

NEVADA DIVISION OF
WATER RESOURCES



Water Resource Management Challenges

Commission to Study the Adjudication of Water Law
Cases

April 16, 2021

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NEVADA DIVISION OF WATER RESOURCES

MISSION STATEMENT

To conserve, protect, manage and enhance the State's water resources for Nevada's citizens through the appropriation and reallocation of the public waters.



OVERVIEW OF THE DIVISION

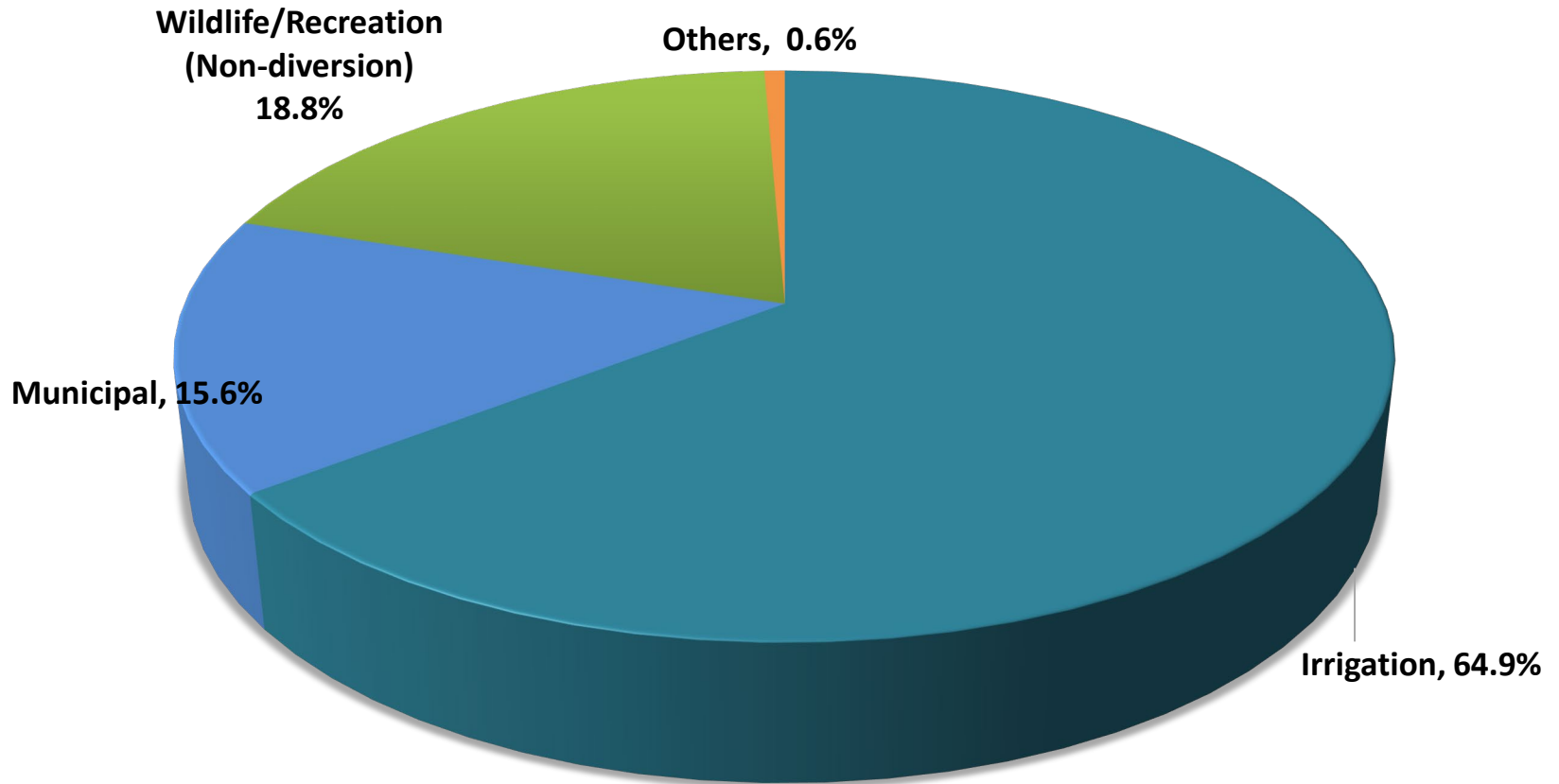
WHAT WE DO:

- Appropriate and manage use of Nevada's waters (except Colorado River)
- Adjudicate pre-statutory and federal reserved water right claims
- Manage distribution and regulation of state decreed water rights
- Update state water plan and drought response plan
- Regulate well drilling, licensing of drillers
- Administer Nevada's dam safety and floodplain management programs
- Regulate aquifer storage and recovery; effluent reuse
- Compile water level and water use data statewide
- Review subdivision plans; water conservation plans



