

CLARK COUNTY'S SUSTAINABILITY AND CLIMATE ACTION IMPLEMENTATION PLAN

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CLARK COUNTY

The *All-In Clark County* Sustainability and Climate Action Plan: County Operations is the County's effort to address climate change risks and contributions within the County's operations. The Plan was approved by the Clark County Board of County Commissioners on February 16, 2021. This first phase of *All-In Clark County* is representative of the County's commitment to a healthy, sustainable community for current and future residents. The County Operations Plan is also an opportunity for the County to demonstrate leadership prior to expanding sustainability and climate action planning efforts to the broader community. The County has developed this accompanying Implementation Plan to ensure a clear path forward for the many priorities in the County Operations Plan; to identify implementation champions and key partners for specific actions; and to maintain accountability to goals and targets.



4 GUIDING PRINCIPLES AND SUSTAINABILITY FRAMEWORK

All activities associated with the County Operations Plan and this accompanying Implementation Plan are measured against four guiding principles, which form the pillars of the Sustainability Framework.

Applying this Framework ensures that implementation of the County Operations Plan is reflective of the County's values and priorities.

This Sustainability Framework will continue to guide the County's decision-making on sustainability efforts moving forward.



This Implementation Plan is organized into three sections:





CLARK COUNTY GOVERNANCE THEMES & RECOMMENDATIONS

As the County Operations Plan project team synthesized feedback from Clark County leaders and staff, several common implementation opportunities and challenges emerged. Four themes cut across the Plan's five Key Areas and relate to Clark County's decision-making processes, organizational structures, and policies—or sustainability and resilience governance. The recommendations in this section address these governance themes directly in order to facilitate the successful implementation of proposed actions.

THE FOUR CROSS-CUTTING GOVERNANCE THEMES INCLUDE:

) Culture Shift

- () Leadership & Accountability Structures
- Capital Planning & Procurement
-) Coordination & Data Management



CULTURE SHIFT

Conversations with County staff highlighted that there are significant opportunities to shift the perception of sustainability across the organization. Staff cited a lack of clarity around the "why" behind County sustainability and resilience measures and a lack of ownership of these measures, complicated by divisions between newer and long-time employees. Recommendations in this section strive to inspire not just engagement, but also buy-in and ownership of sustainability efforts across the organization through a combination of communication and education.

CLIMATE 101 TRAINING

County staff have likely heard that sustainability and resilience are important to Clark County. However, they may not understand what the County means by these terms, or how climate change will impact their own work on a daily basis. In other words, the County can provide more specific guidance on why employees should care about mitigating greenhouse gas emissions and preparing for climate impacts. Actions within the County Operations Plan include, for example, incorporating sustainability education into new employee orientations. First, **the County should standardize how it describes climate change risks and opportunities** in a way that is relevant to employees and their work. Then, **educational tools like employee orientations or trainings** will contain an accessible and unified message.

ASSESSING & FRAMING PROJECT BENEFITS

Several staff expressed an interest in the "low-hanging fruit" of sustainability projects—projects that make sense to implement because they require little cost or few staff resources and also

have a positive impact. These projects can be helpful in gaining support for sustainability and resiliency efforts. However, other projects may be more costly or complicated to implement, but provide significant savings, risk reduction, or other benefits for the long term. The County can focus on assessing all projects—big or small—in terms of a standardized framework of expected investment (time and resources) and benefits. This information should then be clearly communicated from the start of a project, both internally and in public messaging. Staff suggested, for example, focusing on anticipated dollar savings and benefits to health (i.e., air/water quality or well-being).

COMMUNICATING PROGRESS

The planning process for the County Operations Plan revealed that the County is already doing a significant amount of work on sustainability. Department leaders and staff were proud of their accomplishments and suggested that framing improvements in terms of what staff were not doing might inspire a backlash. The County should **enhance communication around sustainability progress** in order to demonstrate early wins and garner support for additional investments. This celebration of progress can be educational as well, taking the form of regular **highlights of successful projects, case-study write-ups, or an awards program** to incentivize or recognize sustainability projects and leaders, modeled off existing programs including awards for years of service to the County. Furthermore, the County should **reframe successful projects that may not have a specific sustainability focus to highlight sustainability co-benefits**. County employees who are skeptical of sustainability or worry it will be additional work might then see the sustainability benefits of efforts in which they are already engaged.

2) LEADERSHIP/ACCOUNTABILITY STRUCTURES

When asked to define sustainability, Commissioner Michael Naft underscored the importance of "leading by example." To implement this vision and inspire widespread buy-in, the County needs leaders, at all levels of its operations, with clear roles and responsibilities to implement sustainability and resilience actions. The following recommendations aim to establish these leadership structures.

HIGH-LEVEL DIRECTIVES/COMMITMENT

To encourage employees to engage with sustainability actions and to hold departments accountable, County leadership must demonstrate strong, tangible commitments. These should take the form of **specific directives or administrative guidelines from the County Manager or a broad County Manager directive delegating leadership to a role or committee**. Sustainability must be a clear priority at the highest levels of leadership. These directives could include mandates that staff attest to compliance with sustainability guidelines in the budget narratives presented to the Board of County Commissioners.

COUNTY SUSTAINABILITY PROGRAM ADMINISTRATOR

Several actions identified in the County Operations Plan require follow-through from specific departments or individuals. An **individual who is responsible for keeping track of these many dispersed actions** will facilitate the identification of efficiencies and help those implementing the actions troubleshoot common problems. The Department of Environment & Sustainability will be hiring a Sustainability Program Administrator in early 2021 who will serve as a critical resource in facilitating the implementation and tracking of actions identified in the County Operations Sustainability and Climate Action Plan. **The Administrator will need an operational budget and staff or consultant support.** Furthermore, the Director and Assistant Director should **include sustainability as a standing agenda item for meetings with the County Manager and County Commission to discuss any key updates from the Administrator with leadership.**

DEPARTMENT-LEVEL ACCOUNTABILITY

Staff interviewees stressed that maintaining flexibility throughout project implementation would be important, in acknowledgment of the distinct realities of department contexts. To maintain flexibility in meeting unique department needs, while also ensuring that all departments are accountable to County-wide sustainability commitments, the County could provide a distributed implementation support structure by **establishing a network of Sustainability/Resilience Representatives**. Each department could select 1-2 individuals to serve as the point(s) of contact for sustainability work and maintain records of progress on specific actions. Active participation in sustainability/resilience activities should be part of a Representative's written job duties, as applicable. **Representatives should be mid-management or higher and have a clear communication pathway to department heads.** These champions would make up a **Sustainability Advisory Committee** and attend regular meetings with the Sustainability Program Administrator to report back on progress and collectively problem-solve and prioritize. Champions and department heads would also be responsible for **timely reporting on progress on sustainability actions and goals** to which they are accountable.

3 CAPITAL PLANNING & PROCUREMENT

Broadly, capital projects and everyday purchases/contracting present an opportunity to increase sustainability and resiliency upfront. Staff across several Departments are already working to integrate sustainability into projects from the start. However, the processes by which this integration occurs may not be fully operationalized or aligned with up-to-date climate projections. The following recommendations focus on integrating systems of accountability for sustainability and resilience throughout the capital planning and procurement processes.



CAPITAL PROJECT PRIORITIZATION

Many projects do in fact present opportunities for savings, with appropriate planning and accounting of social and environmental benefits and costs. As seen in the figure below, the cost to incorporate sustainability improvements increases as the ability to make those changes decreases. Thus, **clearly articulating sustainability and resiliency priorities and recommendations upfront** can ensure that such improvements are not afterthoughts that become cost-prohibitive to implement.



Source: Institute for Sustainable Infrastructure, Envision Guidance Manual V3

The County should work to integrate sustainability opportunities into capital projects that departments are already pursuing, prior to allocating funding. **Guidance or checklists for departments to use in the budget estimation stage of the long-range planning process** overseen by Real Property Management (RPM) could integrate sustainability/resilience and financial considerations at the earliest stage, when it is most cost-effective, resulting in higher-performing projects that meet multiple operational and community goals. Additionally, the County could **integrate the Sustainability Administrator into the long-range planning process** to provide assistance and ensure that sustainability and resilience are fully considered.

SUSTAINABLE PROCUREMENT POLICY

A **County-wide Sustainable Procurement Policy** would encourage all procurement activities to align with a set of sustainability standards or preferences. The Policy could serve both as a directive, setting expectations for the County, as well as a set of guidelines informing all purchases. Several large institutions and Counties have successfully developed and implemented Sustainable Procurement Policies across their operations. Examples include the University of Nevada, Las Vegas; Los Angeles County, California; Multnomah County, Oregon; and King County, Washington. Specific provisions of this Policy for Clark County could include recommendations (eventually to become requirements), such as:

- Local sourcing (which both reduces embodied carbon and stimulates the local economy)
- Third-party product certifications or standards (e.g., Environmental Product Declarations, recycled content rates, ENERGY STAR)
- Toxics reduction standards/chemical restrictions (e.g., for cleaning products, fleet maintenance products, fuels)

This overarching Policy would inform specific policies for focus areas identified in the County Operations Plan (e.g., for Smart Waste Management & Reduction). Importantly, while developing this set of guidelines, the County should take care to reconcile local, state, and federal guidance regarding procurement with sustainability provisions. Furthermore, the County's guidelines should prioritize purchases that yield impactful savings and efficiencies and clearly articulate these benefits.

