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Statement of Patricia Mulroy, General Manager Southern Nevada Water Authority

on

H.R. 4593, the Lincoln County Conservation, Recreation and Development Act of 2004

Committee on Resources Subcommittee on National Parks, Recreation and Public Lands U.S. House of Representatives Washington, D.C.

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#### SUMMARY

Mr.Chairman and members of the Subcommittee, thank you for the invitation to testify in support of this bill that is so vitally important to Southern Nevada. I appreciate the efforts of Rep. Jim Gibbons, Rep. Shelley Berkley and Rep. Jon Porter as well as Senators Reid and Ensign for introducing this bill. The five-year drought affecting the Colorado River Basin is an unprecedented challenge for Southern Nevada. As early as January 2005, and undoubtedly by January 2006, the continued lowering of Lake Mead will trigger a "normal" operating condition on the river. This means that the Lower Basin states of California, Arizona and Nevada will be restricted to basic allocations under the Colorado River Compact and that planned resources such as interim surplus water will not be available. Nevada will only have access to 300,000 acre-feet of water per year, already the smallest water allocation of the seven states using the Colorado River, at a time when its communities in Clark County continue to lead the nation in growth, attracting thousands of new residents each month. A "normal" operating condition will also result in a formal drought emergency within the Las Vegas metropolitan area, home to over 1.6 million people.

If the drought persists and reservoir levels on the Colorado River continue to decline, further restrictions on Lower Basin use of Colorado River water are possible. To protect Nevada from worsening conditions on the river, and to insulate Southern Nevada from similar drought conditions in the future, the Southern Nevada Water Authority (SNWA) is taking steps to develop key elements of its long-term Water Resource Plan ahead of schedule. This includes accelerated development of in-state water resource projects in northern Clark, Lincoln and White Pine counties. Given the drought's effects to date, Southern Nevada may need a portion of these proposed in-state water resources as early as 2007.

The proposed development of these in-state resources is intended to diversify the region's water supply, provide a supplement to Nevada's small 300,000 acre foot Colorado River water entitlement for additional supplies to meet future water demands. To develop its projects, the SNWA will have to meet the requirements of the Federal Land Policy and Management Act, National Environmental Policy Act, Endangered Species Act, and other applicable regulations. It will also need to complete the water permitting process required under the Nevada Revised Statutes, which have some of the most comprehensive water laws in the West.

The Lincoln County Conservation, Recreation and Development Act of 2004 (H.R. 4593) will help to expedite a solution to Southern Nevada's current water situation without compromising public involvement and environmental compliance. It designates utility corridors for possible development of groundwater resources in eastern Nevada and allows environmental reviews for the utility corridors and rights-of-way to occur simultaneously. Given the bill's designation of Wilderness Areas in Lincoln County, establishing utility

corridors at this stage is critical to ensuring that the SNWA can pursue critical resource development outcomes upon which its future water planning decisions depend.

To this end, the SNWA strongly supports passage of H.R. 4593 with two recommended changes. First, we ask that Section 211 be amended to allow the installation of high-altitude precipitation gages within the Wilderness Areas identified by the bill. These gages are needed to collect hydrologic data for studies of the groundwater basins of interest. Specific language for this recommended amendment is provided on Page 9 of this testimony. Second, we believe that the maps which depict where the rights of way corridors are to be located are in error along highways 93 and 95. We will be happy to work with the Subcommittee to address this mapping concern.

## **Background Information**

For the past 20 years, Southern Nevada has been one of the fastest growing areas in the country. In response, the Southern Nevada Water Authority (SNWA) was formed in 1991 to coordinate regional water supply issues, promote conservation, acquire additional water resources and develop the treatment and transmission facilities needed to deliver water to the local community. The member agencies of the SNWA are the cities of Boulder City, Henderson, Las Vegas, and North Las Vegas; the Big Bend Water District; the Clark County Water Reclamation District; and the Las Vegas Valley Water District. The combined service areas for these agencies cover the greater metropolitan Las Vegas Valley, Laughlin and most of unincorporated Clark County.