OVERVIEW OF STATEWIDE WATER USE

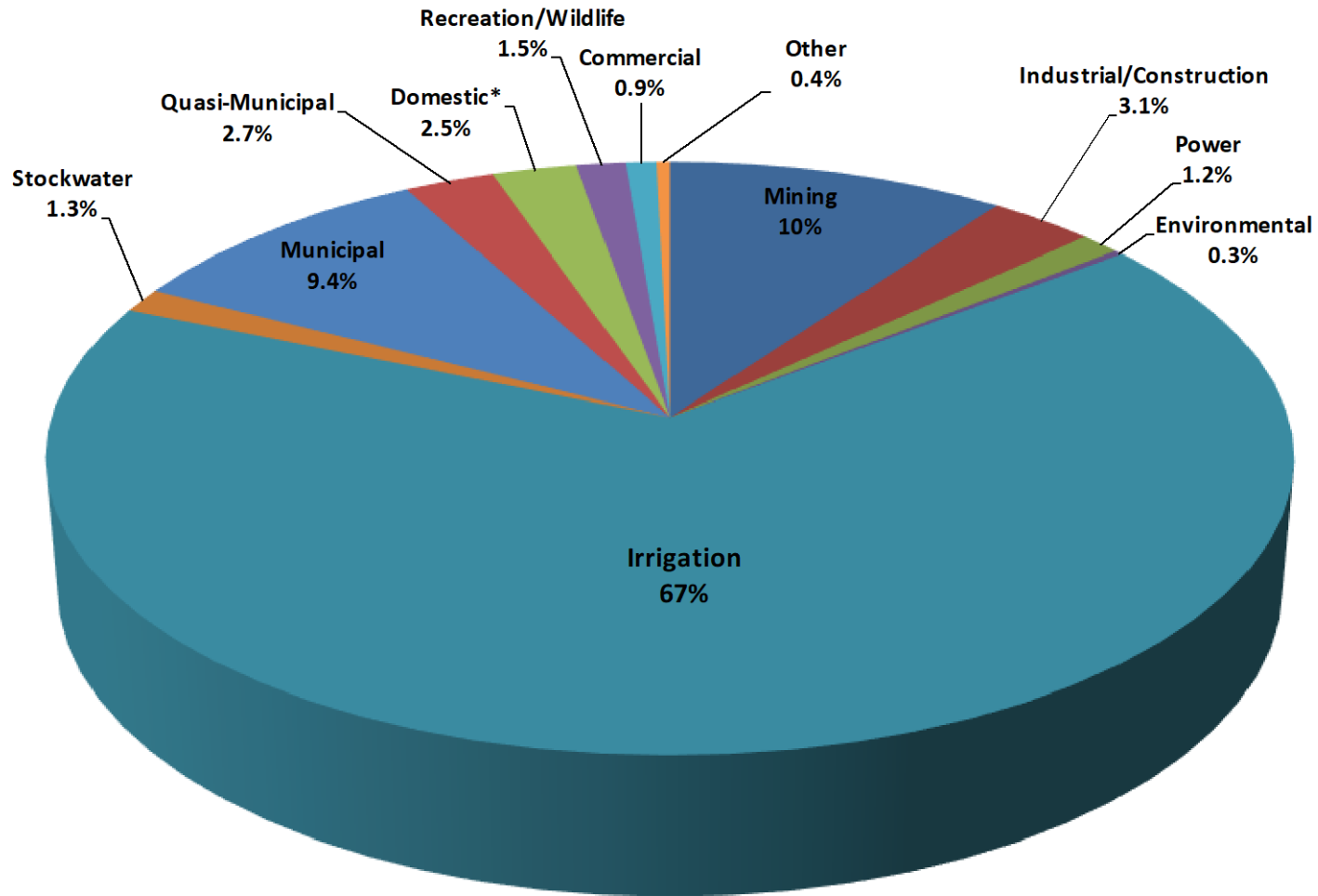
SURFACE WATER USE



Average annual surface water usage is approximately 4-5 million acre-feet annually

