

NEVADA'S CLIMATE INNOVATION PLAN

GOVERNOR

Joe Lombardo



MISSION

THE NEVADA'S CLIMATE INNOVATION PLAN SEEKS TO MITIGATE THE EVER-CHANGING PATTERNS OF THE ENVIRONMENT WHILE ALSO CONSIDERING ECONOMIC REALITIES AND NATIONAL SECURITY. WE NEED TO RESPONSIBLY CARE FOR OUR STATE TO SECURE ITS PROSPERITY FOR GENERATIONS TO COME, WHILE ALSO ENSURING DEPENDABLE ENERGY FOR NEVADANS. MANY OF NEVADA'S MAJOR INDUSTRIES, LIKE HEALTHCARE, MANUFACTURING, GAMING, DATACENTERS, MINING, AND CRITICAL INFRASTRUCTURE ARE RELIANT ON CONSISTENT, RELIABLE ENERGY SOURCES. ENERGY BLACKOUTS ARE DANGEROUS FOR NEVADANS, ESPECIALLY THOSE WHO ARE DEPENDENT ON ELECTRICITY FOR INTENSIVE CARE UNITS, DIALYSIS, AIR CONDITIONING, HEATING, AND ELEVATORS. ADDRESSING NEVADA'S ENVIRONMENTAL ISSUES LOCALLY WHILE SAFEGUARDING ROBUST ENERGY SOURCES TODAY WILL PAVE THE WAY FOR AN IMPROVED QUALITY OF LIFE BOTH NOW AND IN THE FUTURE. THE NEVADA CLIMATE INNOVATION PLAN EMPHASIZES THE IMPORTANCE OF A BALANCED APPROACH THAT BENEFITS ALL CITIZENS.



INDEX

1. COLLABORATION
2. MITIGATION AND MODERNIZATION
3. HARNESSING ECONOMIC AND EDUCATIONAL OPPORTUNITIES
4. REGULATORY REFORM
5. COMMUNITY ENGAGEMENT
6. AGRICULTURE INNOVATION
7. RANGELAND MANAGEMENT
8. TELLING NEVADA'S STORY
 - A. NEVADA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
 - B. GOVERNOR'S OFFICE OF ENERGY
 - C. NEVADA DEPARTMENT OF WILDLIFE
 - D. COLORADO RIVER COMMISSION
 - E. NEVADA DEPARTMENT OF AGRICULTURE
 - F. NEVADA DIVISION OF TOURISM
 - G. NEVADA DEPARTMENT OF TRANSPORTATION
 - H. PUBLIC UTILITIES COMMISSION OF NEVADA
 - I. THE NEVADA DEPARTMENT OF TAXATION
 - J. THE DIVISION OF PUBLIC AND BEHAVIORAL HEALTH



Nevada's Climate Innovation Plan

1. Collaboration

Collaboration is critical between government, businesses, and communities. Since more than 80 percent of the state is federally controlled, collaboration with the federal government is imperative for energy and environmental resilience. As Nevada seeks to expand the Lithium Loop and critical mineral production, Nevada, as well as the United States, need close partnerships between all levels of government.

Recent federal actions have taken some critical mineral opportunities off the table. Critical mineral deposits discovered in Southern Nevada are greater than those found at the Mountain Pass rare earth mine in California. For a scale comparison, the California mine currently produces over 15 percent of the world's rare-earth minerals. Unfortunately, national monument designations and other federal government actions have locked off some of those assets in Nevada, depriving Nevadans of economic opportunities for business development and therefore upward mobility. The Federal Government must take critical mineral production and refinement more seriously. One cannot claim it is important to develop these assets while locking them off from development and making it impossible to refine them in the United States. This compels the U.S. to rely on countries that might not align ideologically for the production and/or refinement of these minerals, allowing them to control the process. This represents a matter of national security, economic development for Nevada, and an environmental concern. Nevada will continue to seek congressional support to deal with resilience efforts.

2.Mitigation and Modernization

Mitigation strategies that promote sustainable energy sources and energy efficiency measures are critical. This is not an all or nothing approach. Nevada can't persist with the mentality that everything must transition to sustainable energy overnight. Instead, we need to explore technologies that maintain energy reliability while also potentially decreasing emissions from current levels over a sensible timeframe. This will reduce emissions without reducing energy choices for the citizens of the State.

Nevada is working on diversifying its energy portfolio to ensure access to reliable, resilient, affordable clean energy for its residents and businesses. The Silver State must pursue a balanced, all-of-the-above approach to energy use and development by utilizing all available energy and storage resources. This approach includes natural gas, solar, geothermal, hydroelectric, wind, hydrogen, energy efficiency and energy storage projects.

Another aspect of mitigation is related to the reliability and security of the energy grid by the modernization of the state's energy infrastructure. Strengthening these transmission and distribution systems will help the state mitigate impacts of environmental concerns while also increasing reliability, resulting in cleaner and more consistent energy for Nevadans.

Governor Lombardo's [Executive Order 2023-007¹](#) (established Nevada's energy policy) encapsulates these principles. This approach will meet environmental objectives while keeping costs low for Nevadans. With the undeniable effects of inflation occurring across the nation, we must be mindful of cost.

3.Harnessing Economic and Educational Opportunities

Innovative free market solutions that grow the number of jobs in Nevada is a top priority for Governor Lombardo's Administration and is an important

¹ https://gov.nv.gov/Newsroom/ExecOrders/2023/Executive_Order_2023-007/

aspect of this energy plan. Nevada should promote the generation of high-paying employment opportunities for its residents across various sectors, including established industries like healthcare, gaming, manufacturing, and data centers, as well as in mining critical minerals like lithium, battery production, and battery recycling within the Silver State.

Amidst escalating energy expenses in Europe and the endeavor of U.S. corporations to disentangle from China, Nevada aims to position itself as an opportunity for relocating energy production back to the United States. Nevada boasts remarkable resources that significantly contribute to its economy. The State should not rely on other nations for essential materials, natural gas, or next-generation technologies such as enhanced geothermal, which are being piloted right here in Nevada.