Southern Nevada attracts over 35 million visitors a year and approximately 6,000 new residents each month. For the past 10 years, annual population growth in the Las Vegas Valley has averaged 5.6 percent, with total population increasing by almost 72 percent between 1993 and 2003. Clark County is the second largest county in the contiguous United States, with a population of 1,641,529 residents as of July 2003. Growth is expected to continue at a rate of about 4.5 to 5 percent per year for the next several years, translating into additional water demands that will, in turn, continue to impact the area's local and regional water systems.

To meet the water demands for this community, the SNWA takes a portfolio approach to water resource planning, recognizing that supplies and demand are dependent on conditions that may change in unpredictable ways. The portfolio approach emphasizes the development of diverse water resources to offset the risks typically associated with any single resource option. Current and potential resources identified in the SNWA Water Resource Plan include a combination of Colorado River water resources and in-state water resources; specifically, Nevada's basic apportionment of Colorado River water; return-flow credits; interim surplus Colorado River water; unused Nevada apportionments; banked water in Arizona and the Las Vegas Valley; Las Vegas Valley groundwater rights; Las Vegas Valley shallow groundwater; Muddy River surface water rights; Virgin River surface water rights; groundwater rights and applications in Clark, Lincoln, Nye, and White Pine counties; and reclaimed non-Colorado River water, among others.

The SNWA and Nevada Colorado River Commission have been very successful in efforts to maximize Southern Nevada's use of the Colorado River. These efforts include an off-stream storage agreement with the State of Arizona, which has yielded 110,000 acre-feet in storage credits for Nevada's future use, as well as support of Interim Surplus Guidelines in the Lower Colorado River Basin. The interim surplus concept allows Nevada and California to access additional Colorado River water, when available, until 2016. Unfortunately, due to the severity of the drought, these interim surplus resources cannot be depended upon.

At the same time, Southern Nevada continues to stress conservation within the region, recognizing that increasingly efficient water use will have a direct impact on the amount of tangible water resources both needed and available in the future. This is being accomplished through one of the most aggressive water conservation programs in the western United States, including a rebate program that offers \$1 per square foot to convert decorative lawns to xeric landscapes (now believed to be the largest urban conservation incentive program in the world). To date, the program has converted 33 million square feet of landscape at a cost of over \$30 million. and is estimated to have reduced annual water demand by more than 1.8 billion gallons.

However, the success of Southern Nevada's conservation program also leads to more inflexibility in customer demands. Because Southern Nevada does not have a significant agricultural base that can be utilized to augment municipal supplies during times of drought, the more efficient Southern Nevada becomes in its use of water the less flexibility it has to meet crises such as the current drought. Thus, the necessity of

developing further diverse water supplies to protect against future droughts is of primary importance to the SNWA and its customers.

For the past decade, Colorado River water and conservation have been the most cost-effective options to meet water demands in Southern Nevada. As part of its resource planning, the SNWA recognized that continued development of additional water resources would be necessary. Until recently, however, it was projected that these additional water resources would not be needed until 2016 or later. More short-term supplies such as banked groundwater and interim surplus, along with conservation, would be sufficient until Southern Nevada could develop other long-term resources in its portfolio. Unfortunately, the recent drought in the western United States has altered this picture significantly.

# The Drought

The Colorado River Basin is currently experiencing its worst drought in at least 100 years. Since 1999, the Basin has received only half of its average water inflows. In 2002, the most damaging year to date, the Basin received only 25% of normal runoff. As a result, Lake Mead and Lake Powell – the two principal reservoirs in the Colorado River system, representing over 50 million acre-feet of capacity – are now at less than 50% of their combined capacity. In other words, the river system has effectively lost one of its two major reservoirs. Lake Mead water levels have dropped by 95 feet and those declines are expected to continue, barring any additional action.

As outlined in the Colorado River Interim Surplus Guidelines (Record of Decision, January 2001), the availability of interim surplus water is tied to Lake Mead water levels. Given conditions impacting those water levels today, it is unlikely that interim surplus water will be available to Nevada in 2005, and certainly not by 2006. While it remains unclear how long the drought in the Colorado River Basin will last, it is fair to conclude that interim surplus water will not be available for the foreseeable future beyond that. This has direct implications for the timing and development of additional long-term water resources in the SNWA water resource portfolio, particularly in-state groundwater supplies in Clark, Lincoln and White Pine counties and surface water supplies from the Virgin and Muddy Rivers.