REQUESTS FOR BIDS AND PROPOSALS

From a project's inception, before it goes out to bid, the County should be clear about its expectations for sustainability and resilience measures. As mentioned above, it is generally easier to incorporate this lens from the outset of a project and can often reveal ways for project teams to save costs and avoid complications as a project progresses. The County could **develop guidance or standard language for incorporating sustainability requirements into RFPs** that can then be tailored to individual departments or specific project types, in light of statutory constraints that could inhibit a County-wide requirement. For some projects, adding sustainability/resilience as a component of the scoring matrix will be appropriate.

CONTRACTS

Large purchases could be reviewed by the Sustainability Advisory Committee or Sustainability Program Administrator to check for compliance with the Sustainable Procurement Policy before being sent to the Board of County Commissioners, Chief Administrative Officer, County Manager, or Purchasing administrator, as appropriate. Once a vendor or contractor is selected, **specific provisions within contracts** should hold these entities accountable to implementing the sustainability/resilience aspects of the project they bid on. **Sustainability/resilience expectations should be a standard agenda item for project kick-off meetings. Reporting systems or checklists for projects** should also account for these components of a project to ensure they are not lost as the project progresses.

EMPLOYEE AND CONTRACTOR EDUCATION

Employees: To facilitate a unified approach to sustainability/resilience requirements across the many facets of the procurement process, the County could develop a sustainable purchasing education and outreach program to inform employee decision-making. This could take the form of **educational workshops/trainings and a centralized webpage** with materials such as a required checklist of questions to consider or sustainability assessments to perform prior to making a purchase or selecting a consultant. Tools like these are particularly

important for smaller projects or purchases that do not require public bids. Training for policies and checklists should include any boards or commissions with purchasing authority, as well as anyone responsible for purchasing decisions.

Contractors: To ensure that these entities have a full understanding of the County's expectations, the County could hold **workshops on new procurement policies and contract language with both long-time and newer vendors/contractors.** For example, the Clark County Department of Aviation has seen success proactively engaging Disadvantaged Business Enterprises (DBEs) about contracting opportunities and processes through educational conferences and literature.



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COORDINATION & DATA MANAGEMENT

Several actions in the County Operations Plan involve maintenance or upgrades across multiple facilities, or improvement to services across a single key area. Communication with staff, however, revealed confusion about how some areas of service functioned (e.g., waste collection) and what data were being tracked and by whom. The following recommendations support improved centralization of services and data relevant to sustainability/resilience, as well as the integration of sustainability into existing systems for management/tracking.

CENTRALIZATION OF SERVICES

Some services, both internally staffed and contracted, are managed fully or partially by Real Property Management (e.g., the capital estimates process), while others are spread across multiple departments, impeding the ability to make widespread changes or centralize data tracking. As appropriate, the County should examine what responsibilities or services could be managed by a central entity and staff those functions accordingly.

CENTRALIZED SUSTAINABILITY DATA TRACKING

Continual data tracking will be integral to measuring the progress of sustainability actions. An **online sustainability dashboard or other centralized data tracking system** would facilitate this effort across the multiple implementing entities and key area actions. This tracking system should be integrated with the existing tracking system managed by Real Property Management. The County should first specify and notify points of contact responsible for providing data on metrics identified in the County Operations Plan. The Sustainability Program Administrator could then gather data and update the tracking system accordingly.



INTEGRATING SUSTAINABILITY PRINCIPLES ACROSS DEPARTMENTS

Planning and implementation processes are frequent and ongoing across County departments. Conversations with the County Comprehensive Planning Department, for example, highlighted that the forthcoming Comprehensive Master Plan update includes an overhaul of zoning code—a clear opportunity for integration of sustainability considerations into land use and development in the County. Embedding sustainability principles into other planning and development efforts across the County could yield opportunities for significant impact and collaboration. Supporting actions could include an analysis of how actions in the County Operations Plan might impact key County department activities (e.g., zoning, comprehensive planning) and a directive from County leadership for all departments to incorporate sustainability considerations into their planning efforts.

IMPLEMENTATION MATRIX

High-level implementation details for each action identified in the County Operations Plan are provided in the following matrix.

DETAILS FOR THE ACTIONS ARE ORGANIZED BY SEVERAL CATEGORIES:



ACTION: Contains the identification number and the text of the action, organized by Key Area.





2 ACTION TYPE: Indicates the kind of action (e.g., is it a County-wide policy versus an action about education?). Options include:

- Policy
- Staff capacity
- Procurement/Finance
- Research/Assessment
- Capital improvement
- Maintenance
- Education
- Communication/Partnership
- 3) **DESCRIPTION:** Provides additional details on what the action entails.
- 4) **LEAD DEPARTMENT:** Who will champion or be responsible for this action?
- 5) **KEY PARTNERS:** Who will the Lead Department coordinate with at each implementation step?
- (6) **TIMEFRAME:** How long will it take to complete this action?



Level of Effort to Implement:

Low: can be implemented with existing internal resources (existing budget/staff time) Medium: requires additional staff time, training, or onetime newly contracted technical services High: will require new hire(s) (FTE or long-term contracted services) and/or permanent change to job description(s)

Level of Benefit:

Low: received score of 0-2 in evaluation against guiding principles Medium: received score of 3-4 High: received score of 5-6

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IMPLEMENTATION MATRIX

CLEAN & RELIABLE ENERGY

Cost: **\$=** up to 100K **\$\$=** 100K - 500K \$\$\$= 500K - 1M \$\$\$\$= 1M or more

Level of Effort to Implement:

Low: can be implemented with existing internal resources (existing budget/staff time)

Medium: requires additional staff time, training, or onetime newly contracted technical services

High: will require new hire(s) (FTE or long-term contracted services) and/or permanent change to job description(s)

Level of Benefit:

w: received score of 0-2 in evaluation against guiding principles Medium: received score of 3-4 High: received score of 5-6

Assessment, C	acity, Procurement/ Capital improveme n, Communication/				RAME	ESTIMATED COST	LEVEL OF EFFORT TO IMPLEMENT	LEVEL OF BENEFIT
ACTION	ACTION TYPE	DESCRIPTION	LEAD DEPARTMENT	KEY PARTNERS	TIMEFRAME	ESTIM	LEVEL TO IMI	LEVEL
CRE-1 Staff an energy management team for all County facilities and operations.	Staff Capacity	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.	Real Property Management	Environment & Sustainability, Human Resources	1-3 Years	\$\$	MED	MED
CRE-2 Continue to upgrade all lighting in County buildings to LED.	Capital improvement	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, so switching to LEDs can decrease the amount of cooling needed in County buildings.	Real Property Management	Purchasing, Finance	1-3 Years	\$	LOW	LOW
CRE-3 Assess the need to expand outdoor lighting control systems (sensors, timers) to all exterior lighting.	Capital improvement	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.	Real Property Management	Environment & Sustainability, Purchasing, Finance	1-3 Years	\$	LOW	LOW
CRE-4 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.	Capital improvement	Clark County has already conducted energy audits of its three highest energy consumers, as well as 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.	Real Property Management	Environment & Sustainability, Finance	1-3 Years	\$	LOW	LOW

ACTION	ACTION TYPE	DESCRIPTION	LEAD	KEY PARTNERS	TIMEFRAME	ESTIMATED COST	LEVEL OF EFFORT TO IMPLEMENT	LEVEL OF BENEFIT
CRE-5 Establish an employee energy awareness and conservation program.	Education	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.	Environment & Sustainability	Sustainability Advisory Committee (to be established), Real Property Management, Human Resources, County Manager, County Commission, Public Communications	1-3 Years	\$	LOW	MED
CRE-6 Establish a revolving energy fund that leverages savings from efficiency projects to continue to fund additional investments.	Procurement/ Finance	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.	Finance	Environment & Sustainability, Real Property Management, County Commission, County Manager's Office	3 Years or more	\$	LOW	LOW
CRE-7 Continue to expand building management system (BMS) to all County buildings and integrate data into new Energy Management System.	Capital improvement	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.	Real Property Management	Environment & Sustainability, Finance	1-3 Years	\$	MED	MED
CRE-8 Retrofit all occupied County facilities with solar glazing and energy efficient windows.	Capital improvement	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.	Real Property Management	Environment & Sustainability, Finance	3 Years or more	\$\$\$\$	HIGH	HIGH
CRE-9 Pilot battery storage for critical County facilities.	Capital improvement	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.	Real Property Management	Office of Emergency Management, NV Energy (or applicable co-op), Administrative Services, Finance, Real Property Management, Pilot department, Consultant	3 Years or more	\$\$\$	MED	MED
CRE-10 Develop partnerships with stakeholders to identify innovative technologies for clean energy production.	Communication /Partnership	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.	Environment & Sustainability	Real Property Management, Purchasing, Community & Economic Development	1-3 Years	\$	LOW	MED



