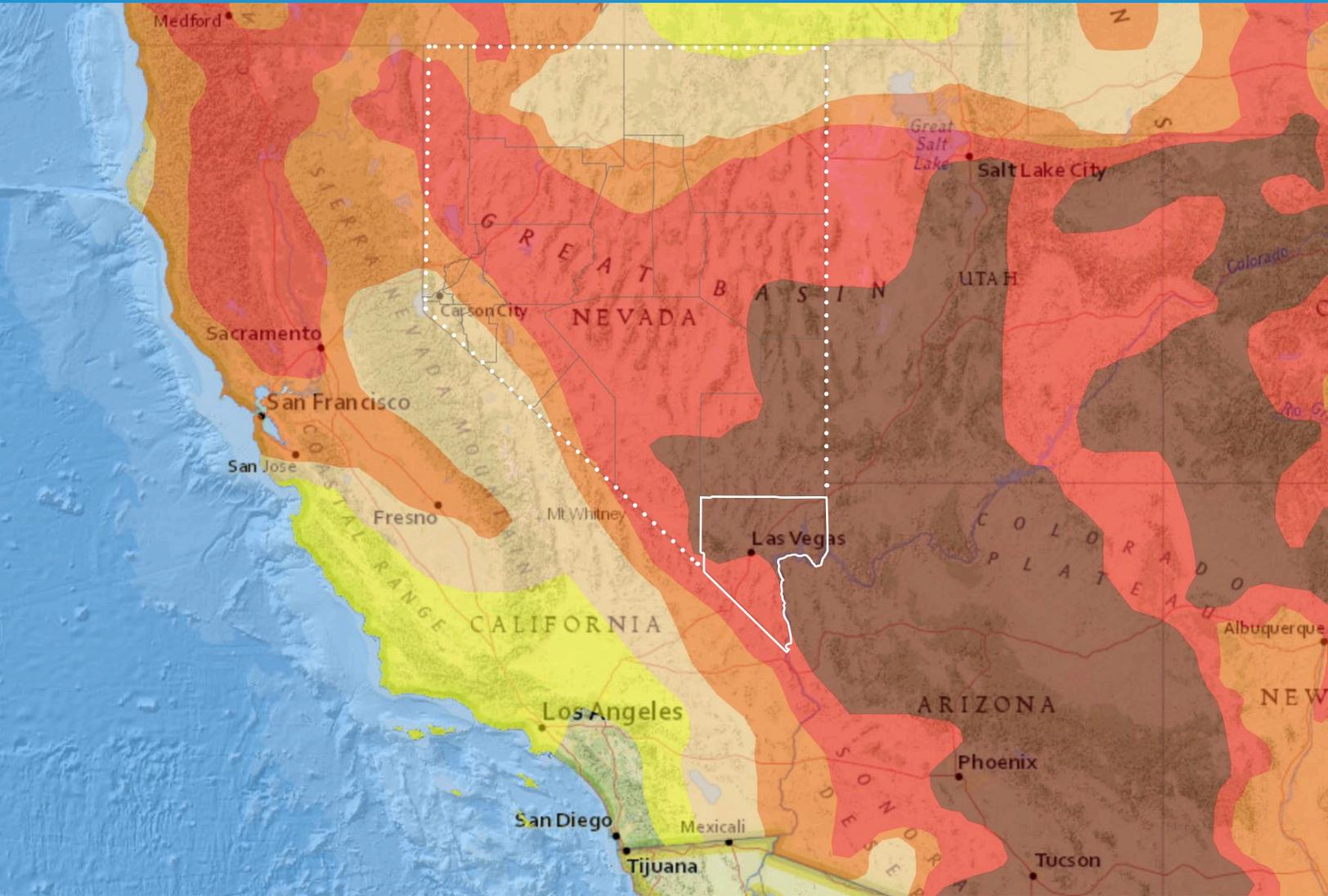
Stormwater
noun

Stormwater is water runoff from rain events that flow over land or impervious surfaces and does not reabsorb back into the ground.



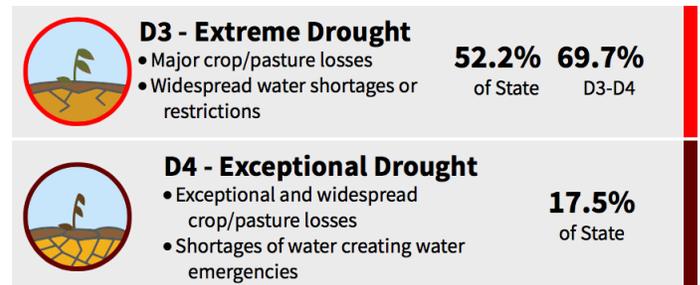
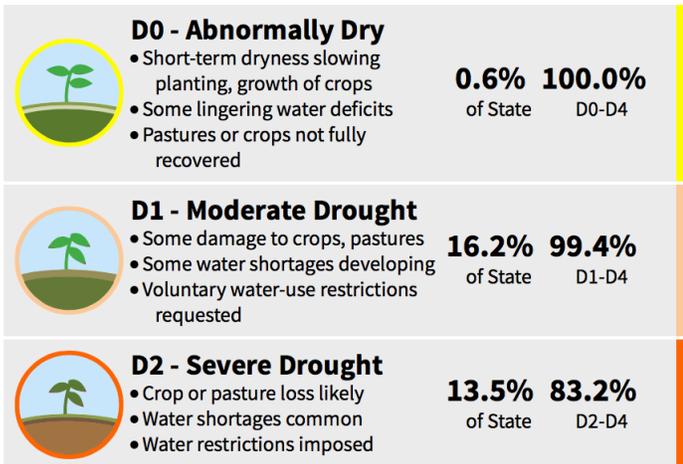
DID YOU KNOW?

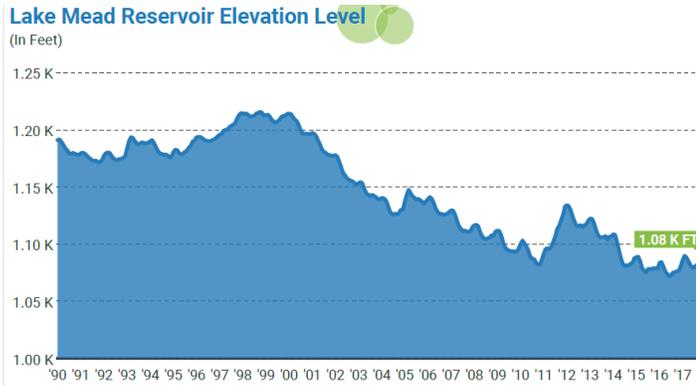
In November 2020, the Southern Nevada Water Authority (SNWA) released its latest annual Water Resource Plan. The plan provides a comprehensive overview of water resources available to meet regional water demands over a 50-year planning horizon and analyzes potential impacts, including those related to climate change, that could influence water resource availability as well as water demands over the next 50 years.



2020 DROUGHT LEVELS IN CLARK COUNTY AND ACROSS NEVADA

Source: National Integrated Drought Information System.





1.8%
Share of Colorado
River Water
Allocated to Nevada

Source: Southern Nevada Water Authority

Source: 2018 Southern Nevada State of Sustainability Report

SOUTHERN NEVADA CURRENTLY RECEIVES NEARLY 90% OF ITS WATER FROM THE COLORADO RIVER

THE OTHER 10% IS DRAWN FROM GROUNDWATER PUMPED THROUGH WELLS IN CLARK COUNTY

Source: 2017 UNLV - Environment and Sustainability in Nevada



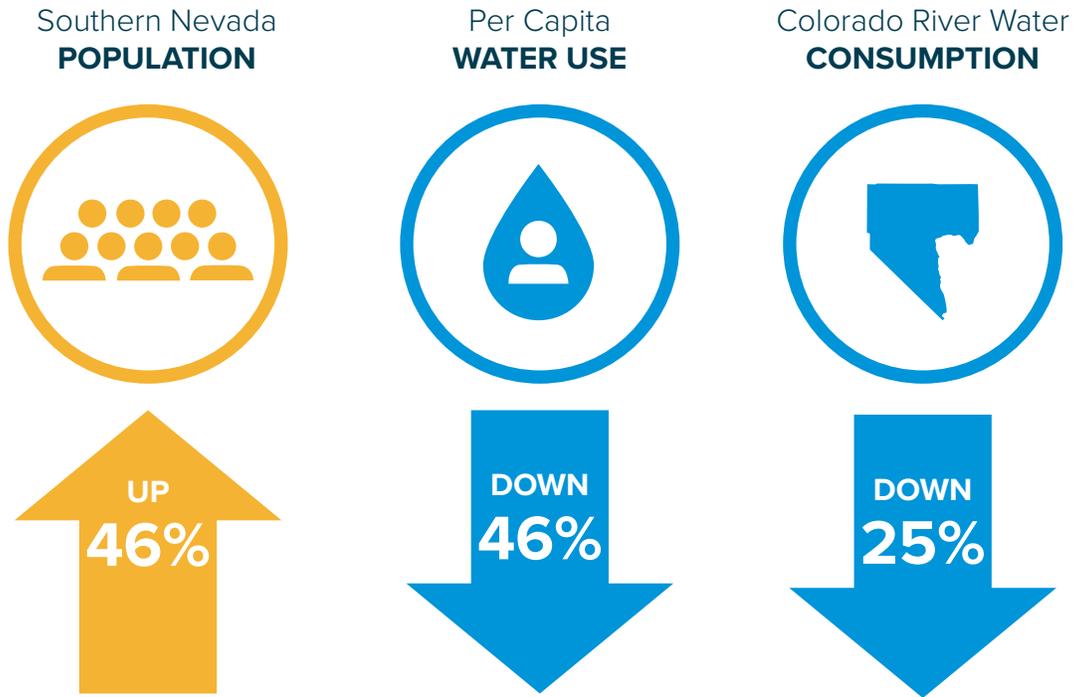
Photo Source: medium.com



THE LAKE AT BELLAGIO HOLDS 22 MILLION GALLONS OF WATER

The Clark County Water Reclamation District is the largest clean water agency in Nevada, collecting, treating and producing more than 105 million gallons of clean water each day.¹⁶ That's the equivalent of 420 million Nalgene bottles OR almost 5 of Bellagio's famous lake, home to the Fountains of Bellagio!

Source: Reno Gazette Journal



Source: SNWA Conservation Progress (2002-2018)

SNWA's water conservation work to-date has resulted in decreased per capita water use and consumption from the Colorado river even while the local population has increased.

WATER SUPPLY, USE, AND CONSERVATION

With projections indicating that days over 115°F in Clark County are set to increase 10-fold by the end of the century, heat stress on critical water infrastructure combined with increased demand for water supply puts the valley at risk of system failure.¹² At the operations level, Clark County is continuing to pursue water conservation and management strategies, not only to reduce its water demand and conserve a precious natural resource, but also to demonstrate thought leadership on smart and effective large-scale water management. To-date, Clark County has adopted aggressive County codes on low-flow and low-flush water fixtures and installed master valves and flow sensors in all urban Clark County parks to regulate irrigation

needs alongside weather conditions. It also complies with SNWA's regulations on xeriscaping where non-functional turf may have otherwise been installed. To take the next step in making the County more water resilient, the County will need to build on these achievements and incorporate new technologies, policies, and programs to further reduce its operational impacts. The County will also need to simultaneously provide training to its employees on personal water use awareness and how to best operate low-flow, low-flush, and other new water fixtures to optimize their effectiveness in water reduction. This training can help staff think critically about their roles within the County and the direct or indirect impacts they may have on water use.



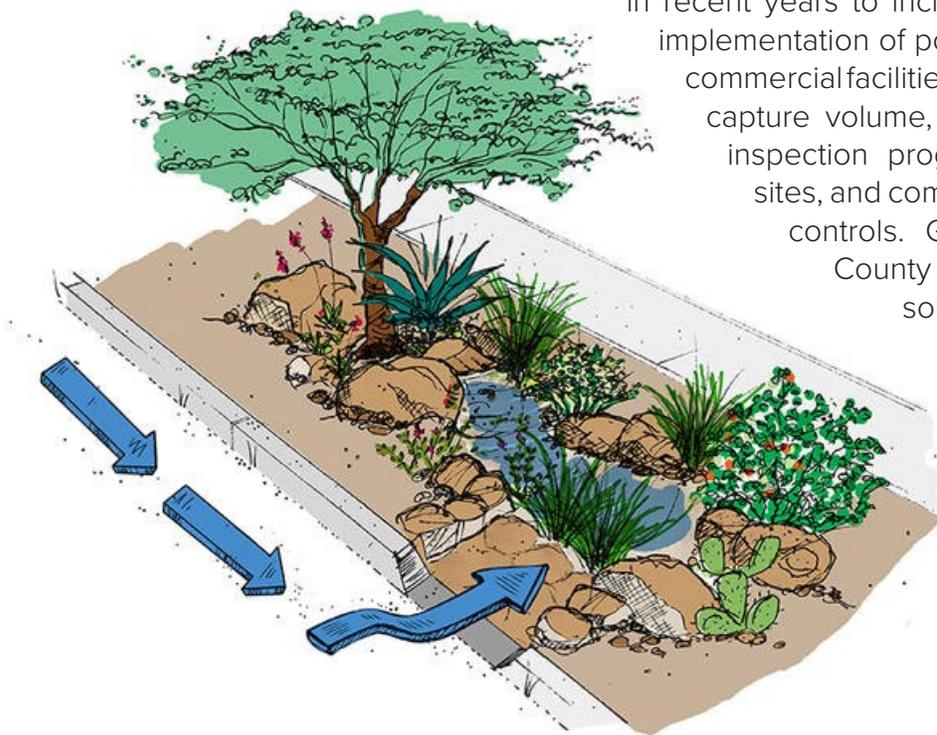
DID YOU KNOW?

At 2.36 gallons per passenger, McCarran Airport, operated by the County’s Department of Aviation, used the least amount of water per passenger compared to any other airport in the country in 2018. This was measured by adding up all water meter totals and dividing by the number of passengers for that year. One key measure incorporated by the airport is the conversion of existing turf to drought-tolerant xeriscaping.

STORMWATER MANAGEMENT

Stormwater management is also a critical component of managing the water system in Clark County. By ensuring stormwater is appropriately captured and managed, the County can prevent nutrient and pollution run-off as well as flooding during storms. It also ensures the County continues to comply with Municipal Separate Storm Sewer Systems (MS4) regulations. The MS4 program has expanded significantly in recent years to include dry and wet weather monitoring, implementation of post-construction stormwater controls at commercial facilities, valley-wide expansion of water quality capture volume, and a broad-based nonpoint source inspection program of construction sites, industrial sites, and commercial facilities with post-construction controls. Green infrastructure is one way the County is utilizing a low-cost and nature-based

solution to stormwater management. In a 2013 assessment, it was estimated that 7.7 million gallons of stormwater are filtered by the County’s park trees annually.¹⁷ The County has a unique opportunity to expand the use of its green infrastructure and explore options such as xeriscaped bioswales to extend the stormwater management benefits received.