Because of the drought, Southern Nevada needs to diversify its water supplies sooner rather than later. This means reducing the degree to which the area depends on the Colorado River in all its forms and developing additional water supplies that are long-term, reliable and not influenced by conditions in the Colorado River Basin. The SNWA Water Resource Plan provides for such diversification, principally through a variety of water resource options that involve in-state, non-Colorado River water, including groundwater in Clark, Lincoln, and White Pine counties and surface water from the Virgin and Muddy Rivers.

## In-State Water Resources

Throughout our negotiations with our sister Colorado River basin states, one question always comes up; when is Nevada going to develop its in-state resources to replace the interim supplies provided from the Colorado? Within Nevada, the non-Colorado River water resources that are potentially available to the SNWA include groundwater in the Three Lakes Valley, surface water from the Muddy and Virgin rivers, and groundwater in several valleys in northern Clark, Lincoln and White Pine counties. These resources are covered by existing water rights or pending applications held by the SNWA. The applications, in turn, had their origin with the Las Vegas Valley Water District, the largest municipal water purveyor in Nevada.

In 1989, the District filed 147 applications for groundwater rights in 30 different valleys within central and eastern Nevada. The District also filed for one surface water right within the same general area. The 1991 Cooperative Agreement that created the SNWA specified that one of the conferred functions of the agency was to "acquire the rights of [the District] under applications filed with the Nevada State Engineer to appropriate surface and groundwater in northern Clark, Lincoln, Nye and White Pine Counties; to perfect any or all of such applications as may be appropriate; and to develop and implement the Cooperative Water Project initiated by [the District], or any other project, for the use of such water in Clark County" (Southern Nevada Water Authority, 1991, p. 10, Article 5.b).

After the SNWA was formed in 1991, steps were taken to incorporate the District's potential in-state resources into the SNWA Water Resource Plan. The SNWA and District also worked with affected counties and other rural interests to negotiate equitable water-sharing arrangements that will apply if or when certain in-state resources are ever developed. For example, the SNWA and District entered into a comprehensive

agreement with Lincoln County to determine the future disposition of pending District groundwater applications within that county's boundaries. The result of that agreement was the assignment of 25 applications to Lincoln County for its own use.

A summary of these agreements is provided in Attachment 1. The agreements illustrate the level of commitment that SNWA has to rural communities in Nevada. As steps are taken to develop in-state resources, the agency will work closely with these communities and other stakeholders to ensure the surrounding environment is protected and rural ways of life preserved. The SNWA will also structure its proposed projects in ways that allow the communities of origin to have access to water supplies adequate to meet their short and long-term needs, while providing for the demands and operational needs of Southern Nevada at the same time.

Since the District filed its original water applications for in-state resources in 1989, 27 have been voluntarily withdrawn and 25 have been reassigned or committed to rural parties. This is further evidence that Southern Nevada has taken conscious steps to retain only those applications deemed absolutely necessary to meet projected long-term water demands, while allowing for prospective fluctuations or limitations in pumping due to environmental or operational considerations.

### H.R. 4593

Development of its proposed in-state water resources will provide Southern Nevada with a long-term, reliable water supply that can meet near-term demands in the absence of interim surplus water, supplement existing Colorado River water supplies in times of drought, and meet projected increases to overall regional water demands in the future. Accessing this water will require several different projects and a significant commitment of time and effort by the SNWA, particularly given the need to accelerate timelines to accommodate the challenges created by the drought. The Lincoln County Conservation, Recreation and Development Act of 2004 (H.R. 459) is a critical step to achieving this goal.

In February 2004, the SNWA Board of Directors approved a concepts document that addressed general considerations for the development of in-state resources, including conceptual facility planning, project phasing, stakeholder interests and environmental protection (Southern Nevada Water Authority, 2004). That document outlined the need for three separate projects over time: the Three Lakes Valley Groundwater Development Project; Virgin River/Muddy River Surface Water Development Project; and Clark, Lincoln and White Pine Counties Groundwater Development Project.