IMPLEMENTATION MATRIX

RESILIENT COUNTY OPERATIONS

Cost: **\$=** up to 100K **\$\$=** 100K - 500K **\$\$\$=** 500K - 1M **\$\$\$\$**= 1M or more

Level of Effort to Implement:

Low: can be implemented with existing internal resources (existing budget/staff time)

Medium: requires additional staff time, training, or onetime newly contracted technical services High: will require new hire(s) (FTE or long-term contracted

services) and/or permanent change to job description(s)

Level of Benefit:

ow: received score of 0-2 in evaluation against guiding principles Medium: received score of 3-4 High: received score of 5-6

Assessment	pacity, Procuremen , Capital improvem ion, Communicatior				TIMEFRAME	ESTIMATED COST	LEVEL OF EFFORT TO IMPLEMENT	LEVEL OF BENEFIT
ACTION	ACTION TYPE	DESCRIPTION	LEAD DEPARTMENT	KEY PARTNERS	TIME	ESTIN	LEVEL TO IMF	LEVE
RCO-1 Conduct a climate vulnerability assessment of all County critical assets and operational functions.	Research/ Assessment	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.	Office of Emergency Management	Geographic Info Systems, Nevada Resillence Advisory Committee, Fire, Police, Parks & Recreation, Risk Management, Real Property Management, Environment & Sustainability, Comprehensive Planning, Social Services, Southern Nevada Health District, Southern Nevada Water Authority, Consultant	1-3 Years	\$\$	MED	MED
RCO-2 Assess existing County operations emergency management plans for increased hazards associated with climate change.	Research/ Assessment	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.	Office of Emergency Management	Fire, Police, Risk Management, Public Works, Real Property Management, Environment & Sustainability, Comprehensive Planning Department, Building & Fire Prevention, Geographic Info Systems, Nevada Resilience Advisory Committee, Nevada Resilience Advisory Committee, Nevada Department of Transportation, Emergency Management Review Task Force, Administrative Services, Utility providers, Consultant	1 Year or less	\$	LOW	MED
RCO-3 Enhance existing emergency communication protocols and ensure communication is accessible to all County staff.	Communication /Partnership	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.	Emergency Management	Administrative Services, Fire, Information Technology, Police, Public Communications	1 Year or less	\$\$	MED	MED

ACTION	ACTION TYPE	DESCRIPTION	LEAD DEPARTMENT	KEY PARTNERS	TIMEFRAME	ESTIMATED COST	LEVEL OF EFFORT TO IMPLEMENT	LEVEL OF BENEFIT
RCO-4 Adopt criteria for ensuring that all County capital projects are screened for resilience to climate change- related hazards.	Policy	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.	Real Property Management/ Public Works	Environment & Sustainability, Building & Fire Prevention, Information Technology, Regional Flood Control District, Consultant, Administrative Services, County Manager's Office	1-3 Years	\$	LOW	HIGH
RCO-5 Assess number of cooling stations provided by Clark County and continue to ensure equitable distribution.	Capital improvement	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.	Environment & Sustainability	Real Property Management, Parks & Recreation, Southern Nevada Health District, Office of Emergency Management, Geographic Info Systems, Social Services, Building & Fire Prevention, Public Works, Clark County School District, Senior centers, Public Communications, Public Information Officer, Finance	1-3 Years	\$	LOW	MED
RCO-6 Ensure County infrastructure equitably minimizes contributions to urban heat islands.	Capital improvement	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.	Comprehensive Planning Department	Building & Fire Prevention, Public Works, Parks & Recreation, Environment & Sustainability, Finance	1-3 Years	\$\$\$	MED	HIGH
RCO-7 Preserve and enhance tree canopy and green infrastructure throughout Clark County, ensuring equitable distribution of such assets across all neighborhoods.	Capital improvement	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.	Real Property Management/ Public Works	Comprehensive Planning Department, Parks & Recreation, Environment & Sustainability, Finance	1-3 Years	\$\$	MED	HIGH



IMPLEMENTATION MATRIX

SMART WASTE MANAGEMENT & REDUCTION

Cost: **\$=** up to 100K **\$\$=** 100K - 500K **\$\$\$=** 500K - 1M \$\$\$\$= 1M or more

Level of Effort to Implement:

Low: can be implemented with existing internal resources (existing budget/staff time)

Medium: requires additional staff time, training, or onetime newly contracted technical services High: will require new hire(s) (FTE or long-term contracted

services) and/or permanent change to job description(s)

Level of Benefit:

Low: received score of 0-2 in evaluation against guiding principles Medium: received score of 3-4 High: received score of 5-6

Assessment, C	acity, Procurement/ Capital improveme n, Communication/				TIMEFRAME	ESTIMATED COST	LEVEL OF EFFORT TO IMPLEMENT	LEVEL OF BENEFIT
ACTION	ACTION TYPE	DESCRIPTION	LEAD DEPARTMENT	KEY PARTNERS	TIME	ESTIN	LEVE TO IM	LEVE
SWM-1 Conduct an audit of County waste processes from contracting through to disposal and of the County's operational waste stream.	Research/ Assessment	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.	Environment & Sustainability	Public Works, Republic Services, Real Property Management, Purchasing, Parks & Recreation, Building & Fire Prevention, Consultant	1-3 Years	\$\$	MED	LOW
SWM-2 Centralize County waste management by assigning one department to oversee all services.	Policy	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.	Environment & Sustainability	Public Works, Real Property Management, Purchasing, County Manager's Office	3 Years or more	\$	LOW	LOW
SWM-3 Establish a waste management program and communications materials to support recycling within County facilities and operations.	Education	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 and 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.	Environment & Sustainability	Republic Services	1-3 Years	\$	LOW	LOW

ACTION	ACTION TYPE	DESCRIPTION	LEAD	KEY PARTNERS	TIMEFRAME	ESTIMATED COST	LEVEL OF EFFORT TO IMPLEMENT	LEVEL OF BENEFIT
SWM-4 Create a sustainable purchasing policy and requirements for County purchasing.	Policy	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	Environment & Sustainability	Purchasing, Real Property Management, Public Works, County Commission, County Manager's Office, Administrative Services, Parks & Recreation, Organizational Development Center, Department leads	3 Years or more	\$	LOW	LOW
SWM-5 Implement a paper reduction program that encourages online/ digital application processes and document storage.	Policy	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.	Environment & Sustainability	Information Technology, County Manager's Office	3 Years or more	\$	LOW	LOW
SWM-6 Incorporate requirements in waste hauler contracts for enhanced reporting/ tracking of solid waste and recycling.	Policy	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.	Environment & Sustainability	Republic Services, Purchasing, County Manager's Office	1-3 Years	\$	LOW	LOW
SWM-7 Continue to incorporate sustainable materials and waste management requirements into County project RFPs.	Procurement/ Finance	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.	Purchasing	Environment & Sustainability, Real Property Management, Public Works, All department leadership	3 Years or more	\$	LOW	LOW
SWM-8 Eliminate single-use plastics from all County facilities and events.	Procurement/ Finance	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.	Environment & Sustainability	Purchasing, Parks & Recreation, County Manager's Office, County Commission	1-3 Years	\$	LOW	LOW



IMPLEMENTATION MATRIX

SUSTAINABLE TRANSPORTATION

Cost: **\$=** up to 100K **\$\$=** 100K - 500K **\$\$\$=** 500K - 1M **\$\$\$\$**= 1M or more

Level of Effort to Implement:

Low: can be implemented with existing internal resources (existing budget/staff time)

Medium: requires additional staff time, training, or onetime newly contracted technical services High: will require new hire(s) (FTE or long-term contracted

services) and/or permanent change to job description(s)

Level of Benefit:

Low: received score of 0-2 in evaluation against guiding principles Medium: received score of 3-4 High: received score of 5-6

Assessment, (t/Finance, Research/ ent, Maintenance, n/Partnership			TIMEFRAME	ESTIMATED COST	LEVEL OF EFFORT TO IMPLEMENT	LEVEL OF BENEFIT
ACTION	ACTION TYPE	DESCRIPTION	LEAD DEPARTMENT	KEY PARTNERS	TIMEF	ESTIM	LEVEL TO IM	LEVEL
ST-1 Adopt policies and employ technology that allows for remote work/meetings, where practical and appropriate.	Policy	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.	Human Resources	Information Technology, Environment & Sustainability, County Manager's Office	1 Year or less	\$	LOW	MED
ST-2 Expand employee commuting programs that incentivize and encourage alternative commuting modes.	Education	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.	Human Resources	Administrative Services, Environment & Sustainability, Regional Transportation Commission of Southern Nevada	1 Year or less	\$	LOW	MED
ST-3 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.	Policy	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.	Finance	Environment & Sustainability, Public Works, Automotive Services, Vehicle Review Committee, County Commission, County Manager's Office, Purchasing	1-3 Years	\$	MED	MED
ST-4 Install electric vehicle charging infrastructure needed to support County staff vehicles.	Procurement/ Finance	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.	Real Property Management	Environment & Sustainability, Human Resources, NV Energy or applicable electricity co-op, Automotive Services, Finance	1-3 Years	\$\$	MED	MED