Nevada contains many critical minerals that are crucial to energy production and are produced in a manner that promotes stewardship of the land.

According to the [U.S. Department of Interior²](#), no state does it better than Nevada. The number of initiatives for training a skilled workforce in resilient technologies is tremendous, and partnerships with targeted educational institutions and trade organizations focused in these areas will spur greater workforce development.

Nevada must incorporate and support research initiatives on clean, reliable energy production and encourage innovation in technological solutions. Universities big and small across the state have coursework included in their curriculum, in fields like agriculture, engineering, environmental science, and mining, to name just a few. Moreover, the state enjoys valuable partnerships, exemplified by the Desert Research Institute. Established in 1959 as a nonprofit research institution of the Nevada System of Higher Education, it currently operates campuses in both the North and South regions. Furthering these educational collaborations will help Nevada further resiliency efforts.

² <https://www.doi.gov/media/document/mriwg-report-final-508-pdf>

4.Regulatory Reform

Regulatory certainty for Nevadans is a must as it relates to promoting innovation and investment into sustainable technologies. Unfortunately, current federal energy permitting, and regulatory systems are unnecessarily burdensome, outdated, and lack transparency. Nevada’s Climate Innovation Plan will foster resilient market-based solutions that will move the state forward at a faster pace than ones that are driven by regulation and attract new industries. Governor Lombardo’s [Executive Order 2023-003](https://gov.nv.gov/Newsroom/ExecOrders/2023/Executive_Order_2023-003/)³ (temporary freeze on regulations) is paving the way for regulatory and permitting reform. This reform is intended to facilitate the use of our natural resources while ensuring their protection. [Executive Order 2023-008](https://gov.nv.gov/Newsroom/ExecOrders/2023/Executive_Order_2023-008/)⁴ (rescinded the regulatory freeze) and the state is diligently striving to implement the recommendations stemming from that process by repealing or improve burdensome and outdated regulations.

5.Community Engagement

Community engagement will enable Nevada to empower local communities and tribes to act on environmental resilience, giving them a voice in the process through stakeholder meetings already held as part of the Climate Pollution Reduction Grant (CPRG). The CPRG has a component that helps individual communities and tribes engage in the process. The Low Income and Disadvantaged Community (LIDAC) analysis will assist these communities in accessing the advantages of environmental resilience. Additionally, Washoe and Clark counties have their own air quality agencies and programs to address and monitor air quality issues. The engagement process typically includes public meetings, workshops, and forums designed to educate the community about the importance of pollution reduction. These events also serve as platforms for Nevadans to voice their concerns, offer suggestions, and participate in decision-making processes. The State strives to collaborate

³ https://gov.nv.gov/Newsroom/ExecOrders/2023/Executive_Order_2023-003/

⁴ https://gov.nv.gov/Newsroom/ExecOrders/2023/Executive_Order_2023-008/

with these local partners to keep constituents and industry partners involved in a meaningful way.

6.Agriculture Innovation

When it comes to resilience, Nevada's farmers and ranchers have been engaged in these efforts for decades. For instance, through practices like carbon farming, where agriculture facilitates the sequestration of carbon in the soil, land management allows the soil to absorb and retain more carbon. Conservation districts are working with the U.S. Department of Agriculture's Natural Resource Conservation Service on utilizing no-till technologies on private and public lands. Combined with rotational grazing and crop practices, carbon dioxide from the atmosphere is stored in the soil. The state is grateful for the private agriculture sector's work in this space and looks forward to their continued resilience strategies.

7.Rangeland Management

More than 80 percent of Nevada is public land, so proper rangeland management is crucial for supporting the State's economic interests, safeguarding communities from wildfire threat, and sustaining its wildlife populations. Proper rangeland management in Nevada prioritizes wildfire prevention, habitat restoration, responsible recreation, and economic benefits, ensuring public lands thrive for future generations.

Wildfire prevention strategies such as strategic grazing, controlled burns, and invasive species removal mitigate wildfire hazards, safeguarding communities, numerous economic pillars in Nevada, wildlife habitats, and recreational spaces.

Habitat restoration efforts, such as reseeding native plants and rehabilitating degraded areas, bolster biodiversity and foster resilient wildlife species.

Nevada's economy depends on effective rangeland management practices to sustain ranching, mining, and tourism industries, fostering economic expansion and employment opportunities while conserving the land.

Effective management requires collaboration among federal, state, local agencies, private landowners, and stakeholders. Stewardship is a shared responsibility and is essential for maintaining healthy and productive public lands.

8. Telling Nevada's Story

Nevada and its communities are consistently advancing clean energy innovation. However, it's imperative to communicate and raise public awareness about these initiatives to ensure that both residents of the Silver State and its visitors are informed. By keeping the public and industries engaged and informed, we can progress towards our objectives and encourage widespread participation in clean energy production and reliable innovation.

Here are some of the ways we are working to tell the Nevada Story:

Nevada Department of Conservation and Natural Resources

[Tahoe Regional Planning Agency⁵](#)

The Tahoe Regional Planning Agency (TRPA) was established in 1969 as the nation's first bi-state regional environmental planning agency. Its mission is to lead the cooperative effort to preserve, restore, and enhance the unique natural and human environment of the Lake Tahoe Region, while improving local communities, and people's interactions with our irreplaceable environment. One of their programs is [Climate Resilience⁶](#).

