Pursuant to Rule 15(a) of the Federal Rules of Civil Procedure, Plaintiffs, Quaterra Alaska, Inc., a wholly owned subsidiary of Quaterra Resources, Inc. (Quaterra), and the Arizona Utah Local Economic Coalition (Coalition) on behalf of named member the Board of Supervisors, Mohave County, Arizona (Mohave County), by and through counsel, to file their First Amended Complaint for Declaratory and Injunctive Relief against Defendants Ken Salazar, in his official capacity as the Secretary of the U.S. Department of the Interior, the U.S. Department of the Interior (DOI), Robert V. Abbey, the Director of the U.S. Bureau of Land Management (BLM), and allege as follows:

INTRODUCTION

1. Plaintiffs Quaterra and the Coalition challenge the actions of the DOI Secretary to close more than one million acres of federal land to all mining, on the grounds that the withdrawal cannot be justified as necessary to protect the Grand Canyon watershed from the impacts of uranium mining. In making the Northern Arizona Withdrawal (NAW), Public Land Order No. 7787, 77 Fed. Reg. 2563 (2012), Defendants failed to follow proper procedures under the Federal Land Policy and Management Act (FLPMA) and the National Environmental Policy Act (NEPA), to coordinate with the Coalition members including Mohave County to avoid conflicts with county and local plans, to make a decision based on evidence rather than political rhetoric, to resolve scientific controversies, and to adequately address the material public comments. Had Defendants followed the FLPMA and NEPA procedures, they could not have rationally concluded that the million acre withdrawal was necessary to protect the natural resources and, in particular, the Grand Canyon watershed. The overwhelming scientific data

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show that uranium mining of breccia pipe formations within the withdrawal would

have no adverse impacts on the Colorado River or its watershed. Defendants'

own analysis also concluded that the existing laws and rules fully protect Native

watershed and effectively deprived Plaintiff Quaterra of its investment in uranium

communities in South Fredonia, Arizona, and Utah of tens of millions of dollars in

revenues and jobs, further inhibiting the state and local government efforts to

American cultural sites and resources. By ignoring both the science and the

facts, Defendants' actions have done nothing to protect the Grand Canyon

deposits and deprived Coalition members, Mohave County, the affected

recover from the worst economic recession in 80 years.

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JURISDICTION AND VENUE

- 2. This Court has jurisdiction under 28 U.S.C. §1331 [federal question]; 28 U.S.C. §2201 [declaratory judgment]; 28 U.S.C. §1361 [mandamus]; and the Administrative Procedure Act (APA), 5 U.S.C. §§701-706. The claims asserted herein arise under the laws of the United States, including but not limited to, the Mining Laws, as amended, 30 U.S.C. §§21 *et seq.*; the Federal Land Policy and Management Act (FLPMA), 43 U.S.C. §§1701-1784; the National Environmental Policy Act (NEPA), 42 U.S.C. §§4321-4334; and the respective implementing regulations, 43 C.F.R. Part 3800; 40 C.F.R. Part 1500; and the APA, 5 U.S.C. §§701-706.
- 3. Judicial review is authorized pursuant to the APA, 5 U.S.C. §§701-706. The action is final because Interior Secretary Salazar signed the challenged decision documents, thereby marking the end of the agency decision process. The challenged decision has a direct and concrete impact on the legally-protected interests of Quaterra in its mining claims; a direct impact on

Coalition member, Mohave County's, environmental interests and statutory functions; and a direct impact on the Coalition members' economic, environmental, and social interests.

4. Venue is properly laid in this Court pursuant to 28 U.S.C. §1391(e), because the case and controversy pertains to federal lands located in Arizona.

PARTIES

- 5. Quaterra Alaska, Inc. is a wholly-owned subsidiary of Quaterra Resources, Inc. and is incorporated under the laws of Alaska. It is registered to do business and conduct operations in the states of Arizona, Nevada, and Utah where Quaterra Alaska holds and explores mineral properties. The parent company, Quaterra Resources, Inc. is incorporated under the laws of British Columbia with its shares listed for trading on the TSX-Venture Exchange in Canada and the American Stock Exchange in the United States of America.
- 6. Mohave County is a member of the Arizona Utah Local Economic Coalition, which was formed by local governments in Arizona and Utah. The Coalition was established for two primary purposes: (1) to make it more convenient for the Secretary to coordinate with the governments by meeting together in joint meetings, and (2) to consolidate their resources in what they determined would be a struggle to protect their citizens from the serious economic, environmental, and social impacts if the withdrawal were to be executed. Other Coalition members include the City of Fredonia, Arizona and the Utah Counties of Garfield, Kane, San Juan, and Washington.
- 7. Members of the Coalition were granted cooperating agency status in the development of the Northern Arizona Withdrawal Environmental Impact Statement (NAW EIS). As a cooperating agency each local government has a

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§4332(2)(C), 40 C.F.R. §§1502.16(c), 1506.2(d), including Mohave County in Arizona, and Garfield, Kane, San Juan, and Washington Counties in Utah. Northern Arizona Withdrawal (NAW) Final Environmental Impact Statement (FEIS), 1-10-1-11. Two uranium mills are located in Garfield County and San Juan County, respectively and these mills are important to the local economies. Uranium mining would bring the second mill out of stand-by status. In addition, both Counties have a direct interest in the environmental impacts caused by uranium mining, transportation, and processing because of their proximity to the NAW.

- 8. Kane County, Utah lies just north of the North Parcel of the NAW, and its residents have historically been employed in the mining business on the Arizona Strip. Because of its location, Kane County also has a significant interest in environmental impacts caused by uranium mining, transportation, and processing.
- 9. Washington County is a cooperating agency because Arizona Strip mining is the primary source of income and employment for its residents. FEIS, 1-10-1-11. All of these Counties, because of their proximity to the NAW, have direct interests not only in their local economies but also the environmental impacts caused by uranium mining.
- 10. Though not a cooperating agency, the City of Fredonia, Arizona is located just north of the North Parcel of the NAW and has a direct interest in the economic impacts and environmental impacts of the NAW. Fredonia is a coalition member and works with the local governments in the interest of salvaging an important project.

- 11. A large portion of the North Parcel is in Mohave County, Arizona. Mohave County is a statutorily established unit of local government authorized by Arizona state law to perform numerous governmental functions. A.R.S. §11-251. The withdrawal adversely impacts the socioeconomic and environmental interests of the County. The rest of the North Parcel is in Coconino County, which includes the City of Fredonia.
- 12. As a cooperating agency, Mohave County adopted a Comprehensive Land Use Plan pursuant to Arizona State Law to protect its environmental interests. A.R.S. §11-804. For lands under its jurisdiction, Mohave County must "conserve the natural resources of the county," maintain "air quality," and plan "for water resources." *Id*.
- 13. Defendant Ken Salazar is sued in his official capacity as DOI Secretary. Secretary Salazar signed the public land order closing more than one million acres of federal land to mining [Public Land Order 7787 Withdrawal of Public and National Forest System Lands in the Grand Canyon Watershed; Arizona] and the Record of Decision (ROD) for the NAW FEIS, which is the subject of this action. Secretary Salazar is the cabinet-level officer delegated by Congress to implement laws governing mineral development on federal lands.
- 14. Defendant DOI is the department of the federal government to which Congress delegated the authority to administer the public lands in accordance with the Constitution of the United States and federal law.
- 15. Defendant Robert V. Abbey is the Director of the BLM. In his official capacity, Director Abbey is responsible for managing the public lands in accordance with the U.S. Constitution and federal law.

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16. Defendant BLM is an agency within DOI, and was the agency responsible for writing the Northern Arizona Proposed Withdrawal EIS which has failed to comply with the requirements of NEPA as discussed in this Complaint.