ACTION	ACTION TYPE	DESCRIPTION	LEAD	KEY PARTNERS	TIMEFRAME	ESTIMATED COST	LEVEL OF EFFORT TO IMPLEMENT	LEVEL OF BENEFI
ST-5 Support the development and implementation of Complete Streets policies, improvement projects, and innovative technologies.	Capital improvement	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.	Comprehensive Planning Department	Environment & Sustainability, Public Works, Real Property Management, Regional Transportation Commission of Southern Nevada, Southern Nevada Strong, Nevada Department of Transportation, Finance	3 Years or more	\$\$\$\$	HIGH	нідн
ST-6 Apply to become a Clean City through the Clean Cities Coalition.	Communication /Partnership	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.	Environment & Sustainability	Southern Nevada Regional Planning Coalition, City leadership	1 Year or less	\$	MED	HIGH
ST-7 Expand access of Assetworks M5 data to all County departments to track vehicle mileage and performance and train staff on efficiencies.	Education	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.	Finance/ Automotive Services	Environment & Sustainability, LB Technology Inc.	1-3 Years	\$	LOW	LOW
ST-8 Promote state and federal zero-emission vehicle rebate/incentive programs.	Communication /Partnership	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.	Environment & Sustainability	Government Affairs, Nevada Department of Conservation & Natural Resources	1-3 Years	\$	LOW	MED
ST-9 Provide secure bicycle parking at all County facilities and showering facilities for employees at main County facilities.	Capital improvement	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.	Real Property Management	Environment & Sustainability, Purchasing, Finance	1-3 Years	\$\$	LOW	MED
ST-10 Promote the RTC electric bike-share program for County staff for County business use.	Education	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.	Environment & Sustainability	Regional Transportation Commission of Southern Nevada	1 Year or less	\$	LOW	MED

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IMPLEMENTATION MATRIX

WATER CONSERVATION & PROTECTION

WCP = Water

Cost: **\$=** up to 100K **\$\$=** 100K - 500K **\$\$\$=** 500K - 1M **\$\$\$\$**= 1M or more

Level of Effort to Implement:

Low: can be implemented with existing internal resources (existing budget/staff time)

Medium: requires additional staff time, training, or onetime newly contracted technical services High: will require new hire(s) (FTE or long-term contracted services) and/or permanent change to job description(s)

Level of Benefit:

Low: received score of 0-2 in evaluation against guiding principles Medium: received score of 3-4 High: received score of 5-6

LEVEL OF BENEFIT

LOW

LOW

LOW

LEVEL OF EFFORT TO IMPLEMENT

LOW

MED

MED

Assessment, (city, Procurement Capital improveme n, Communication				RAME	ESTIMATED COST
ACTION		DESCRIPTION	LEAD DEPARTMENT	KEY PARTNERS	TIMEFRAME	ESTIM/
WCP-1 Continue to retrofit existing County facilities with water smart fixtures and technology.	Capital improvement	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.	Real Property Management	Environment & Sustainability, Southern Nevada Water Authority, Purchasing, Finance	1-3 Years	\$\$
WCP-2 Assess areas on County facilities where existing ornamental turf can be converted to xeriscaping.	Research/ Assessment	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 may remain to convert additional turf areas to xeriscaping. Since 2001, the County has been removing turf in nonessential areas. The County will assess and prioritize the removal of ornamental turf and replace these areas with xeriscaping.	Real Property Management	Southern Nevada Water Authority, Parks & Recreation, Environment & Sustainability, Finance, County Commission, Purchasing, Consultant	1 Year or less	\$\$
WCP-3 Reduce non-point source pollution at County facilities by ensuring the County is meeting National Pollutant Discharge Elimination System (NPDES) permit requirements.	Maintenance	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.	Real Property Management/ Public Works	Environment & Sustainability, Water Reclamation District	3 Years or more	\$

					TIMEFRAME	ESTIMATED COST	Level of effort to implement	Level of Benefi
ACTION	ACTION TYPE	DESCRIPTION	LEAD DEPARTMENT	KEY PARTNERS	TIME	ESTI	LEVEL TO IMP	LEVI
WCP-4 Promote SNWA's Joint Water Conservation Plan (2019).	Education	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.	Environment & Sustainability	Comprehensive Planning Department, Parks & Recreation, Real Property Management, Public Communications, Public Works	3 Years or more	\$	LOW	MED
WCP-5 Revise Title 30 during Transform Clark County to strengthen water conservation requirements during land use approval.	Policy	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.	Comprehensive Planning Department	Environment & Sustainability, County Manager's Office	1-3 Years	\$	MED	MED
WCP-6 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.	Education	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.	Real Property Management	Southern Nevada Water Authority, Environment & Sustainability	1-3 Years	\$\$	MED	MED
WCP-7 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.	Policy	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.	Real Property Management	Environment & Sustainability, Public Works, Parks & Recreation, County Manager's Office	1-3 Years	\$	MED	HIGH

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IMPLEMENTATION BLUEPRINTS

The following Implementation Blueprints contain details on next steps, timeframes, and technical and financial resources to support the implementation of select actions from each of the five Key Areas. The actions to be developed into blueprints were selected in coordination with key County stakeholders and department heads. These Implementation Blueprints and details are living documents; they are intended to lay the groundwork for the implementation of select actions. The County will continue to hold conversations with staff and implementing partners to determine the appropriate path forward.



ACTION

CRE-5 Establish an employee energy awareness and conservation program.

DESCRIPTION OF ACTION

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.

LEAD DEPARTMENT

Environment & Sustainability

OVERALL TIMEFRAME

MEDIUM

SHORT = Less than 1 year MEDIUM = 1 - 3 years LONG = 3 years or more

– Planning Considerations ——

	IMPLEMENTATION STEPS	TIMEFRAME	KEY PARTNERS
1	Develop a list of 3-5 conservation behaviors to target first, focusing on highest impact, lowest barrier, and widest applicability. Calculate environmental and cost impacts for these measures at an employee and County-wide level.	SHORT	 Sustainability Advisory Committee (to be established) Real Property Management (Energy Manager)
2	Create a program for educating and incentivizing employee and manager behavior change. Program should leverage the All-In Clark County brand and have visible executive support.	SHORT	 Real Property Management County Manager County Commission Public Communications Sustainability Advisory Committee
3	Create/acquire and implement mandatory energy management training for new employee orientation and for existing employees.	MEDIUM	 Human Resources Real Property Management Sustainability Advisory Committee
4	Develop a new list of target behaviors, incentives, and recognition for each program year.	MEDIUM	 Real Property Management Human Resources Sustainability Advisory Committee
5	Report annually on energy, emissions, and cost savings of employees' collective efforts.	SHORT	 Real Property Management (Energy Manager) Human Resources County Commission County Manager Sustainability Advisory Committee

FINANCIAL AND TECHNICAL RESOURCES

FINANCIAL

- Business Energy Services, NV Energy
- Incentives & No-Cost Offers, NV Energy

TECHNICAL

- How to Get Employees Engaged in Energy-Saving Practices, Constellation Energy
- Employee Engagement Case Studies, Better Buildings Solution Center
- <u>"Bring your Green To Work" Toolkit,</u> <u>ENERGYSTAR.gov</u>
- <u>Create your own energy efficiency</u> <u>competition, ENERGYSTAR.gov</u>

CONSIDERATIONS FOR COLLABORATION/ OVERCOMING BARRIERS

- Utilize or adapt the All-In Clark County brand and a recognizable slogan. Communicate clear expectations that conservation is part of the organizational culture and tie it to County's mission. Highlight areas where the conservation culture is already "business as usual" (e.g., 4-day workweek, water recycling).
- Co-create program features with employees.
- Customize target behaviors and incentives for specialized departments (e.g., a competition between crews and between stations in the Fire Department, an understanding of energy drain from computer equipment in police cars).
- Impact calculations should be translated into equivalencies that resonate with employees.
- Enable employees to submit workplace energy savings ideas. Dedicate a pool of funding to implement the best employee-generated recommendations.
- Incorporate best practices in employee engagement that break from the routine – scavenger hunts, unexpected rewards/prizes/ praise, and snacks can all encourage participation at a low cost.

MEASURING SUCCESS

OUTPUTS*	OUTCOMES*	
 List of target conservation behaviors, incentives, and recognition Energy management training program for employees 	 Reduced energy and fuel use – can be bottom-up based on participation reports or top-down based on normalized energy bills Increase in number of new and existing employees receiving energy management training Increase in number of employees participating in energy reduction programs 	

*An **output** describes what has been created through implementation of the action.

An outcome is the level of performance or achievement that occurred based on what was created.



CLEAN & RELIABLE ENERGY

ACTION

CRE-9 Pilot battery storage for critical County facilities.