[Tahoe Fund⁷](#)

⁵ <https://www.trpa.gov/>

⁶ <https://www.trpa.gov/programs/climate-resilience/>

⁷ <https://www.tahoefund.org/news/tahoe-fund-welcomes-new-members-to-its-advisory-council/>

Deputy Director Dominique Etchegoyhen serves on the Tahoe Fund Advisory Council. The Tahoe Fund was founded in 2010 as a registered nonprofit in the States of Nevada and California. The Tahoe Fund aims to serve as a major source of private funding for environmental projects across the Lake Tahoe Basin, emphasizing forest health, lake clarity, sustainable recreation, transportation, and stewardship

[Nevada Division of Environmental Protection⁸](#)

The Nevada Division of Environmental Protection's (NDEP) mission is to preserve and enhance the environment of the State to protect public health, sustain healthy ecosystems, and contribute to a vibrant economy. Beyond the programs listed below NDEP's leadership serves on various entities that look at climate resiliency. Administrator Jennifer Carr serves on the Environmental Council of the States (ECOS), which works to improve the capability of state environmental agencies and their leaders to protect and improve human health and the environment of the United States. Administrator Carr and State Engineer Sullivan from the Nevada Division of Water Resources are also gubernatorial appointees to the Western States Water Council. The Council works in many areas of climate innovation for resiliency related to water quality protection of Nevada's precious water resources.

[Priority Climate Action Plan⁹](#)

NDEP received a grant from the U.S. Environmental Protection Agency's (EPA) Climate Pollution Reduction Grants (CPRG) program to develop plans to reduce Nevada's greenhouse gas (GHG) emissions. This Priority Climate Action Plan (PCAP) is the first of two plans that NDEP will develop with this funding. The primary objective is to identify near-term, high-priority, implementation-ready measures to reduce GHG emissions. These

⁸ <https://ndep.nv.gov/>

⁹ <https://ndep.nv.gov/air/climate-pollution-reduction-grant>

measures are designed to be eligible for CPRG Phase 2 funding and other grants.

[Air¹⁰](#)

NDEP is tasked with the stewardship of the natural resources of the State, including air quality. The quality of the air has effects on human health, plant and animal life, and the aesthetic beauty of Nevada. The Bureaus of Air Pollution Control and Air Quality Planning work to tackle the challenges of maintaining air quality in the growing state. The Air Bureaus implement permitting programs and long-term strategies to improve air quality. The Air Bureaus are also tasked with a program to help prevent chemical accidents at industrial facilities.

[Greenhouse Gas Emissions Inventory¹¹](#)

NDEP is also responsible for preparing and publishing the annual Nevada Statewide Greenhouse Gas Emissions Inventory and Projection. This report contains an updated inventory of GHG emissions in Nevada, and projected GHG emissions for the following 20 years. This report reflects the best and most complete datasets available at the time of the publication.

[Climate Pollution Reduction Grant¹²](#)

NDEP received funds through the U.S. EPA Climate Pollution Reduction Grant (CPRG) for the creation of a Priority Climate Action Plan (PCAP), by March 1, 2024, and a Comprehensive Climate Action Plan (CCAP) by July 1, 2025. The PCAP is instrumental for the State of Nevada to apply to the competitive project funding phase of the CPRG, which is \$4.6B nationwide. The application, submitted April 1, 2024, includes measures that, if awarded, will achieve near- and long-term emissions reduction

¹⁰ <https://ndep.nv.gov/air/climate-pollution-reduction-grant>

¹¹ <https://ndep.nv.gov/air/air-pollutants/greenhouse-gas-emissions>

¹² <https://ndep.nv.gov/air/climate-pollution-reduction-grant>

through permanent, readily deployable technology, incentives, education, technical support, and revolving loans.

Mobile Emissions Reduction Programs ([Clean Diesel Program¹³](#), [Clean Trucks and Buses Incentive Program¹⁴](#))

Emissions from on-road engines such as cars, trucks, and buses constitute one of the primary sources of air pollution and greenhouse gas emissions in Nevada, especially in the state's major population centers. NDEP's focus is to develop strategies and implement programs to control these sources of pollution, by incentivizing the replacement of old vehicles with newer, cleaner technology. NDEP implements the Nevada Clean Diesel Program, which aims to reduce diesel and GHG emissions from trucks and buses owned by public entities such as school districts, counties, and municipalities. Partially funded by the federal Diesel Emission Reduction Act, this program has focused in the most recent years on the replacement of old diesel vehicles with zero-emission technology. Collaborating with the Nevada Department of Transportation, NDEP is in the process of developing the Clean Trucks and Buses Incentive Program, as established by the Nevada Legislature in 2023 through Assembly Bill 184. When fully implemented, this program will fund rebates for the replacement of public and private medium- and heavy-duty vehicles.

[Clean Cars Nevada¹⁵](#)

Clean Cars Nevada regulations were filed with the Secretary of State on October 25, 2021. Manufacturers must adhere to the Low Emission Vehicle III standards and the Zero Emission Vehicle program for vehicle model year 2025.

¹³ <https://ndep.nv.gov/air/air-pollutants/clean-diesel-program>

¹⁴ <https://ndep.nv.gov/air/clean-trucks-and-buses-incentive-pgm>

¹⁵ <https://ndep.nv.gov/air/clean-cars-nevada>

[Volkswagen Settlement Funds¹⁶](#)

In 2017, Volkswagen reached a settlement with the U.S. Government and California following revelations that the company had designed their diesel-powered cars to cheat on smog tests, thereby violating the Clean Air Act. Nearly 6,000 Volkswagen diesel-powered cars in Nevada and more than 590,000 across the U.S. emitted nitrogen oxide (NOx) pollution over the legal limit – sometimes by as much as 40 times. Through the national settlement, Nevada is receiving \$24.8 million to fund projects that will offset the excess pollution emitted by Volkswagen across the state.

[Wood Stove Change-Out Program¹⁷](#)

NDEP in association with the University of Nevada, Reno (UNR) Business Environmental Program, has reopened the Carson City and Douglas County Wood Stove Change-Out Program. This voluntary campaign provides residents of Carson City and Douglas County with financial incentives to replace their old dirty-burning wood stoves with new, efficient, and cleaner-burning stoves. Rebate amounts of \$600 for a new wood burning stove, \$800 for a new pellet stove, and \$1200 for a new natural gas stove are available through participating Northern Nevada retailers for the purchase of new, EPA-certified wood, pellet, or gas stoves. Funding is limited. For more information see the UNR Business Environmental Program's Homeowner Information page.