STATEMENT OF FACTS

Plaintiffs' Interests

- 17. Quaterra holds 1,000 unpatented mining claims that were located pursuant to the 1872 Mining Law and in compliance with the laws and rules governing the location and exploration of unpatented mining claims on federal lands. Quaterra also holds Mineral Exploration Permits on a total of 3,781 acres in nine sections of school trust lands from the Arizona State Land Department.
- 18. Quaterra's mining claims are located entirely within the North Parcel of the NAW. Quaterra has invested more than twelve million dollars since 2005 in the Arizona Strip, which represents approximately 30% of the Company's total exploration expenditures for North America. Quaterra seeks to expand its exploration activities and locate additional mining claims.
- 19. The NAW freezes Quaterra's development plans, because the withdrawal limits development to valid mining claims, as that term is defined under the 1872 Mining Laws and case law. Defendants stated that no activity will occur unless and until BLM concludes that each claim is valid, a lengthy and expensive process. BLM's planned actions to contest and declare invalid all of the claims contradict the Secretary's statements that his action will allow mining on the existing mining claims to proceed, albeit more cautiously.
- 20. Quaterra's legal interests in its mining claims fall within the "zone of interests" under FLPMA, which establishes policy to manage public lands to
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meet the Mining and Minerals Policy Act, 43 U.S.C. §1701(a)(12), and names mineral development one of the five principal multiple uses of public lands. 43 U.S.C. §1702(I). Quaterra's interests also fall within the "zone of interests" under NEPA, because Quaterra has effectively reclaimed its drilling and mine sites to protect air and water quality and restore the vegetation. Quaterra's activities also contributed to the knowledge of cultural and archaeological resources since each drill site was inventoried before beginning work.

- 21. NEPA is one of the laws used to regulate Quaterra's mining activities on federal land and provides for a number of procedural rights relating to the public comment and analysis process of the proposed action. Quaterra participated throughout the development of the EIS and submitted comments on the notice of intent to prepare an EIS, on the DEIS, and on the FEIS before the ROD was signed. Quaterra suffered procedural injuries in that Defendants dismissed or ignored its technical and material comments. Had Defendants addressed comments in a meaningful way, using the best science available, their decisions would have been very different.
- 22. A decision finding that the Secretary failed to follow the criteria and procedures for a withdrawal and setting the withdrawal aside would restore the public lands to the status quo ante and allow Quaterra to proceed to develop the mineral deposits that it has lawfully claimed and work to locate new claims.
- 23. Mohave County, as well as other members of the Coalition, participated as cooperating agencies in the preparation of the EIS and further exercised their right to coordination in all land use planning efforts.
- 24. At the beginning of the study process to evaluate whether a withdrawal was necessary, the Coalition members wrote demanding that BLM Page 7 of 52 First Amended Complaint for Declaratory and Injunctive Relief

recognize its obligation to coordinate. Mohave County has a mandate to retain environmental quality and to capitalize on its wealth of natural, built and human resources. Mohave County General Plan, p.23 (revised as of November 15, 2010). This mandate includes the "growth of communities that maintain the health and integrity of its valuable environmental features;" the protection of "wetlands, washes, aquifer recharge areas, areas of unique flora and fauna, and areas with scenic, historic, cultural and recreational value;" and avoiding industrial development that has the "undesired effect of increasing air pollution." *Id.*

- 25. In this respect, unlike power plants using natural gas, coal, and oil, nuclear power plants do not generate atmospheric pollution and do not emit carbon dioxide, sulfur dioxide, or nitrogen oxides. Every metric ton of mined uranium used in place of coal eliminates the emission of 40,000 metric tons of carbon dioxide. Mohave County is one of the Arizona counties that receives electricity generated by nuclear power from the Palo Verde Nuclear Generation Station and so benefits from the lower levels of carbon emissions from nuclear power generation.
- 26. In 2009, the Board of Supervisors in Mohave County voted to support uranium mining in the Arizona Strip because it creates jobs, provides critical fuel for nuclear power plants and does not adversely affect the local groundwater aquifers or threaten the Grand Canyon.
- 27. The Board of Supervisors of Mohave County, in order to conserve and promote the public health, safety, and general welfare, "shall within its territorial limits, or any portion thereof, investigate the degree to which the atmosphere of the county is contaminated by air pollution and the causes,
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sources, and extent of such air pollution." A.R.S. 49-473. The Mohave County land use plan identifies paving roads as an important way to reduce dust and improve air quality. Mohave County General Plan at 34.

- 28. Mohave County has 1,277 miles of unpaved roads, most of which are necessary for access to livestock grazing allotments, hunting, and recreation. These roads are also used to access the mining claims and would provide the backbone for access to the developed mining sites.
- 29. Under state law, Mohave County is responsible for maintaining and improving public roads. Due to budget considerations, the County selectively maintains the road system. The increased demand for access would generate funds to better maintain the roads, reduce dust emissions, and control erosion.
- 30. While use of the existing unpaved roads would increase if the planned uranium mining were to proceed, these roads would be improved to accommodate the increased traffic and would be paved to meet demands, thus reducing soil erosion and dust emissions from motor vehicle use of unimproved roads.
- 31. The Interior Secretary's closure of over one million acres of federal land to uranium mining, therefore, adversely affects Mohave County's legally protected interest in air and water quality.

Statutory and Regulatory Background

32. Congress declared federal lands open for mining and mineral development unless specifically closed or withdrawn. 30 U.S.C. §21a. The law grants any person the right to explore and develop minerals on federal land not

withdrawn from mineral use, and upon a discovery of a valuable mineral, the right to apply for a patent. *Id.* at §§22, 29.

- 33. In exchange for the right to develop minerals on federal land, the person assumes all of the costs and risks of mining the valuable minerals. The person also assumes the responsibility to comply with state and federal laws, which impose a complex net of laws, regulations, and compliance procedures. *FLPMA*
- 34. FLPMA governs public land management and the withdrawal procedures to close public lands to mineral development. Adopted in 1976, it reaffirmed federal ownership of public lands and dedicated them to multiple use and sustained yield management. 43 U.S.C. §§1701(a)(1), (7); 1732(b). It also directed BLM to manage the public lands for six primary or principal multiple uses: (1) mineral development; (2) recreation; (3) livestock grazing; (4) rights-of-way; (5) fish and wildlife; and (6) timber. *Id.* at §1702(I). Closure of the public lands to any principal multiple use is a major land management decision that triggers reporting to Congress and amendment of the applicable land use plan, after coordination with state and local governments and public comment. 43 U.S.C. §1712(e).
- 35. FLPMA directs that "the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands including implementation of the Mining and Minerals Policy Act of 1970 (84 Stat. 1876, 30 U.S.C. 21a) as it pertains to the public lands." 43 U.S.C. §1701(a)(12). This policy is implemented through the dedication of public lands to multiple use, and the principal multiple uses, including mineral development. *Id.* at §1702(I).

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36. FLPMA also commits BLM to work closely with and to coordinate with state and local government agencies. 43 U.S.C. §§1712(a); 1712(c)(9). Section 202(c)(9) states that BLM will

to the extent consistent with the laws governing the administration of the public lands, coordinate the land use inventory, planning, and management activities of or for such lands with the land use planning and management programs of other Federal departments and agencies and of the States and local governments within which the lands are located.

43 U.S.C. §1712(c)(9).

Federal land use plans are also to be consistent with those of state and local governments. *Id.* ("Land use plans of the Secretary under this section shall be consistent with State and local plans to the maximum extent he finds consistent with Federal law and the purposes of this Act.")

- 37. Public lands are to be managed pursuant to land use plans that guide all future management. 43 U.S.C. §1732(b). FLPMA also directs that public lands be managed to avoid undue and unnecessary degradation. *Id.*BLM adopted and revised regulations for all mining exploration and development to ensure that mining conforms to this nondegradation standard. 43 C.F.R. Part 3800 (2000).
 - 38. Under Arizona law,

If a county has laws, regulations, plans or policies that are less restrictive than a federal or state regulation, rule, plan or policy, the county shall demand by any lawful means that the federal or state government coordinate with the county before the federal or state government implements, enforces, expands or extends the federal regulation, rule, plan or policy within the county's jurisdictional boundaries. . . If the federal or state government fails to coordinate

in good faith with the county, the county shall hold public hearings, consider the evidence and vote on whether to authorize litigation to enforce the county's coordination rights.