Source: Watershed Management Group

CLARK COUNTY WETLANDS PARK

Did you know that the Las Vegas Wash, on its 12-mile flow downstream to Lake Mead, runs straight through the Clark County Wetlands Park? Aside from providing water services to support the numerous habitats and diversity of wildlife that thrive in Wetlands Park, the Wash helps transport over 180 million gallons of reclaimed water daily from five water treatment plants in the Valley. The Wash also receives some flows intermittently from urban runoff, stormwater, and shallow groundwater.¹⁸ The Wetlands Park in turn provides biological uptake, which has a positive impact on downstream water quality.



Image Source: Philip DeManczuk



Image Source: Clark County Wetlands Park



WHAT IS GREEN INFRASTRUCTURE?

Green infrastructure refers to measures that leverage plants, soil systems, and landscaping to store, treat, and evapotranspire stormwater, reducing flows to sewer systems and bodies of water.¹⁹

Image Source: Bernalillo County Green Stormwater Infrastructure Low Impact Design Strategies for Desert Communities



POTENTIAL ACTIONS

Building on Clark County’s water management leadership to-date will enhance the benefits to the region’s water supply and water quality. The following actions have been identified to help the County achieve its goals for water management.

ACTION

Continue to retrofit existing County facilities with water smart fixtures and technology.

Assess areas on County facilities where existing ornamental turf can be converted to xeriscaping.

Reduce non-point source pollution at County facilities by ensuring the County is meeting National Pollutant Discharge Elimination System (NPDES) permit requirements.

Promote SNWA’s Joint Water Conservation Plan (2019).

Revise Title 30 during Transform Clark County to strengthen water conservation requirements during land use approval.

DESCRIPTION

By updating existing interior and exterior County fixtures with up-to-date water fixtures and technology, the County can easily reduce its water use as well as detect issues such as leaks and losses early on.

Clark County has already converted more than a million square feet of non-functional turf (21 properties) through the Water Smart Landscaping program, but opportunities remain to convert additional turf areas to xeriscaping. Since 2001, the County has been removing turf in non-essential areas. The County will assess and prioritize the removal of ornamental turf and replace these areas with xeriscaping.

The National Pollutant Discharge Elimination System requirements are set in place by the US EPA to protect water quality by regulating point sources that may discharge pollutants into water bodies. By ensuring Clark County complies with permit requirements, it can safeguard local and regional water quality as well as avoid costly fines.

As a collaborative partner in SNWA’s plan and a large water user in the valley, Clark County has the ability to support the achievement of regional water conservation and water quality efforts by widely promoting the comprehensive plan and its implementation steps.

Goals for water use reduction can be better achieved through strengthening water conservation requirements and also minimizing opportunities to use ornamental turf or install water features.



ACTION

Continue to enhance the tracking of water consumption to analyze consumption trends at the building level and create a dashboard to educate staff and encourage conservation.

Continue to modify design guidelines for County facilities, as necessary, that emphasize locally appropriate green infrastructure and low-impact design techniques and require adoption for all new County facilities.



DESCRIPTION

While Clark County's water use as a whole is metered by SNWA, the County would benefit from a better understanding of the ways it uses water. Documentation of the existing end uses for each account and additional submetering at facilities with unique water demands would identify opportunities for improvement. The County should also consider tracking facility level water consumption within its Portfolio Manager software to streamline and centralize data management. This data can then be developed into an educational tool for County employees and empower individuals to take action on conservation. Further, offering incentives to employees to find and implement water use and cost savings strategies can promote participation and simultaneously achieve operational results.

By developing and adopting desert-specific design guidelines for green infrastructure and low-impact design, such as natural buffers along flood control channels and washes, Clark County can reduce contributions to stormwater runoff as well as urban heat island. The County can further extend these benefits by retrofitting existing landscapes to comply with these guidelines.

METRICS AND TARGETS

To ensure the County can track its progress towards effective water management, the following metrics and targets have been identified. Note, where possible, **All-In Clark County** has aligned its metrics and targets with existing County, state, or regional plans to ensure efforts for sustainability and climate resilience are aligned.

Metric	Baseline	2030 Target	2050 Target
Total potable water consumption in County operations	1,277,790 kgals (FY20)	15% reduction	30% reduction
% of County building fixtures upgraded	New metric	30%	100%
% of ornamental turf converted to xeriscaping	1,117,343 sq. ft. across 21 properties	Upward trend	100%

WHAT'S NEXT FOR CLARK COUNTY?

With the County Operations Plan of Phase 1 for **All-In Clark County** complete, the County now moves into developing the County Operations Implementation Strategy to bring the goals and actions within this Plan to life. Then, with best practices and lessons learned in-hand, the County will launch a community-wide planning process in summer of 2021.

All-In Clark County Planning Timeline



Spring 2021: County Operations Implementation Strategy

The County Operations Implementation Strategy will build on the goals and actions detailed in this Plan and develop implementation blueprints for a prioritized set of actions. These blueprints will identify champions needed to achieve success, step-by-step detail for achieving the actions, and potential resources needed for implementation. Together, this Strategy will set the County's efforts in motion and ensure forward progress.

Summer 2021: Community-Wide Sustainability and Climate Action Plan

Following the completion of the County Operations Implementation Strategy, Clark County will launch the planning process for Phase 2 of **All-In Clark County**, the Community-Wide Sustainability and Climate Action Plan, in summer of 2021. While Phase 1 looked inwards at County operations, Phase 2 will focus on the needs of the community. From addressing urban heat island issues to taking action for a long-term vibrant economy, Phase 2 will ensure that the Clark County community is resilient and sustainable for decades to come.

YOUR ROLE IN CLARK COUNTY



Clark County is depending on each and every one of its staff, elected officials, and community members to help make this Plan and each of its phases a success.

For County leadership and staff, this means integrating the identified goals and actions into daily County operations and responsibilities, implementing and improving upon identified policies and procedures, and speaking up to identify where additional opportunities exist to improve the County’s sustainability and operational resilience. Striving for continuous improvement is key. Sustainability thrives with discussion and conversation, and that conversation needs to be a priority now and in long-term planning. With the support of leadership and staff, Clark County can ensure it is resilient, resourceful, and ready for all the challenges of the 21st century.

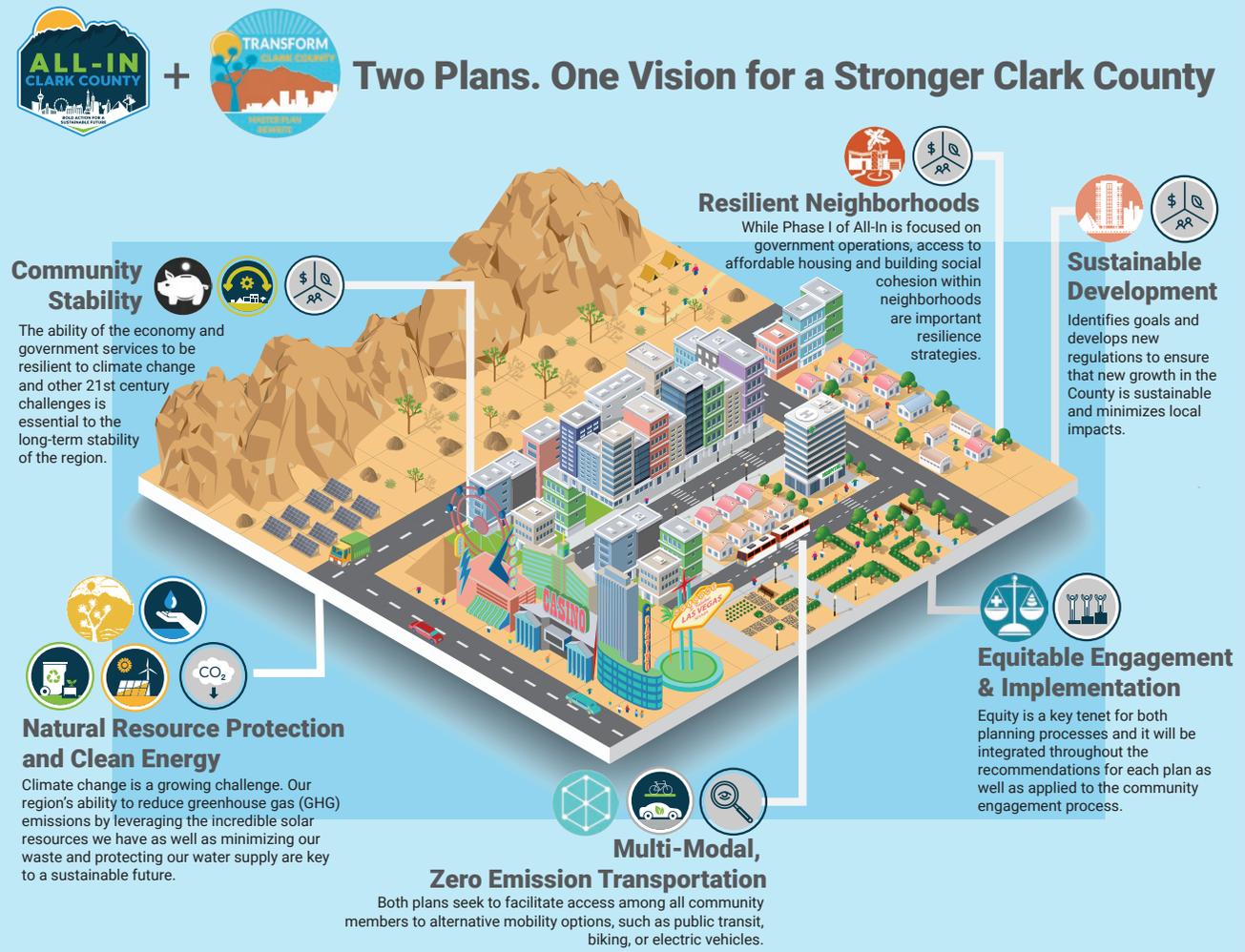
For County elected officials, this means providing guidance on the direction and implementation of **All-In Clark County** policies and procedures, as well as engaging constituents in conversations around sustainability and resilience not just for the County, but also for the community. Prioritizing and communicating these efforts signals their importance to the broader community and enables open dialogue for all.

For Clark County community members, the County asks for open and honest feedback as the County pursues its goals and actions in Phase 1. What can the County be doing better to help serve the community? As **All-In Clark County** moves into Phase 2, the Community-Wide Sustainability and Climate Action Plan, the County will be relying on all of its residents, businesses, and organizational partners to come together in its development and implementation.



CONNECTED EFFORTS

As **All-In Clark County** moves forward, it will continue to coordinate with previous and concurrent planning efforts in the County and the region to work together to assess and take advantage of potential synergies. One opportunity is for alignment of **All-In Clark County** with Transform Clark County. While the goals of the two plans differ – Phase I of **All-In Clark County** aims to improve operational resilience and Transform Clark County aims to update the County’s Master Plan and development codes – the framework to achieve those goals is similar. Assessing how these two efforts compare was, and will continue to be, critical to understanding opportunities where both plans can complement the unique efforts of the other. As these plans continue to develop in the future, close coordination will be key to success.



REGIONAL PARTNERSHIPS AND IMPACTS

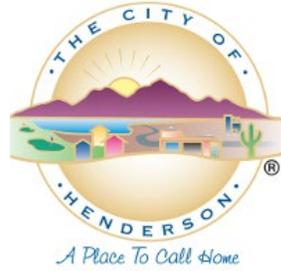
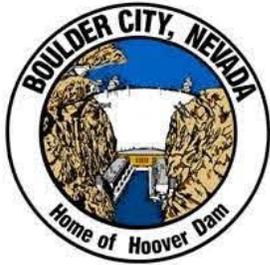
Finally, understanding that sustainability and resilience planning is most effective when in collaboration with others, **All-In Clark County** will continue to collaborate and align its efforts, where possible, with regional partners and cities.

A solid partnership with the State of Nevada’s Climate Initiative and alignment of State and County goals, such as carbon neutrality by 2050, will accelerate the achievement of such goals. It will also ensure the County actively contributes to State efforts on sustainability and resilience while simultaneously playing a leadership role for counties nearby to take action. Regional partners like Southern Nevada Water Authority (SNWA) and Clark County Regional Flood Control District will be particularly critical in attaining joint goals to manage water quality and consumption throughout the valley as well as come together to implement SNWA’s 2019 Joint Water Conservation Plan.

Collaborating with cities within and around Clark County helps to promote sustainability efforts at the local government level and is an opportunity to share best practices and resources on the implementation of operations and community-focused action items.

By unifying the County’s efforts with those of its regional partners, such as the Southern Nevada Regional Planning Coalition, the County can accelerate the achievement of its goals and those of its partners, foster open collaboration, and contribute to a more sustainable and climate ready future for all.

A report of additional opportunities where **All-In Clark County’s** sustainability and climate action plan efforts link with regional, national, and international efforts can be found in Appendix D.





APPENDICES



APPENDIX A

GLOSSARY

APPENDIX B

SUSTAINABILITY FRAMEWORK

APPENDIX C

SUMMARY OF SURVEY RESULTS

APPENDIX D

PRELIMINARY LINKAGES TO REGIONAL,
NATIONAL, AND INTERNATIONAL
EFFORTS

Term	Definition
CLIMATE	The weather conditions prevailing in an area in general or over a long period, from months to thousands of years.
CLIMATE CHANGE	A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which goes beyond natural climate variability observed over comparable time periods.
DROUGHT	Drought is a condition of long-term dryness in a given area, determined by observations of how much water is available in streams, lakes, and soils compared to usual for the same time of year. The US Drought Monitor uses a five-category system to categorize drought: D0-Abnormally Dry (considered a precursor to drought) D1-Moderate, D2-Severe, D3-Extreme, and D4-Exceptional Drought. ²⁰
EQUITY	The inclusivity and empowerment of diverse populations, both internal to Clark County staff and external to the broader community. Equity incorporates inclusive, accessible, and authentic engagement and representation, fair distribution of benefits and burdens, structural accountability, and consideration of generational impacts. ²¹
GREEN INFRASTRUCTURE	Green infrastructure refers to measures that leverage plants, soil systems, and landscaping to store, treat, and evapotranspire stormwater, reducing flows to sewer systems and bodies of water. ¹⁹
GREENHOUSE GAS EMISSIONS	Greenhouse gases (GHG) provide a “blanket” in the atmosphere that trap heat and regulate the Earth’s temperature. When fossil fuels are burned to power homes, businesses, and automobiles, and materials are placed in landfill to decompose, the level of greenhouse gases increases. This increase has created a much thicker “blanket” and higher global temperatures that have led to disruptions in the Earth’s climate. Each GHG has a different ability to trap heat in the atmosphere. GHG heat-trapping ability can be compared to that of the GHG carbon dioxide (CO ₂). This is called the CO ₂ equivalent and allows a single measure to calculate all GHG emissions: metric tons of CO ₂ e (MTCO ₂ e).