OVERVIEW OF STATEWIDE WATER USE

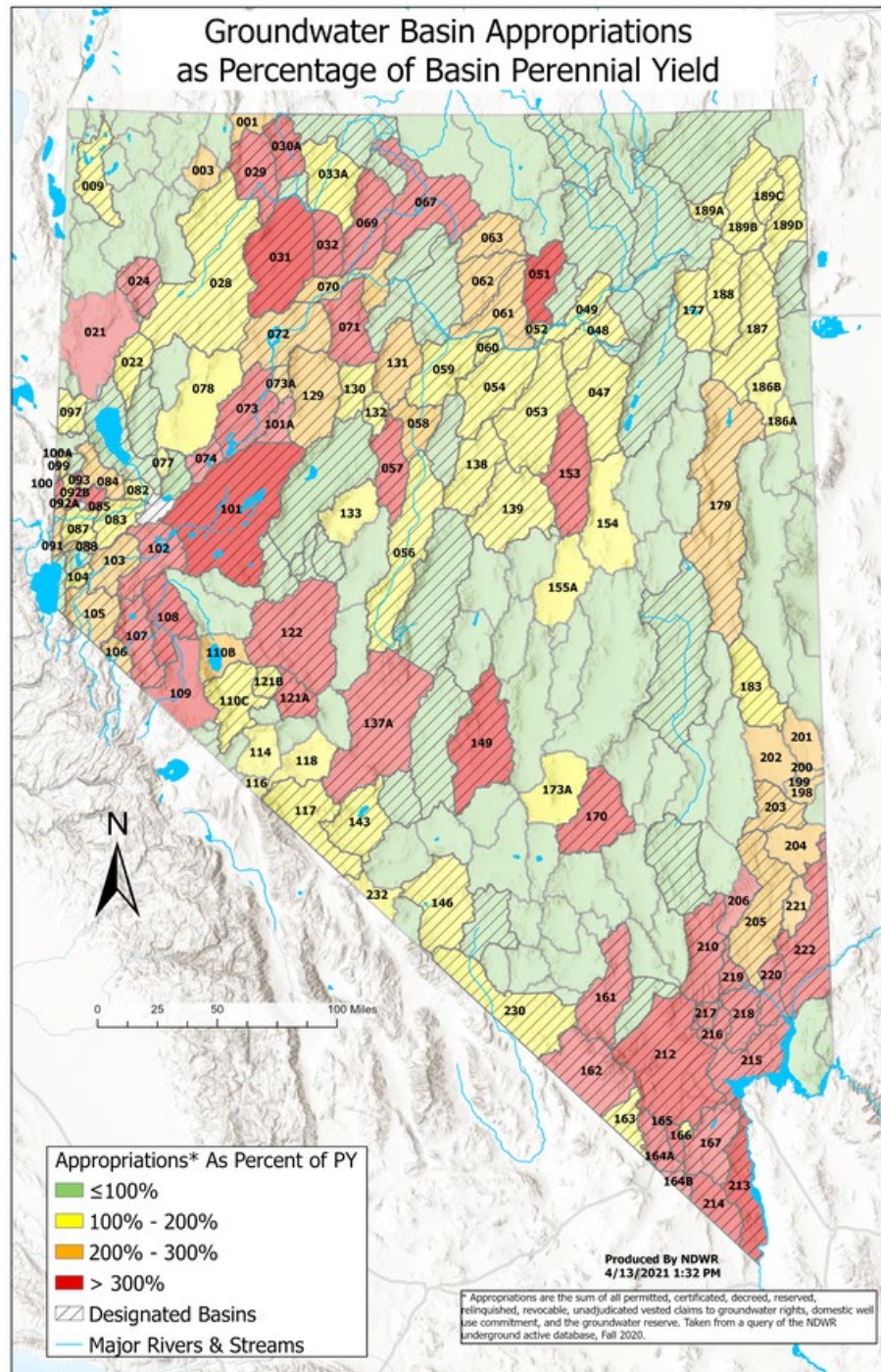
GROUNDWATER USE



Statewide groundwater use is approximately 1.5 million acre-feet annually

GROUNDWATER APPROPRIATIONS & COMMITMENTS

COMPARISON BETWEEN GROUNDWATER COMMITMENTS AND PERENNIAL YIELD



WATER RESOURCE MANAGEMENT CHALLENGES

IMPACTS OF A CHANGING CLIMATE



Nevada is experiencing more extreme weather patterns with prolonged drought cycles and intense wet periods



Impacts to water availability locally, regionally, and statewide depending on the conditions



Changes to timing of surface water availability



Greatest impacts felt by our agricultural users



Risk and consequences are significant for the driest state in the nation

WATER RESOURCE MANAGEMENT CHALLENGES

Increased Development and Competing Demands



Water is the lifeblood of Nevada's economy –
Urban and Rural



Increased development and demands on Nevada's
limited water resources inherently creates conflicts



Nevada's water laws are founded on the doctrine
of prior-appropriation → not much flexibility in
balancing interests, needs, and uses