By designating utility corridors within Lincoln County for future SNWA water pipelines and allowing the environmental reviews for these utility corridors and rights-of-way to occur simultaneously, H.R. 4593 will allow the SNWA to concentrate its staff and resources on the extensive technical and environmental work required for two of its proposed in-state water projects (Three Lakes Valley Project and Clark, Lincoln and White Pine Counties Project). Furthermore, since the majority of H.R. 4593 is devoted to the designation of Wilderness Areas in Lincoln County, the establishment of utility corridors at this stage ensures that the designation of the Wilderness Areas does not prevent the people of Lincoln and Clark counties from receiving basic utility services.

Based upon the SNWA applications on file with the Nevada Division of Water Resources, the utility corridors designated by H.R. 4593 could potentially provide Southern Nevada with access of up to 200,000 acre-feet of water per year. In conjunction with the SNWA water conservation program and the Las Vegas Valley's increasing reuse capability, these in-state resources could help reduce the region's dependency on Colorado River water by approximately one-third (from its current level of 90% of the regional water supply to about 60%). This will result in a more balanced supply of surface water and groundwater, allowing the SNWA greater operational flexibility during times of drought.

H.R. 4593 does not eliminate any important environmental requirements for the SNWA. The SNWA intends to comply with the provisions of the National Environmental Policy Act of 1969 (NEPA); the Endangered Species Act (ESA) of 1973; the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997; the Federal Land Policy & Management Act of 1976; and other applicable statutory requirements.

In addition to any federal requirements, the SNWA will be required to comply with Nevada's comprehensive water-rights applications process. This process, which is controlled by the Nevada Division of Water Resources, Office of the State Engineer, pursuant to applicable laws in Chapters 533 and 534 of the

Nevada Revised Statutes, helps ensure that the public interest is protected when the waters of the state are appropriated for any reason. It does this by determining whether the water supplies proposed for development are available to serve the public on a sustainable basis; this is often achieved through extensive monitoring or other requirements.

#### **Environmental Commitment**

The SNWA has long embraced sustainable water resource development and is committed to seeking solutions that are protective of sensitive environmental resources. To this end, the SNWA routinely participates in research and conservation efforts that are not tied to any project-specific compliance requirements. In the arena of regional environmental planning, the SNWA has participated in the development of the Clark County Multi-Species Habitat Conservation Plan since its inception, including the Springs Work Group, Muddy River Work Group, Low Elevation Plants Work Group and the Planning Work Group. The agency also has contributed to environmental initiatives including, but not limited to, the Southeastern Lincoln County Multiple Species Habitat Conservation Plan and Virgin River Habitat Conservation Program. In addition, the SNWA has worked closely with federal and state fishery managers to support many fish recovery teams, including those created for federally listed fishes in Pahranagat Valley, Meadow Valley Wash, Devil's Hole, White River, Railroad Valley, Muddy River and Virgin River.

On a broader level, the SNWA is actively involved in the Lower Colorado River Multi-Species Conservation Program, including membership on the biological, program, compliance and adaptive management subcommittees. The SNWA has worked on issues related to the Colorado River Delta in Mexico and the Salton Sea, and participates in the Upper Colorado River Endangered Fish Recovery Program and Glen Canyon Adaptive Management Program, among others.

The SNWA is progressive in the arena of environmental policy. In relation to local, regional, national and international issues, SNWA proactively advocates environmentally responsible practices on issues ranging from Endangered Species Act Committee initiatives to Colorado River Committee initiatives through its presence on the Western Urban Water Coalition. Like many agencies, the SNWA prepares and submits written comments on draft and final environmental and resource planning documents and comments on Environmental Impact Statements.

Field research efforts include studies of the razorback sucker in Lake Mead, Virgin River fish research, sensitive and listed birds along the Virgin and Muddy Rivers, assisting federal and state agencies on research such as Moapa dace surveys and integrating biological efforts with hydrological studies related to spring snails and other biological indicators.

The SNWA has invested substantial funding and thousands of staff hours in programs and activities directly related to environmental protection. The agency has funded more than \$3 million of research related to federally endangered fish and nearly \$1 million in research related to federally listed or sensitive bird species such as the southwestern willow flycatcher, Yuma clapper rail and yellow-billed cuckoo. Much of this research was not required by law or for project compliance, but was performed because it is central to the agency's environmental ethic. SNWA biologists support Nevada Department of Wildlife programs to conduct annual fish surveys and implement recovery actions such as augmenting wild populations by introducing hatchery-reared endangered fish, eradicating competing non-native species and constructing fish barriers. The agency is equally committed to water quality and habitat protection. This is evidenced by development and implementation of the Las Vegas Wash Comprehensive Adaptive Management Plan, a multi-agency watershed management program coordinated by the SNWA that has garnered recognition by the Environmental Protection Agency and serves as a model for other communities.