HAZARD	A natural or human-induced physical event or trend that may cause loss of life, injury, or other health impacts, as well as damage to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources.
HAZARD MITIGATION	Any action taken to reduce or eliminate the long-term risk to human life and property from natural hazards.
RENEWABLE ENERGY	Energy produced from renewable sources, such as the sun, wind, waves, and geothermal heat.
RESILIENCE	A resilient Clark County supports residents, businesses, and visitors to be healthy, successful, and adaptable to changing climate conditions.
STAKEHOLDER	A person or entity with an interest in or whom may be affected by the project.
STORMWATER	Stormwater is water runoff from rain events that flow over land or impervious surfaces and does not reabsorb back into the ground. ²²
SUSTAINABILITY	A sustainable Clark County balances resource efficiency, social well-being, and environmental stewardship while equitably meeting the needs of a growing community and thriving economy.
TRANSPARENCY	The openness and honesty with which County resources are allocated and why. Accessible information is proactively disseminated.
URBAN HEAT ISLAND	Significantly hotter conditions in urban areas compared to surrounding rural areas, due largely to the presence of surfaces that absorb and retain heat (such as dark pavement, concrete, and asphalt) in cities.

PRINCIPLES	OPERATIONAL DEFINITION	
 <p>GHG Reduction</p>	<p>The reduction of Clark County's greenhouse gas (GHG) emissions in order to mitigate its contribution to climate change.</p>	
 <p>Resilience</p>	<p>Social</p>	<p>Clark County's ability to recover from and bounce forward in the face of climate change impacts.</p>
	<p>Economic</p>	
	<p>Built Environment</p>	
 <p>Transparency</p>	<p>The openness and honesty with which County resources are allocated and why.</p>	
 <p>Equity</p>	<p>The inclusivity and empowerment of diverse populations, both internal to Clark County staff and external to the broader community. Equity incorporates inclusive, accessible, and authentic engagement and representation, fair distribution of benefits and burdens, structural accountability, and consideration of generational impacts.</p>	

SUSTAINABILITY FRAMEWORK

 Positive Contribution (+1)	 Neutral Contribution (0)	 Negative Contribution (-1)
This strategy will reduce fossil fuel use and/or GHG emissions from Clark County's operations.	The strategy will neither reduce nor generate new fossil fuel use or GHG emissions OR GHG emissions reduction potential is indirect, negligible, or nonquantifiable.	This strategy has the potential to increase the use of fossil fuels or generate increased amounts of GHG emissions.
The strategy will contribute to enhancing the social resilience of County staff and residents to the impacts of climate change. Contributions to resilience can include reducing the vulnerability of County staff and residents through reduced exposure to hazards and/or mitigating chronic stressors.	The strategy will not directly contribute to enhancing the resiliency of social systems among County staff and residents.	The strategy has the potential to directly reduce the resiliency of social systems among County staff and residents or create new chronic stressors or increase exposure to hazards.
The strategy will contribute to enhancing the County's economic resilience to the impacts of climate change. Contributions to resilience can include making fiscally sound decisions and engaging in good governance while considering financial risks associated with climate-related risks.	The strategy does not contribute to nor reduce the County's economic resilience to climate change.	The strategy has the potential to directly reduce the County's economic resilience to climate
The strategy will contribute to enhancing the resiliency of the County's built environment (buildings and infrastructure) to the impacts of climate change. Contributions to resilience can include preparing and maintaining County infrastructure for extreme heat, drought, urban heat island effects, and flooding.	The strategy does not contribute to or reduce the resiliency of the County's built environment to the impacts of climate change.	The strategy has the potential to increase the vulnerability of the County's built environment to the impacts of climate change.
The strategy directly informs and educates County staff and the public on how County resources are allocated and why. Information is accessible, proactively disseminated, and stakeholders are actively engaged in decision-making.	The strategy makes relevant information available to County staff and the public but does not proactively disseminate nor ensure the information is accessible/ understandable. Stakeholders may provide input, but are not included in final decision-making.	The strategy does not make relevant information accessible to the public. Stakeholders are not included in any decision-making processes.
This strategy increases equitable access to County and community assets and empowers leadership from non-traditional stakeholders in County and/or community plans and decisions.	This strategy does not increase equitable access to County and community assets nor empower leadership from nontraditional stakeholders in County and/or community plans and decisions.	This strategy has the potential to create new or exacerbate existing disparities in accessing County and community assets and/or discourages diversity in leadership/ decision-making.



Phase I Survey Summary



November 2020

ALL-IN CLARK COUNTY SURVEY

Clark County launched *All-In Clark County*—the County’s bold plan for sustainable action — in August of 2020. The first phase of the project is looking at how to improve County operations to be more efficient and resilient to a changing climate. The planning team released an online survey to gather a first round of public feedback, including the top priorities and concerns of residents. The Phase I Survey was open from October 26th to November 18th and was available in English, Spanish, and Tagalog. In total, 339 people responded. This document summarizes the results of the survey.

Key takeaways:

- Most participants are concerned that climate change will affect Clark County, but do not believe the County is prepared for the effects.
- Participants are particularly concerned about drought, water usage, extreme heat, and resource shortages.
- Participants are eager to allocate resources to renewable energy, energy efficiency, and green infrastructure.
- There is general support for the County’s climate goals.

Welcome

All-In Clark County Community Survey

Whether you are here to celebrate, raise a family, or build your career, a sustainable Clark County is important to us all. Help us get there!

Español [Begin](#)

INTRODUCTION

Sustainability is much more than just clean air and water. It means more affordable housing and energy costs, diverse jobs, economic vitality, and a livable climate.

ALL-IN CLARK COUNTY

1 **2** **3** **4** **5**

PRIORITIES/CONCERNS

BUDGET ALLOCATION

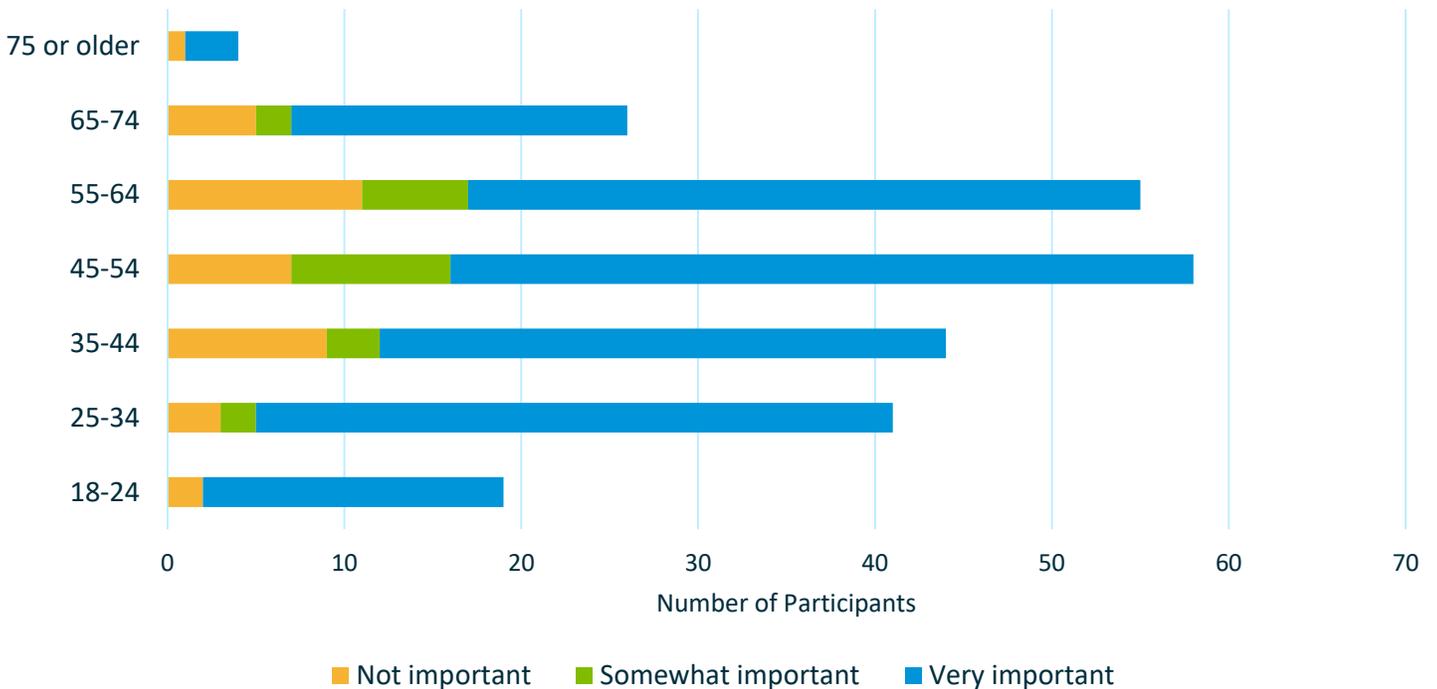
AGREE OR DISAGREE

THANK YOU

TAKING ACTION

The first section of the survey gathers baseline information about residents' concerns about climate change, support for climate action, top priorities, and general levels of engagement.

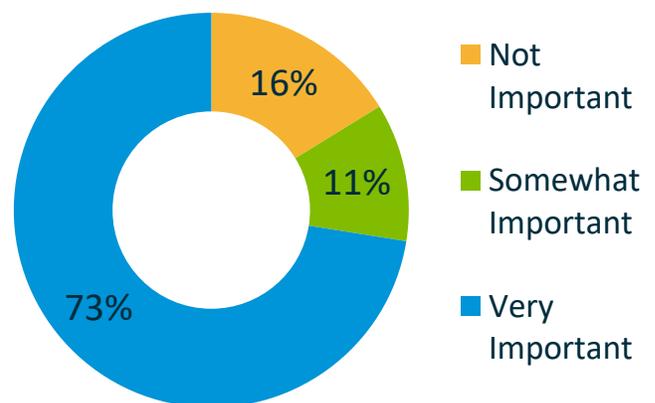
How important do you think it is that Clark County is taking action to address climate change?



Above: Importance of taking action to address climate change, by age. In each age group, the largest percentage of participants think taking action is very important. participants aged 35-64 were more likely than other age groups to choose “Somewhat Important” or “Not Important”.

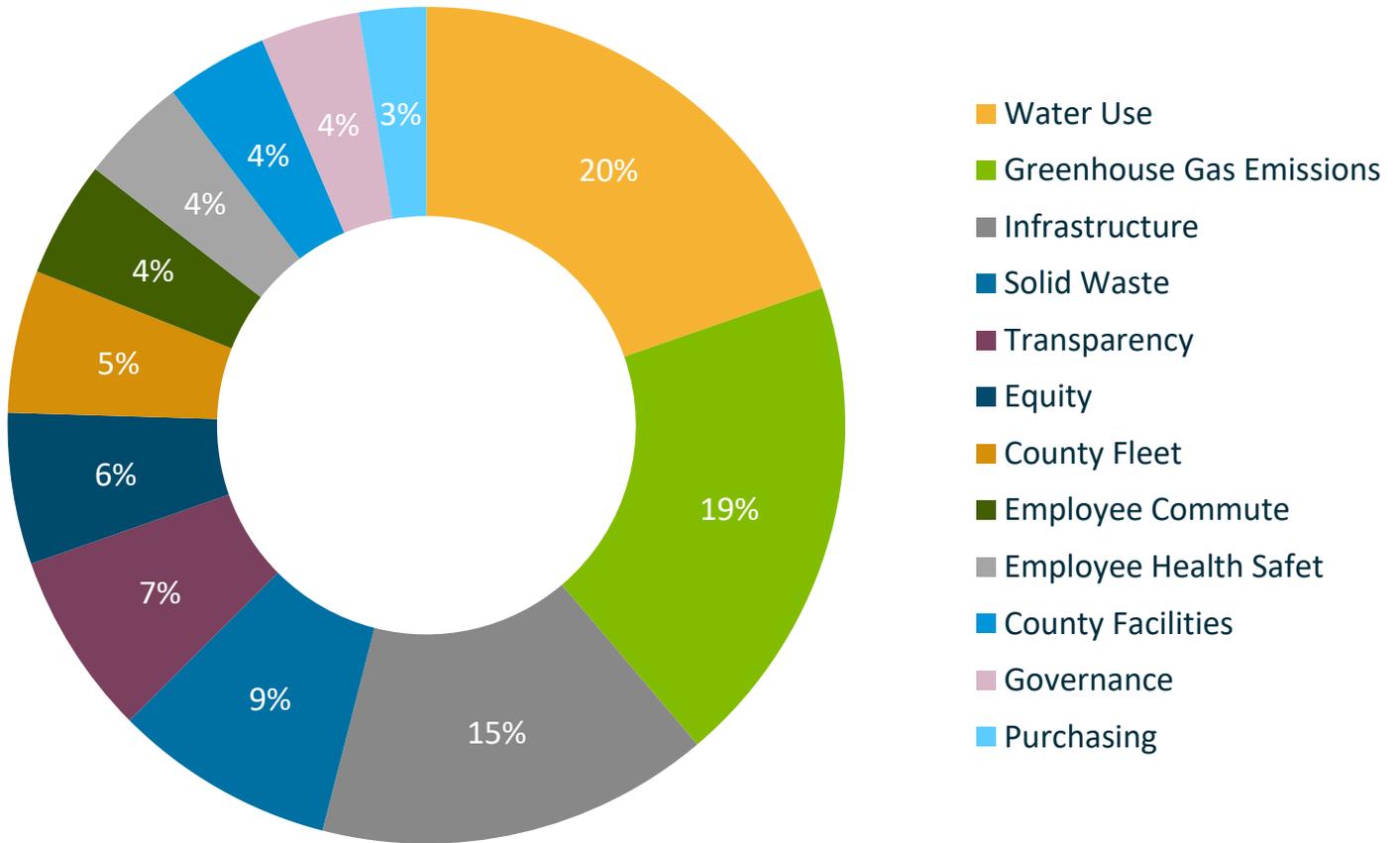
Right: Overall percentages.