DESCRIPTION OF ACTION

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. LEAD DEPARTMENTCReal Property1ManagementL

OVERALL TIMEFRAME

Long

SHORT = Less than 1 year MEDIUM = 1 - 3 years LONG = 3 years or more

Planning Considerations —

IMPLEMENTATION STEPS	TIMEFRAME	KEY PARTNERS
1 Create an evaluation matrix and assess potential pilot facilities.	SHORT	 Office of Emergency Management NV Energy or applicable co-op
2 Identify (and if necessary, isolate) critical energy loads in buildings selected for pilot.	SHORT	 Office of Emergency Management
Apply for funding/financing/budget appropriation. Consider expected savings and revenue to calculate project life cycle cost.	MEDIUM	 Administrative Services Finance NV Energy or applicable co-op
Procure, install, and interconnect projects.	MEDIUM	 Real Property Management NV Energy or applicable co-op Pilot department Consultant
5 Track and report pilot project grid utility savings, energy generation, hours of operation, costs and revenues.	MEDIUM	 Office of Emergency Management

FINANCIAL AND TECHNICAL RESOURCES

FINANCIAL

- Building Resilient Infrastructure & Communities (2021), Federal Energy Management Agency
- <u>Revolving Loans for Renewable Energy,</u> <u>Energy Efficiency, and Energy Conservation,</u> <u>NV Office of Energy</u>
- Performance Contract Audit Assistance
 Program, NV Office of Energy

TECHNICAL

- About Microgrids, Montgomery County MD
- <u>Kaiser Permanente Pioneers California's First</u> <u>Medical Center Microgrid, Better Buildings</u>
- SolarResilient: A Sizing Tool for Solar PV and Battery storage systems, San Francisco Department of the Environment
- Solar+Storage For Resiliency, San Francisco
 Department of the Environment
- <u>Financing Microgrids in the Federal Sector (2020),</u> US Department of Energy
- <u>Trio of Solar Project Approvals Brings Nevada Utility</u> <u>NV Energy up to 1,000 MW Storage Target, Energy</u> <u>Storage News</u>

CONSIDERATIONS FOR COLLABORATION/ OVERCOMING BARRIERS

- In evaluation matrix (developed in step 1), identify locations that are critical facilities, prone to power outages, due for generator replacement or increase in backup capacity, can safely isolate batteries from the public, already have renewable energy at the location, or already have critical loads isolated.
- Consider at least one large and one small facility.
- Contact NV Energy or electrical co-op about partnering on a pilot project.
- Pursue collaboration with partners like the Public Utilities Commission, NV Office of Energy, University of Nevada – Las Vegas, and Clark County Career and Technical Education program.
- To maximize cost savings, work with electric utilities early to identify incentives, demand management/load interruption programs, and specialty tariffs.
- Ensure appropriate individuals are trained in operation of the solar plus storage/microgrid and identify individuals empowered to make demand response decisions on behalf of a facility.

MEASURING SUCCESS

OUTPUTS*	OUTCOMES*
Solar plus storage pilot projects	 Reduced operational downtime at pilot facilities Reduced emissions from energy use at pilot facilities

*An **output** describes what has been created through implementation of the action.

An outcome is the level of performance or achievement that occurred based on what was created.



RESILIENT COUNTY OPERATIONS

ACTION

RCO-1 Conduct a climate vulnerability assessment of all County critical assets and operational functions.

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DESCRIPTION OF ACTION

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. LEAD DEPARTMENT

OVERALL TIMEFRAME

Office of Emergency Management

Medium

SHORT = Less than 1 year MEDIUM = 1 - 3 years LONG = 3 years or more

Planning Considerations —

	IMPLEMENTATION STEPS	TIMEFRAME	KEY PARTNERS
1	Based on past County and State reports, update the inventory and maps of the County's critical assets. Use a County-wide agreed upon definition of "critical assets" that includes key natural resources, facilities, utilities, and other infrastructure that is critical to maintaining County operations and services.	SHORT	 Geographic Info Systems Nevada Resilience Advisory Committee Consultant
2	Document any known strengths and weaknesses of the assets that affect their resilience (e.g. aging infrastructure, water sources frequently affected by drought) through conversations with key stakeholders.	SHORT	Fire Police Police Parks & Recreation Risk Management Environment & Suthern Nevada Real Property Management Environment & Suthern Nevada Water Authority Sustainability Utility providers Consultant
3	Pulling from the most up-to-date climate data, assess—and map as possible—the current and projected climate hazards that will affect the County.	SHORT	 Environment & Sustainability Regional Flood Control District Nevada Resilience Advisory Committee Consultant
4	Develop and apply evaluation criteria to all County assets based on the state of repair, the level of climate vulnerability (using an assessment of exposure, sensitivity, and adaptive capacity), and the criticality of the asset and its functions.	SHORT	 Environment & Sustainability Fire Risk Management Consultant
5	Based on the evaluation, develop a ranked list of assets and operational functions in need of enhanced resilience (including timeframe).	SHORT	 Geographic Info Systems Consultant
6	Develop recommendations for prioritized upgrades, contingency operational procedures, and other enhancements needed prior to an emergency event and to prepare for long-term resilience.	SHORT	 Fire Police Risk Management Comprehensive Planning Departmen Consultant

FINANCIAL AND TECHNICAL RESOURCES

FINANCIAL

- Federal CARES Act funding
- Public assistance grants, FEMA
- <u>Assistance to Firefighters Grant Program, FEMA</u>

TECHNICAL

- Nevada Climate Change Portal Nevada Climate Change
 Project
- <u>Climate Maps & Data, NOAA</u>
- <u>Climate & Disaster Risk Screening Tools, the World</u>
 <u>Bank</u>
- <u>State of Nevada Climate Initiative</u>
- State Preparedness Report, State of Nevada
- <u>Threat and Hazard Identification and Risk Assessment</u> (2017), State of Nevada
- Determinants of Risk: Exposure and Vulnerability, IPCC
- Hazard Mitigation Plan (2018), Clark County

CONSIDERATIONS FOR COLLABORATION/ OVERCOMING BARRIERS

- Translate climate change projections into concrete implications for each department's responsibilities.
- Lean on other relevant departments to overcome small staff size.
- Host an interactive session with all affected departments to collectively brainstorm strengths and vulnerabilities of existing assets.
- Bring utility providers into the conversation early in the process.
- Design the evaluation criteria to accommodate a wide range of assets and operational functions.

MEASURING SUCCESS

OUTPUTS*	OUTCOMES*		
 Inventory of assets and operational functions with associated climate vulnerabilities 	 Decrease in the number of County assets vulnerable to climate risks Increase in the dollar value of resilience investments (compared to the dollar value of property loss risk) Increase in the number of operational functions taking climate change projections into account 		

*An **output** describes what has been created through implementation of the action.

An outcome is the level of performance or achievement that occurred based on what was created.



RESILIENT COUNTY OPERATIONS

ACTION

RCO-2 Assess existing County operations emergency management plans for increased hazards associated with climate change.

DESCRIPTION OF ACTION

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. LEAD DEPARTMENT Office of Emergency Management

SHORT = Less than 1 year MEDIUM = 1 - 3 years LONG = 3 years or more

OVERALL TIMEFRAME

Short

— Planning	Considerations —
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IMPLEMENTATION STEPS	TIMEFRAME	KEY PARTNERS
Assemble an Emergency Management Review Task Force that brings together climate vulnerability and emergency management expertise.	SHORT	 Police Fire Public Works Risk Management Real Property Management Resilience Environment & Advisory Sustainability Comprehensive Planning Department Consultant
Using existing County plans and the forthcoming climate vulnerability assessment (see action RCO-1), work with the Emergency Management Review Task Force to identify gaps and opportunities in the County's emergency management procedures.	SHORT	 Emergency Management Review Task Force Consultant
3 Based on the review, make updates to emergency management plans to incorporate projected climate risks.	SHORT	 Emergency Management Review Task Force Consultant
4 Host trainings for County employees and service providers on implementation of the updated emergency management plans.	SHORT	 Fire Public Works Administrative Services Utility providers

FINANCIAL AND TECHNICAL RESOURCES

TECHNICAL

- Hazard Mitigation Plan (2018), Clark County
- <u>Emergency Operations Plan (2019), Clark</u> County
- Clark County's forthcoming climate
 vulnerability assessment (Outcome of RCO-1)

CONSIDERATIONS FOR COLLABORATION/ OVERCOMING BARRIERS

- Offer a high-level overview of the climate vulnerability assessment to ensure a baseline understanding of the relevant climate impacts for all involved in the process.
- Consider projected impacts, in addition to current impacts.
- Lean on existing State and County reports to glean local climate impacts and projections.
- Share relevant resources and best practices with businesses and other organizations to promote strong community-wide emergency management.

MEASURING SUCCESS

OUTPUTS*	OUTCOMES*		
 Emergency management plans/ documents updated with climate risks Training materials for County employees 	 Decrease in the number of County assets vulnerable to climate risks Increase in the dollar value of resilience investments (compared to the dollar value of property loss) Decrease in the number of human casualties and injuries resulting from climate change related disasters (e.g., extreme weather/rain and heat events, prolonged drought) Increase in the number of County employees trained on the updated plans 		

*An **output** describes what has been created through implementation of the action.