[Land¹⁸](#)

¹⁶ <https://ndep.nv.gov/air/vw-settlement#:~:text=Through%20the%20national%20settlement%2C%20Nevada,the%20Diesel%20Emission%20Mitigation%20Fund>

¹⁷ <https://ndep.nv.gov/air/air-pollutants/wood-stove-change-out-program#:~:text=Rebate%20amounts%20of%20%24600%20for,%2C%20pellet%2C%20or%20gas%20stoves>

¹⁸ <https://ndep.nv.gov/land>

NDEP works to protect the land from contamination to provide Nevadans with a clean and healthy state. Nevada's mining and waste permitting programs minimize impacts to the environment. Where contamination is discovered, environmental cleanup programs provide the oversight and support services to conduct effective cleanup activities.

[Sustainable Materials Management¹⁹](#)

The Bureau of Sustainable Materials Management operates permitting and compliance programs to ensure the safe management of solid and hazardous waste. In addition, waste reduction, reuse, and recycling are promoted. Solid Materials Management encompasses the agency's hazardous and solid waste programs, as well as its recycling program.

[Partners for a Sustainable Nevada²⁰](#)

Home means a sustainable Nevada, where Nevadans can grow and prosper, while maintaining our natural resources for generations to come. Whether in the private or public sector, each Nevadan has a role to play with advancing sustainability in the Silver State. To do so, NDEP has brought together a diverse group of stakeholders to discuss sustainability issues, opportunities, and innovative solutions. The Partners for a Sustainable Nevada unites non-governmental organizations (NGOs) and government entities to enhance communication and collaboration, advocate for sustainability programs statewide, and steer stakeholders towards a shared vision. This involves reshaping Nevada's approach to sustainability for future generations by identifying and promoting opportunities to bolster and extend sustainability initiatives across the state.

¹⁹ <https://ndep.nv.gov/land/waste>

²⁰ <https://ndep.nv.gov/nevada-recycles/smm>

[Mining Regulation and Reclamation and the Abandoned Mine Lands Program²¹](#)

The Bureau of Mining Regulation and Reclamation (BMRR) is committed to safeguarding Nevada's waters from degradation caused by mining activities. Additionally, BMRR strives to restore lands disturbed by mining operations to safe and stable conditions, ensuring their suitability for productive post-mining land use. Some post-mining land uses can include renewable energy sites such as the Nature Conservancy's Mining the Sun Initiative. The Abandoned Mine Lands (AML) Program aims to address potential human health and ecological risks stemming from contamination linked to historical heavy metal mining operations, particularly those occurring before September 1, 1989.

[Thacker Pass Lithium Mine²²](#)

On February 25, 2022, NDEP issued air, water, and mining permits for the proposed Thacker Pass Lithium Mine Project. As part of the decision, no mining will be allowed below the water table. Approval for these permits comes after an extensive application review and revision process, as well as months of public engagement with the Orovada community and the Fort McDermitt Paiute and Shoshone Tribes. All three permits, which are required for Lithium Nevada to start construction and operate the mine, come after NDEP determined the project can operate in a way that protects public health and the environment.

[GIS Map Resources²³](#)

NDEP uses spatial data to support environmental analysis and decision making. This website provides public access to spatial data through web map applications and map services.

²¹ <https://ndep.nv.gov/land/abandoned-mine-lands>

²² <https://ndep.nv.gov/land/thacker-pass-project>

²³ <https://ndep.nv.gov/land/land-gis-map-resources>

[Tribal Liaison Program²⁴](#)

In 2003, discussions about establishing the Nevada Tribal Liaison Program were initiated by the Pyramid Lake Paiute Tribe, the EPA Region 9 Tribal Program and NDEP. The Tribal Liaison Program remains active, with NDEP staff engaging in collaborative efforts with the Liaison on topics spanning various environmental media and including discussions on climate innovation.

[Water²⁵](#)

Access to clean water is essential to human health and to Nevada's economy. The State of Nevada supports and implement measures to conserve this valuable resource and ensure clean lakes, streams, rivers, and drinking water is available to its inhabitants.

[Water Sector Infrastructure Financing](#)

Through its State Revolving Funds within the Clean Water and Drinking Water Programs, NDEP provides loans for drinking water and wastewater infrastructure projects, including projects that address drought mitigation. Storm water projects and projects aimed at mitigating flood impacts are also eligible for funding. Within the Clean Water Program of the State Revolving Funds, 10% is federally mandated for the "Green Project Reserve." This is used for projects such as energy audits, solar and wind installation, and wastewater reuse for drought mitigation.

[Rivers, Streams, and Lakes²⁶](#)

The Bureau of Water Quality Planning establishes, reviews and revises water quality standards for surface water, develops total maximum daily loads (TMDLs), manages the Non-Point Source Programs, issues Clean

²⁴ <https://ndep.nv.gov/land/tribal-liaison-program>

²⁵ <https://ndep.nv.gov/water>

²⁶ <https://ndep.nv.gov/water/rivers-streams-lakes>

Water Act Section 401 water quality certifications and conducts statewide monitoring of surface waters.

[Surface Water Quality - Watershed Vulnerability Assessment²⁷](#)

Over the coming year, NDEP will evaluate the climate vulnerability of Nevada's watersheds using federal EPA grant funds. Understanding which watersheds in Nevada are most vulnerable to stressors associated with climate change will help NDEP factor climate considerations into its water quality management program. This assessment will consider underserved communities that may be impacted by climate change.