Importance of taking action-- Total



PRIORITIES

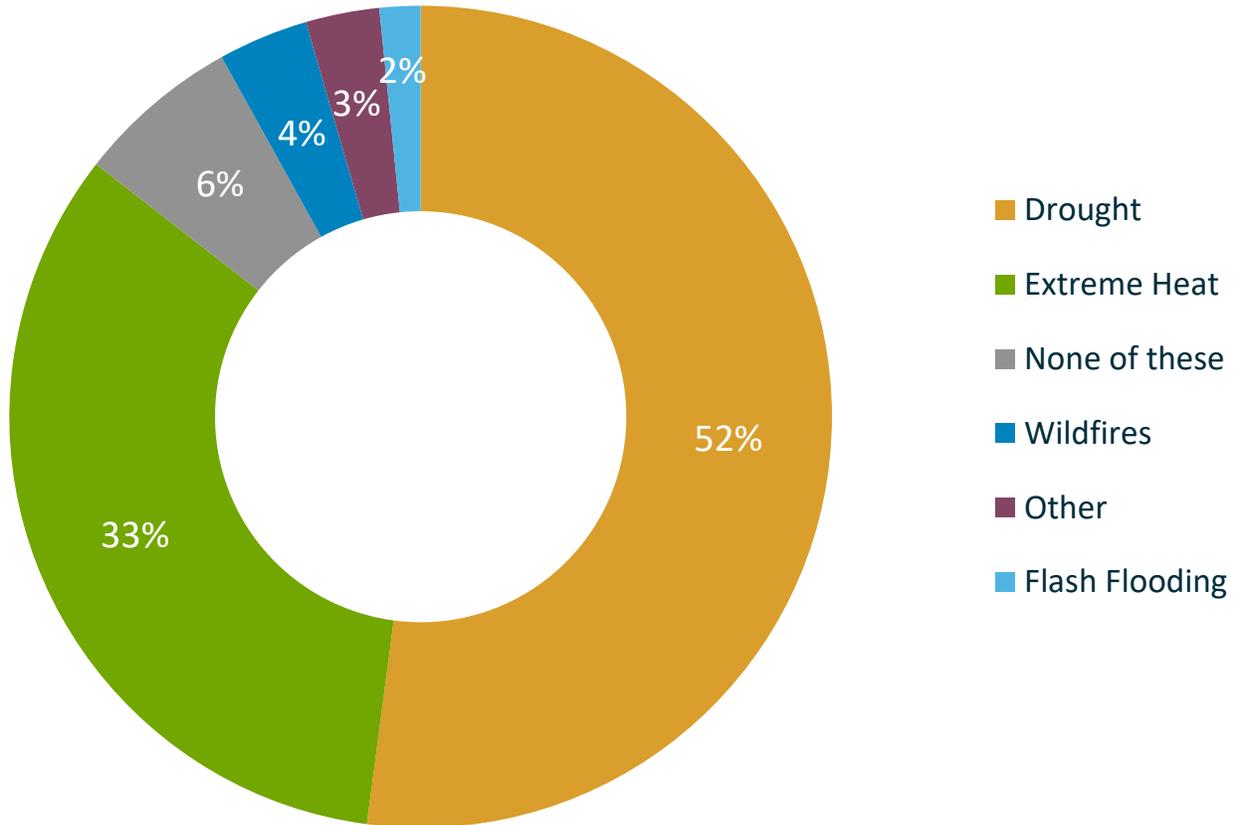
What areas do you feel are most important to address?



The top three areas participants want to see addressed are: water use (20%), greenhouse gas emissions reductions (19%), and infrastructure (15%).

PRIORITIES

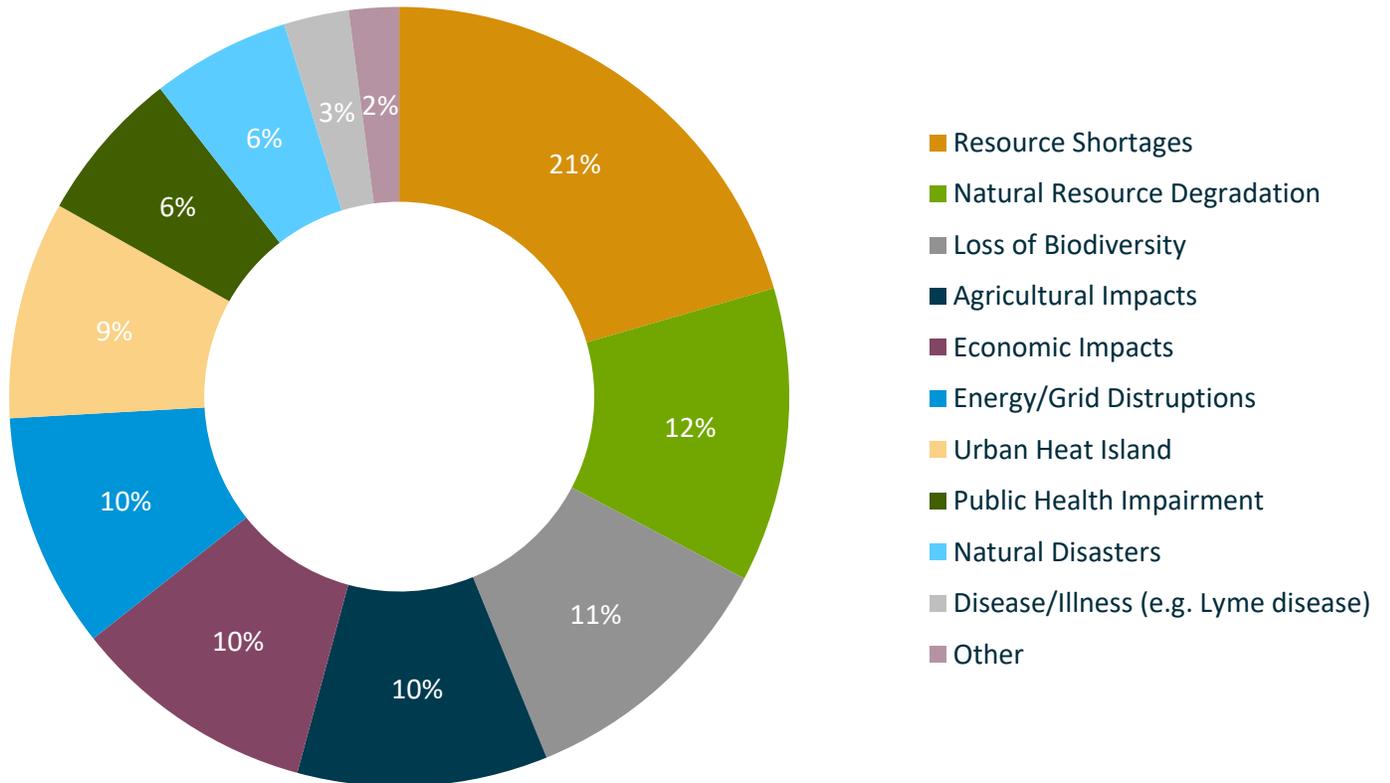
Which climate hazards do you feel has the greatest impact on Clark County today or in the future?



Drought and extreme heat are by far the hazards of most concern to residents.

IMPACTS

Which of the following climate-related impacts are you most concerned about?



Top three concerns:

- Resource Shortages (21%)
- Natural Resource Degradation (12%)
- Loss of biodiversity (11%)

Bottom three concerns:

- Disease/Illness (3%)
- Natural Disasters (6%)
- Public Health Impairment (6%)

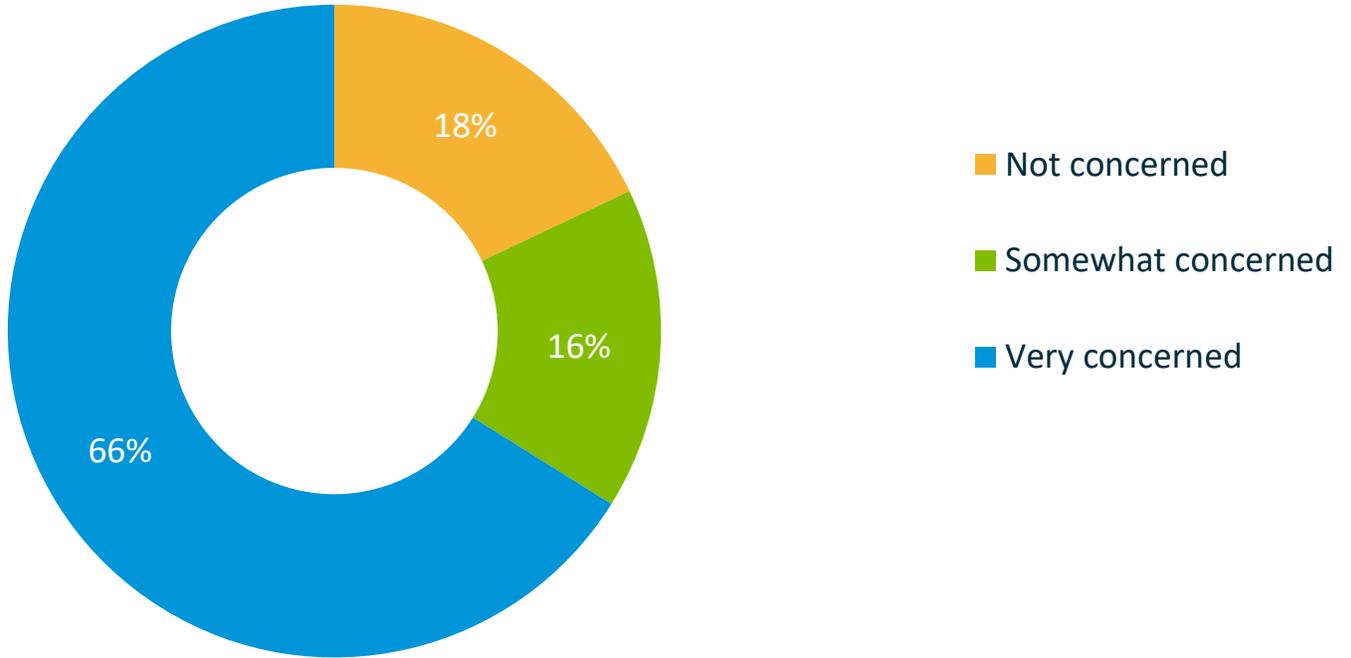
IMPACTS

Participants were asked to comment on how climate change affected them personally. Below is a selection of those responses.

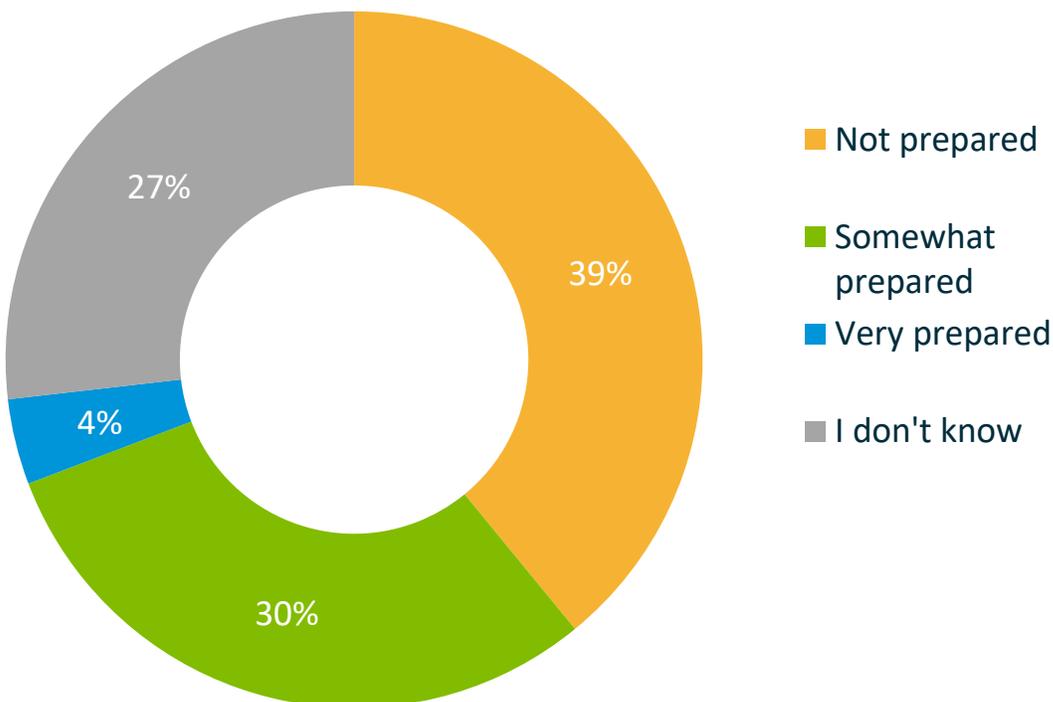
- “I'd like this city to outlive me. Won't happen if it dries up in the next decade or so.”
- “I have children and knowing that if we don't make changes to reverse global warming/climate change there won't be any food for us to eat and the land and soil will be destroyed is scary.”
- “It effects all of us by economic crisis and pollution as well as uncomfortable changes in temperature.”
- “I am affected by higher energy costs, caused by misguided efforts to address a Global Issue at the local level.”
- “I have Asthma. I am affected by high amounts of particulates in the air and by the higher heat, longer heat waves, and less humidity, which makes it harder to breathe.”
- “Hotter temperatures for longer periods of time with less moisture makes living here miserable. We are planning on moving within the next 7-10 years when able.”
- “How does it not?”
- “Every single thing that I do - where my food comes from and how much it costs to grow, how I move around and if its too hot to be outside, my long-term ability to build wealth or the risk of having a disaster destroy my assets.”
- “It makes my future, as a young person, uncertain.”
- “It doesn't because it's fake!”
- “Drought is the major problem for us folks living in the desert southwest.”
- “Many of my family members work outside. If the city continues to warm their employment will become unsustainable or put them at extreme health risk.”
- “Degradation of the natural world allows diseases to jump.”
- “It's made me reconsider having children due to the unknown effects of climate change.”
- “I am a physician caring for patients on the front line in our low-income neighborhoods who already experience heat related effects, disease related to air pollution. Some are refugees from Central American communities that have experienced climate-related agricultural losses.”
- “High AC bill.”

COUNTY PREPAREDNESS

How concerned are you that climate change will affect Clark County as a whole?