A.R.S. §11-269.09.

- 39. Mohave County passed Resolution 2009-040 on February 5, 2009. The resolution urges Congress to preserve access to the uranium reserves of northern Arizona in order to meet America's demand for clean non-carbon emitting energy and energy independence (Mohave County 2009). The proposed withdrawal is inconsistent with County Resolution 2009-040.
- withdrawals and segregation orders had closed about 75% of the public lands to mineral development, FLPMA repealed most express withdrawal authorities, except for the Antiquities Act, and all implied withdrawal authority. Section 204 of FLPMA replaced the repealed laws and authority and governs all notices of segregation and withdrawal procedures. Section 204 adopts time limits on withdrawals and segregation orders and specific procedures to be followed for a withdrawal exceeding 5,000 acres or a withdrawal for more than six months. FLPMA further prescribes 12 factors for the Secretary to document, including whether the proposed land use justifies the withdrawal in light of environmental degradation or conflicts with existing or future land uses, the views of state and local governments, and the economic impacts to the state and communities. 43 U.S.C. §1714(c)(2). All withdrawals must be reported to Congress within 90 days. *Id.* at §§1712(e)(2); 1714(c)(1).

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Cultural and Native American Resources

- 41. Native American resources and sites are protected under the Archaeological Resources Protection Act (ARPA), 16 U.S.C. §§470aa-470ll, the Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. §3001, the National Historic Preservation Act (NHPA), 16 U.S.C. §§470-470x-6 and 36 C.F.R. Part 800, FLPMA, and NEPA. Native American religious practices are protected under the Religious Land Use and Institutionalized Persons Act (RLUIPA), 42 U.S.C. Part 2000cc, which prohibits land uses that burden religious practices.
- 42. The law and implementing rules for archaeological or cultural sites primarily require that a project avoid the protected site or resources. The laws protect all sites listed on the National Historic Register and all sites that may be potentially eligible. 36 C.F.R. §800.4(c); 43 C.F.R. §3809.420(b)(8). In the rare situation when avoidance is not an option, the archaeological or cultural resources will be excavated through data recovery. 43 C.F.R. §§3809.5; 3809.401(c)(1); 3809.415(a); 3809.420.
- 43. BLM has adopted a series of manuals that govern the protection of cultural and historical resources and archaeological sites. Department Manual (DM) 8100 Foundations for Managing Cultural Resources; 8110 Identifying and Evaluating Cultural Resources; 8120 Coordination with Tribes; 8130 Planning for Uses of Cultural Resources; 8140 Protecting Cultural Resources; 8150 Permitting Uses of Cultural Resources; 8170 Interpreting Cultural Resources for Public Use.

Additional Laws and Regulations Governing Uranium Mining

- 44. Uranium mining has changed dramatically since the days of the Cold War when uranium mines dotted the landscape in Utah, Colorado, and northwestern New Mexico.
- 45. Since its establishment in 1970, the EPA has been responsible for protecting the public health and the environment from avoidable exposures to radiation. The EPA sets standards for the management and disposal of radioactive wastes and guidelines relating to control of radiation exposure under the Atomic Energy Act, the Clean Air Act, and other legislation. The EPA must determine what levels or limits are necessary to protect human health and the environment and how to implement these measures.
- 46. Section 112 of the Clean Air Act (CAA) requires the EPA to regulate airborne emissions of hazardous air pollutants (HAPs) (including radionuclides) from a specific list of industrial sources called "source categories." Each source category that emits radionuclides in significant quantities must meet technology requirements and the related emission limits. 42 U.S.C. §7412.
- 47. These standards are called the National Emission Standards for Hazardous Air Pollutants for Radionuclides (Rad NESHAPs), and were published by the EPA in 1989. 54 Fed. Reg. 51654 (1989). The EPA was required to determine an acceptable risk to health in setting Rad NESHAPS standards that provided an ample margin of safety to protect the public health. 42 U.S.C. § 7412(b)(1)(B) (1982).
- 48. Subpart B of the EPA's Rad NESHAPs imposes emission limits to protect the public and the environment from the radon-222 emissions from

underground uranium mines. The EPA sets an annual dose per person emission limit of radon-222. Owners or operators of each mine must calculate the effective dose equivalent for any member of the public and report this information to the EPA annually. All sampling done during data collection must follow EPA-approved procedures. 40 C.F.R. Pt. 61, Subpart B. Pursuant to the CAA, the EPA has determined that the limit protects the public with an ample margin of safety. 54 Fed. Reg. at 51678.

- 49. In 1982, pursuant to the Federal Water Pollution Control Act of 1972, as amended by the Clean Water Act of 1977 (CWA), 33 U.S.C. §§1311, 1314, 1316, 1317, 1361, the EPA established national technology-based effluent guideline limitations for discharges from uranium mines and mills. 47 Fed. Reg. 54609 (1982).
- 50. These regulations set effluent limitations based upon best practicable control technology (BPT) and best achievable technology (BAT) for uranium mills and open-pit and underground uranium mines, including mines using *in situ* leach methods. Discharges from regulated operations must meet best available technology/best practicable technology (BAT/BPT) standards for zinc, arsenic, ammonia, dissolved radium 226, total radium 226, uranium, total suspended solids, chemical oxygen demand (COD), and pH. 40 C.F.R. Part 440, Subpart C.
- 51. Under the CWA's Water Quality Act amendments of 1987, the EPA promulgated regulations that specifically address point-source discharges of storm water from industrial facilities, including active and inactive/abandoned mine sites. 55 Fed. Reg. 47990 (1990). These regulations require NPDES

permits for all point source discharges of contaminated storm water from mine sites. 40 C.F.R. §§122.21, 122.22, 122.26, 122.28, 122.42.

52. The Arizona Department of Environmental Quality (ADEQ) implements the federal regulatory authorities through state law and delegation from EPA. A.R.S. §§49-202 (water quality regulation); 49-402 (air quality delegation); 49-426.03 (hazardous air pollutants); 49-243.01 (effluent limitations).

Northern Arizona Federal Land

- 53. The area now called the Grand Canyon National Park (GCNP) was initially established as a national monument pursuant to the Antiquities Act in 1907. 16 U.S.C. §§431-433. Congress enlarged the park in 1919 to include portions of the Grand Canyon Game Preserve, and then in 1975, Marble Canyon and Grand Canyon National Monuments were made a part of the park giving it its current boundaries. The boundaries of the park today include 1,218,376 acres of land that protect both sides of the Colorado River for 277 miles. There is no mining in the national park.
- 54. The Arizona Wilderness Act of 1984 designated several wilderness areas surrounding the GCNP, including the Kanab Wilderness, and released the public lands not designated for wilderness to multiple use as determined in land use plans adopted under FLPMA. Pub.L. 98-406, 98 Stat. 1485, Title III, § 301(a)(3), Aug. 28, 1984. The Arizona Wilderness Act balanced the region's high mineral potential with the scenic, geologic, and recreation resources that merited wilderness preservation.

55. In 2000, President Clinton closed another 1.3 million acres of public lands in northern Arizona to all forms of mineral entry and development by creating the Grand Canyon-Parashant National Monument (GCPNM), 65 Fed. Reg. 35385 (2000), and the Vermilion Cliffs National Monument (VCNM), 65 Fed. Reg. 69227 (2000). One of the monuments' stated purposes was to protect the numerous archaeological and historical sites important to Native Americans.

- 56. The Arizona Strip Resource Management Plan of 2008 (2008 RMP) continued to implement the land use allocations of the Arizona Wilderness Act of 1984, and classified the non-wilderness public lands outside of the national monuments as suitable and available for mining.
- 57. The 2008 RMP designated and redesignated several Areas of Critical Environmental Concern (ACEC) to protect Native American resources under FLPMA, which makes the designation of ACECs a priority. 43 U.S.C. §1702(a); 43 C.F.R. §1601.0-5(a). The ACECs in the Arizona Strip RMP outside of the national monument designations are tied to unique cultural and heritage sites, geologic features, and sensitive or listed plants. The 2008 RMP identified ACECs to protect cultural resources in Johnson Spring, Lost Mountain Spring, Moonshine Ridge, Kanab Creek, and Marble Canyon. The 2008 RMP enlarged several previously designated ACECs based on newly identified cultural sites and resources, which occurred due to new inventories related to the uranium exploration.

