IN THE OFFICE OF THE STATE ENGINEER OF THE STATE OF NEVADA

IN THE MATTER OF APPLICATION NUMBER 79353
FILED BY Southern Nevada Water Authority
ON January 28, 20 10, TO APPROPRIATE THE
WATERS OF Underground Well

PROTEST

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Comes now Defenders of Wildlife
Printed or typed name of protestant

whose post office address is 1130 17th Street, NW, Washington, D.C. 20036
Street No. or PO Box, City, State and ZIP Code

whose occupation is national, non-profit conservation organization and protests the granting

of Application Number 79353, filed on January 28, 20 10

by Southern Nevada Water Authority to appropriate the

waters of NW, NW, Sec. 15, T. 15S., R. 57E. situated in Clark
Underground or name of stream, lake, spring or other source

County, State of Nevada, for the following reasons and on the following grounds, to wit:
See Attachment for Application # 79353.

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THEREFORE the Protestant requests that the application be DENIED
Denied, issued subject to prior rights, etc., as the case may be

and that an order be entered for such relief as the State Engineer deems just and proper.

Signed
Agent or protestant

ADAM KROP
Printed or typed name, if agent

Address 1130 17th Street, NW
Street No. or PO Box

Washington, D.C. 20036
City, State and ZIP Code

202-682-9400
Phone Number

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Subscribed and sworn to before me this 14th day of April, 20 10

Notary Public

Sandra Purohit
Notary Public, District of Columbia
My Commission Expires 5/31/2014

State of Washington, DC
~~County of~~

+ $25 FILING FEE MUST ACCOMPANY PROTEST. PROTEST MUST BE FILED IN DUPLICATE.
ALL COPIES MUST CONTAIN ORIGINAL SIGNATURE.

ATTACHMENT TO PROTEST OF DEFENDERS OF WILDLIFE AGAINST APPLICATION NO. 79353, FILED JANUARY 28, 2010, BY THE SOUTHERN NEVADA WATER AUTHORITY

This attachment lists and briefly describes the reasons and grounds for this protest of Defenders of Wildlife ("Protestant") against Application Number 79353. The Southern Nevada Water Authority ("SNWA" or "Applicant") has filed this Application to appropriate groundwater from Clark County as part of its massive proposed network of wells and pipelines stretching across eastern Nevada from Clark County through Lincoln County and into White Pine County (the "Pipeline Project").

In sum, Protestant asserts as reasons and grounds for this Protest that: (1) there is insufficient unappropriated water in the proposed source of supply to support the application or the proposed use; (2) the proposed use would conflict impermissibly with existing water rights and protectable interests in domestic wells; (3) the proposed use would be detrimental to the public interest on environmental grounds and would be environmentally unsound as it relates to the basin from which the water is proposed to be exported; (4) the proposed use would be detrimental to the public interest on economic grounds and would unduly limit future growth and development in the basin from which the water is proposed to be exported; (5) the proposed action is not an appropriate long-term use of water; (6) the Applicant has not justified the need to import water from another basin; (7) the Applicant does not have and is not effectively implementing an adequate or reasonable plan for conservation in the area of proposed use; and (8) the Applicant has not demonstrated the good faith intent or financial ability and reasonable expectation to actually construct the work and apply the water to the intended beneficial use with reasonable diligence. These protest grounds are further explained below.

1. <u>There Is Insufficient Water Available In The Proposed Source of Supply</u>:

The State Engineer should deny the subject applications pursuant to NRS § 533.370(5), because there is insufficient water available for appropriation in the proposed source of supply. The appropriation of this water, when added to the already approved appropriations in the basin of origin and hydrologically connected basins within the same flow system, will exceed the perennial yield of those basins. Moreover, the State Engineer should keep with past practice and not depart from any measure caution afforded by following his perennial yield analysis. The State Engineer already has designated a number of hydrologically connected basins within the same flow system as the basin that is targeted by this Application, effectively acknowledging that those basins and potentially the entire flow system are fully appropriated, if not over-appropriated.

In addition, the State Engineer previously has found that there is too much uncertainty, too little sound data, and too great a risk of unsustainable over-appropriation in the interbasin flow system, of which this basin is a part, for further appropriations to be permitted until substantial additional data were gathered and evaluated. That additional data gathering and evaluation have not been completed and until they are it would be premature to permit any additional appropriation from hydrologically interconnected basins within the carbonate rock province, including the basin targeted by this Application.