An outcome is the level of performance or achievement that occurred based on what was created.



RESILIENT COUNTY OPERATIONS

ACTION

RCO-4 Adopt criteria for ensuring that all County capital projects are screened for resilience to climate change-related hazards.

DESCRIPTION OF ACTION

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. LEAD DEPARTMENT

SHORT = Less than 1 year

MEDIUM = 1 - 3 years **LONG =** 3 years or more

Real Property Management and Public Works OVERALL TIMEFRAME

Medium

— Planning Considerations ——

IMPLEMENTATION STEPS	TIMEFRAME	KEY PARTNERS
Research resilient design best practices for a range of project types that address both the current and projected climate hazards. Use the most up-to-date climate projections from the climate vulnerability assessment (see action RCO-1) as a guide.	SHORT	 Environment & Sustainability Buildings & Fire Prevention Information Technology Regional Flood Control District Consultant
2 Use the research to develop a concise, actionable resilient design toolkit to guide the development of County capital projects.	MEDIUM	 Risk Management Buildings & Fire Prevention Consultant
 Create a resiliency screening checklist that evaluates both the short-term and long-term resilience of capital projects based on the most recent climate data and resilient design research. 	SHORT	• Consultant
A Make the resiliency screening a required process during the estimation phase of all capital projects.	SHORT	 Administrative Services County Manager's Office
5 Host a training for County staff and developers on the resilient design toolkit and new screening protocol.	SHORT	Administrative ServicesConsultant

FINANCIAL AND TECHNICAL RESOURCES

TECHNICAL

- <u>RELi 2.0 Rating Guidelines for Resilient</u>
 <u>Design + Construction (2018), U.S. Green</u>
 <u>Building Council</u>
- <u>Resilient Design Performance Standard</u> for Infrastructure and Dependent Facilities (2016), Boulder County Collaborative
- Smart Growth Fixes for Climate Adaptation and Resilience (2017), EPA
- Development of a Climate Resilience
 Screening Index (CRSI): An Assessment of
 Resilience to Acute Meteorological Events
 and Selected Natural Hazards (2017), EPA

CONSIDERATIONS FOR COLLABORATION/ OVERCOMING BARRIERS

- Pursue this action in conjunction with developing a climate vulnerability assessment (RCO-1) to help connect the dots between climate change and capital projects.
- Present the long-term cost savings to contractors and County staff to achieve buy-in.
- Emphasize the importance of acting early in the design process for maximum benefits.

MEASURING SUCCESS

OUTPUTS*	OUTCOMES*		
Resilience checklists for County capital projects	 Decrease in the number of County assets vulnerable to climate risks Increase in the dollar value of resilience investments (compared to the dollar value of property loss) Increase in percent of County capital projects meeting resilience guidelines 		

*An output describes what has been created through implementation of the action.

An outcome is the level of performance or achievement that occurred based on what was created.



RESILIENT COUNTY OPERATIONS

ACTION

RCO-5 Assess number of cooling stations provided by Clark County and continue to ensure equitable distribution.

DESCRIPTION OF ACTION

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. Environment & Sustainability

LEAD DEPARTMENT

OVERALL TIMEFRAME

Medium

SHORT = Less than 1 year MEDIUM = 1 - 3 years LONG = 3 years or more

– Planning Considerations –––

	IMPLEMENTATION STEPS	TIMEFRAME	KEY PARTNERS
1	Inventory and assess capacity of the County's operational cooling centers.	SHORT	 Real Property Management Parks & Recreation Southern Nevada Health District Office of Emergency Management
2	Create a map that overlays the cooling centers with heat mapping and environmental justice populations (low income, minority, and non-English speakers) to identify disparities in access to cooling centers.	MEDIUM	 Geographic Info Systems Social Services
3	Using research about the types of buildings that are best suited for use as cooling centers, identify existing buildings that could operate as cooling centers, prioritizing areas that are especially vulnerable to extreme heat and with high concentrations of environmental justice populations.	SHORT	 Building & Fire Prevention Office of Emergency Management Real Property Management Parks & Recreation Public Works Clark County School District Senior centers Social Services
4	Ensure availability of required equipment and services at all cooling centers (i.e. generators, water).	SHORT	 Southern Nevada Health District Real Property Management Office of Emergency Management Finance
5	Develop a plan to operationalize additional cooling centers, as needed, and streamline communication and notification system for opening cooling centers on days with extreme heat.	SHORT	 Southern Nevada Health District Parks & Recreation Real Property Management Office of Emergency Management Social Services Public Communications Public Information Officer Finance
TECHNICAL

- Measuring Heat Islands, EPA
- <u>The Use of Cooling Centers to Prevent Heat</u> <u>Related Illness: Summary of Evidence and</u> <u>Strategies for Implementation, Center for</u> <u>Disease Control</u>

CONSIDERATIONS FOR COLLABORATION/ OVERCOMING BARRIERS

- Partner with community organizations and programs that are also operating cooling centers, such as cities, Salvation Army of Las Vegas, Catholic Charities, and places of worship.
- Target outreach to those most vulnerable to the heat (e.g. seniors, low-income populations) to ensure equitable access.
- Consider additional services that cooling centers could provide, such as vaccination sites, information fairs for community organizations, etc.
- Develop site-specific contingency plans for operation during public health crises or other emergencies.
- Track visitors to cooling centers to better understand demand.
- Consider the availability of each site based on its other uses (i.e. classes, programs, events).

MEASURING SUCCESS

OUTPUTS*	OUTCOMES*	
 List of cooling stations with capacity, hours of operation, etc. 	 Decrease in the number of heat-related illnesses Decrease in residents' average distance to the nearest cooling center Increase in the number of residents served by County cooling centers 	

*An **output** describes what has been created through implementation of the action.



SMART WASTE MANAGEMENT & REDUCTION

ACTION

SWM-1 Conduct an audit of County waste processes from contracting through to disposal and of the County's operational waste stream.

DESCRIPTION OF ACTION LEAD DEPARTMENT **OVERALL** TIMEFRAME In order to identify gaps and opportunities for waste reduction and Environment & diversion, the County needs to assess the current logistical flow of Sustainability Medium 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 SHORT = Less than 1 year a recycling audit in order to characterize and benchmark diversion MEDIUM = 1 - 3 years LONG = 3 years or more rates and further inform programming needs. The County should consider detailing this information at the department level. Planning Considerations — **IMPLEMENTATION STEPS** TIMEFRAME **KEY PARTNERS** Public Works Select a consultant to lead the waste audit. SHORT **Republic Services** Real Property Management With input of key departments, leaders, and partners, inventory Consultant 2 SHORT all facilities, vendors, and haulers used by the County for waste All departments management. Public Works Confirm the scope of the desired waste audit (departments, Real Property Management 3 facilities, buildings) and intervention point opportunities SHORT Parks & Recreation (upstream/downstream; front/back-of-house). Building & Fire Prevention Complete waste audit. MEDIUM Consultant Public Works Analyze results of waste audit and develop recommendations 5 MEDIUM Real Property Management for key waste reduction and diversion interventions. Consultant

TECHNICAL

- Best Practices for Conducting a Waste Assessment, US EPA
- <u>Conducting a Waste Audit, Keep</u>
 <u>America Beautiful</u>

CONSIDERATIONS FOR COLLABORATION/ OVERCOMING BARRIERS

- Clarify intended outcomes with audit team leads (e.g., does the team want to understand the specific areas of opportunity at key facilities? Of key waste streams?).
- Anticipate components of future County waste data tracking system when designing the audit.
- Consult neighboring Counties or businesses (e.g., large resorts) for waste audit best practices.

MEASURING SUCCESS

OUTPUTS*	OUTCOMES*
 Inventory of waste processes, facilities, vendors, and haulers Waste stream characterization report List of recommendations for waste reduction and diversion opportunities 	 Decrease in total tons of waste generated by County operations annually Increase in percent of County operations waste diverted annually Increase in volume County generated waste collected through compost annually

*An **output** describes what has been created through implementation of the action.



SMART WASTE MANAGEMENT & REDUCTION

ACTION

SWM-4 Create a sustainable purchasing policy and requirements for County purchasing.