[Surface Water Quality - Surface Water Temperature Monitoring²⁸](#)

Surface water temperature is an important indicator of climate change. NDEP measures the temperature of surface water bodies throughout Nevada and is in the process of increasing efforts to measure temperature continuously using sensors. Temperature data are used to characterize waters, identify trends over time, recognize emerging problems, determine effectiveness of water management programs, and help direct remediation efforts where they are most needed.

[Harmful Algal Bloom Strategic Response Plan Implementation](#)

NDEP has taken a leadership role in developing a statewide Strategic Response Plan (SRP) to safeguard the public from Harmful Algal Blooms (HABs) which are becoming more frequent and intense due to climate change. The SRP is implemented in collaboration with other State agencies including the Nevada Division of State Parks, Nevada Department of Health and Human Services, Office of State Epidemiology, and Nevada Department of Wildlife. NDEP is funding the development of a satellite-based remote sensing tool to better detect and respond to

²⁷ <https://ndep.nv.gov/water/source-water-protection/source-water-assessment/steps-in-assessing-vulnerability>

²⁸ <https://ndep.nv.gov/water/rivers-streams-lakes/water-quality-monitoring/water-quality-data-warehouse-viewer>

HABs and measure the potential toxicity of blooms. When threats to public health, pet health and wildlife health exist, Task Force agencies respond by issuing recreational advisories, posting signage, and public notifications.

Clarity and Climate Change Impact on Lake Tahoe

NDEP has a critical role in the effort to improve Lake Tahoe's water clarity and reduce sources of pollution the impact the lake. Among other activities, NDEP participated in a multiagency effort to develop a Climate Resilience Action Strategy that identifies actions and projects that agencies will implement to build resilience to the impacts of climate change at Lake Tahoe. NDEP funded two investigations relevant to Lake Tahoe Clarity. The Lake Tahoe Seasonal and Long-term Clarity Assessment bolstered previous research findings that climate change is impacting Lake Tahoe clarity. The Tahoe Stormwater Treatment BMPs in a Changing Climate project received funding from both NDEP and the Nevada Division of State Lands. Its objective is to provide insights into stormwater management in the Tahoe Basin amid anticipated changes in urban hydrology due to climate change. This involves utilizing climate change projections to identify potential shifts and to explore new treatment BMP options with improved pollutant removal capabilities suitable for cold weather environments.

[Drinking Water](#)²⁹

Safe drinking water is vital to the public health, welfare, and economy of Nevada. When an individual turns on a drinking water tap, it symbolizes one of the most intimate links between public trust and the government's responsibility to safeguard public health. Unlike many other day-to-day government activities, drinking water regulation has a direct effect on the well-being of every citizen.

²⁹ <https://ndep.nv.gov/water/drinking-water>

[PFAS in Nevada³⁰](#)

Per- and polyfluoroalkyl substances (PFAS) are a class of emerging contaminants made up of several thousand compounds. Emerging contaminants are pollutants that affect the quality of drinking water, surface water and other environmental media. The focus of PFAS work currently is oriented toward public health protection through safe drinking water. Solutions to address PFAS contamination in the environment may need pairing with climate innovation in order to ensure that the solution to one problem does not create a different one.

[Water Pollution Control³¹](#)

The Bureau of Water Pollution Control (BWPC) protects the waters of the State from the discharge of pollutants. The BWPC regulates all discharges to waters of the State through issuing permits and enforcing the State's water pollution control laws and regulations. In addition, Bureau staff provides technical assistance to dischargers. This program is a partner to NDEP infrastructure financing program in relationship to establishing or updating wastewater treatment to be more “green” and energy efficient.

[Water and Wastewater Operator Certificate Programs³²](#)

Water and Wastewater Operator Certification Programs protect public health and the environment through certified operators responsible for the operation of water treatment plants, water distribution systems, or wastewater treatment plants. The program provides testing, recording, program information services, ensures that comprehensive and ongoing training is given to Nevada's water and wastewater operator community. This is especially relevant in climate innovation in which efficient operation of water and wastewater utilities can directly correlate to

³⁰ <https://ndep.nv.gov/water/pfas-in-nevada>

³¹ <https://ndep.nv.gov/water/water-pollution-control>

³² <https://ndep.nv.gov/water/operator-certification>

reduction in energy usage, or the deployment of renewable energy technology.

Governor's Office of Energy

[Home Energy Retrofit Opportunities for Seniors \(HEROS\)³³](#)

The Governor's Office of Energy has partnered with Nevada Housing Division (NHD) to provide the Home Energy Retrofit Opportunities for Seniors (HEROS) program. The program assists with reducing energy costs for Nevada seniors by improving the energy efficiency of their home. The program is provided at no cost to income qualified seniors who own their own home. GOE created the HEROS program and provides funding to NHD to administer it through a network of non-profit service provider agencies throughout the state.

[Renewable Energy Tax Abatement \(RETA\) Program³⁴](#)

The Governor's Office of Energy (GOE) launched the Renewable Energy Tax Abatement (RETA) program in July 2009. The program awards partial sales and use tax and partial property-tax abatements to eligible renewable energy facilities. GOE staff reviews the abatement applications, conducts public hearings to determine eligibility and reviews annual compliance audits after abatements have been granted. Regulations for the program were adopted in 2010, and GOE has approved 63 tax abatement applications to date, including large scale solar PV, solar thermal, biomass, geothermal, and wind projects throughout the state.

NZero

The State of Nevada has contracted with NZero, an AI-powered data and decarbonization platform to automate collection of usage, cost and emissions data, and provide advanced analytical tools. NZero will help

³³ [https://energy.nv.gov/Programs/Home_Energy_Retrofit_Opportunities_for_Seniors_\(HEROS\)/](https://energy.nv.gov/Programs/Home_Energy_Retrofit_Opportunities_for_Seniors_(HEROS)/)

³⁴ <https://energy.nv.gov/reta/>

identify areas where the State can invest to make operations more efficient and enables data-driven decision making for cost and emissions reductions, strategic planning and capital investments. NZero allows state agencies to measure energy, water usage and Greenhouse Gas (GHG) emissions for state-owned buildings, and it provides insights and opportunities for energy efficiency and cost savings.