Uranium Resource

58. Uranium mineralization occurs 1,000 to 1,700 feet below the surface in northern Arizona in and around vertical columns of broken (collapsed) and recemented rock (known as breccia pipes). The uranium deposits in the breccia Page 17 of 52

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pipes of northern Arizona are the highest grade in the United States and historically the most profitable hard rock uranium ore mined found in the United States. The 2010 U.S. Geological Survey Scientific Investigations Report 2010-5025 (USGS 2010-5025) estimates that the withdrawn land contains a mean undiscovered uranium endowment of 326 million pounds. This endowment is not a reserve because the withdrawal prohibits the investigations necessary to conduct an economic analysis of the mineralization, that is a critically important source for future domestic production. The 2008 U.S. Energy Information Agency estimates the total uranium reserves of the U.S. is 539 million pounds using an assumed price of \$50 a pound.

- 59. Uranium was mined from breccia pipes in the 1980s, but these mines closed in the early 1990s due to falling uranium prices. Industry interest in this region was rekindled in 2004 when prices increased and it was apparent that the era of availability of uranium from decommissioned weapons was coming to an end.
- 60. Mineralized uranium in breccia pipes is mined using underground methods rather than open pits or dissolution fluids (*in situ* leaching). The underground mining method results in lower dust emissions and fewer impacts to water. A developed mine site, including all roads and utilities, disturbs less than 20 acres. If all of the confirmed breccia pipes were developed into mines, the disturbed surface area would still be less than 1,364 acres or less than .15% of the total withdrawn area. FEIS, 4-111. The site is sprinkled with water throughout the operations to keep dust to a minimum both at the mine site and along the unpaved roads. The mined ore is trucked to a processing mill in

Blanding, Utah and the remaining waste rock is backfilled into the mine once mining is completed and the site is reclaimed.

- 61. It is probable that there are significantly more uranium bearing breccia pipes within the withdrawal boundaries than the 45 known breccia pipes discussed in the FEIS. All but two of the 45 known pipes penetrate the surface. Pipes that do not reach the surface are called "blind" pipes. Because they do not come to the surface, blind pipes have historically been difficult to find but are very strongly uranium mineralized. One of the two known blind breccia pipes (Hack 2) is the largest breccia pipe uranium deposit ever discovered.
- 62. Quaterra used airborne geophysical exploration to survey 422 square miles (27%) of the withdrawn land. The survey identified all known pipes and more than 200 targets that had a similar geophysical signature, most of which are thought to be blind breccia pipes. Subsequent drill tests of seven of these features had a 70% success ratio in identifying new breccia pipe structures. Quaterra comments to DEIS, p. 12, May 12th 2011. The FEIS omits the probability of blind breccia pipe deposits in calculating uranium endowment and lost economic opportunities.
- 63. The results of Quaterra's airborne geophysical survey and the subsequent drill tests indicated that the total withdrawn area (1,573 square miles) could contain 522 breccia pipe structures (200 targets/0.27 percent total withdrawn area x 0.70 success ratio). Of the 45 drill-confirmed breccia pipes on the withdrawn land, 16 (36%) are considered potentially economic deposits with uranium resources that have an average of 1.7 million pounds of uranium per deposit. Quaterra comments to DEIS, Table 1, p. 8, May 3, 2011. If the success percentage and average deposit size are applied to the estimated total of 522

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breccia pipes in the withdrawal, the withdrawal area possibly contains a total of 186 mineralized breccia pipes with a total of 317 million pounds (522 breccia pipes x 36% economic x 1.7 million pounds uranium per economic pipe). This estimate is very close to the 326 millions pounds of uranium endowment estimated by the USGS Report 2010-5025.

The Northern Arizona Withdrawal

- 64. Pursuant to Section 204(e) of FLPMA, the U.S. House of Representatives Committee on Natural Resources adopted a resolution on June 25, 2008, declaring an emergency in northern Arizona and directing Secretary Kempthorne to immediately withdraw 1,068,908 acres from location and entry under the Mining Law. The Republican members of the Committee did not vote on the measure. Soon after the Center for Biological Diversity (CBD) petitioned Secretary Kempthorne to comply with the Resolution.
- 65. The Interior Department responded to the Resources Committee in a letter stating that Section 204(e) was unconstitutional because a single committee of the House of Representatives cannot require a withdrawal of public lands, citing *Chadha v. Immigration and Naturalization Service*, 462 U.S. 919 (1983). CBD then filed suit to compel the Interior Secretary to make the withdrawal on September 27, 2008. *Center for Biological Diversity v. Kempthorne*, Civ. No. 08-8117. The matter was dismissed as moot once the withdrawal process was initiated.
- 66. With the election of President Obama, a coalition of environmental groups identified the withdrawal of the million acres in northern Arizona as one of the new administration's priorities for public lands. *Transition to Green: The Green Group's Transition Memo*, at 9-61 9-62, Nov. 2008.

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- 67. Secretary Salazar issued a Notice of Segregation on June 21, 2009, which closed the Federal lands from location and entry under the 1872 Mining Law for two years to allow various studies, including an EIS, to evaluate the impacts of uranium mining on the Grand Canyon watershed. Secretary Salazar directed the USGS to develop the scientific basis for analysis in the NAW EIS.
- 68. The EIS process was intended to objectively determine whether a withdrawal was necessary based on fact and science. The need for a withdrawal was hotly disputed within the BLM and by the public.
- 69. The DEIS, published on February 18, 2011, confirmed the purpose of the Proposed Withdrawal, stating, "the withdrawal was proposed in response to increased mining interest in the region's uranium deposits, as reflected in the number of new mining claim locations, and concern over potential impacts of uranium mining on the Grand Canyon watershed, adjacent to Grand Canyon National Park." DEIS, ES-1.
- 70. BLM did not identify a preferred alternative in the DEIS, stating, "BLM has not identified a preferred alternative in this DEIS and is soliciting public comments and input with respect to the identification of a preferred alternative. Based on a review of public comments, BLM will identify a preferred alternative in the Final EIS." DEIS, 2-29.
- 71. On June 21, 2011, with the two-year segregation about to expire and review of the DEIS and public comments not completed, Secretary Salazar issued an emergency six-month withdrawal order of the subject Federal lands pursuant to FLPMA, 43 U.S.C. §1714(e). PLO No. 7773. PLO 7773 incorporated by reference the stated purpose of the Notice of Segregation, which

was "to protect the Grand Canyon Watershed from adverse effects of locatable hardrock mineral exploration and mining." 76 Fed. Reg. 37826 (2011).

- 72. There was no emergency when Defendants signed PLO 7773. BLM informed the Washington officials that due to the volume and complexity of the comments, it could not complete the FEIS by July 21, 2011 when the notice of segregation would have expired.
- 73. When Secretary Salazar announced the emergency withdrawal, he also announced the preferred alternative to withdraw over one million acres from location and entry under the Mining Law to "ensure that all public lands adjacent to GCNP are protected from new hard rock mining claims, all of which are in the watershed of the Grand Canyon." Secretary Salazar said the decision was based on input from BLM Director Bob Abbey, National Park Service Director Jon Jarvis, USGS Director Marcia McNutt, and United States Forest Service Chief Tom Tidwell. Secretary Ken Salazar, Remarks from Mather Point at the Rim of the Grand Canyon (June 20, 2011).
- 74. Secretary Salazar did not coordinate with state or local governments in the selection of the preferred alternative. The Secretary did not consider the extensive public comments already submitted despite the earlier representations to the public, cooperating agencies, and other governmental organizations that their comments would influence the selection of a preferred alternative. By jumping the gun in announcing the preferred alternative, Secretary Salazar disregarded the views of state and local governments, the public, and he ignored the scientific issues in controversy.
- 75. On January 9, 2012, Secretary Salazar signed the ROD for the FEIS and PLO 7787. The two closed over one million acres of Federal land from Page 22 of 52

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location and entry under the Mining Law for 20 years in order "to protect the Grand Canyon Watershed from adverse effects of locatable mineral exploration and development," subject to valid existing rights. 77 Fed. Reg. 2563 (2012).