DESCRIPTION OF ACTION

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. Environment & Sustainability

LEAD DEPARTMENT

OVERALL TIMEFRAME

Long

SHORT = Less than 1 year MEDIUM = 1 - 3 years LONG = 3 years or more

Planning Considerations —

IMPLEMENTATION STEPS	TIMEFRAME	KEY PARTNERS
Conduct a survey of department leads and staff to understand how they select and use common products.	SHORT	 Purchasing Real Property Management Public Works Department leads
 Develop department-specific considerations to inform the selection and sustainable use of environmentally preferred products (e.g., life-cycle cost, recycled content, employee health/safety), based on department survey, best practices, and budgetary constraints. 	SHORT	 Purchasing County Manager's Office Administrative Services County Commission Real Property Management
 Pilot product-specific guidance/checklist on sustainable purchasing within a single County department. 	MEDIUM	PurchasingPublic WorksPilot department
 Expand the use of product-specific guidance across additional departments, as feasible, and build it into existing technical systems and purchase review processes. 	MEDIUM	 Purchasing Real Property Management Parks & Recreation
5 Conduct ongoing staff trainings in support of policy implementation across applicable departments.	MEDIUM	 Organizational Development Center Purchasing
6 Advocate at the state level for a statute that would support a County-wide sustainable purchasing policy.	LONG	Administrative ServicesCounty Commission

TECHNICAL

- <u>State and Local Government Environmentally</u> <u>Preferable Purchasing Programs and Policies</u> (2020), Institute for Local Self-Reliance
- <u>Advancing Green Purchasing in Local</u> <u>Governments (2017), Arizona State University</u> <u>Sustainable Purchasing Research Initiative</u>
- <u>Green Procurement Compilation, U.S. General</u> Services Administration, n.d.
- <u>THE BUCK STARTS HERE: Sustainable</u> <u>Procurement Playbook for Cities (2016), Urban</u> <u>Sustainability Directors Network & Responsible</u> <u>Purchasing Network</u>

CONSIDERATIONS FOR COLLABORATION/ OVERCOMING BARRIERS

- Model/pilot any requirements at a small scale prior to expanding to the County, being sensitive to state statutory limitations. Coordinate efforts with RFP action implementation pilot.
- Leverage County purchasing websites to implement the policy while supporting education about the benefits of sustainable products (e.g., system could present purchaser with greener product alternatives, cost savings, and environmental benefits of product automatically)

MEASURING SUCCESS

OUTPUTS*	OUTCOMES*	
 Formal sustainable purchasing policy and requirements Guidance for staff regarding how to implement policy/requirements 	 Increase in percent of purchasing meeting sustainability guidelines Increase in number of green products purchased Reduction in carbon footprint of County purchasing 	

^{*}An **output** describes what has been created through implementation of the action.



SMART WASTE MANAGEMENT & REDUCTION

ACTION

SWM-7 Continue to incorporate sustainable materials and waste management requirements into County project RFPs.

DESCRIPTION OF ACTION

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.



– Planning Considerations —

IMPLEMENTATION STEPS	TIMEFRAME	
Survey County departments to understand current scoping practices with regard to sustainability.	SHORT	 Environment & Sustainability Real Property Management Public Works All department leadership
 Building on existing efforts, develop a list of scoping considerations—by department/program—through research of best practices (e.g., disposal methods, reuse requirements, efficiency specifications). 	SHORT	 Environment & Sustainability Public Works All department leadership
 Develop and pilot service- or program-specific guidance for incorporating sustainable materials management into RFPs within one or two County departments. 	MEDIUM	 Environment & Sustainability Real Property Management Public Works
 Building on learnings from the pilot, formalize County-wide guidance in the form of a sustainability checklist or questionnaire for incorporation into scopes/specifications. This checklist could incorporate provisions beyond waste. 	SHORT	 Environment & Sustainability Public Works All department leadership
 Incorporate review of RFPs by the Sustainability Advisory Committee or Sustainability Program Administrator to ensure appropriate requirements are incorporated (or that RFP is in alignment with potential Sustainable Procurement Policy), prior to release. 	SHORT	Environment & Sustainability

TECHNICAL

- <u>Green Procurement Compilation, U.S.</u>
 <u>General Services Administration</u>
- <u>THE BUCK STARTS HERE: Sustainable</u> <u>Procurement Playbook for Cities (2016),</u> <u>Urban Sustainability Directors Network</u> <u>& Responsible Purchasing Network</u>
- <u>Supplier Sustainability Questionnaire,</u> <u>Arizona State University (to be</u> <u>completed and returned with proposals)</u>

CONSIDERATIONS FOR COLLABORATION/ OVERCOMING BARRIERS

- Model/pilot any requirements at a small scale prior to expanding to the County, being sensitive to state statutory limitations for the bidding process.
- Develop trainings for prospective contractors/ consultants to communicate intent and requirements for the bidding process.
- Collaborate with industry suppliers to avoid requirements that overly burden businesses and longstanding relationships; ensure adequate time and resources to address this challenge.

MEASURING SUCCESS

OUTPUTS*	OUTCOMES*
 Checklist containing department-specific guidance for scoping RFPs containing sustainable materials/ waste diversion provisions 	 Increase in percent of purchasing meeting sustainability guidelines Increase in percent of contracts containing sustainable materials/waste diversion requirements

^{*}An **output** describes what has been created through implementation of the action.

An outcome is the level of performance or achievement that occurred based on what was created.



SUSTAINABLE TRANSPORTATION

ACTION

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.



FINANCIAL

- Nevada Laws and Incentives, US
 Department of Energy
- Offerings: Electric Vehicle
 Purchasing Collaborative, Climate
 Mayors

TECHNICAL

- <u>Clean Cities Technical Assistance, US</u>
 <u>Department of Energy</u>
- Alternative Fuels Data Center, US
 Department of Energy
- <u>Resources: Electric Vehicle Purchasing</u> <u>Collaborative, Climate Mayors</u>
- <u>EV Fleet Deployment Strategies,</u> Alameda County et. al.

CONSIDERATIONS FOR COLLABORATION/ OVERCOMING BARRIERS

- Speak to key user groups about their needs and concerns (e.g., police, fire, auto mechanics, specialty vehicles for street or utility operations) during research and development of the policy.
- Emphasize how the user employee will benefit from upgrading a vehicle (vehicle comfort, upgraded cabin technology, faster acceleration, smaller fuel budget, less maintenance, etc).Utilize telematics and fuel data to analyze the success of this policy and other fleet initiatives.
- Have a key employee earn the <u>Sustainable Fleet</u> <u>Management Certificate</u> from the NAFA Fleet Management Association as soon as possible and have them play a key role in the development of the policy and ongoing assessment and reporting.
- Consider pursuing CALSTART <u>Sustainable Fleet</u>
 accreditation. The program sets objective standards to
 define what it means to be a sustainable fleet.
- Consider implementing driver training programs alongside new policy implementation.
- Seek example vehicle specification language from other jurisdictions, clean air agencies and non-profits, vendors, manufacturers, and industry associations.
- Provide public recognition and media opportunities to celebrate members of the Working Group and employees for supporting policy implementation.

MEASURING SUCCESS

OUTPUTS*	OUTCOMES*	
 Formal vehicle purchasing and replacement policy 	 Reduction in fuel use by County vehicles Increase in percentage of fleet meeting County alternative fuel definitions Increase in proportion of annual new vehicle purchases compliant with the policy 	

*An **output** describes what has been created through implementation of the action.



SUSTAINABLE TRANSPORTATION

ACTION

ST-4 Install electric vehicle charging infrastructure needed to support County staff vehicles.

Ξ

DESCRIPTION OF ACTION

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.



	IMPLEMENTATION STEPS	TIMEFRAME	KEY PARTNERS
1	Survey employees to identify need and prioritize locations for immediate or future installations.	SHORT	 Environment & Sustainability Human Resources
2	Design a workplace charging management plan and policy, considering needs for payment, parking enforcement and/or restricting access for EVs and non-EVs, allowable duration of use, etc.	SHORT	 NV Energy or applicable electricity co-op Automotive Services
3	Determine siting and electrical needs at selected locations, as well as software capabilities. Evaluate utility costs, rates, and rebates.	MEDIUM	 NV Energy or applicable electricity co-op Automotive Services
4	Seek capital funding or grant funding. Install stations.	MEDIUM	FinanceAutomotive Services
5	Launch employee engagement campaign and enroll EV drivers in EVSE access program.	MEDIUM	 Environment & Sustainability Automotive Services

FINANCIAL

- <u>EV Charging Station Incentives Program</u> Handbook (2020), NV Energy
- EV Custom Grant Program, NV Energy
- Nevada Laws and Incentives, US Department
 of Energy
- EV Charging Station Solutions, Climate Mayors

TECHNICAL

- Workplace Charging for Plug-In Electric Vehicles, US Department of Energy
- Workplace Charging at Federal Facilities, US
 Department of Energy
- <u>Clean Cities Technical Assistance, US Department</u>
 <u>of Energy</u>
- Alternative Fuels Data Center, US Department of Energy
- <u>Resources: Electric Vehicle Purchasing</u> Collaborative, Climate Mayors

CONSIDERATIONS FOR COLLABORATION/ OVERCOMING BARRIERS

- Review sample surveys and policies, siting guidance, and other resources that are readily available online.
- Contact utilities early about potential partnerships.
 Seek technical and financial support. Ask to submeter or separately meter EVSE where cost-savings, rebates, or special EV programs apply.
- Ensure new construction, renovation, electrical system upgrades, and parking lot updates include accommodations for future EVSE (i.e., ensuring appropriately-sized circuits, running conduit).
- Assign clear ownership of EVSE assets to one department to ensure proper maintenance, safety, and warranty coverage.
- EVSE purchases often have volume discounts. Purchases can be through a collaborative, or a request for bids or proposal based on Countyselected specifications.
- Installation can be performed in-house or by any licensed commercial electrician, and projects should be inspected for code compliance, safety, and workmanship.
- At County facilities with few employees, existing or new exterior 120V wall outlets may be adequate for near-term EV charging demand. Ports underutilized by the public could be repurposed for or shared with staff during business hours.