Nevada Department of Wildlife

[State Wildlife Action Plan \(SWAP\)³⁵](#)

The 2022 Nevada State Wildlife Action Plan (SWAP) is intended to be a comprehensive, statewide plan for conserving the state's wildlife and habitat resources and is designed to address the eight required elements to fulfill the State Wildlife Grant legislative requirements. Nevada Department of Wildlife (NDOW) staff as well as an external team of experts and agencies spent nearly two years comprehensively reviewing and updating the 2012 SWAP. Key components of this comprehensive revision include evaluating over 600 species as potential Species of Greatest Conservation Need (SGCN) and expanding on efforts to connect citizens to nature through nature tourism, citizen science, and education. The 2022 SWAP largely addresses climate change concerns through actions directed at habitats rather than species, although certain species accounts identify species-specific actions. New to the 2022 SWAP are select habitat climate change vulnerability assessments found in Chapter 4 and Appendix D.

Colorado River Commission

[Post 2026 Colorado River New Guideline Initiative³⁶](#)

The Bureau of Reclamation (Reclamation) is currently engaged in developing new operating guidelines for the Colorado River, slated to be

³⁵ <https://www.ndow.org/wp-content/uploads/2023/11/2022-SWAP-Full-Doc-FINAL-print.pdf>

³⁶ <https://www.govinfo.gov/content/pkg/FR-2023-10-20/pdf/2023-23127.pdf>

effective after 2026. A coalition of stakeholders from federal agencies, states, water users, tribes, non-governmental organizations, as well as others across the Colorado River Basin continue to convene, deliberate, and collaborate in pursuit of long-term consensus on post-2026 river operations. A draft Environmental Impact Statement (EIS) regarding post-2026 operations will be released by the end of 2024, with a final EIS expected at the end of 2025, culminating in the publication of a Record of Decision in early 2026. The objective of these forthcoming guidelines is to ensure the Colorado River's water resources remain robust and resilient in the face of ongoing drought challenges. The new guidelines will build upon, and eventually supersede the foundational measures established by the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead and the Colorado River Drought Contingency Plan, which expire at the end of 2026.² The Colorado River Commission (Commission) is actively participating as part of the Nevada delegation in these crucial negotiations, demonstrating the Commission's ongoing commitment to collaborative, adaptive management of Nevada's water resources for future generations.

[The Lower Colorado River Multi-Species Conservation Program \(LCR MSCP\)³⁷](#)

The Lower Colorado River Multi-Species Conservation Program (LCR MSCP) is a pioneering 50-year adaptive management initiative intended to harmonize the utilization of Colorado River resources with the conservation of native species and their habitats. By managing 18 conservation areas along the lower Colorado River, the program offers protection to 27 species, demonstrating a balanced approach to environmental stewardship. Its adaptive management framework enables

³⁷ <https://www.lcrmscp.gov/>

the program to make necessary adjustments in response to both anticipated and unanticipated environmental challenges. In conjunction with the post-2026 negotiations, the Commission, in collaboration with Reclamation, other basin states, and additional stakeholders, is dedicated to advancing the LCR MSCP. This commitment includes developing the requisite environmental compliance for endangered species to align with the forthcoming federal guideline actions set for implementation after 2026. This multi-year endeavor is anticipated to implement additional mitigation requirements, building upon those already delineated in the LCR MSCP Program documents. This further underscores the Commission's adaptive and forward-looking approach to resource management and species protection.

[The Colorado River Salinity Control Program³⁸](#)

The Colorado River Salinity Control Program is a program established under the Salinity Control Act which focuses on improving the water quality of the Colorado River. This program is dedicated to minimizing naturally occurring salinity concentrations in the Colorado River through on-farm and off farm irrigation improvements in the Upper Basin. Since its inception, the program has reduced the annual salt load in the Colorado River by more than 1.3 million tons.

[Glen Canyon Dam Adaptive Management Program³⁹](#)

The Glen Canyon Dam Adaptive Management Program serves as a vital advisory body to the Bureau of Reclamation. It provides guidance on the operations of the Glen Canyon Dam, with a focus on protecting and managing downstream resources, as well as on monitoring and research efforts. This program is instrumental in enhancing the natural and cultural values for which the Glen Canyon National Recreation Area and Grand

³⁸ <https://coloradoriversalinity.org/>

³⁹ <https://www.usbr.gov/>

Canyon National Park were established. Through the employment of an adaptive management strategy, the program is equipped to make informed adjustments in response to environmental changes to ensure the continued efficacy and relevance of its conservation efforts.

[Minute 323 Environmental Work Group⁴⁰](#)

A binational work group responsible for implementing Minute 323 under the Mexican Water Treaty collaborates through the International Water and Boundary Commission. Their joint efforts focus on devising and implementing mitigation measures along the Colorado River corridor in Mexico. In a significant commitment, both nations, along with non-governmental organizations, have dedicated resources, including funding and water, to bolster crucial conservation and mitigation initiatives. This collaborative approach highlights a mutual commitment to sustainable water management and environmental stewardship transcending borders.

[The Colorado River Climate and Hydrology Work Group⁴¹](#)

The Colorado River Climate and Hydrology Work Group is a multi-stakeholder collaborative effort to meet scientific and research needs to improve water resource management in the Colorado River Basin.

[Las Vegas Wash Coordination Committee⁴²](#)

Established in 1998, the Las Vegas Wash Coordination Committee (LVWCC) plays a pivotal role in tackling erosion and water quality challenges along the Las Vegas Wash. Through concerted efforts, the Committee has successfully installed twenty-one weirs, effectively mitigating large-scale erosion. Additionally, over 630 acres of habitat have been revitalized through revegetation projects. The Colorado River Commission is a key stakeholder, consistently contributing water

⁴⁰ <https://www.state.gov/wp-content/uploads/2019/02/17-927.1-Mexico-Boundary-Waters-Min-323.pdf>

⁴¹ <https://www.colorado.edu/resources/colorado-river-resources/CRBreport>

⁴² <https://www.lvwash.org/about-the-wash/who-we-are/index.html>

resources essential for construction and revegetation initiatives along the wash, underscoring its commitment to environmental restoration and sustainability.