WATER RESOURCE MANAGEMENT CHALLENGES

MANAGING CONFLICT



With Nevada's limited water supply, conflict between uses arise



Managing conflict is complex due to varying nature of conflict – no well-established management strategies



Conjunctive management of surface water and groundwater sources



Balancing is challenging given the historic reliance on uses of water and complexity in resolving conflict



Current statutory structure creates only winners and losers - no middle ground

WATER RESOURCE MANAGEMENT CHALLENGES

Successful Implementation of Statutory Tools

- Courts are reluctant to uphold cancellation, forfeitures and findings of abandonment of water rights
- Equity or compassion for circumstances seem to often override statutory requirements
- Creates compounded challenges, particularly in over-appropriated systems

Protection of Non-Permitted Uses

- Water for the environment
- Proliferation of domestic wells in certain areas creates major challenges in balancing water use w/unpermitted uses and appropriative rights

WATER RESOURCE MANAGEMENT CHALLENGES

JUDICIAL REVIEW



Disparate and inconsistent decisions impose administrative and regulatory challenges in statewide administration of water rights



Judicial decisions understandably tend to be focused on interests of challenging party



NDWR is required to consider hydrographic basin, system, and statewide implications for **every decision** – can be disrupted by single judicial determination

KEY RESOURCES FOR FUTURE PLANNING

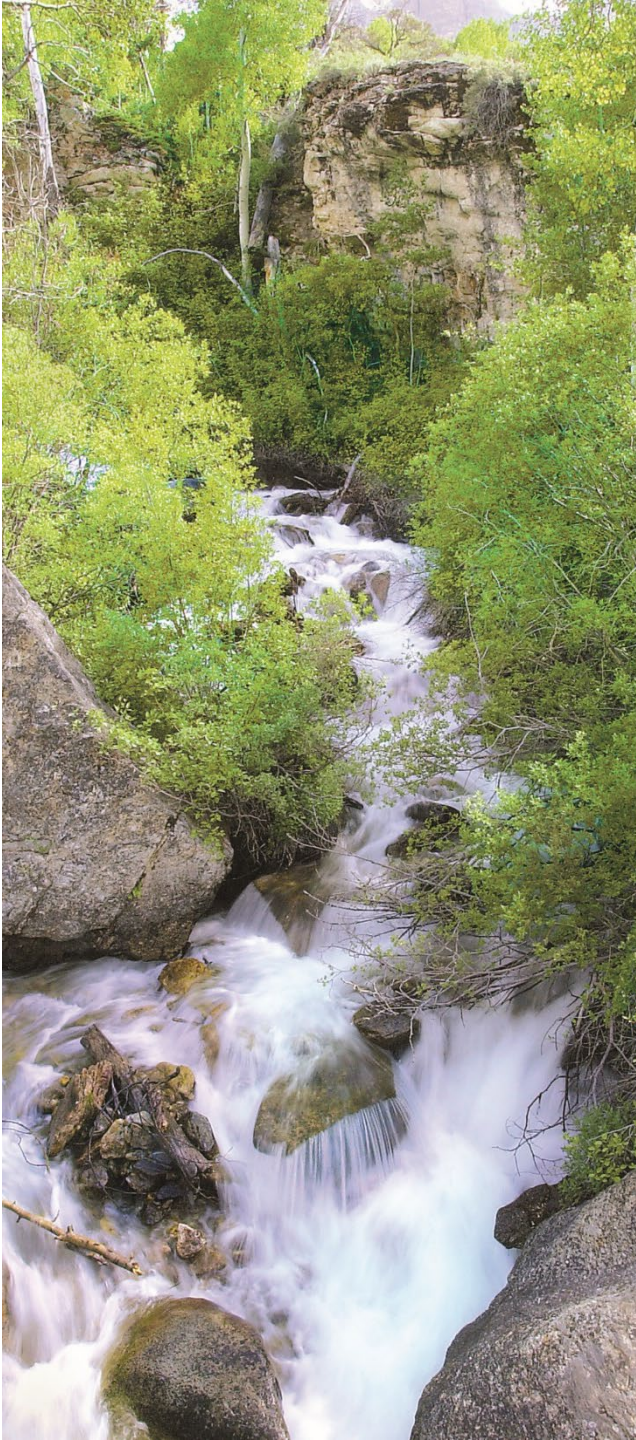
Update Science: Water Resource Availability

- Baseline USGS studies of water budgets → 50 - 70 years old
- Better/modern scientific methods exist to assure accuracy of information
- Will take years and substantial financial investment to completely update and modernize data relied upon by NDWR

Modernize through Digitization:

- NDWR's digital presence has not kept up w/ contemporary technological access and needs
- Majority of information is not digitally accessible
- Need to increase record access for greater public accessibility

Questions?



Contact

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