Much of the recharge in the regional flow system and in the basin targeted by this [illegible] applications from Applicant originates in mountainous areas of higher altitudes and [illegible] temperatures. Climate change will adversely affect the temperatures and precipitation in these areas,

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decreasing the amount of groundwater recharge. The State Engineer should first exercise caution and initiate additional study and monitoring to assess the effects of climate change on the perennial yield of these flow systems and basins.

2. **The Application and Proposed Use Would Conflict With Existing Water Rights And Protectable Interests In Domestic Wells:**

The State Engineer should deny the subject Application pursuant to NRS § 533.370(5) because the proposed appropriation and use would conflict impermissibly with and impair existing senior water rights and protectable interests in domestic wells in the basin targeted by this Application and hydrologically connected basins within the same interbasin flow system. When added to the previously approved appropriations in the subject basin and hydrologically connected basins within the same interbasin flow system, the proposed appropriation and use will exceed the perennial yield of the subject basins resulting in declining groundwater levels and unreasonable degradation of the level and quality of the water in existing wells.

Additionally, the basin within which this Application proposes to appropriate and export water is the source of water for hydrologically connected downgradient basins where it already has been appropriated by senior water rights holders.

The basin within which this Application proposes to appropriate water lies within a flow system where groundwater flows from recharge areas in the mountains of central and southern Nevada to discharge areas of playas and springs that are in Ash Meadows and Oasis Valley, Nevada, and Death Valley, California. The use of water under this and other applications in the same basin and flow system will deplete the waters of the Ash Meadows/Death Valley regional groundwater flow system, which supplies water to many springs, streams, seeps and wetlands that are home to threatened and endangered species and found within or near national wildlife refuges and national parks.

The use of water as proposed under the applications will interfere with water rights held by the Fish and Wildlife Service ("FWS"), National Park Service ("NPS") and Bureau of Land Management ("BLM") specifically to protect these waters and water-related resources. The underground source of water proposed to be appropriated will intercept the source of water that now maintains the numerous springs, seeps, marshes, streams, riparian and mesquite habitats that support wildlife and plant resources, including threatened and endangered species in the state of Nevada. FWS resources in this area include Desert National Wildlife Refuge and Ash Meadows National Wildlife Refuge. NPS resources include Death Valley National Monument and Devils Hole, the only habitat for the Devils Hole pupfish. BLM resources include the Ash Meadows Area of Critical Environmental Concern ("ACEC").

FWS has water rights for surface and groundwater at each of the refuges. Approval of the applications would significantly reduce the water available at the refuges and injure FWS's water rights. NPS is entitled to federal reserved rights at Death Valley National Monument that are senior to the applications. These rights have not been quantified. NPS water rights will be impaired if the applications are granted. Impairment of these water rights will also compromise the agencies' abilities to carry out their missions and comply with federal environmental laws.

3. **The Appropriation And Export Of Water Proposed In This Application Would Be Detrimental To The Public Interest On Environmental Grounds And**

Would Be Environmentally Unsound As It Relates To The Basin From Which The Export Is Proposed:

The State Engineer should deny the subject Application pursuant to NRS §§ 533.370(5) and 533.370(6)(c), because approval of this Application and SNWA's Pipeline Project, of which this Application is a part, would threaten to cause serious environmental harms in the basin from which water is proposed to be appropriated and exported and in hydrologically connected downgradient basins within the same interbasin flow system, and therefore would be detrimental to the public interest and would be environmentally unsound as it relates to the basin of origin. The use of water under the applications will cause an unreasonable lowering of the water table, degradation of water quality, destruction of environmental, ecological, scenic and recreational values, all to the detriment of the public interest.

A. Harm to Wildlife and Wildlife Habitat:

The proposed appropriation, export and use would result in severely lowered groundwater levels in the basin from which the appropriation and export is proposed and in hydrologically connected downgradient basins within the same interbasin flow system. Those declining groundwater levels will result in drying out springs, seeps, wetlands, wet meadows, and moist playas, and in killing off vegetation that is groundwater-dependent in the subject basin and hydrologically connected downgradient basins. This loss of water will cause significant direct harm to many wildlife species and to wildlife habitat in the basin from which this Application proposes to appropriate and export water and in hydrologically connected downgradient basins within the same interbasin flow system. Among the species that will be harmfully impacted by this loss of water are a number of federally and state protected species, including federally listed threatened and endangered species, which will be threatened with extinction as a result of the proposed appropriation and export of this water. The list of species likely to be harmfully impacted by the appropriation and export of water proposed in this Application, includes fish, amphibians, other aquatic species, groundwater-dependent mammals and other terrestrial species, bird species that depend on the springs, wetlands, wet meadows, and vegetation supported by groundwater, and a variety of insects, including rare butterfly species.