Nevada Department of Agriculture

[Foundation Seed Program⁴³](#)

The Nevada Department of Agriculture (NDA) Foundation Seed Program supplies Nevada producers with complimentary native species seeds. This initiative seeks to minimize the risks associated with transitioning to native seed production and enhance the accessibility of locally adapted seeds for restoration and reclamation purposes. By utilizing these seeds, growers can conserve water, enhance soil health through the cultivation of deep-rooted perennials, and promote carbon sequestration. The seeds produced support post-fire restoration and reclamation endeavors, leading to improved soil health, heightened plant diversity, and reduced fire hazards. The transition from invasive species to native grasses benefits soil health, wildlife habitats, and carbon storage capabilities.

[NDA Drought Program⁴⁴](#)

The goal of NDA's Drought program is to foster the research and communication needed to best benefit our stakeholders and to connect producers with funding opportunities, and water conservation tools AND resources. NDA's staff is actively involved in the partnership led by the National Oceanic and Atmospheric Administration's (NOAA) National Integrated Drought Information Systems (NIDIS). NDA participates in the California-Nevada Drought Early Warning System (CA-NV DEWS) to foster networks improving drought early warning capacity and long-term drought resilience in Nevada. Working alongside researchers from the

⁴³ [https://agri.nv.gov/uploadedFiles/agrinvgov/Content/Plant/Seed_Certification/Foundation Seed Program Application.pdf](https://agri.nv.gov/uploadedFiles/agrinvgov/Content/Plant/Seed_Certification/Foundation_Seed_Program_Application.pdf)

⁴⁴ https://agri.nv.gov/uploadedFiles/agrinvgov/Content/Media/drought_flyer.pdf

Western Regional Climate Center situated at the Desert Research Institute, NDA aims to coordinate and integrate drought research efforts, leveraging current federal, tribal, state, and local partnerships.

Nevada Division of Tourism

[Recreation Responsibility Campaign⁴⁵](#)

Travel Nevada engages in an evergreen Recreate Responsibly campaign that advocates for stewardship of Nevada's natural resources.

[Leave No Trace⁴⁶](#)

Travel Nevada has a membership with the national organization Leave No Trace, extending to all of Nevada's State Parks, which provides resources and tools to advance minimum impact practices while visiting the outdoors.

Nevada Department of Transportation

[Transportation Emission Reduction Act⁴⁷](#)

The Transportation Emission Reduction Program was established in order to meet the requirement that each state, in consultation with Metropolitan Planning Organizations (MPO's), develop a Carbon Reduction Strategy as required by the Infrastructure Investment and Jobs Act (IIJA) also know as the Bipartisan Infrastructure Law (BIL) and in 23 U.S.C 175(d). The Nevada Department of Transportation (NDOT) has developed the program to identify strategies to reduce overall transportation emissions, not just carbon/GHG emissions and to build the tools and measures to evaluate emission reduction along with other goals of the transportation system. The program aims to strike a balance

⁴⁵ <https://travelnevada.com/recreate-responsibly/>

⁴⁶ <https://lnt.org/>

⁴⁷ [https://www.transportation.gov/sites/dot.gov/files/2024-04/Nevada CRS v2.pdf](https://www.transportation.gov/sites/dot.gov/files/2024-04/Nevada%20CRS%20v2.pdf)

between meeting federal requirements while reflecting Nevada specific circumstances for strategies and solutions.

[Carbon Reduction Program](#)⁴⁸

The Carbon Reduction Program is a federal funding program related to the Carbon Reduction Strategy mentioned above. Nevada is anticipated to receive approximately \$57M for transportation projects and programs that reduce carbon emissions from the transportation system. Sixty-five percent of the funding is sub-allocated by population, with the majority going to large urban areas through their MPOs. The remaining 35% is anticipated to be allocated for use throughout the state and has been dedicated to a Clean Buses and Trucks Program. This program, currently in development, is a partnership between NDOT and NDEP, designed to incentivize the adoption of Medium and Heavy Duty Zero Emission Vehicles.

[NDOT Greenhouse gas \(GHG\) Reduction Strategic Plan](#)

The NDOT GHG Reduction Strategic Plan, completed in February 2021, describes implementing 24 strategies to reduce GHG emissions in NDOT's operations, planning, construction, and maintenance of existing and future transportation systems. NDOT primarily impacts GHG emissions reduction through enhancing system efficiency and minimizing emissions related to construction, maintenance, and operations. Since the plan's completion, GHG emissions from NDOT operations have decreased by more than 17% between fiscal years 2019 (baseline) and 2023.

[NDOT Resiliency in Transportation Planning and Operations: Resiliency Study](#)

The NDOT Resiliency Study, completed in September 2023, is a collaborative study that aims to better understand and quantify the

⁴⁸ https://www.fhwa.dot.gov/bipartisan-infrastructure-law/crp_fact_sheet.cfm

vulnerability of NDOT's transportation systems to extreme weather impacts and other shock events. The study assesses three vulnerability sources: flooding, wildfire, and earthquakes. It identified 32 assets that would benefit from resiliency improvements based on the vulnerability rankings to specific or combinations of hazards. The study also provides recommendations to help NDOT incorporate resiliency strategies into long-term transportation planning to prepare for, adapt to, mitigate, and recover from these vulnerabilities.

