

WATER CONSERVATION

TOPICS/IDEAS THAT WERE DISCUSSED

Conservation opportunities for municipal, private and other water users:

- Water Conservation Plans
- Water metering for all commercial and residential uses
- Landscape development codes/turf limitations/watering restrictions
- Water efficiency standards for new development
- Golf course water budgets
- Conservation rate structures
- Wastewater/greywater reuse studies, in cases where resource use extends supply
- Stricter enforcement for water waste

Conservation opportunities for agricultural/livestock producers

- Water Conservation Plans (commercial producers)
- Irrigation efficiency (crop covers, irrigation improvements, crop selection, etc.)
- Water metering; stricter enforcement for water waste

SAMPLE RECOMMENDATIONS:

Require water conservation plans to includes the following provisions:

- Assigned day-of-week and time-of-day landscape watering restrictions that are reflective of regional differences in temperature and precipitation.
- Water waste definitions, enforcement mechanisms and penalties for non-compliance.
- Golf course water budgets to include maximum allowances per acre-foot of irrigable area and penalties for overuse.
- Water metering for all residential and commercial connections.
- Conservation-based water rate structures with increasing fees based on usage.
- Opportunity assessment and implementation plan for water reuse within service area.

Develop universal water efficiency standards in NRS for new residential and commercial development in Nevada including but not limited to maximum fixtures flow rates and landscape development codes for residential, commercial and recreational facilities.

Encourage development and use of water saving technology and/or best management practices by agricultural and livestock producers (including but not limited to crop covering, drip irrigation, variable rate irrigation, center pivot irrigation, laser leveling and crop selection).

Require the installation of water meters for all uses; monitor and report water usage to ensure resources are being utilized in accordance with permit terms.

- Enhance compliance of water pumping in accordance with permit terms; monitor and enforce penalties for overuse.

WATER LAW

TOPICS/IDEAS THAT WERE DISCUSSED

Assess issues/potential water law changes:

- Beneficial use (“use it or lose it”)
- Critical Management Areas and Groundwater Management Plans
- Junior/senior priority; upstream/downstream user impacts
- Adaptive management (including 3 M Plans)
- Outdoor water use curtailment during drought
- Conservation credits
- Place of use
- Supplemental water rights
- Temporary water rights
- Inter/intra basin transfers
- Flexibility during drought
- Clarifications
- Recharge/recovery
- Provisions for domestic users
- Conjunctive use
- Rules for protest
- Point of diversion

Work to restore balance in over appropriated basins

Use caution in establishing blanket policies to avoid unintended impacts

Take an incremental approach to Nevada water law changes to avoid dramatic shifts and consider pilot projects to evaluate potential impacts

SAMPLE RECOMMENDATIONS:

- Change the law to clarify and confirm the long-standing practice of the Nevada State Engineer to implement monitoring, mitigation and management plans (3M Plans).
- Explore possible changes to state and federal laws and/or other management measures that can help to expedite the recharge and recovery of impacted river, storage and groundwater systems during times of abundant precipitation and runoff.

OTHER LAWS / REGULATIONS

TOPICS/IDEAS THAT WERE DISCUSSED

Investigate new policies for:

- Wastewater/gray water reuse
- Water harvesting
- Water metering
- Water banking
- Home Owner Associations (HOA)
- Landscape development / turf limitations
- Watering restrictions
- Emergency statutes

Enhance enforcement of existing laws:

- Use of water rights
- Water for wildlife
- Water waste
- Penalties for overuse

SAMPLE RECOMMENDATIONS:

- Review and formulate proposed changes to Nevada Revised Statutes to include emergency provisions during declared shortages and/or severe drought to ensure availability of resources for basic needs.
 - Consider limitations for outdoor irrigation of residential/commercial landscapes, conservation curtailments, and limitations on other non-essential water uses during declared shortages
- Pass a law requiring water meters for all uses in Nevada.
- Change the law/regulations to expand local water reuse of wastewater.
- Strengthen penalties for HOAs that disregard state law regarding drought tolerant landscaping.