The public interest will not be served if waters, water-related resources and water rights to support these resources and national assets – national parks and monuments, national wildlife refuges, and national recreational areas – are diminished or impaired as a result of these applications. These federal lands and waters were established to protect imperiled fish and wildlife and their habitats. Potentially affected areas include but are not limited to the nationally important Ash Meadows National Wildlife Refuge and Devils Hole, established to protect endangered plant and animal species, and the Desert National Wildlife Refuge. The entire boundary of Ash Meadows National Wildlife Refuge abuts BLM-managed lands that are designated as the Ash Meadows Area of Critical Environmental Concern ("ACEC") and are set aside for protection of the endemic species found at Ash Meadows.

Loss of adequate water supply to national wildlife refuges could eliminate or degrade wildlife habitat and result in the loss of migratory birds, threatened and endangered species and other imperiled wildlife the refuges were established to protect. This could defeat the purposes of the refuges and interfere with FWS's responsibilities under the Migratory Bird Treaty Act ("MBTA"). Endangered

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Species Act ("ESA"), National Wildlife Refuge System Administration Act and other laws. Acts that reduce the refuges' water supply could constitute a violation of the MBTA and ESA.

The use of water as proposed under the applications will degrade wetlands and riparian habitats, including those in Death Valley National Monument and Lake Mead National Recreation Area. Loss of adequate water supply to national parks and monuments could eliminate or degrade habitat for threatened and endangered species and other wildlife. Appropriation and diversion from these applications could adversely these species, including the Devils Hole pupfish and desert bighorn sheep. This could interfere with the NPS's responsibilities under the National Park Service Organic Act, ESA and other federal laws. Reducing the parks' water supply could constitute a violation of the ESA.

Loss of adequate water supply to other federal lands could eliminate or degrade protected and sensitive habitats. The use of water under the applications will interfere with the BLM's capability to provide water for the multiple uses under the Federal Land Policy and Management Act including, but not limited to recreation, range, wildlife, minerals, watershed and fish. The use of water under the applications will interfere with the BLM's responsibilities to protect wetlands and to conserve listed threatened or endangered species.

Threatened and endangered species are found throughout Nevada yet outside of the parks and refuges. Reducing water supplies to these species and their habitats could adversely affect these species and could constitute a violation of the ESA and other laws. The State Engineer must also ensure that wildlife which customarily use water from a spring or that has seeped to the surface of the ground will have access to it.

Wildlife habitat areas and refugia likely to be harmed by the appropriation and export of water proposed in this Application and SNWA's Pipeline Project, of which this Application is a part, include, but are not limited to, Desert National Wildlife Refuge Complex, Kirch Wildlife Management Area, Key Pittman Wildlife Management Area, Overton Wildlife Management Area, Amargosa Valley Pupfish Station, Humboldt National Forest, Death Valley National Park, Great Basin National Park, Ash Meadows ACEC and Shoshone Ponds ACEC.

Because of these harmful impacts, the State Engineer should deny this Application pursuant to NRS §§ 533.370(5) and 533.370(6)(c).

B. Degradation of Air Quality:

The proposed appropriation, export, and use would result in severely lowered groundwater levels in the basin from which the appropriation and export is proposed and in hydrologically connected downgradient basins within the same interbasin flow system. Those declining groundwater levels will result in drying out springs, seeps, wetlands, wet meadows, and moist playas, and in killing off vegetation that is groundwater-dependent in the subject basin and hydrologically connected downgradient basins. This pervasive desiccation, in turn, will make these previously moist and/or vegetated areas dramatically more susceptible to greatly increased mobilization of sediment, or dust. In other words, the desiccation of these areas will result in much more frequent and severe dust storms in the basin expressly targeted by this Application and in downgradient hydrologically connected basins in the same flow system. These dust storms likely will have catastrophic impacts on human and animal health in those basins and in additional downwind communities. In addition

to causing severe respiratory problems, the particulate matter that will be mobilized in dust storms in these areas is likely to contain radioactive fallout that heretofore has been held in place by the groundwater-fed moisture in the soil and vegetation. These dust storms also will dramatically degrade the aesthetic and recreational value of the basins in which they occur and additional downwind areas. Because of these harmful impacts, the State Engineer should deny this Application pursuant to NRS §§ 533.370(5) and 533.370(6)(c).