# No Owens Valley

The SNWA recognizes that its proposed in-state water resource projects are of great interest to a wide range of stakeholders, including ranchers, rural community leaders, non-governmental environmental organizations and federal agencies with environmental missions. Some of these interested parties have expressed concern over potential impacts of proposed groundwater pumping activities – asserting that pumping will draw down the water table, leading to another "Owens Valley."

The City of Los Angeles carried out its surface water exportation project from the Owens Valley in California a century ago, in an era before the enactment of laws such as NEPA and ESA to protect the environment and ensure public participation. Today, Nevada water law is one of the most comprehensive in the West.

The amount of groundwater ultimately permitted for development will not be determined by the SNWA, but rather by the Nevada Division of Water Resources, Office of the State Engineer. This office serves as the steward of Nevada's water resources, balancing the needs of water right holders, the environment and the public interest.

Nevada law provides that as part of the water rights decision-making process, the Nevada State Engineer must take into account whether an interbasin transfer is both environmentally sound and/or will unduly limit the future growth and development of a basin from which water is proposed to be exported. Given the myriad federal and state protections that exist today, it would be impossible for any public or private entity to effectuate a water export project in Nevada in a manner like Owens Valley. Between state water law and applicable environmental regulations, there is ample oversight to ensure that Southern Nevada's future water supplies do not come at the expense of other groundwater users or the environment. An "Owens Valley" cannot and will not occur in Nevada.

## Preserving Environmental Resources

The environmental community is especially focused on the potential implications of groundwater diversions for the habitat of federally listed fishes and other sensitive species. Having worked diligently to support research and conservation efforts related to sensitive species in the region, the SNWA shares a concern for the continued well-being of these species. As such, the SNWA supports implementing a comprehensive monitoring program to ensure these crucial habitat areas are not impacted and will continue to analyze available data related to these areas.

Of interest to non-governmental environmental agencies is the issue of groundwater monitoring within the boundaries of the Desert National Wildlife Refuge. The SNWA is sensitive to these concerns, while recognizing the need for baseline data about hydrologic conditions within the area. The ability to monitor the water table will provide the SNWA with the data necessary to manage any proposed diversions and, conceptually, even divert water from other areas to the Desert National Wildlife Refuge if needed to support wildlife.

To support wildlife, the SNWA could conceptually divert and convey water to areas deemed important by land and resource management agencies. For instance, the Nevada Department of Wildlife has a program in place to provide an additional source of water, which could readily be supported by SNWA water transmission infrastructure. In arid environments like the Great Basin and Mojave deserts, much of Nevada's wildlife is dependent on water for survival. Even a small amount of water can sustain a population of bighorn sheep (as is currently the case with an SNWA pipeline in the River Mountains). The in-state resource projects proposed by the SNWA have the potential to augment water supplies for wildlife. Actions of this nature could be identified during the NEPA process, involving state and federal agencies and other stakeholders during the public scoping process.

Recognizing the value of accurate groundwater data, the U.S. Fish and Wildlife Service supports the placement of monitoring wells within the Desert National Wildlife Refuge area and is working with the SNWA to optimize siting of the monitoring network. Likewise, a thorough understanding of the region's groundwater flow system would enable the SNWA to support springs during periods of drought by potentially moving water from other, healthier aquifers and injecting it into the aquifer of concern. The SNWA has demonstrated its ability to manage the water table in this manner successfully, principally through its operation of the largest well-injection aquifer recharge program in the country within the Las Vegas Valley Groundwater Basin.

Extensive biological and water resource monitoring will be conducted as water resource development activities occur. Monitoring will be used to adjust operational strategies, modify resources being developed and adjust enhancement activities of sensitive areas. Resource management and monitoring will ensure long-term viability of water resources for both environmental and domestic needs. The SNWA welcomes the opportunity to work with concerned parties to devise an appropriate monitoring and management plan for the development of in-state groundwater supplies that prioritizes the conservation of environmental resources in the areas of interest. The SNWA views the NEPA and ESA processes as excellent opportunities for broad public participation.