MEASURING SUCCESS

OUTPUTS*	OUTCOMES*
EV ports available for County staff use	 Increase in number of County staff reporting driving an EV Employee commute emissions reduced from baseline

*An **output** describes what has been created through implementation of the action.



SUSTAINABLE TRANSPORTATION

ACTION

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



FINANCIAL

 U.S. Department of Transportation BUILD Discretionary Grants

TECHNICAL

- <u>Complete Streets Policy (2017), Nevada</u>
 <u>Department of Transportation</u>
- <u>Complete Streets Design Guidelines for Livable</u> <u>Communities, (2013) Regional Transportation</u> <u>Commission of Southern Nevada</u>
- Policy for Complete Streets (2019), Regional Transportation Commission of Southern Nevada
- <u>National Complete Streets Coalition, Smart</u> <u>Growth America</u>
- <u>Complete Streets Policy Implementation</u> Resources, Smart Growth America
- <u>Guide for Maintaining Pedestrian Facilities</u> for Enhanced Safety, Federal Highway Administration

CONSIDERATIONS FOR COLLABORATION/ OVERCOMING BARRIERS

- Define clear classifications of areas in which Complete Streets design features are desired.
- Consider how to incorporate elements of Complete Street design even if the street will not technically be a Complete Street.
- Collaborate with developers to ensure continuity in Complete Streets planning across projects.
- Ensure compatibility of the County Complete Streets policy with those of the processes of individual Cities within the County's jurisdiction.
- Educate the public about proper use of new street features (i.e. bike lanes, cross walks).

MEASURING SUCCESS

OUTPUTS*	OUTCOMES*	
 Updated Complete Streets policies and review processes 	 Reduced vehicle miles traveled Reduced injuries/fatalities from vehicle-pedestrian/ vehicle-bicycle collisions Increased % of mode share from walking or biking 	

*An **output** describes what has been created through implementation of the action.



SUSTAINABLE TRANSPORTATION

ACTION

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

DESCRIPTION OF ACTION LEAD DEPARTMENT **OVERALL** TIMEFRAME Automotive Services has already been tracking metrics such as Finance/Automotive lifetime costs and fuel mileage to ensure optimal performance Services Medium 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 SHORT = Less than 1 year County is to provide departments with fleet reports in order MEDIUM = 1 - 3 years for each department to track and manage their own use and LONG = 3 years or more performance of the County's fleet, as well as train staff on the new GPS system to optimize efficient routing for travel. Planning Considerations -**IMPLEMENTATION STEPS** TIMEFRAME **KEY PARTNERS** Convene a group of staff to learn about the capabilities of SHORT AssetWorks M5 and champion the pilot of the AssetWorks M5 Environment & Sustainability roll-out across the Environment & Sustainability Department. Survey Environment & Sustainability Department management and supervisors to determine the range of useful outputs (e.g., SHORT Environment & Sustainability data/summary reports) to support job functions. Design and build user-friendly AssetWorks M5 data report 3 SHORT templates for staff to integrate into their day-to-day activities Environment & Sustainability and decision-making. Hold additional trainings on how to use AssetWorks M5 data Environment & Sustainability 4 MEDIUM and GPS system to support enhanced budgeting, routing, etc. LB Technology Inc. Based on training feedback, refine reports and introduce 5 SHORT Environment & Sustainability automated reporting functions for select staff. Assess outcomes of pilot program (including lessons learned, software capabilities, and intended use of program) in presentation MEDIUM 6 Environment & Sustainability or report for other County departments. Determine additional departments to phase into program.

TECHNICAL

AssetWorks and LB Technology support
 personnel and resources, as appropriate

CONSIDERATIONS FOR COLLABORATION/ OVERCOMING BARRIERS

- Consider and clearly communicate ways the use of AssetWorks M5 will actively benefit specific roles and departments prior to introducing program (to improve staff buy-in).
- Leverage AssetWorks resources and expertise as part of contract with AssetWorks.
- Ensure that data reports/templates are easy-to-use and automated to encourage staff to incorporate them into everyday processes and decision-making.

MEASURING SUCCESS

OUTPUTS*	OUTCOMES*
 Environment & Sustainability Department staff (re)trained to use AssetWorks M5 software, reports, and GPS system AssetWorks M5 reports Enhanced report templates to support job functions/staff needs 	 Decrease in gasoline/diesel-powered vehicle miles traveled by County vehicles

*An **output** describes what has been created through implementation of the action.



WATER CONSERVATION & PROTECTION

ACTION

WCP-2 Assess areas on County facilities where existing ornamental turf can be converted to xeriscaping.

DESCRIPTION OF ACTION

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 may remain to convert additional turf areas to xeriscaping. Since 2001, the County has been removing turf in nonessential areas. The County will assess and prioritize the removal of ornamental turf and replace these areas with xeriscaping. LEAD DEPARTMENT

Real Property Management

OVERALL TIMEFRAME

Short

SHORT = Less than 1 year **MEDIUM =** 1 - 3 years **LONG =** 3 years or more

Planning Considerations —

IMPLEMENTATION STEPS	TIMEFRAME	KEY PARTNERS
1 Evaluate properties to identify nonessential landscaped areas.	SHORT	 Environment & Sustainability Parks & Recreation Southern Nevada Water Authority County Commission Consultant
Assess level of priority of removal based on factors including water needs, size, replacement costs, etc.	SHORT	 Environment & Sustainability Parks & Recreation Southern Nevada Water Authority Consultant
3 Provide site plans for priority areas to be converted.	MEDIUM	 Environment & Sustainability Parks & Recreation Consultant
Create project estimates and submit Capital Funding Request to convert priority sites.	MEDIUM	Parks & RecreationFinance
5 Assemble design team to replace turf.	MEDIUM	 Purchasing Parks & Recreation County Commission Southern Nevada Water Authority

FINANCIAL

 Water Smart Landscapes, Southern Nevada Water Authority

TECHNICAL

- Water Smart Landscapes Rebate
 Resources, Southern Nevada Water
 Authority
- Local universities (e.g., University of Nevada Las Vegas Landscape Architecture Department)

CONSIDERATIONS FOR COLLABORATION/ OVERCOMING BARRIERS

• Work closely with the Southern Nevada Water Authority to understand challenges in largescale roll-outs of turf conversion.

MEASURING SUCCESS

OUTPUTS*	OUTCOMES*
Xeriscaped turf areas	 Decrease in total potable water consumption in County operations Increase in percent of ornamental turf converted to xeriscaping Reduction in non-functional turf

*An **output** describes what has been created through implementation of the action.

MOVING FORWARD

Lessons from this Implementation Plan will be key as the County launches the next phase of its sustainability and climate action work. That said, this Implementation Plan is not meant to represent a complete set of actions and implementation details. The County recognizes that the implementation of sustainability and resilience strategies is ongoing and may pursue additional actions or refine the existing list of actions to best achieve its goals.



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CLEAN & RELIABLE ENERGY

CRE-5: Establish an employee energy awareness and conservation program.

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- NV Energy. (n.d.). Incentives & No-Cost Offers. <u>https://www.nvenergy.com/save-with-powershift/business-energy-services/commercial-incentives</u>
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CRE-9: Pilot battery storage for critical County facilities.

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RESILIENT COUNTY OPERATIONS

RCO-1: Conduct a climate vulnerability assessment of all County critical assets and operational functions.

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- Federal Emergency Management Agency. (n.d.). Fire Management Assistance Grants. <u>https://www.fema.gov/</u>
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RCO-2: Assess existing County operations emergency management plans for increased hazards associated with climate change.

- Clark County Nevada. (2018, August). Clark County Multijurisdictional Hazard Mitigation Plan. <u>https://files.</u> <u>clarkcountynv.gov/clarknv/Fire/emergency%20management/2018%20Clark%20County%20HMP_May2019.</u> pdf??t=1598331625648&t=1611874832842&?t=1598331625648&t=1611874832842
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RCO-4: Adopt criteria for ensuring that all County capital projects are screened for resiliency to climate change-related hazards.

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RCO-5: Expand number of cooling stations provided by Clark County and ensure equitable distribution.

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SMART WASTE MANAGEMENT & REDUCTION

SWM-1: Conduct an audit of County waste processes from contracting through to disposal and of the County's operational waste stream.

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SWM-4: Create a sustainable purchasing policy and requirements for County purchasing.

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SWM-7: Incorporate sustainable materials and waste management requirements into County project RFPs.

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SUSTAINABLE TRANSPORTATION

ST-3: Establish a formal vehicle purchasing and replacement policy that considers right-sizing of vehicle, life-cycle costs and benefits, and shifts the County fleet to low-/zero-emission vehicles.

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ST-5: Support the development and implementation of Complete Streets policies, improvement projects, and innovative technologies.

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WATER CONSERVATION & PROTECTION

WCP-2: Assess areas on County facilities where existing ornamental turf can be converted to xeriscaping.

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