C. Destruction of Recreational and Aesthetic Values:

The severe decline in groundwater levels that will result from this Application and SNWA's Pipeline Project, of which this Application is a part, will kill off vegetation and wildlife, eliminate many of the springs and wet areas, and degrade air quality and visibility in the basin expressly targeted by this Application and hydrologically connected downgradient basins in the same interbasin flow system. These impacts will profoundly degrade the aesthetic values and appeal of all these basins and additional downwind areas. Similarly, the loss of water, wildlife, clean air, and good visibility will destroy the recreational uses and value of these basins and additional downwind areas. For these reasons, as well, the State Engineer should deny this Application pursuant to NRS §§ 533.370(5) and 533.370(6)(c).

D. Degradation of Water Quality:

The groundwater drawdown that would be caused by the appropriation and export of water proposed in this Application would lower the static water table in both the basin fill and carbonate rock aquifers within the affected basins to such an extent that brackish groundwater and other pollutants would infiltrate those aquifers. The consequence of this infiltration of poor quality groundwater and other pollutants would be significant degradation of groundwater quality in the basin expressly targeted by this Application and downgradient hydrologically connected basins within the same interbasin flow system. This degradation of groundwater quality would prevent humans, livestock, and wildlife from relying on the groundwater from these aquifers, as they have throughout history. Because such an outcome would be detrimental to the public interest and would be environmentally unsound in the basin of origin, the State Engineer should deny this Application pursuant to NRS §§ 533.370(5) and 533.370(6)(c).

E. Degradation of Cultural Resources:

The environmental harms described above also will lead to the pronounced degradation, and in some instances destruction, of cultural resources in the basin expressly targeted in this Application and in hydrologically connected basins within the same interbasin flow system. Cultural resources likely to be harmed by the appropriation and export of water proposed under this Application and SNWA's entire Pipeline Project, of which this Application is a part, include but are not limited to Native American ritual worship and other sacred sites, prehistoric Native American village or dwelling sites, Native American graves or burial sites, and scenes of historic massacres of Native Americans. These and other cultural resources that would be damaged if this Application is approved constitute an important part of Nevada's, and the Nation's, historical and cultural legacy. Therefore, the State Engineer should deny this Application pursuant to NRS §§ 533.370(5) because the proposed appropriation and use would cause degradation of cultural resources and would be detrimental to the public interest.

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4. **The Appropriation And Export Of Water Proposed In This Application Would Be Detrimental To The Public Interest On Economic Grounds And Would Unduly Limit Future Growth And Development In The Basin From Which The Export Is Proposed:**

A. Undue Limitation Of Future Economic Activity and Growth In Basin Of Origin:

As detailed elsewhere in this Protest Attachment, permitting the appropriation and export of water proposed in SNWA's Application will exceed the perennial yield of and lead to declining groundwater levels in the basin from which the export is proposed. In addition to the other effects that this drawdown will cause, it will eliminate specific sources and the overall available supply of groundwater in the basin to support both existing economic activities and potential future economic growth in the basin of origin. Existing economic activities that would be undermined include livestock and other ranching uses, domestic uses, mining and prospecting uses, and recreational uses including self-guided and outfitter-led hiking, camping, fishing, hunting, birding, and the like. Future economic growth and development that would be unduly limited include the expansion of all of the above-listed activities, particularly the expansion of businesses related to recreational tourism, as well as residential development for both year-round and vacation use, and potential future energy development. In light of the undue economic harm the proposed use would cause in the basin of origin, the State Engineer should deny this Application pursuant to NRS § 533.370(6)(d).

B. Undue Economic Harm Will Extend To The Economies And Communities of Downgradient Hydrologically Connected and Downwind Basins:

These economic harms will not be limited to the basin expressly targeted in this Application, but rather will extend outward as the groundwater depletion from SNWA's Pipeline Project radiates outward into downgradient hydrologically connected basins within the same interbasin flow system and to downwind basins. Thus, the appropriation and export proposed in this Application also would cause the same host of economic harms to the rural economies and communities of other basins, including but not limited to the White River Valley, Pahranagat Valley, and Moapa Valley. Therefore, the State Engineer should deny this Application pursuant to NRS § 533.370(5) because it would be detrimental to the public interest.

5. **The Proposed Action Is Not An Appropriate Long-Term Use Of Nevada's Water:**

Given the numerous more cost-effective alternatives available to SNWA and the devastating impacts to rural communities, and their economies, and to the environment, SNWA's rural water grab is not an appropriate long-term use of Nevada's scarce resources. The State Engineer should require SNWA to actively pursue alternatives to the rural water grab, such as desalination and conservation, before granting water rights to SNWA from the subject valleys. In the meantime, the State Engineer should deny the applications pursuant to NRS § 533.370(6)(d) as an inappropriate long-term use of water.