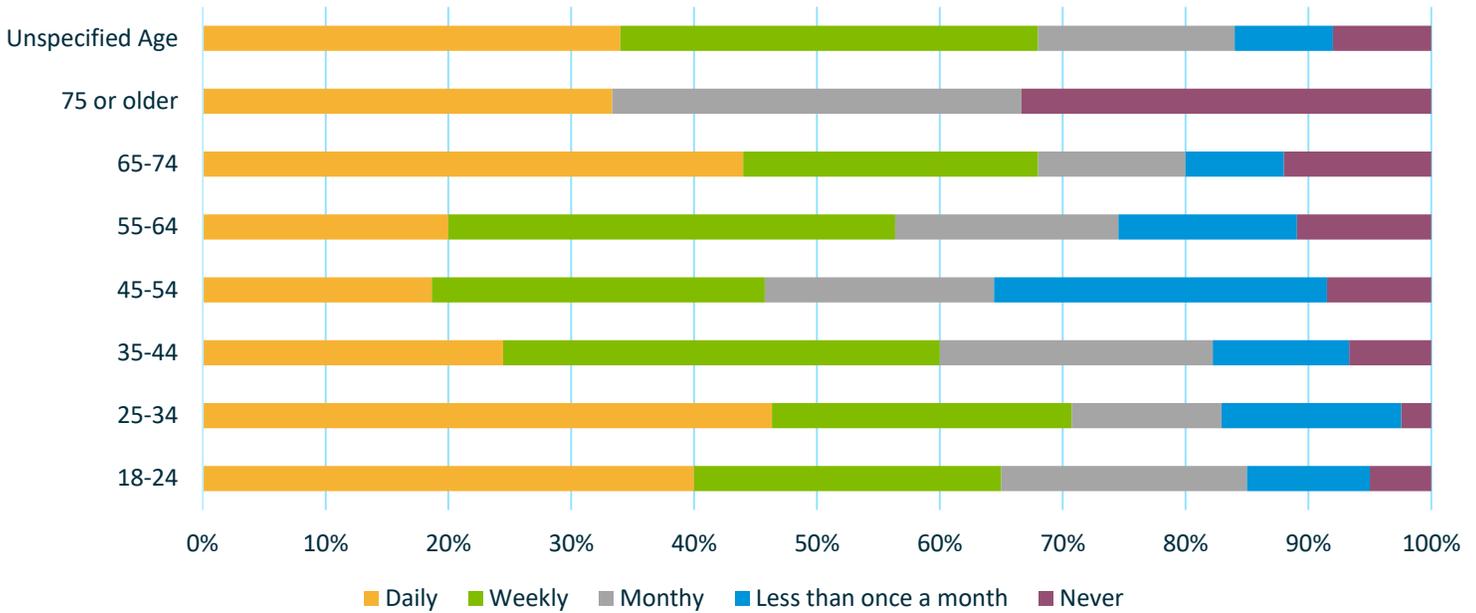
How prepared do you think Clark County is to address the impacts of climate change?



Despite two-thirds of participants being *very concerned* that climate change will affect Clark County, only 4% feel the County is *very prepared* to address its impacts.

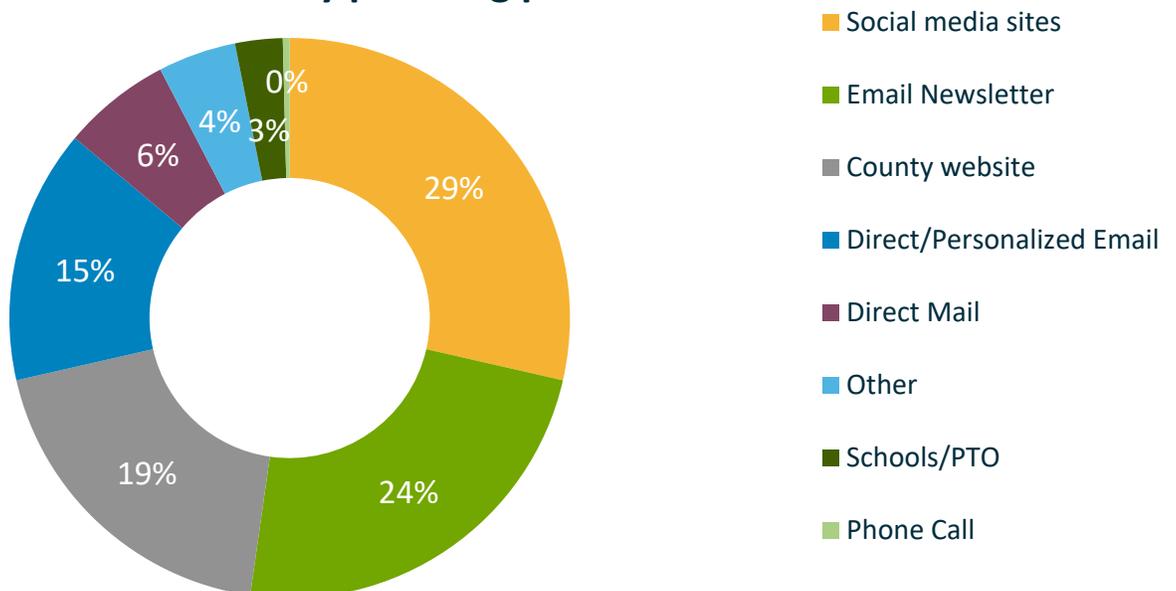
ENGAGEMENT

How often do you receive information about climate change?



The frequency of climate change information received by participants varies by age. Generally, those under 35 and between 65-74 receive information at a higher frequency than middle aged participants.

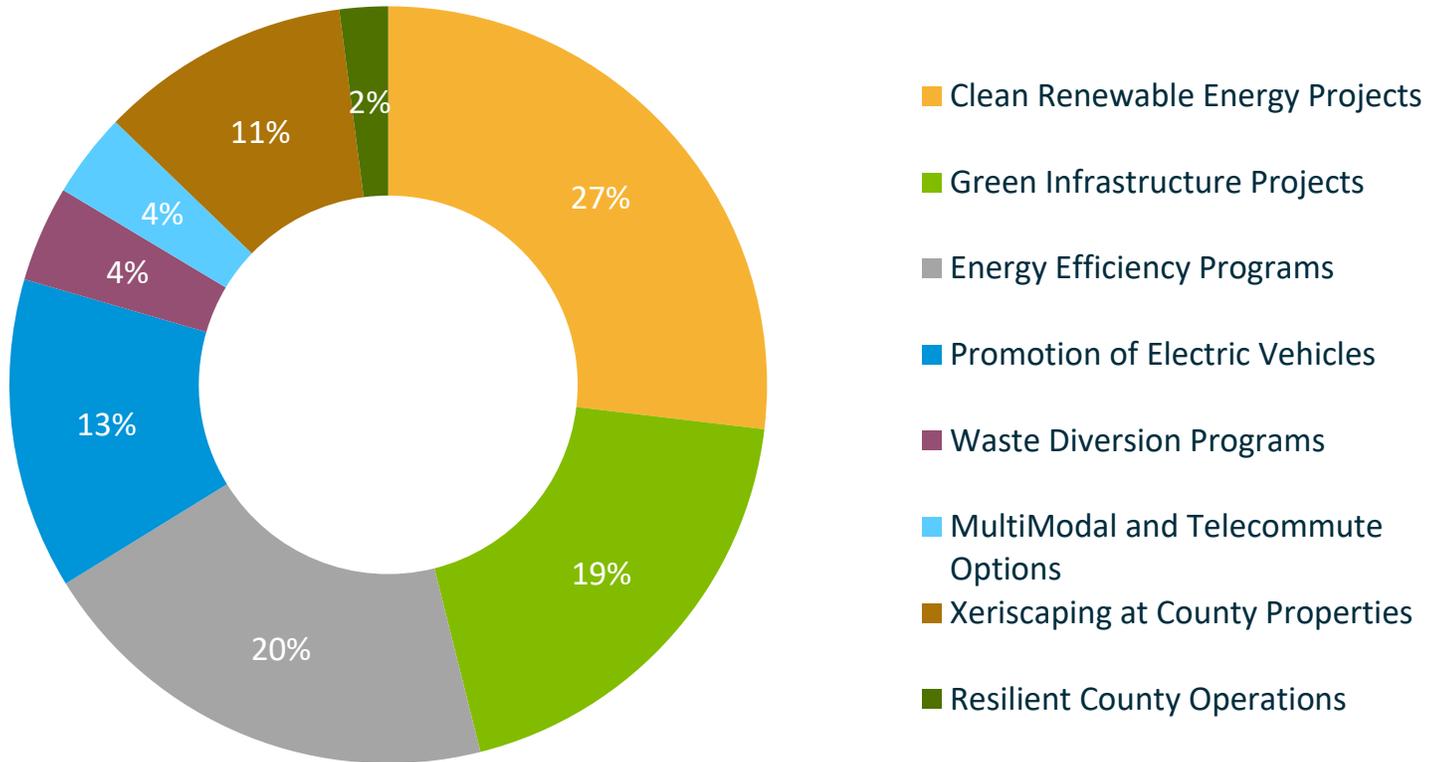
What is the best way to keep you informed about the All-In Clark County planning process?



Social media, email newsletters, and the County website are the preferred means of staying informed. Phone calls and school meeting are the least preferred means.

BUDGET ALLOCATION

In the survey, participants were given a set number of stars to allocate to various projects and programs. This chart shows the total allocations of all participants.



Climate Projects

Which projects to address climate change do you think the County should prioritize in its own operations?

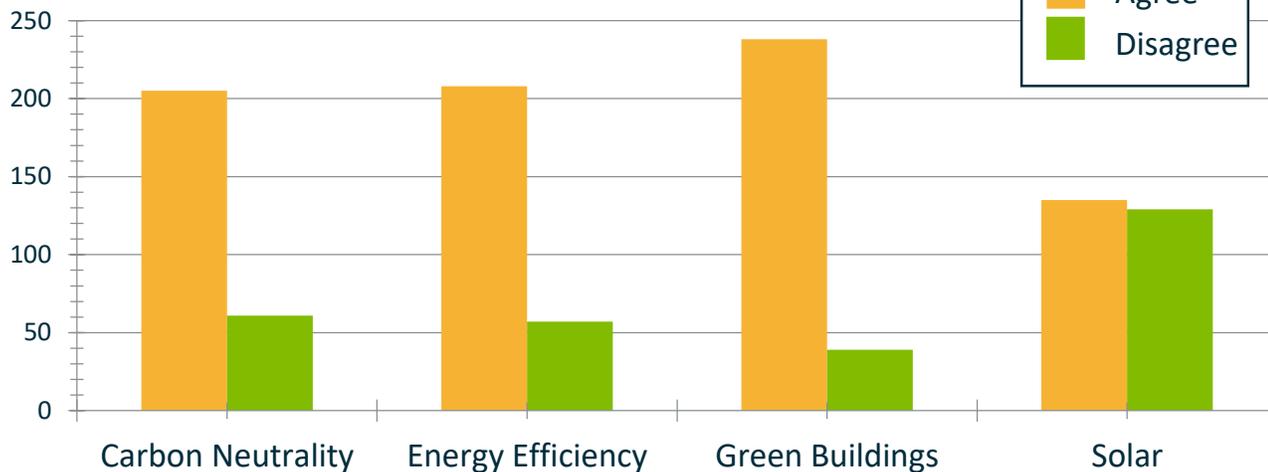
Drag stars to invest in the categories you prefer.

Energy Efficiency Programs Details 5	Clean, Renewable Energy Projects Details 10	Xeriscaping at County Properties Details 0	Green Infrastructure Projects Details 7
Multi-Modal and Telecommute Options Details 15	Promotion of Electric Vehicles Details 5	Waste Diversion Programs Details 0	Resilient County Operations Details 0

AGREE OR DISAGREE?

A significant portion of the survey asked participants whether they agreed or disagreed with a series of statements in five categories: *Clean & Reliable Energy*, *Smart Transportation*, *Smart Waste Management*, *Water Conservation*, and *Resilience*. The following pages show participants' choices. Full statements provided below each graph.

Clean & Reliable Energy



Carbon Neutrality: I support the County's goal to achieve carbon neutrality within its operations by 2050.

Energy Efficiency: I have taken action to improve my home's energy efficiency through upgrades, insulation improvements, window replacements, installing renewable energy systems, etc.

Green Buildings: Clark County should support the development of green buildings to improve indoor air quality and reduce community-wide energy use.

Solar: I am planning to, or already have installed solar panels on my home or business.

Comment Highlights and Themes

Carbon Neutrality

- Wish it could happen sooner than 2050
- Support contingent on economic feasibility
- Want more information on implementation
- Think County should spend resources in other ways

Energy Efficiency

- Renters do not have much control over this
- Need more affordable options
- Need more information and resources

Green Buildings

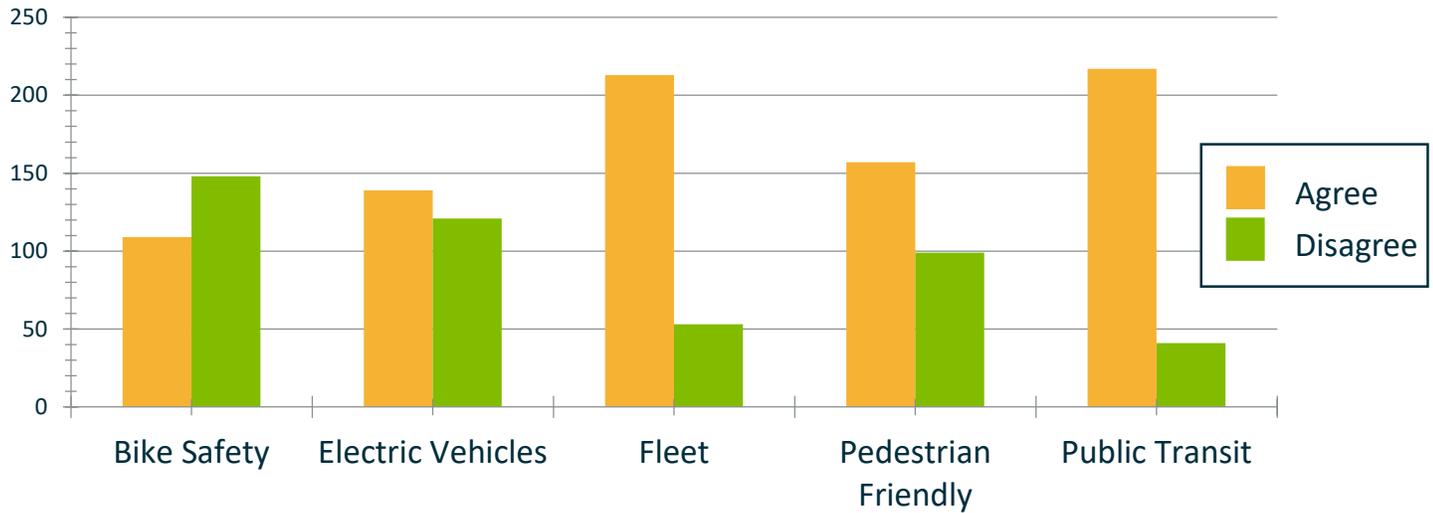
- Support is contingent on economic feasibility
- Desire for climate-appropriate designs
- More support for incentives over requirements

Solar

- Renters have lack of control over this
- Too expensive
- Waiting until there is better return on investment
- Want to see cleaner life cycle of solar

AGREE OR DISAGREE?