- 76. More than 4.36 million acres are closed to mineral development or approximately six percent of all of the federal land in the State of Arizona, including the GCNP, the National Monuments, the North Kaibab National Forest, various wilderness areas, and the NAW.
- 77. The ROD lists four reasons for the withdrawal: (1) uncertain effects to surface and ground waters; (2) potential impacts to tribal resources which could not be mitigated, because mining within sacred and traditional places of tribal peoples may degrade the values of those lands to the tribes; (3) potentially 11 mines will proceed even with the withdrawal, so mining will in fact continue and benefit the communities; and (4) the set of circumstances and unique resources located in this area support a cautious and careful approach.
- 78. The ROD concluded that uranium mining would harm the Grand Canyon watershed based on alleged uncertainties in data, including subsurface water movement, radionuclide migration, and biological toxicological pathways. The ROD's conclusion is contradicted by the USGS report and FEIS statements that the probabilities of adverse impacts to groundwater quality are low or unlikely.
- 79. Undercutting the conclusion that at least 11 mines would proceed, the ROD states that "neither the BLM nor the USFS will process a new notice or plan of operations until the surface managing agency conducts a mineral examination and determines that the mining claims on which the surface disturbance would occur were valid as of the date the lands were segregated or

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withdrawn." ROD at 6-7. A valid mining claim is limited to those claims where there is physical exposure of the mineral deposit, which demonstrates a discovery of valuable minerals of sufficient quality and quantity that a reasonable man would invest his own funds to develop the property.

- 80. The ROD cites extensively to the USGS 2010-5025 report. At the direction of Secretary Salazar, the USGS undertook the study of the impacts uranium mining on the natural resources of northern Arizona. The study was initiated after Secretary Salazar issued the two-year notice of segregation. The study was published as USGS 2010-5025 on February 17, 2010 and revised on August 2, 2010. Rather than extensively researching the impacts uranium mining may have, USGS relied on data and assumptions that were 20 years old to estimate the economic viability of the uranium endowment. USGS assumed a completely even distribution of breccia pipes for the entire region to estimate the total uranium endowment withdrawn by the NAW. Because of USGS's reliance on outdated data and generalized assumptions rather than scientific facts and actual current knowledge, the study added nothing to the scientific understanding of the impact uranium mining has on natural resources under modern methods and regulations. The USGS circumnavigated a legitimate peer-review process for USGS 2010-5025 by having it reviewed by other USGS employees, fellow co-workers with the same incentives and instructions as the authors. This allowed Defendants to dismiss any current information submitted from public comments as not peer-reviewed to the standard of USGS.
- 81. For the first time, the ROD justifies the withdrawal as necessary because mining impacts to Native American resources could not be entirely

mitigated. These unmitigated impacts are limited to the expressed belief that mining would wound the earth.

82. The ROD admitted that DOI did not consider the RMP land use decisions in the FEIS, dismissed them as irrelevant, because "uranium mining was not a major issue at the time it was being written." ROD at 19. This statement is patently incorrect. The RMP was written between April 2002 and January 2008 and it addressed concerns regarding uranium mining impacts. 2008 RMP FEIS, at 4-17, 4-48, 4-67, 4-175, 4-225, 4-383 (addressing cumulative impacts of mining activity); 5-110, 5-120, 5-259 (addressing calls for a ban on uranium mining). Even the NAW ROD admits that it was the "increase in new mining claim locations during the period of 2004 - 2008 that generated public concern." ROD at 3.

FEIS Conclusions and Findings

Lack of Impacts to the Quantity and Quality of the Redwall-Muav Aquifer

- 83. The FEIS analyzed the impacts of mining to the water quantity and quality of the Redwall-Muav Aquifer (R-aquifer), including potential migration of pollutants from mining downward into the aquifer.
- 84. The R-aquifer is located more than 1,000 feet below the base of a typical uranium mine that itself is usually about 1500 feet from the surface. The R-aquifer flows north towards Utah where it lies thousands of feet below the surface. FEIS at 4-61. The FEIS concludes that mining would have minimal impacts on the quantity of the water in the R-aquifer. FEIS at 4-67.
- 85. The FEIS also concludes that there is a low to no risk of adverse impacts on the water quality in the R-aquifer due to low permeability conditions

associated with ore deposits in breccia pipes and adjacent rock strata between the base of an uranium mine and the R-aquifer. The R-aquifer is covered by a 1,000-foot thick, unsaturated and practically impermeable layer of Supai Group Sandstone.

- 86. The FEIS also considered theoretical contamination from downward migration of surface or ground waters to the R-aquifer through fractures, faults, sinkholes, or breccia pipes, but concluded such migration is unlikely based on the region's hydrogeologic features. FEIS at 4-51. In addition, any plan of operations would address the site specific aspects which would address potential concern for contamination. The FEIS concludes that "deep drilling operations are projected to represent no impact or a negligible impact to R-aquifer water quality." FEIS at 4-67.
- 87. Further, the FEIS concludes that "AAC Title 12, Chapter 15, Article 8 requires proper construction and abandonment of wells to prevent cross-contamination of different aquifers." FEIS at 4-58-4-59. Both the R-aquifer and perched aquifers are protected by these regulations which were adopted in 1984.
- 88. The ROD cites the Orphan Lode mine, which lies outside of the withdrawal on the Southern Rim of the GCNP, as evidence of the uncertainty of hydrogeologic conditions below different mines. The FEIS admits that any impact to the R-aquifer from the Orphan Lode mine is due to lack of reclamation by the National Park Service (NPS) and that similar hydrogeologic conditions are not thought to exist in the withdrawal areas. FEIS at 3-64, 4-62.
- 89. The NPS purchased the Orphan Mine around 1962. Mining ceased in 1969, but the agency took no action to reclaim the site until the fall of 2008.
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As a result, its unreclaimed condition and location within two miles of the Colorado River has facilitated runoff from the unreclaimed site for almost 40 years.

90. Therefore, the FEIS contradicts the conclusion of the ROD that the "migration of mine released radionuclides is unknown" between the base of a mine and the R-aquifer. The FEIS concludes that radionuclide migration is highly unlikely and would be mitigated based on site-specific conditions. FEIS at 4-70.

Lack of Impact to Perched Aquifer Water Quality

- 91. Perched aquifers are small, thin, and discontinuous aquifers lying anywhere between a few feet to 300 feet below the surface. USGS 2010-2025 at 145. Perched aquifers depend on annual recharges from precipitation. Most perched aquifers are not potable if located near mineralized breccia pipes and the few wells that use potable perched water provide water for livestock grazing on the Federal lands.
- 92. Perched aquifers form where the breccia pipes reach the surface. These pipes are characterized by cones of structural depression in the Moenkopi silstone which often trap small amounts of water to form a small aquifer near the top of the Kaibab limestone.
- 93. The FEIS concludes that if drilling were uniform over the million acres, there would be a 13.3% chance that drilling may intersect such an aquifer. FEIS at 2-35. The intersection of the aquifer will not adversely affect water quality, only water quantity, and that effect is temporary.