6. **The Applicant Has Not Justified The Need To Import Water From Another Basin:**

By the same token, SNWA has not justified the need to import water from another basin. SNWA has available to it other more feasible and cost-effective options, such as increased water conservation and the use of desalination for downstream Colorado River users in exchange for additional Colorado River water. The State Engineer should not permit such a massive interbasin transfer project, which is likely to be so economically and environmentally damaging to the basins of origin and hydrologically connected downgradient basins in the same flow system, when more cost-effective and environmentally sound alternatives are readily available to the Applicant. The current per capita water use in SNWA's service area currently far exceeds that of similarly situated western cities. Thus, there is significant potential for more cost-effective conservation alternatives, which would avoid the devastating impacts to the basins of origin. Additionally, given the current population, housing, and water use trends, the water demand projections that SNWA has been using to justify the Pipeline Project are no longer credible. So, the State Engineer should deny the applications pursuant to NRS § 533.370(6)(a) because SNWA has not justified the need to import water from another basin.

7. The Applicant Has Not Implemented A Sufficient Conservation Plan:

Given the fragility of rural Nevada's high desert ecosystems and the absolutely vital role their scarce water resources play in supporting rural economies, agriculture, and flora and fauna, it should be mandatory for SNWA and its client water districts to achieve the highest practicable level of water conservation – as measured by reference to presently available technologies and methods and to the highest conservation levels achieved by sister western cities – before being permitted to transfer groundwater from rural basins of origin to SNWA's service area to feed its growth and excessive per capita water use.

SNWA's conservation plan falls far short of meeting this goal. The current per capita water use in SNWA's service area currently far exceeds that of similarly situated western cities. The State Engineer should require SNWA to submit a conservation plan that utilizes all feasible conservation strategies to achieve concrete conservation goals that are at least as aggressive as those of the most conservation-minded other western cities. Unless SNWA submits such a plan, the State Engineer should deny the applications pursuant to NRS § 533.370(6)(b).

8. The Applicant Has Not Demonstrated The Good Faith Intent Or Financial Ability And Reasonable Expectation To Actually Construct The Work And Apply The Water To The Intended Beneficial Use With Reasonable Diligence:

A. Changed Circumstances, Uncertain Intent, Doubtful Financing:

To date, the Applicant has not provided the State Engineer or the public with a cost projection for the pipeline project. Estimates for such a project, however, are in the tens of billions of dollars. As SNWA's top management has stated, SNWA does not plan to build this Project in the near future and may never build it, saying they simply want to ensure that they have the option of doing so should they decide to in the future. *See* Brendan Riley, *Authority Keeps Pipeline Options Open: Mulroy Wants Construction Permits in Hand*, Las Vegas Review Journal, Feb. 12, 2009, *available at:* http:///www.lvrj.com/news/39483777.html. Further, General Manager, Patricia Mulroy publicly conceded that with the profound economic downturn that has settled with particular severity on southern Nevada, SNWA's financial base has dramatically contracted, calling into

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question its ability to construct such a project. *See* I-Team, *Dire Predictions Made on Las Vegas Water Supply*, Channel 8 Eyewitness News, Feb. 11, 2009, *available at* http://www.lasvegasnow.com/Global/story.asp?s=9829711. Because it appears that SNWA may never construct the project and that SNWA's ability to obtain financing for the project is highly doubtful, the State Engineer should deny the Application pursuant to NRS § 533.370(1)(c) as a speculative request to tie up Nevada's water resources indefinitely.

B. Failure To Demonstrate Ability to Access Land Containing Point of Diversion:

The Applicant has not demonstrated a reasonable expectation or ability to put the water to beneficial use because it does not have access to the lands on which the potential point of diversion is located. In some instances, the Applicant has not even begun the process to establish access, showing that Applicant does not have the expectation or intention to and is not likely to develop the water in a reasonable time with reasonable diligence.

9. Protestant Reserves The Right To Amend This Protest As May Be Warranted By Future Developments:

SNWA's proposed groundwater export project is on a scale never before seen in Nevada, or in the United States. Thus, it is not possible to anticipate all potential adverse impacts without further study. New scientific or other data and changed circumstances may uncover different bases for this protest. Accordingly, the above-named Protestant reserves the right to amend the subject protest to include such issues as they develop.

10. Incorporation Of Other Protests To SNWA's Applications By Reference:

The above-named Protestant additionally incorporates by reference as though fully set forth herein and adopts as its own, each and every reason or ground for other protests to this Application and/or to any Application filed that is included in SNWA's groundwater export project and filed pursuant to NRS § 533.365.