# Proposed Amendment

Given the importance of properly monitoring groundwater recharge and yields within the valleys potentially

affected by proposed SNWA in-state resource projects, the SNWA requests an amendment to H.R. 4593 to ensure precipitation monitoring gages can be installed within the Wilderness Areas identified by the bill.

Currently, Section 211 of the bill (Climatological Data Collection) restricts the placement of hydrologic, meteorological or climatological collection devices in Wilderness Areas designated by the bill to those uses "essential to flood warning, flood control, and water reservoir operation activities." The SNWA requests that this be amended by replacing the word "essential" with "necessary," and adding "and regional precipitation monitoring" after the phrase "water reservoir operation activities."

Accurate regional precipitation data is a critical component in determining the annual recharge to the regional groundwater basins. With more accurate precipitation data, water managers such as the SNWA and the Office of State Engineer can more precisely determine the quantity of groundwater that may be withdrawn from the regional aquifers on a perennial yield basis. The installation and operation of these precipitation stations will still need to go through a separate environmental compliance process, but are not anticipated to have any significant impact upon the designated Wilderness Areas.

The SNWA appreciates the opportunity to express its support for this important bill. We look forward to working with federal, state and local interests to accomplish the goals of H.R. 4593, while meeting the long-term water needs of rural and Southern Nevada.

# **Summary of Agreements**

- Some of the groundwater applications originally filed by the LVVWD have been withdrawn or have been subject to agreements with private and public partners. For example, in 1990, 27 applications in eight valleys were withdrawn and, in 1999, several agreements with private parties in eight valleys outside of Clark County allowed those parties' junior applications to be acted upon by the State Engineer before acting on the senior 1989 applications in order to facilitate development in the rural counties.
- In 1996 and 1997, the SNWA entered into agreements with the Moapa Valley Water District and the Muddy Valley Irrigation Company relating to SNWA's purchase of Muddy River irrigation shares and conditions for future use of the water resources associated with those purchased shares. Under these agreements, SNWA's transfer of Muddy River water from Moapa Valley is limited to approximately 8,000 AFY unless agreed in writing by Moapa Valley Water District and the Muddy Valley Irrigation Company or unless the Moapa Valley Water District acquired additional groundwater rights.
- In 2000, the SNWA entered into an agreement with the Virgin Valley Water District establishing provisions for sharing Virgin River water rights. To ensure that future municipal water supplies exist for Virgin Valley Water District, the SNWA agreed to limit the amount of Virgin River water that could be purchased and transferred from Virgin Valley to 5,000 AFY (in addition to SNWA's existing 113,000 AFY of Virgin River rights). In addition, for each acre-foot of Virgin River water it acquires, the SNWA will convey one acre-foot of its Virgin River rights to Virgin Valley Water District. The SNWA in 2003 also assigned an undivided one-half interest in 16 groundwater applications in the Virgin Valley hydrographic basin to Virgin Valley Water District, resolving priorities of groundwater applications under the 2000 agreement.
- In March of 2002, the SNWA, LVVWD and the Moapa Valley Water District agreed to terms regarding groundwater applications in Coyote Spring Valley. Under this agreement, the Moapa Valley Water District will receive the first 3,750 AFY of any water granted under the 1989 applications in Coyote Spring Valley. Any water granted by the State Engineer above 3,750 AFY will be divided on a percentage basis between the SNWA and the Moapa Valley Water District (58/42 percent respectively). This agreement effectively divides the total applications between the two entities, but ensures that the first cut of available water provides for the long-term security of the community of origin.
- In 2003, the SNWA also entered into an agreement with Lincoln County that effectively resolved longstanding concerns over groundwater applications in that county. Under the agreement, the applications in Lincoln County are divided into three categories: Category I basins are allocated to the SNWA; Category II basins are allocated to Lincoln County; and Category III basins are shared basins where Lincoln County is entitled to the first 3,000 AFY from these basins.
- Under an agreement pending approval by the U.S. Bureau of Indian Affairs between the Moapa Band
  of Paiutes, the SNWA and the LVVWD, the Paiutes will receive one permit for 2,500 AFY and one
  application for up to 7,240 AFY of groundwater in the California Wash hydrographic basin.

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