[Nevada Alternative Fueling Infrastructure Plan \(National Electric Vehicle Infrastructure Program or NEVI\)⁴⁹](#)

The NDOT Alternative Fueling Infrastructure Plan or National Electric Vehicle Infrastructure Program (NEVI) began prior to the passage of the Bipartisan Infrastructure Law to identify and designate routes for all alternative fuels, including, but not limited to electric, hydrogen, and propane. With the passage of BIL, the program has been focused on electric charging to fulfil the NEVI program requirements. NDOT has created annual plans as required by the BIL to identify existing and proposed charging infrastructure along designated corridors, first focusing on interstates, then US routes.

Public Utilities Commission of Nevada

Annual Leak Detection Survey

Regulation requires a leak survey for all pipelines used to transport natural gas, liquefied petroleum gas, in its liquid or vapor form, or any mixture thereof, to conduct a leakage survey with leak detector equipment on any such intrastate pipeline at least once per calendar year, at intervals not exceeding 15 months.

⁴⁹ <https://www.dot.nv.gov/mobility/alternative-fueling-infrastructure-plan>

[Renewable Energy Portfolio Standard⁵⁰](#)

Nevada's Renewable Portfolio Standard (RPS) was first adopted by the Nevada Legislature in 1997 and has been modified nearly every legislative session since. The RPS sets the percentage of electricity sold each year by providers of electric service to Nevada customers that must come from renewable energy (biomass, geothermal energy, solar energy, waterpower, and wind) or [energy efficiency measures⁵¹](#).

[Renewable Energy Projects Approved and/or Permitted by the PUCN⁵²](#)

The Public Utilities Commission of Nevada (PUCN) approves Utility Environmental Protection Act (UEPA) permits for all privately-owned conventional (natural gas, oil, coal) utility facilities constructed in Nevada, even if the electricity generated by the facility will be exported out of state. The PUCN also approves the construction of renewable energy projects with an output greater than 70 megawatts, even if the energy is to be exported out of state, and transmission for renewable energy greater than 200 kilovolts. Additionally, the PUCN approves purchase power agreements (PPA) between NV Energy and conventional utility facilities and renewable energy projects. See the table⁵² for a comprehensive list of renewable energy projects with a PUCN-approved UEPA permit and/or PPA with NV Energy.

[Energy Efficiency Programs](#)

Electric utilities implement energy efficiency programs for retail customers that are reviewed and approved by the PUCN. Program cost effectiveness is a significant consideration in approving or modifying a program. Visit NV Energy's website for information on energy efficiency programs available to their customers. Visit this website for information

⁵⁰ https://puc.nv.gov/Renewable_Energy/Portfolio_Standard/

⁵¹ https://puc.nv.gov/Renewable_Energy/RPS/Energy_Efficiency/

⁵² https://puc.nv.gov/Renewable_Energy/ApprovedREFacilities/

on conservation and energy efficiency programs available to Southwest Gas's customers.

PIPES Act

The Pipeline Efficiency and Safety (PIPES) Act of 2020 focuses on reducing Greenhouse Gas emissions. The PUCN's Pipeline Safety Division completed this inspection and audit for all operators in Nevada and provided input to further reduce their greenhouse gas emissions.

[Water Conservation Plans](#)⁵³

The Nevada Division of Water Resources is the agency responsible for the management, conservation, and protection of the State's water resources through the appropriation and reallocation of public waters. As such, it is their responsibility to review and monitor the Water Conservation Plans (WCP) for water systems throughout the state. The PUCN authorizes WCPs for every public utility within its jurisdiction that provides, for a fee, water for municipal, industrial, or domestic use. Each plan is filed as a separate docket or included as part of an Integrated Resource Plan.

The Nevada Department of Taxation

Environmental Initiatives

The Nevada Department of Taxation is implementing a new document management program (electronic scanning, filing and storage). The Modernize Your Nevada Tax (MYNT) Project will include "opt in" opportunities for electronic correspondence and signatures between the Nevada Department of Taxation and taxpayers as part of the new tax system. These efforts have and will continue to significantly reduce environmental impacts through significant paper reduction, energy savings, streamlined research efforts, mailing efficiencies and other fiscal impacts.

⁵³ <https://water.nv.gov/WaterConservationPlans.aspx>

The Division of Public and Behavioral Health

[Environmental Health](#)⁵⁴

The Division of Public and Behavioral Health (DPBH) within the Nevada Department of Health and Human Services works to promote and protect the health of Nevadans and visitors to the state. Some of this work is implemented through environmental health protections as the health of individuals and communities is impacted by the air we breathe, water we drink and food we eat. The Environmental Health Section of DPBH has oversight of food and sewage programs including inspections of facilities, sewage disposal systems and food establishments to ensure health and safety. Additionally, the Office of State Epidemiology launched the One Health Nevada initiative to educate youth about diseases that are spread between animals and humans and how to maintain the health of both. The platform gives them tips, activities, and educational resources to help promote their health, their animal's health, and the health of the environment.

[The Radiation Control Program](#)⁵⁵

The Radiation Control Program (RCP) protects public health, safety, and the environment by regulating sources of ionizing radiation and providing general information concerning radiation sources. The RCP also licenses and provides oversight of the closed low-level radioactive waste disposal site near Beatty and conducts statewide radiological emergency response activities. Additionally, the program subgrants to the University of Nevada, Reno for statewide radon hazard awareness and public information activities. Radon is an odorless, tasteless, invisible radioactive gas that is naturally occurring in all rock and soil types. Radon is considered by the U.S. Environmental Protection Agency, the U.S.

⁵⁴ https://dpbh.nv.gov/Reg/Environmental_Health/

⁵⁵ https://dpbh.nv.gov/Reg/Radiation_Control_Programs/

Surgeon General, and the American Lung Association to be the second-leading cause of lung cancer in the United States. The subgrant funds [The University of Nevada, Reno Extension](#)⁵⁶ to provide public information and outreach regarding radon health effects, testing, and mitigation.

⁵⁶ <https://extension.unr.edu/radon/default.aspx>