Smart Transportation



Bike Safety: I feel safe biking around my community.

Electric Vehicles: I am considering an electric vehicle for my next car or I already own one and intend to keep it.

Fleet: I support Clark County's effort to convert its fleet to all alternative-fuel vehicles by 2050.

Pedestrian Friendly: The County should close some streets down (either temporarily or permanently) to create a friendlier pedestrian environment.

Public Transit: I would like to see a better network of mass public transportation options throughout Clark County.

Comment Highlights and Themes

Bike Safety

- Too unsafe to bike around cars
- Bike lanes are too disjointed
- Desire for designated bike areas

Electric Vehicles

- Not enough chargers
- Too expensive
- Range is too short
- EVs have emissions built into their lifecycle

Fleet

- Only if fuel is from clean sources
- Want to see this sooner than 2050
- As long as the fleet is still as effective

Pedestrian Friendly

- A lot of support for pedestrian improvements, but little for closing streets
- Often too hot to walk (need shade trees)

Public Transit

- Preference for ride-shares over public transit
- Bus system is too slow and unreliable
- Enthusiasm for light rail
- Buses appropriate and desired only in select locations

AGREE OR DISAGREE?

Smart Waste Management



Composting: I would be willing to pay for curb side pickup of food waste for composting.

Consumption: I often look for ways to avoid buying and using non-essential items.

Hazardous Waste: I know where to dispose of common household hazardous waste (e.g., paint, batteries, pesticides).

Recycling: Every week, I have more recycling to put out than garbage.

Reuse: I often use items bought from a second-hand store, or a garage or yard sale.

Comment Highlights and Themes

Composting

- Worried about pest and smell
- Don't want to pay more for waste disposal
- Interested!

Consumption

- Desire for more locally-sourced products
- Need more recycling options
- Happening now out of necessity

Hazardous Waste

- Needs to be easier
- Need more information about this
- Failed to find information about recycling batteries
- Needs to be convenient if people are to do it

Recycling

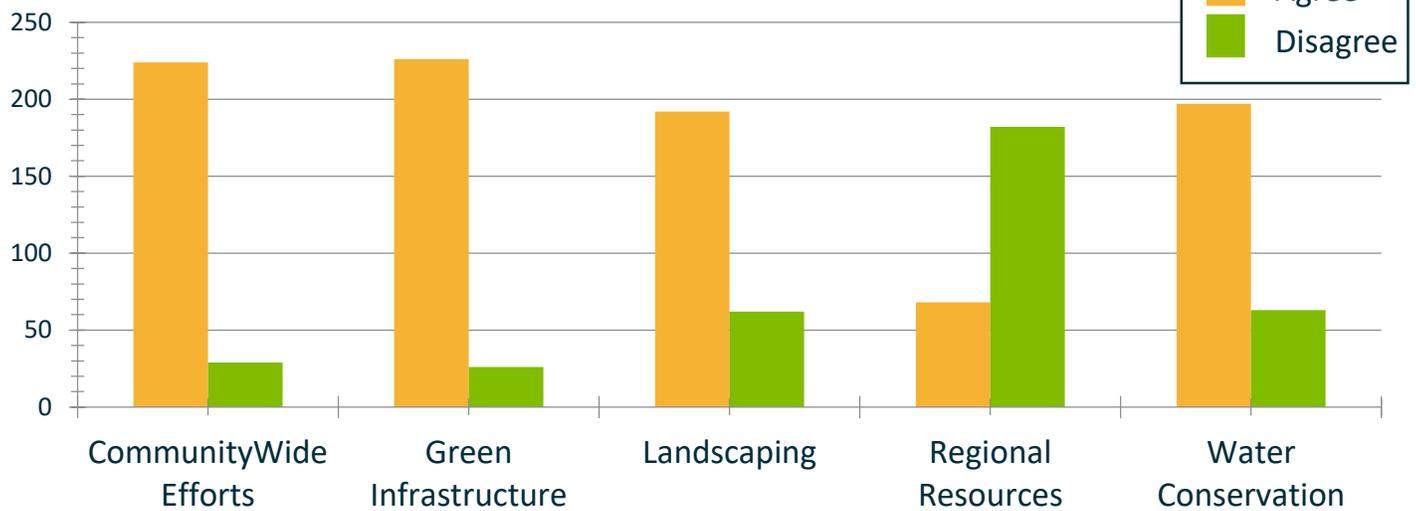
- Worried that trash and recycling gets mixed
- Need better information and resources
- Apartment complexes have limited recycling options

Reuse

- This is a goal going forward
- Would be great if yard sales were better promoted
- Love buying from thrift shops and eBay

AGREE OR DISAGREE?

Water Conservation



Community-Wide Efforts: I support policies and programs to reduce water used by residential and commercial buildings throughout the county.

Green Infrastructure: I support the use of green infrastructure practices, like porous pavers, bioswales, and urban forest canopy that help with a resilient habitat, flood protection, and urban heat island effect.

Landscaping: I utilize xeriscaping for my yard.

Regional Resources: I have utilized the Southern Nevada Water Authority’s Water Smart Contractor Program, to identify landscapers who have completed at least 8 hours of SNWA water-efficiency trainings.

Water Conservation: I use a sprinkler clock or watering clock to help conserve household water usage.

Comment Highlights and Themes

Community-Wide Efforts

- Need mutually beneficial solutions for green initiatives and developers
- Want to see these policies actually enforced
- Need more information

Green Infrastructure

- Very important to reduce urban heat island
- Would love to see programs to protect Mojave Desert
- Don’t want this to increase costs

Landscaping

- Renters don’t have control over this
- Worried about the amount of impervious surface that contributes to high heat

Regional Resources

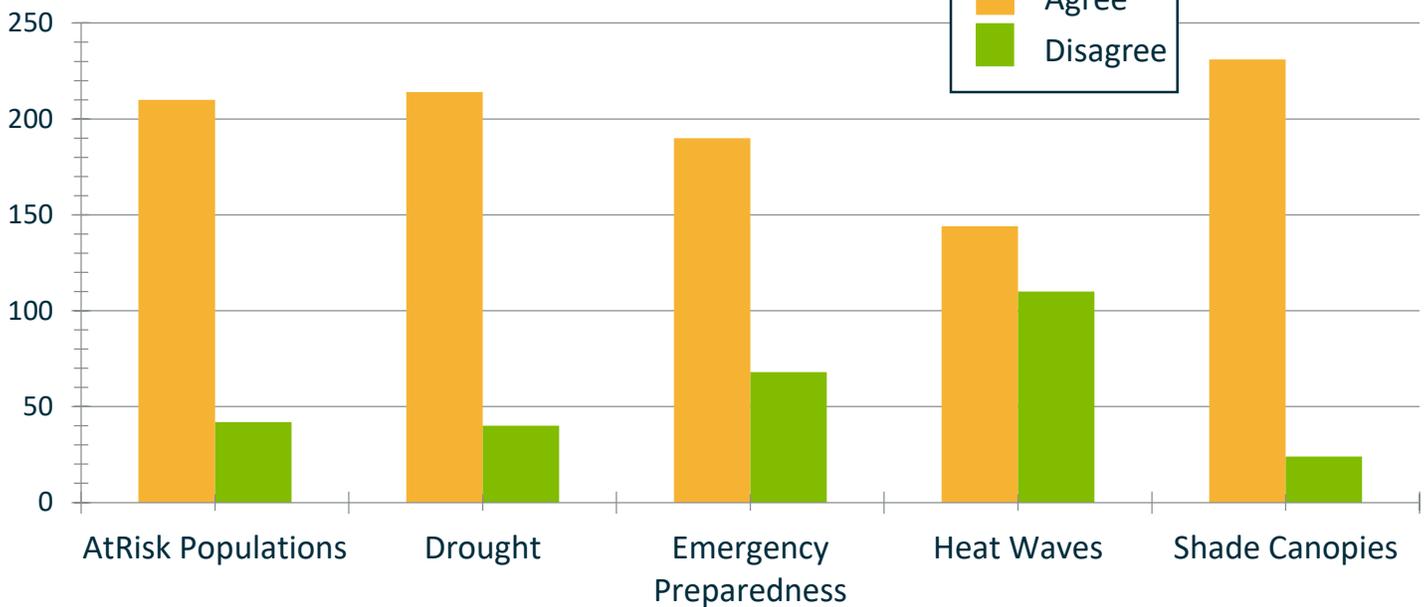
- Do not use a landscaper
- The SNWA process is onerous and expensive
- Not aware of the program

Water Conservation

- Don’t have a yard
- Landscaping is handled by someone else
- Water by hand instead

AGREE OR DISAGREE?

Resilience



At-Risk Populations: Clark County should focus its resiliency work on projects and programs that help the most at-risk residents first.

Drought: I alter my behavior to minimize freshwater use in my home (indoors or outdoors) when we are in an extreme or severe drought situation.

Emergency Preparedness: I have what I need to survive 3 days in my home without electricity.

Heat Waves: I am concerned about my ability to access air conditioning during a heat wave.

Shade Canopies: I would be willing to increase the number of drought resistant trees and shade canopies around my home to help reduce the urban heat island effect.

Comment Highlights and Themes

At-Risk Populations:

- This should be left to volunteers
- Yes, homeless populations especially
- Should help all residents including those at risk

Drought:

- Renters have little control
- Already do this
- Need more information about how to conserve water

Emergency Preparedness:

- Need recommendations on how to be more

prepared

- COVID made me more prepared
- Not prepared due to financial reasons
- Not sure

Heat Waves:

- Very worried about this
- Need more renewable energy to power AC
- Concerned what would happen if there was a power outage

Shade Canopies:

- Shade may have to come in the form of porches and artificial canopies
- Renters don't have control over this
- Overall, a lot of support

AGREE OR DISAGREE?

Trends seen in agree/disagree responses call attention to areas of opportunity and innovation, as well as pre-existing strengths and education needs.

Areas of Opportunity

- 85% support the County pursuing green buildings
- 80% support converting the County fleet to alternative-fuel vehicles by 2050
- 56% would be willing to pay for curbside composting
- 89% support policies and programs to reduce water use
- 90% support the use of green infrastructure
- 83% support resiliency programs that focus on at-risk populations first
- 91% would be willing to increase shade via trees and canopies on their property to reduce the urban heat island effect

Areas for Innovation

- Almost half of participants have not or are not interested in installing solar
- 84% want an improved public transit system
- 57% feel unsafe biking around their community
- Only 53% own or would consider buying an electric vehicle
- 57% are worried about access to AC on hot days
- Empowering renters and landlords to participate in residential actions

Strengths

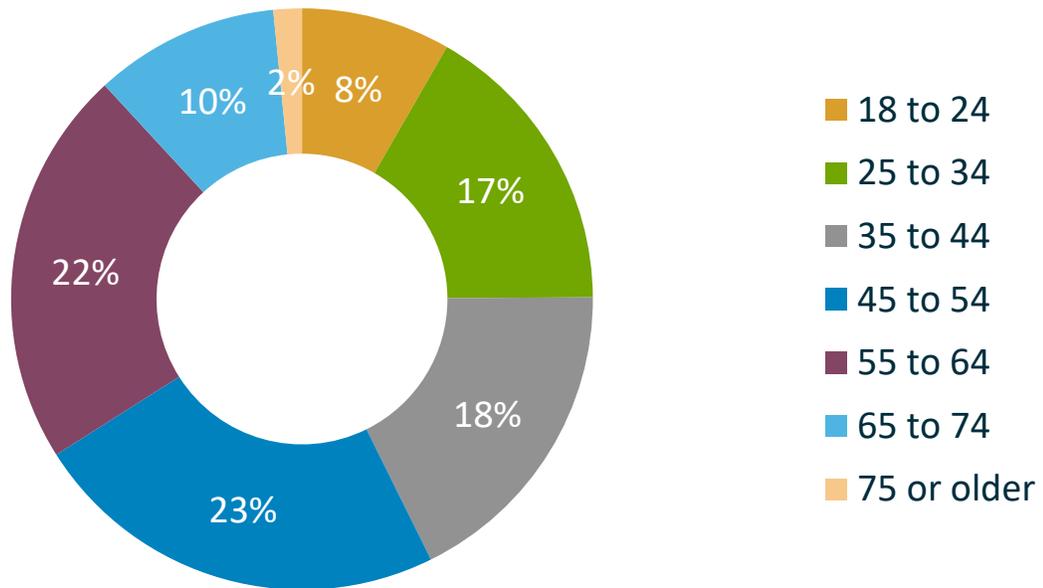
- 78% report already taking measures to increase energy efficiency in their homes
- 77% support the County's carbon neutrality goal
- 84% already seek to reduce their consumption
- 76% use xeriscaping for their lawns
- 84% work to reduce their water use during times of drought

Education needs

- 44% do not know where to dispose of hazardous waste
- 26% do not have the resources they need to surviving in their homes without power for 3 days
- Comments indicate a lack of knowledge around recycling, water conservation, and emergency preparedness

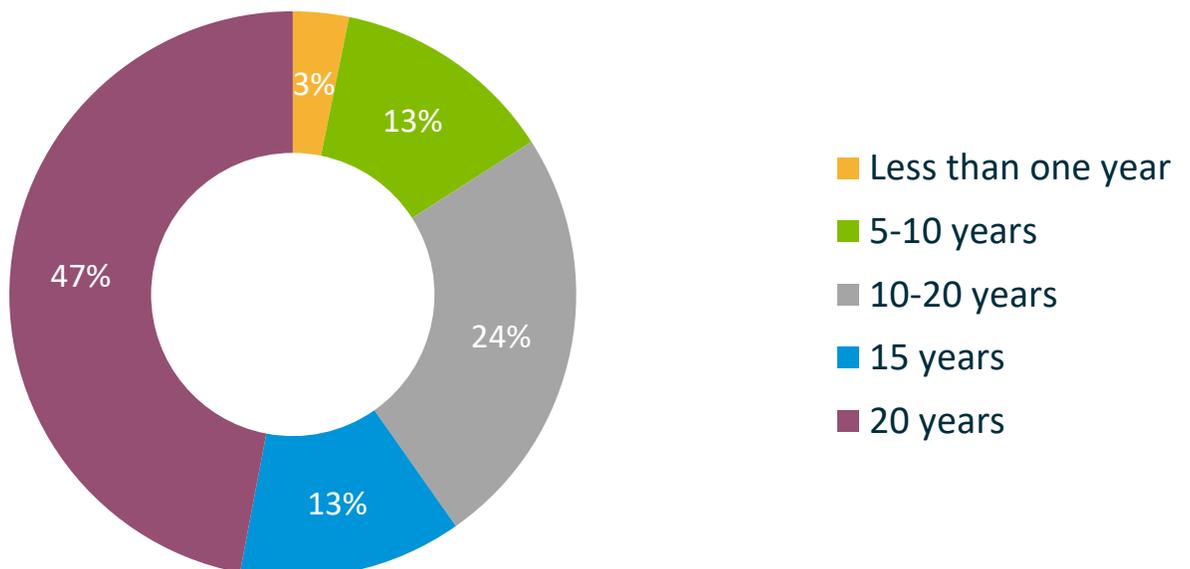
DEMOGRAPHICS

What is your age?