- 94. These small perched aquifers have not been shown to flow outside of the breccia pipe. Mining operations use this water for drilling operations and dust suppression. Therefore, the only impact to the perched aquifer would be to the quantity of the water, which after reclamation, is likely to be restored. For instance, the Hermit mine, located in the center of the North Parcel, had one of the more significant perched tables. After reclamation, the well was reconditioned and once again offers a small supply of water for road maintenance and livestock.
- 95. Blind breccia pipes have no cone of depression to trap water for the development of perched aquifers so the risk of impacts to perched aquifers from blind breccia pipe uranium mining is substantially lower. Therefore, Defendants' own reports and the FEIS conclude that there is little risk of adverse impact to perched aquifers, because regulations and mining methods prevent any negative impact to the water quality or quantity of these perched aquifers.
- 96. The FEIS concludes that there is minimal risk of impact to perched aquifers "because the regulations are protective of groundwater, deep drilling operations that occurred after the regulations were adopted on March 5, 1984 (ADWR 2008), are considered to represent no impact or a negligible impact to the quantity and quality of perched groundwater available to perched aquifer springs or wells." FEIS at 4-59, 4-72.
- 97. The ROD incorrectly equates impacts on water quantity with impacts on quality declaring the risk of even a possible impact to be significant. As the FEIS states, drilling will temporarily affect quantity of water in a perched aquifer where operations drill into the trapped water. FEIS at 4-60. Thus, intersecting the aquifer and using the water in mine operations will affect the

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aquifer but will not have an adverse environmental effect on water quality.

Impacts to perched aquifers can be fully mitigated according to the site specific analysis prior to approval of the Plan of Operations.

Possible Impacts to Surface Waters

- 98. Like any other surface disturbance, uranium mining may affect surface waters through increased erosion. Erosion could occur through floods, flash floods, or debris flows, which may transport trace elements or radionuclides present on the surface to surface waters. Based on these possibilities, no matter how remote, the ROD concludes that these potential impacts to surface waters support the withdrawal while ignoring the FEIS conclusion that such impacts would be fully mitigated under existing regulations.
- 99. The FEIS states that "erosion-related impacts are effectively controlled under existing regulations; therefore, the overall impact to stream function in all three parcels would be expected to be negligible but might be moderate in some locations." FEIS at 4-87. Soil, water, and flood related controls are designed for site specific hydrologic conditions, as shown by all of the regulations listed in the FEIS at 4-70. These regulations effectively remove any concern regarding flood, flash flood, or debris flow, or wind blown contamination from mining activities.

Role of Background Radiation in Water Quality

100. The Colorado River has a natural concentration of uranium of 4 parts per billion (ppb), amounting to 86,000 to 176,400 pounds of uranium carried annually. AGS OFR-11-04 at 8.

101. The USGS concluded that the Grand Canyon watershed is affected by naturally eroding uranium from exposed breccia pipes located in adjacent lands where there has never been any mining. Weathering, evaporation, and erosion contribute to the naturally high concentrations of radionuclides in springs and surface waters in the region.

- 102. Under BLM rules, surface conditions are returned to their natural state during reclamation, as shown by the Hermit Mine, the only mine developed after 1984 and fully reclaimed. The reclaimed Hermit Mine site's average uranium concentration is below levels known to naturally occur in the region and none of the arsenic soil samples exceeded levels known to naturally occur in the region. USGS 2010-5025 at 112-116. The Hermit Mine shows that modern regulations and more stringent approval procedures have resolved issues of contaminated soils left by Cold War era mines.
- 103. The USGS looked for a correlation between higher concentrations of radionuclides in spring water near mining activities, but could not find a causal connection between current mining activities or reclaimed mine sites and higher spring water concentrations of radionuclides. USGS 2010-5025 at 141. Water quality near any breccia pipe, regardless of mining activity, is generally poor quality. Thus, the USGS could not find a causal link between changes in water quality and past mining.

Impacts to Cultural, Historical, and Archaeological Resources

104. The Defendants justified the withdrawal, for the first time, because "it is likely that the potential impacts to tribal resources could not be mitigated." ROD at 9.

- 105. The FEIS addresses the potential impacts of mining on cultural historic and archaeological resources and concludes that such impacts are negligible due to existing laws and regulations that either require avoidance or mitigation of any impacts. Depending on the individual location of mines, cultural resources may not be disturbed at all. FEIS at 4-213.
- 106. The regulations require a cultural resources inventory prior to all mining activities that involve surface disturbance. The FEIS concludes that there would be "no cumulative impacts to cultural resources are anticipated under Alternative A, [the No Action alternative]." FEIS at 4-216.
- 107. The FEIS also concludes that traditional cultural practices and important and sacred physical tribal sites and objects are protected from direct and indirect impacts of mining activities under FLPMA, NEPA, the ARPA, the NHPA, NAGPRA, the RLUIPA, as well as several corresponding regulations. Therefore, the only Native American resources discussed in the FEIS which may not be mitigated, are individual sensibilities, specifically, the belief that mining the earth for commercial gain is "wounding the earth." FEIS at 4-221. There is no legal protection or mitigation when these emotions are not tied to a particular site.
- 108. The FEIS does not disclose how these sensibilities are tied to the entire 1,006,545 acres of the withdrawal. This omission is further confused by the fact that the FEIS identifies only the Grand Canyon as the site of creation for the surrounding tribes and location of religious significance. The Grand Canyon is within the national park boundaries where mining is already prohibited.

 Additional lands next to GCNP also preclude mining, including the Parashant

and Vermillion Cliffs National Monuments, the Game Preserve in the Kaibab National Forest, and designated wilderness areas.

NEPA Procedures Were Not Followed

- 109. Secretary Salazar tainted the NEPA process when he announced the preferred alternative before BLM had completed its review of the public comments and written the FEIS. After the Secretary's announcement, BLM lacked the discretion to change the preferred alternative, regardless of the information and data found in the public comments.
- 110. The effect of the taint is particularly evident in the BLM responses to public comments and evidence contradicting the claimed need for the NAW. Instead of carefully responding to the material comments, which often provided more accurate and current data than found in the DEIS, BLM either ignored or dismissed the evidence as "no change is warranted" or "beyond the scope of this EIS." FEIS, 5-13 5-14, 5-35 5-36, 5-102 5-105, 5-108, 5-139 5-140, 5-150 5-153, 5-169 5-170, 5-227.

Uranium Resource Endowment

111. The FEIS greatly underestimates the number of mineralized breccia pipes and potential uranium resource of the NAW. Consequently, the FEIS fails to correctly analyze or address the financial implications of closing the withdrawal area to mining development. The FEIS relies on outdated data to minimize the amount of uranium in the NAW. As a result, the reasonable foreseeable development scenario uses erroneous assumptions to greatly reduce the significance of the withdrawal to the national interest and minimize

the projected revenues based on the percentage of uranium that can be mined economically.

- 112. The Defendants dismissed comments showing the accurate estimate of the uranium endowment, even though the comments were based on the results of 20 years of exploration and a total investment thought to exceed \$100 million in research by industry. Defendants' basis to dismiss the new data and comments was that they were not peer-reviewed, thus, were not credible and did not lead to a refinement of the assumptions made in the DEIS.
- 113. These comments were based on two estimates that have been presented with a published abstract that was subject to scrutiny by scientific audiences in three major technical conferences and upon invitation to the geological science department of a major university.
- 114. Defendants did not address the scientific controversy regarding the potential uranium resource of the withdrawn area. The FEIS used a single comment, unsupported by published data, in a 5-page, 22-year old Arizona Bureau of Geology and Mineral Technology publication, Wenrich and Sutphin (1988), as the principal technical source to reduce by 85% the USGS (2010-5025) uranium resource endowment estimate of 326 million pounds to a mere 49 million pounds of uranium. Wenrich and Sutphin wrote in 1988 "Although thousands of pipes may exist, only a small fraction of these, probably less than 8 percent, are mineralized, and an even smaller percentage of these, perhaps less than 10 percent, contain economic concentrations of minerals." This statement was not based on a calculated or published estimate. All comments by industry to the contrary were dismissed as "did not lead to a refinement of this estimate."