MONITORING AND RESEARCH DATA

TOPICS/IDEAS THAT WERE DISCUSSED

- Install/monitor additional meteorological stations (high/low level elevations)
- Schools and agricultural sites in more remote/rural areas could be willing to help expand the network of meteorological stations in the state
- Monitor, collect and share data:
 - Stream flow
 - Soil moisture
 - Reservoir levels
 - Vegetation
 - Groundwater levels
- Engage K-12 and higher education in monitoring programs and activities as an educational tool
- Investigate new research tools
 - Cloud computing
 - Place-based remote sensing
 - Enhanced monitoring networks/Indicator wells
- Enhance consistency and collection of data (common units) for analytical and comparative use

SAMPLE RECOMMENDATIONS:

- Establish a committee to assess monitoring recommendations, including cost identification and funding strategies, network gaps, prioritization of efforts and development of implementation strategies.
- Partner with other organizations to increase the number of weather stations installed throughout the state to enhance the accuracy of data reporting; include monitoring stations in both high and low level elevations.
- Identify opportunities to include the Nevada school system (including K-12 and higher education) in data monitoring and collection efforts to engage and inform students on statewide water resource and management issues.
- Partner with other organizations and/or implement new technologies to improve forecasting (including early drought warning systems and seasonal forecasting), monitoring and response efforts. Opportunities include cloud computing, place-based remote sensing and enhanced monitoring networks.
- Centralize monitoring data for ease of access by stakeholders and update regularly to enhance the availability of real-time data.
- Establish standards for the collection of data and reporting (including use of common units) to improve the consistency and usefulness of data used in decision-making processes.

FINANCIAL/TECHNICAL ASSISTANCE AND INCENTIVES

TOPICS/IDEAS THAT WERE DISCUSSED

- Identify funding and/or assistance for conservation/drought relief/resiliency:
 - Rebates
 - Incentives
 - Grants
 - AB 198 program enhancement
 - Public/private partnerships
 - Other funding
 - Identify funding and/or assistance
- Consider investment tax credit for implementation of new/water saving technologies
- Provide technical assistance to improve conservation/drought resiliency
- Address staffing needs for coordination and support of program implementation and monitoring
- Salt cedar removal rebates

SAMPLE RECOMMENDATIONS:

- Investigate and/or implement statewide incentive programs and funding resources to help offset costs associated with water conservation conversions, cloud seeding programs, desalination, reuse, as well as storage and banking programs to improve drought response and resiliency.
- Consider investment tax credit for implementation of water saving technologies and encourage water purveyors to offer conservation incentives/rebates.
- Pursue federal grants and other funding sources and/or secure staffing to provide technical assistance to improve conservation/drought resiliency in Nevada.
- Pursue partnerships to enhance coordination and effectiveness of Nevada drought response efforts; seek opportunities to leverage funding, technical expertise and information.
- Increase flexibility for state agencies to use funds/perform projects when conditions are optimal, not just as they fit within state fiscal years and budget cycles.

INFORMATION SHARING AND OUTREACH

TOPICS/IDEAS THAT WERE DISCUSSED

Conduct education and outreach to Federal partner to address key issues:

- Grazing restrictions/rangeland management decisions
- Management of wells, springs, seeps, etc. for livestock/wildlife (including vegetation encroachment)
- Information sources for decision-making (including VegDRI and USDM)

Collaborate with and engage K-12 and higher education

Conduct education/outreach to elected/appointed officials with decision-making authorities regarding:

- Interpretation/intent of Nevada Water Law
- Reminder that one year of good rain/snow doesn't mean the drought is over

Provide consistent messaging to all water users/resource managers

SAMPLE RECOMMENDATIONS:

- Work with federal partners to establish triggers for management actions to enhance predictability of operational needs for asset managers and allow for a more flexible response to evolving drought conditions.
- Identify and communicate high-level messages that should be delivered statewide to ensure consistency of messaging to all Nevada water users, management agencies and other interested parties regarding drought conditions and responses.
- Increase state staffing to handle coordination and public information, including outreach, education and financial assistance, data monitoring and technology transfer for water conservation and drought response.
- Provide information to elected and appointed officials, and other decision-makers on water resource and drought related issues; explain policies (including interpretation/intent of Nevada Water Law), goals and management efforts to create a more unified understanding of Nevada water issues.

INFRASTRUCTURE, SUPPLIES AND LONG RANGE PLANNING

TOPICS/IDEAS THAT WERE DISCUSSED

Assess supply/storage improvements:

- Storage (above/below ground)
- Cloud seeding
- Desalination
- Storm water collection
- Evaporative controls
- Reuse (policy and infrastructure)

Conduct long-range planning

- State water plan
- Local/regional water plans (with triggers; consider potential reductions to supply)
- Water assessments (availability, appropriations, etc.)

Establish growth limits

SAMPLE RECOMMENDATIONS:

- Make investments in new infrastructure, technology and resources to enhance Nevada's overall drought resiliency; investigate technical feasibility and cost for the development of new water storage facilities (including underground storage/artificial recharge) and/or retrofit of existing facilities.
- Partner with other organizations to study the feasibility, cost and implementation of new technologies, infrastructure and/or policy needs to decrease system evaporation on private or state controlled surface water sources, increase the productivity of storm events, use storm water for storage and/or recharge, and to augment existing water supplies.
- Require private, municipal and other water purveyors to develop local/regional water plans that consider long-term supply and demand projections.