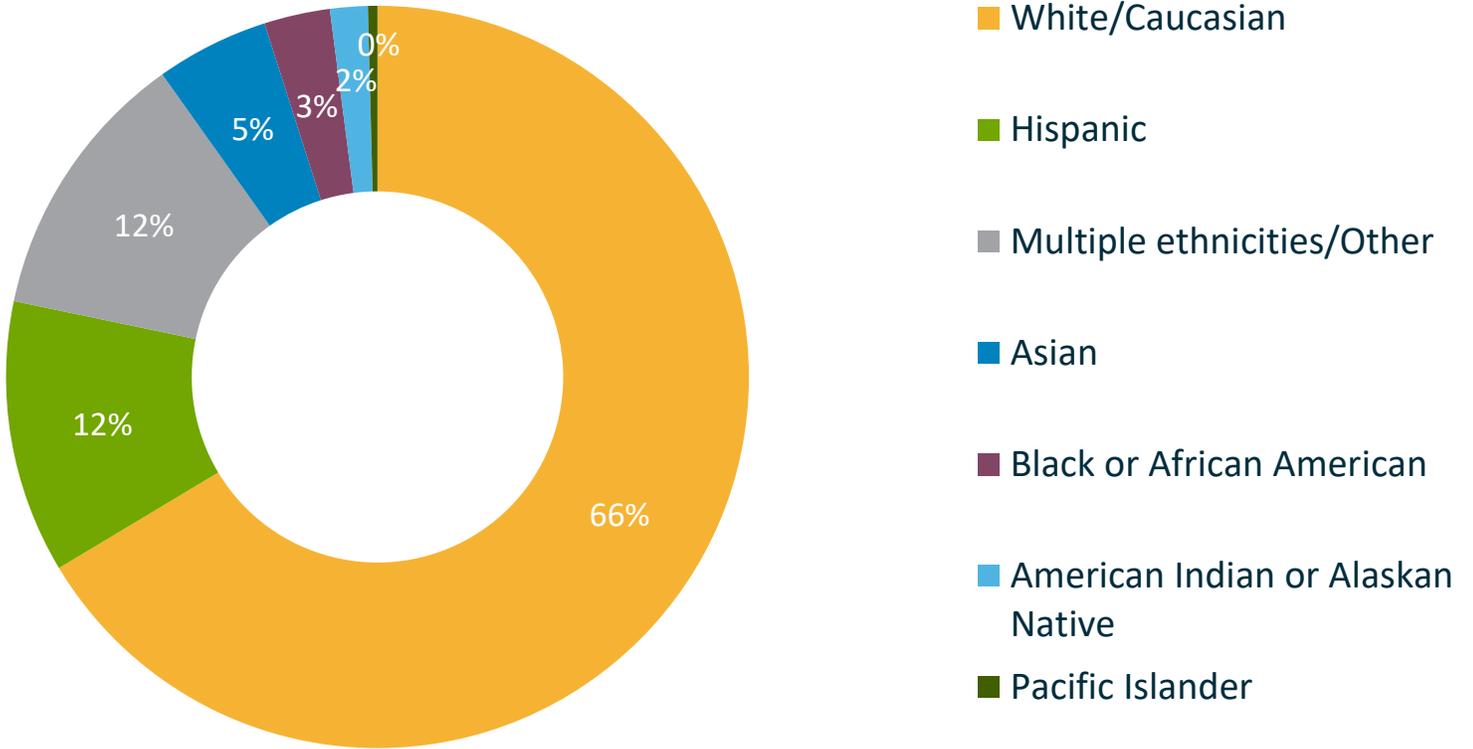
The survey participants spanned a wide age range: 25% were between 18 and 35; 41% were between 35 and 65; and 34% were 65 or older. There was also representation from a mix of new and long-term residents.

How long have you lived in Clark County?



DEMOGRAPHICS

With what race or ethnicity do you most associate?

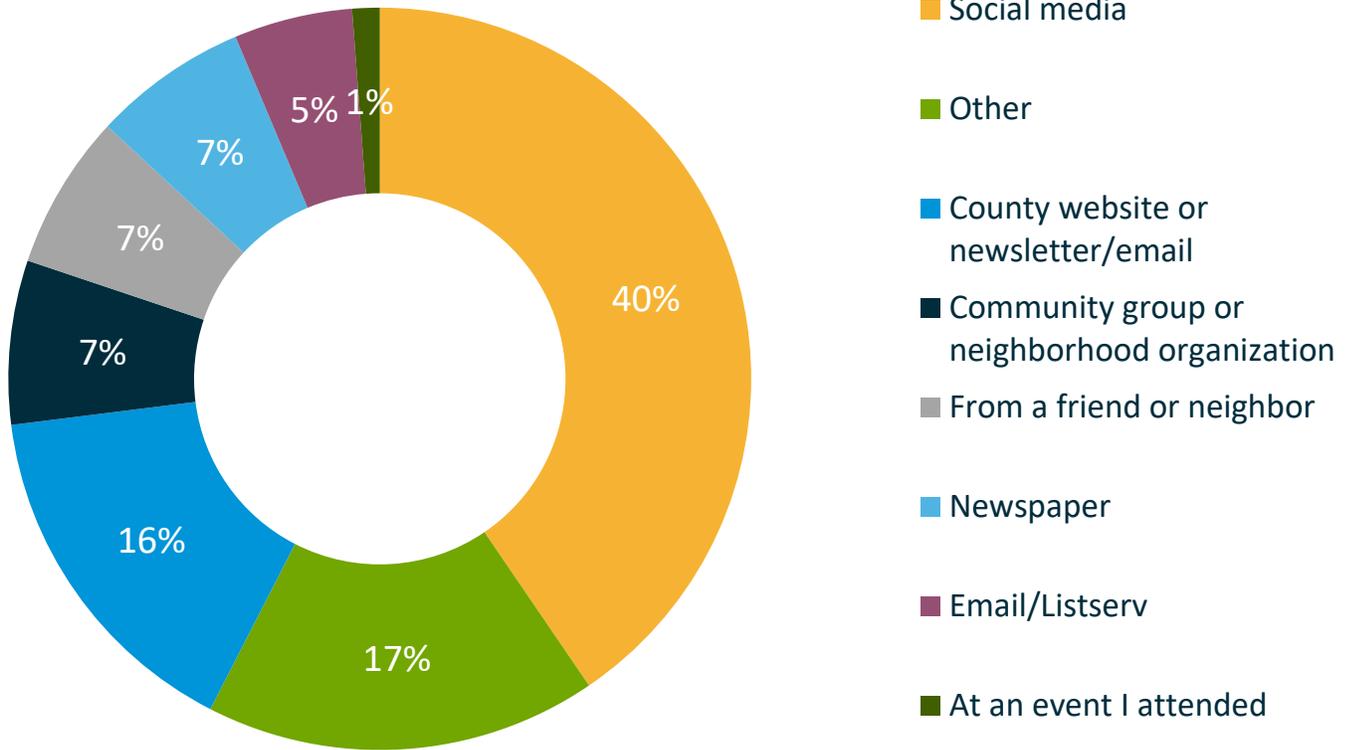


Actual County Demographics	
White/Caucasian	41.7%
Hispanic	31.6%
Multiple ethnicities/other	1.1%
Asian/Pacific Islander	11.3%
Black/African American	13.1%
American Indian/Alaskan Native	1.2%
Source: U.S. Census Bureau, American Community Survey.	

Comparing the racial breakdown of participants with the actual census data shows whites were slightly overrepresented compared to other races. Black and Hispanic people appear to be particularly under-represented.

DEMOGRAPHICS

How did you learn about the planning process?



Most participants heard about *All-In Clark County* at an event, speaking to the power of formally engaging the public. Other common means of hearing about the planning process included the County website and emails and from community organizations. Keeping these popular channels in mind will help inform the best ways to continue publicizing the *All-In* effort.

ALL-IN CLARK COUNTY PRELIMINARY LINKAGES WITH REGIONAL, NATIONAL, AND INTERNATIONAL EFFORTS

This report provides a preliminary summary of potential ways to link *All-In Clark County* sustainability and climate action plan efforts with regional, national, and international efforts. By understanding how *All-In Clark County* aligns with existing work at multiple scales, Clark County can identify targeted opportunities where its strengths can bolster ongoing sustainability efforts at larger scales and where there may be gaps, all while also ensuring its own goals are appropriately benchmarked to be attainable yet ambitious.

Regional Scale

Aligning with statewide and regional efforts is important to ensuring that Clark County plays a leadership role in demonstrating sustainability and climate action in urban desert environments while ensuring regional organizations are working together synergistically to accelerate the achievement of common goals.

Efforts and Opportunities

Name/Title	Description	Linkage to <i>All-In Clark County</i>
Assembly Bill 84	AB84 provides for the issuance of state general obligation bonds to protect, preserve and obtain the benefits of the property and natural and cultural resources of the State of Nevada. ¹	Awareness of this bill will be most relevant in Phase 2 of <i>All-In Clark County</i> as it focuses more on broader community resources.
City of Henderson 4-STAR Community Rating	The City of Henderson received its rating as a 4-STAR community in 2016. STAR, or Sustainability Tools for Assessing and Rating Communities, allows communities to benchmark their sustainability progress, including social, economic, and environmental measures, against national standards and their peers. One example of a project that earned the City its points is a climate vulnerability assessment	Counties are eligible for LEED certification under the Cities and Communities program, which STAR Communities has merged with. As Clark County works to align sustainability and climate action work regionally and nationally, it may consider pursuing this certification as a way to standardize its data collection and management efforts, benchmark with communities within its jurisdiction and nationally, and easily assess

¹ [Nevada Electronic Legislative Information System](#)



	<p>and implementation of key recommendations.</p> <p>In 2018, STAR Communities merged with Leadership in Energy and Environmental Design (LEED) Cities and Communities, a globally recognized program and one that is aligned to achieve the UN Sustainable Development Goals.^{2,3}</p>	<p>where new opportunities for continued improvement exist.</p>
<p>City of Las Vegas 4-STAR Community Rating</p>	<p>In 2014, the City of Las Vegas participated in the STAR Leadership Program as an opportunity to share best practices with other communities and receive support in collecting data needed to assess its STAR rating. In 2015, the City achieved its rating as a 4-STAR community. One project that earned the City its points the creation of an advisory board to ensure the protection of air and water quality in the local region.</p>	<p>As noted above, Clark County has an opportunity to pursue certification under LEED for Cities and Communities. Doing so, particularly at a county scale, can signal to the broader region the importance of cohesive, collective efforts to benchmark for sustainability and climate action.</p>
<p>City of Reno Sustainability and Climate Action Plan</p>	<p>This 2019-2025 sustainability and climate action plan out of Reno aims to reduce greenhouse gas emissions from City operations by:⁴</p> <ul style="list-style-type: none"> • 28% from 2008 levels by 2028 • 40% from 2008 levels by 2030 • 80% from 2008 levels by 2050 <p>The City of Reno has developed these goals to align with their commitments to the Paris</p>	<p>While Clark County and the City of Reno share similar interim goals for 2025 (Clark County aims to reduce 25% of 2005 levels by 2025), it appears to exceed the City’s 2030 goal. However, with different baseline years, further analysis would be needed to provide a true 1:1 comparison. Nonetheless, Clark County has a more aggressive 2050 goal of zero-emissions. There are also a number of alignments in goals and actions between Clark County and the City in its operational goals,</p>

² [LEED for Cities and Communities](#)

³ [United Nations Sustainable Development Goals](#)

⁴ [City of Reno Sustainability and Climate Action Plan](#)



	Agreement, the Global Covenant of Mayors on Climate and Energy, and America’s Pledge.	including, among others, those related to: <ul style="list-style-type: none"> • Employee commuting • Green building standards • Purchasing policies • Green infrastructure/low-impact development • Electric vehicle adoption There are several opportunities to share best practices and lessons learned in the implementation of operational action items between these two entities.
Colorado River Pilot System Conservation Program	This program pays water rights holders to opt out of using their water as a way to protect reservoir levels. The program is currently a partnership between the U.S. Bureau of Reclamation and water agencies in Arizona, California, Colorado, and Nevada. ⁵	Awareness of this effort will be more relevant in Phase 2 of <i>All-In Clark County</i> as it engages the broader community on water use, management, and general awareness of regional water supply issues.
Mining the Sun Initiative	Led by the Sierra Club, this initiative focuses on safeguarding undeveloped lands by promoting renewable energy infrastructure development on brownfields, landfills, closed mining lands, and other previously developed lands. ⁶	Under <i>All-In Clark County’s</i> energy goals, the plan aims to support policies and programs to increase the reliance on renewable energy sources. It may consider programs to promote the development of such local renewable projects on previously developed lands and brownfields.
Native Nations Climate Adaptation Program	The program, developed out of the University of Arizona, works with Native American tribes and indigenous populations in the western United States to solve issues related to the environment and to climate change. ⁷	Awareness of this effort will be most relevant in Phase 2 of <i>All-In Clark County</i> as it continues to engage all members of its community.
Nevada Climate Initiative	This initiative is the State of Nevada’s climate strategy with	Clark County is currently pursuing a 25% reduction from 2005 levels by

⁵ [Pilot System Conservation Program](#)

⁶ [Mining the Sun Initiative](#)

⁷ [Native Nations Climate Adaptation Program](#)