- 115. The 22-year old Wenrich and Sutphin (1988) report qualified the 10% economic estimate by further stating, "The potential for additional economic uranium mineralized breccia pipes is enormous and is greatest beneath the flat plateaus." This statement accurately describes the only area subject to the withdrawal but the qualifying comment is never addressed by the FEIS.
- 116. The Defendants further justified the enormous reduction to the endowment by stating that the USGS (2010-5025) estimate included very low uranium grades. The FEIS fails to recognize that the amount of uranium in the low grade material was insignificant or probably less that 1% of the total estimate.
- 117. The FEIS' assumption that only 15% of the uranium endowment can be mined economically is incorrect and reflects a lack of understanding of the deposits and mining. Of the 45 known mineralized breccia pipes within the withdrawal, 16 pipes (36%) have uranium deposits with a calculated average of 1.7 million pounds of uranium per pipe. An additional 18 breccia pipes have been proven by surface drilling to be mineralized but have not been tested by underground drilling. Underground drilling has historically increased estimates based on surface drilling by a factor of 2.5. Eight of the 16 pipes with known uranium deposits have not been drilled underground. If the factor of 2.5 is applied to these 8 pipes, the average total estimate per known pipe is 2.3 million pounds and many of the 18 mineralized pipes with no estimates would clearly fall into the economical category with additional drilling. Therefore, the total number of economic deposits known at the surface of the withdrawn land could be estimated at 76% of the known pipes, not the 15% used in the FEIS. Rather than discuss the wide disparities or dispute Quaterra's comments, BLM simply

dismissed the comment as not being any better justification than the 1988 estimate, which is a flatly incorrect statement.

- 118. Defendants chose to ignore the conclusions of the BLM Mineral Examiner's report that was completed for the requirements of 43 C.F.R. §2310.3-2. The August 2010 report for the withdrawal concludes: "Failure to develop uranium resources on the subject lands that have the potential of becoming part of the second most important uranium-producing region in the United States has far reaching economic implications, which are beyond the scope of this report." The BLM Mineral Report classifies the uranium potential of the withdrawn areas as "(H/D)"; the highest classification possible for both potential and level of certainty.
- 119. The DEIS totally neglected to conduct any study of uranium mineralized pipes in the Grand Canyon where a perfect exposure of the region's geology presents an unparalleled opportunity to make a rigorous and scientifically accurate assessment of the region's true uranium endowment.
- 120. Based on the determination of blind but viable breccia pipes,
 Quaterra calculated the mineralized breccia pipe density at different stratigraphic levels in the Grand Canyon and surrounding area to show that there may be 220 mineralized breccia pipes within the NAW. Quaterra Comments, at 9-10.

 Assuming that just one-half of the mineralized pipes are economically viable and using the historic estimate of 3 million pounds per developed breccia pipe uranium mine, the total economically viable uranium potential in the NAW could total 330 million pounds, not the 45 million pounds estimated by the FEIS.

 Quaterra Comments, at 9-11.

a north-south trending mineralized "corridor" that is approximately 45 miles wide by 110 miles long. All of the withdrawn area is in this corridor because the area was selected by drawling a line around the focus of the claim staking activity. More than three dozen pipes have been drilled outside of the corridor by Energy Fuels Nuclear. The pipes had large and well developed structures but lacked significant mineralization. The withdrawal will not impair 12% of the most favorable endowment USGS (2010-5025), but "seriously affect the potential development of the only uranium mineralized area" on federal lands. Quaterra Comments, at 6. These errors and others caused BLM to significantly understate the uranium endowment by 85%. This has, in turn, led Defendants to understate the impacts on national security and national interest, as well as the economic losses to the Arizona Treasury, jobs, and adverse impacts on the affected communities. Moreover, the higher endowment further shows that mining would be a long-term industrial activity providing jobs and income for 42 years, not the 20 years assumed in the FEIS.

Nearly all known mineralized pipes in the region have been found in

122. The FEIS claims that BLM consulted industry experts in 2010, including Quaterra, and that industry experts failed to rebut the 1988 "assumptions." This statement is contradicted by industry expert comments which Defendants then dismissed as not being based on "peer-reviewed" data, although NEPA does not require "peer-reviewed" data. If BLM had limited the public comments to peer reviewed data, it would have to discard virtually all of the public comments.

Economic Costs to Arizona and Mohave County

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- 123. The State of Arizona assesses a 2.5% severance tax on net sales of minerals mined in the state, accounting for 1.3% of the state's net taxable sales revenues. Arizona Department of Revenue, Fiscal Year 2011 Annual Report, at 35-38 (2011).
- 124. Without the withdrawal, uranium mining would contribute \$168 million to Arizona over a 42-year period from severance taxes alone. Corporate and individual income tax revenues would contribute another \$2 billion over the same time period. The NAW will cost the State of Arizona nearly 400 jobs directly related to mining and 688 jobs indirectly related to mining.
- 125. The withdrawal encompasses 57,617 acres of state school lands, which Arizona leases for mining and livestock grazing. Ten percent of revenues generated are used to manage these lands and all proceeds are used to support the public schools through the permanent state school fund in accordance with the grant of lands by the U.S. A.R.S. §§37-521, 37-527. State land mining royalties are typically 5-6% of the net production in addition to the 2.5% severance tax paid.
- 126. The Arizona Land Department estimated that the withdrawal would cost the state between \$1.5 million and \$18.5 million per mine that would have been developed on the 35 school sections identified by companies for exploration.
- 127. Socio-economically, Mohave County is directly affected by uranium exploration, mining and milling, and therefore is adversely impacted by the Department of the Interior's withdrawal of 1 million acres of the country's richest uranium resources. According to the September 2009 study, "Economic Impact of Uranium Mining on Coconino and Mohave Counties, Arizona", but for the Page 37 of 52

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withdrawal, there would be over a 40-year period: 1,078 new jobs in the project area; \$40 million annually from payroll; \$29.4 billion in output; \$2 billion in federal and state corporate income taxes; \$168 million in state severance taxes; and \$9.5 million in mining claims payments and fees to local governments. Other Coalition members face similar adverse impacts.

Access to Arizona State Trust Lands

- 128. Quaterra holds nine Mineral Exploration Permits on sections of school trust lands of the Arizona State Land Department, which are entirely surrounded by the NAW. Prior to the proposed withdrawal, Arizona had issued 35 exploration permits for the state lands located within the withdrawal. Access requires a right-of-way from BLM.
- 129. The FEIS states that there will be no impact on development of state and private lands. This statement is misleading because it omits the need for access across the public land necessary to mine such lands.
- BLM has broad discretion to deny right-of-way permits on the basis of adverse impacts on public land resources, such as riparian area or historic trail viewshed.
- Defendants fail to explain why the withdrawal is necessary to prevent any disturbance to the surface of the earth for commercial gain in deference to traditional tribal viewpoints but that it will grant access for the same activities on state lands.

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FIRST CAUSE OF ACTION

PLO 7787 WITHDRAWAL ARBITRARY AND CAPRICIOUS

- 132. Plaintiffs hereby incorporate by reference the allegations in paragraphs 1 through 131.
- 133. An agency action will be set aside when the action is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. §706(2)(A).
- 134. Arbitrary action is defined as when the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.
- 135. FLPMA prescribes the Interior Secretary's authority to withdraw public land to cases when the proposed use will cause environmental degradation, or if "existing and potential resource uses are incompatible with or in conflict with the proposed use." 43 U.S.C. §1714(c)(2)(1),(2), & (3). BLM must also document "the effect of the proposed uses, if any, on State and local government interests and the regional economy." *Id.* at §1714(c)(2)(8).
- 136. The ROD's conclusions of environmental degradation and conflicts with current and potential resource uses are contradicted by the record, most notably the FEIS. Thus, the rationale that PLO 7787 is necessary due to unknown adverse impacts to water quality is implausible and fails to account for the contrary factual and scientific conclusions in the FEIS and underlying documents.

- 137. FLPMA requires that BLM manage the public lands in conformance with the RMPs and that such management should prevent undue or unnecessary degradation. 43 U.S.C. §1732(b). The ROD fails to consider the provisions of the RMP, assuming incorrectly that uranium mining was not an issue in 2008. The impacts of uranium mining were an issue during the RMP process, contrary to the ROD's statement, and uranium mining was directly addressed with additional mitigation measures where appropriate.
- 138. The ROD's reliance on unknown impacts on water quality finds no support in the FEIS, which concludes that the impacts of uranium mining on quantity and quality of groundwater and surface waters would be negligible and fully mitigated under existing laws and regulations.
- 139. By adopting a decision rationale for which there is scant, if any, support in the record, Defendants have acted arbitrarily by not considering the relevant factors and for adopting a decision that runs counter to the evidence before Defendants. Because FLPMA requires evidence of environmental degradation, the withdrawal is unlawful under FLPMA.
- 140. PLO 7787 should be set aside on the grounds that it is arbitrary and capricious and Defendants should be enjoined from taking any action to implement PLO 7787.