	<p>the goal to reduce greenhouse gas emissions.</p> <p>The State’s reduction goals from 2005 levels are as follows:⁸</p> <ul style="list-style-type: none"> • 28% reduction by 2025; • 45% reduction by 2030; • Net-zero by 2050. 	<p>2025, 50% by 2030, and net-zero emissions for County operations by 2050. While not strictly aligned in interim goals, the County’s goals are similar to the State’s and more aggressive with the 2030 target. Both entities are fully aligned for net-zero by 2050.</p> <p>Energy and transportation goals from <i>All-In Clark County</i> will also contribute to the reduction and elimination of greenhouse gas emissions.</p>
Nevada Electric Highway	<p>The Nevada Electric Highway is a partnership between the Governor’s Office of Energy, NV Energy, and Valley Electric Association and will significantly develop the electric vehicle infrastructure throughout the state. Phase 1 saw charging stations on I-95 between Reno and Las Vegas and Phase 2 will further develop along the state’s remaining interstate and highway corridors.⁹</p>	<p><i>All-In Clark County’s</i> goal to expand electric vehicle adoption and infrastructure align well with the State’s efforts and can further promote market adoption and expansion. This will be increasingly relevant as the County expands into its community-facing plan in Phase 2.</p>
Senate Bill 254	<p>SB254 commits the State of Nevada to set a target to reduce statewide greenhouse gas levels zero or near-zero emissions by 2050.</p>	<p><i>All-In Clark County</i> is currently aligned with SB254 to achieve zero-emissions by 2050.</p>
Southern Nevada Strong	<p><i>Southern Nevada Strong</i> is a long-term economic development plan, completed in 2015, that focuses on successful community development through transportation, housing, and employment opportunities.¹⁰</p>	<p><i>All-In Clark County</i> currently shares a similar Transportation goal with Southern Nevada Strong - to promote and expand multi-modal, efficient transportation for its constituents. <i>All-In Clark County</i> takes it a step further by advocating for clean transportation options.</p>

⁸ [Nevada's Climate Initiative](#)

⁹ [Nevada Electric Highway](#)

¹⁰ [Southern Nevada Strong](#)



		<p><i>All-In Clark County</i> also aligns with many of Southern Nevada Strong’s goals and actions under Environment, such as those to engage builders and developers on green building concepts, increasing renewable energy supply, managing stormwater, and more.</p>
Southern Nevada Water Authority Joint Water Conservation Plan	<p>This plan was developed in an effort to attain Southern Nevada Water Authority’s (SNWA) conservation goal of 105 gallons of water per capita per day (GPCD) by 2035.¹¹</p>	<p>Clark County’s water management goals will contribute to attaining SNWA’s conservation goals. The County does not currently have a GPCD goal for County operations and may want to consider aligning with SNWA. The Clark County Water Reclamation District is also involved as one of the collaborative agencies for the SNWA’s Joint Water Conservation Plan.</p>
Transform Clark County	<p>Transform Clark County is a comprehensive update to the County’s Master Plan and development code.¹² Portions of the planning process for the development of Transform Clark County runs in parallel with <i>All-In Clark County</i>.</p>	<p>Integrate Transform Clark County principles and feedback from the public into <i>All-In Clark County</i> implementation strategies and vice versa – informing policy and development through a sustainability and climate action lens via <i>All-In Clark County</i>. For example, ensuring policies and codes are conducive to solar readiness, encourage multi-modal transportation, and support sustainable buildings.</p>
Truckee Meadows Community College Signatory on the Presidents’ Climate Leadership Commitment	<p>Truckee Meadows Community College (TMCC) in Reno, NV is the only institution in Nevada to sign onto this commitment for carbon neutrality and resilience designed for higher education institutions around the country. TMCC</p>	<p>Based on TMCC’s goals and climate action plan implementation timeline, there is an opportunity to share implementation strategies between TMCC and <i>All-In Clark County</i>, particularly as it relates to energy and emergency management goals for campus operations.</p>

¹¹ [SNWA 2019 Joint Water Conservation Plan](#)

¹² [Transform Clark County](#)



	recently released its Climate Action Plan in 2019. ¹³	As Clark County moves into Phase 2 development of a community-wide plan, TMCC can be a model/resource for higher ed institutions within Clark County that may seek to play a role in local and regional climate action.
Western Public Utility Commissions’ Joint Action Framework on Climate Change	The Nevada Public Utilities Commission joined the Commission in 2019. Other members include Oregon, California, Washington. The framework seeks to reduce greenhouse gas emissions by providing clean, reliable, and cost-effective energy and infrastructure to its consumers. ¹⁴	<i>All-In Clark County</i> energy goals, actions, and targets will further provide market demand and direction towards large-scale clean energy use in the region.

National Scale

At the national level, Clark County has the opportunity to demonstrate its serious commitment to sustainability and climate action, contribute to achievement of national and global goals, and call on other states to do the same.

Efforts and Opportunities

Name/Title	Description	Linkage to <i>All-In Clark County</i>
County Climate Coalition	The County Climate Coalition is a commitment from counties across the country committed to the Paris Agreement. The goal is to keep the temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. The Coalition is an effort under the broader Climate Reality Project. ¹⁵	Clark County is the 26 th county to join the Coalition. Its commitment to this initiative aligns with its participation in the U.S. Climate Alliance.

¹³ [TMCC Metrics for the Presidents’ Climate Leadership Commitment](#)

¹⁴ [Western Resource Advocates - Regional Alliance Will Help Nevada Utilities Commission Address State Goals to Address Climate Change](#)

¹⁵ [County Climate Coalition](#)



U.S. Climate Alliance	<p>The U.S. Climate Alliance is a coalition of 25 governors, including Nevada’s, to address climate change. All members in the Alliance commit to pursuing the following goals:¹⁶</p> <ul style="list-style-type: none"> • Implement policies that advance the goals of the Paris Agreement, aiming to reduce greenhouse gas emissions by at least 26-28 percent below 2005 levels by 2025 • Track and report progress to the global community in appropriate settings, including when the world convenes to take stock of the Paris Agreement, and • Accelerate new and existing policies to reduce carbon pollution and promote clean energy deployment at the state and federal level. 	<p>Clark County’s current interim greenhouse gas reduction goal of 25% below 2005 levels by 2025 is just slightly below the target set by the U.S. Climate Alliance. However, the County has an opportunity here with its Phase 1 plan to attain or exceed its current goals and simultaneously work to align its progress with regional (Nevada’s Climate Initiative), national (U.S. Climate Alliance and County Climate Initiative), and international goals (Paris Agreement).</p>
U.S. Greenhouse Gas Reductions Goals	<p>Although the U.S. is in the process of withdrawing from the Paris Agreement, the goal it had set during its ratification was a 26-28% emissions reduction from 2005 levels by 2025.¹⁵</p>	<p>As the nation’s 13th largest county, Clark County has an opportunity to significantly contribute to the nation’s greenhouse gas reduction goals by reducing its own operational emissions. Currently, the County’s goals fall just short of the nation’s 2025 goal - at 25% below 2005 levels by 2025 versus the nation’s 26-28%, but exceeds an end-target goal of zero emissions by 2050.</p>
U.S. Food Loss and Waste Reduction Goal	<p>The 2030 Food Loss and Waste reduction has two main goals:¹⁷</p>	<p>In both Phase 1 and Phase 2, Clark County has the opportunity to</p>

¹⁶ [U.S. Climate Alliance](#)

¹⁷ [United States 2030 Food Loss and Waste Reduction Goal](#)



	<ul style="list-style-type: none"> • Reduce food waste going to landfills and combustion with energy recovery by 50 percent to 109.4 pounds per person. This goal is in alignment with the UN Sustainable Development Goal (SDG) 12.3. • Reduce food loss at the retail and consumer level by half, by approximately 66 billion pounds. 	<p>significantly reduce its food waste and solid waste. Pursuing composting and other waste diversion efforts at both the County operations and the community level can contribute to this national goal. The County may want to consider aligning its targets with those of the U.S. and the SDGs, particularly as it moves into the community-facing plan in Phase 2.</p>
<p>U.S. Office of Energy Efficiency and Renewable Energy’s Strategic Goals</p>	<p>The U.S. Office of Energy Efficiency and Renewable Energy (EERE) aims to position the U.S. as a leader in the transition to a global clean energy economy through seven strategic goals. It is steered by its vision: a strong and prosperous America powered by clean, affordable, and secure energy.¹⁸</p>	<p>Located in a state that is leading in large-scale adoption of electric vehicles and infrastructure and solar, Clark County is currently aligned with several of EERE’s goals, including to:</p> <ul style="list-style-type: none"> • Accelerate the development and adoption of sustainable transportation technologies; • Increase the generation of electric power from renewable sources; • Improve the energy efficiency of our homes, buildings, and industries. <p>However, Clark County is currently behind EERE’s energy efficiency goal of energy savings of 25%–50% by 2020–2030. The County is currently at 8% from a 2013 baseline, with a goal of 20% by 2023.¹⁹</p>

International Scale

Aligning with major international sustainability efforts can enable Clark County to signal that it recognizes the importance of coming together with other nations to mitigate the impacts of climate change on a global level, and in doing so, amplify the impacts possible.

¹⁸ [U.S. Office of Energy Efficiency and Renewable Energy](#)

¹⁹ [Better Buildings - Clark County Data](#)



Efforts and Opportunities

Name/Title	Description	Linkage to <i>All-In Clark County</i>
Paris Agreement	<p>The Paris Agreement is a commitment across 190 countries globally to pursue strategies aimed to preventing global temperature rise. The goal is to keep the rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.²⁰Error! Bookmark not defined. The IPCC estimates a 45% reduction from 2010 levels in global emissions by 2030 and net-zero by 2050 is needed to achieve this.²¹</p>	<p>Although the United States has withdrawn from the Paris Agreement, Clark County, as part of its commitment to the U.S. Climate Alliance and the County Climate Coalition, has committed to the goals of the Paris Agreement. The County will want to assess what interim and regionally appropriate goals and strategies will be most effective in maximizing its contribution and make adjustments to its 25% by 2025, 50% by 2030, and zero-emissions by 2050 goals as needed, particularly as its baseline year is 2005, versus the 2010 noted by IPCC.</p>
United Nations Sustainable Development Goals	<p>The UN Sustainable Development Goals (SDGs) are a collective of 17 interlinked goals that act as a comprehensive blueprint for all nations worldwide to achieve a more sustainable future.³</p>	<p>Clark County has a significant opportunity to show its leadership on climate action by aligning and promoting the internationally accepted SDGs within Phase 1 and Phase 2 of <i>All-In Clark County</i>. In Phase 1, the County can contribute to SDGs such as:</p> <ul style="list-style-type: none"> • Goal 3: Ensure healthy lives and promote well-being for all at all ages • Goal 6: Ensure availability and sustainable management of water and sanitation for all; • Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation;

²⁰ [United Nations - What is the Paris Agreement](#)

²¹ [IPCC - Summary for Policymakers](#)



		<ul style="list-style-type: none">• Goal 12: Ensure sustainable consumption and production patterns;• Goal 13: Take urgent action to combat climate change and its impacts <p>In Phase 2, the County has an opportunity to contribute to progress toward all 17 SDGs as it works to develop a sustainable future for its broader community.</p>
--	--	--

ENDNOTES

- 1 US Drought Monitor. (n.d.). Drought in Nevada. <https://www.drought.gov/drought/states/nevada>
- 2 Climate Central. (2019, April 17). AMERICAN WARMING: The Fastest-Warming Cities and States in the US <https://www.climatecentral.org/news/report-american-warming-us-heats-up-earth-day>
- 3 UNLV Center for Business and Economic Research. (2020, June). 2020-2060 Population Forecasts: Long-Term Projections for Clark County, Nevada. Regional Transportation Commission of Southern Nevada, Southern Nevada Regional Planning Coalition, Southern Nevada Water Authority, Forecasting Group.
- 4 US EPA. (2016). What Climate Change Means for Nevada. <https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-nv.pdf>
- 5 GRN Vision. (2020, July). Clark County Sustainability Inventory and Emissions Report. Clark County Department of Environment and Sustainability.
- 6 ImpactNV. (2018). 2018 Southern Nevada State of Sustainability Report. ImpactNV.
- 7 Ludt, B. (2019, December 5). Utility commission approves 1,190 MW of new Nevada solar+storage projects. Solar Power World. <https://www.solarpowerworldonline.com/2019/12/nevada-utility-commission-approves-new-solarstorage-projects/>
- 8 International Code Council. (n.d.). Overview of the International Energy Conservation Code® (IECC®). <https://www.iccsafe.org/products-and-services/i-codes/2018-i-codes/iecc/>
- 9 US Green Building Council. (n.d.). LEED Rating System. <https://www.usgbc.org/leed>
- 10 The Sustainable SITES Initiative. (n.d.). Sites Rating System. <https://www.sustainablesites.org/certification-guide>
- 11 Constellation. (2020, February 5). LED vs. CFL Bulbs: Which Is More Energy-Efficient? <https://blog.constellation.com/2016/03/25/led-vs-cfl-bulbs>
- 12 Kalansky, J., Sheffield, A., Cayan, D., Pierce, D. (2018). Climate Conditions in Clark County, NV. An Evaluation of Historic and Projected Future Climate using Global Climate Models. Southern Nevada Water Authority.
- 13 NOAA National Centers for Environmental information. (2020, October). Climate at a Glance: City Time Series. <https://www.ncdc.noaa.gov/cag/>
- 14 Clark County, NV. (2018, August). Clark County Multi-Jurisdictional Hazard Mitigation Plan. Clark County, NV.
- 15 Clark County, NV. Homepage. <https://www.clarkcountynv.gov/>. Clark County, NV.
- 16 Southern Nevada Water Authority. (2019). Southern Nevada Water Authority Joint Water Conservation Plan.
- 17 Clark County, NV. (2013, June). 2013 Urban Forest Resource Analysis of Inventoried Park Trees. Clark County, NV.
- 18 Clark County, NV. (n.d.). Natural Resources. https://www.clarkcountynv.gov/government/departments/parks___recreation/wetlands_park/naturalresources.php. Clark County, NV.
- 19 US EPA. (n.d.). What is Green Infrastructure? <https://www.epa.gov/green-infrastructure/what-greeninfrastructure>
- 20 US Drought Monitor. (n.d.). General. <https://www.drought.gov/drought/data-gallery/us-droughtmonitor>
- 21 Park, Angela. (Sept 2014). Equity in Sustainability. An Equity Scan of Local Government Sustainability Programs. Urban Sustainability Directors Network.
- 22 US EPA. (n.d.). NPDES Stormwater Program. <https://www.epa.gov/npdes/npdes-stormwaterprogram>