SECOND CAUSE OF ACTION

PLO 7787 ARBITRARILY WITHDRAWS OVER ONE MILLION ACRES TO ADDRESS SUBJECTIVE SENSIBILITIES WHICH ENJOY NO LEGAL PROTECTION

- 141. Plaintiffs hereby incorporate by reference the allegations in paragraphs 1 through 140.
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- 142. Courts may reverse an agency decision as arbitrary and capricious when the agency relied on factors that Congress did not intend it to consider or offered an explanation for its decision that runs counter to the evidence or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.
- 143. Federal law protects and mitigates against disturbing Native American cultural, historical, and religious sites and objects through the ARPA, 16 U.S.C. §§470aa-470mm; the NHPA, 16 U.S.C. §§470-470s; the NAGPRA, 25 U.S.C. §3001 *et seq.*, and numerous other laws and regulations. Federal law also protects religious practices and prohibits federal action that will burden such practices under the RLUIPA, 42 U.S.C. §2000cc.
- 144. The ROD justifies the withdrawal because it was not possible to fully mitigate impacts on tribal resources.
- 145. The FEIS concludes that existing laws and regulations require that traditional and cultural sites be avoided entirely, and thus, mining would have little or no adverse impact on cultural sites or religious practices. FEIS, 4-213, 4-216, 4-218.
- 146. The only tribal interests that cannot be entirely mitigated are the subjective, emotional sensibilities that any mining anywhere in the entire region is contrary to tribal beliefs or feelings. This is described as "wounding the earth" through drilling or mining.
- 147. Federal law does not recognize the right to preclude land uses based solely on religious or cultural sensibilities. Sensibilities or feelings that are

separate from a site protected under the NHPA or religious practice protected by RLUIPA and enjoy no legal protection.

- 148. A withdrawal based on protecting sensibilities independent of legally protected sites and religious practices is arbitrary and capricious and contrary to law. It is based on irrelevant factors not recognized in law and exceeds the Secretary's authority.
- 149. PLO 7787 should be set aside on the grounds that it is arbitrary and capricious and Defendants should be enjoined from taking any action to implement PLO 7787.

THIRD CAUSE OF ACTION

DEFENDANTS VIOLATED NEPA PROCEDURES

- 150. Plaintiffs hereby incorporate the allegations made in paragraphs 1 through 149.
- 151. NEPA directs federal agencies, working in conjunction with local governments and the public, "to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." 42 U.S.C. §4331.
- 152. An agency's compliance with the provisions of NEPA is reviewed under the arbitrary and capricious standard of the APA and can be set aside if an agency adopted the ROD or acted "without observance of the procedure required by law." 5 U.S.C. §706(2)(D).
- 153. Though NEPA does not mandate a particular result, an EIS must contain a reasonably thorough discussion of the significant aspects of probable
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environmental consequences of the agency's actions to satisfy the requisite "hard look," and the EIS's form, content and preparation must foster both informed decision-making and informed public participation.

- 154. An EIS will be set aside and remanded for supplementation or revision when "the information in the initial EIS was so incomplete or misleading that the decision maker and the public could not make an informed comparison of the alternatives, revision of an EIS may be necessary to provide a reasonable, good faith, and objective presentation of the subjects required by NEPA."

 Animal Def. Council v. Hodel, 840 F.2d 1432, 1439 (9th Cir. 1988) (as cited in Native Ecosystems Council v. U.S. Forest Service, 418 F.3d 953, 965 (9th Cir. 2005)).
- 155. The regulations adopted by the Council on Environmental Quality (CEQ) to implement NEPA require an agency respond to public comments in the FEIS. "[T]he agency shall discuss at appropriate points in the final statement any responsible opposing view which was not adequately discussed in the draft statement and shall indicate the agency's response to the issues raised." 40 C.F.R. §1502.9(b).
- 156. NEPA also requires consideration of the comments by state and local governments and directs the federal agency to avoid conflicts with state and local government plans. 40 C.F.R. §§1502.16(c); 1506.2(d).
- 157. The FEIS and ROD fail to conform to the procedural mandates.

 First, the Secretary identified the preferred alternative and decision after the close of the comment period without consulting and coordinating with state and local governments, including Mohave County and other members of the Coalition. Second, the decision was selected without considering the extensive

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and technical comments demonstrating that most, if not all, of the key assumptions for the proposed action were wrong. Third, the final decision was already made and given the short time frame, BLM made no effort to address the material public comments. Had BLM done so, it would have concluded that the withdrawal would cost the nation and the state "the potential of becoming part of the second most important uranium-producing region in the United States", and that it would cost the State of Arizona \$168 million in direct revenues, state lands up to \$18.5 million per mine, and communities almost 400 direct mining jobs and 688 indirect jobs.

158. Failure to follow the nondiscretionary procedures, particularly resolving conflicts with state and local government programs, and addressing public comments renders the FEIS inadequate and on that basis it must be set aside.

FOURTH CAUSE OF ACTION

FEIS FAILED TO ADDRESS SCIENTIFIC CONTROVERSIES

- 159. Plaintiffs hereby incorporate the allegations made in paragraphs 1 through 158.
- 160. Scientific controversies regarding probable environmental consequences must be thoroughly discussed to ensure a "fully informed and well-considered" decision, including both beneficial and adverse impacts of a proposed action, uncertainties, and unique or unknown risks. 40 C.F.R. §§1503.4, 1502.9(b); 1508.27. Accurate and current data for economic and technical issues must also be considered, along with environmental amenities

and values, as these considerations affect the quality of the human environment. See 43 U.S.C. §4332.

- 161. An EIS's conclusions are suspect when the responsible agency ignores conflicting views and information of other agencies with pertinent expertise.
- 162. Cooperating agencies and public comments identified several scientific controversies, including: (1) impacts, if any, of uranium mining to water resources; (2) estimates of the uranium endowment; (3) the amount and distribution of the mineable uranium; and (4) adverse economic impacts to the State of Arizona and its communities from the withdrawal. The ROD and FEIS fail to acknowledge these issues as scientific uncertainties and do not provide further explanation or a basis that no change is warranted. The FEIS instead states "no change is necessary" to most requests or comments.
- 163. As one example, BLM refused to adjust its conclusions to reflect the water quality study done by the State of Arizona, Arizona Geological Survey that concluded mining would have no impact on water quality. A NPS hydrologist concluded that mining would not adversely affect the Grand Canyon watershed and declined to submit comments on the DEIS.
- 164. BLM's failure to disclose and either resolve scientific controversies or adequately explain its decision in the face of the scientific controversy violates NEPA. Defendants fail the "hard look" requirement of NEPA. The FEIS should be set aside and the withdrawal revoked.

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FIFTH CAUSE OF ACTION

FAILURE TO COORDINATE WITH LOCAL GOVERNMENTS

- 165. Plaintiffs hereby incorporate the allegations made in paragraphs 1 through 164.
- 166. Article IV, Section 3, Clause 2 of the United States Constitution section declares that the Congress shall regulate the federal lands. Congress exercised this constitutionally derived authority when it enacted FLPMA in 1976 and delegated to the Interior Secretary management responsibilities on lands administered by BLM.
- 167. The provisions of FLPMA require that the Secretary coordinate all federal plans and management actions with state and local governments. 43 U.S.C. §1712(c)(9). The withdrawal provisions in Section 204 of FLPMA are not exempted from the coordination mandate. FLPMA requires that the Secretary complete the coordination process prior to making any decision to withdraw lands from multiple use. *Id.* §1714(c)(2)(2), (7), (8).
- 168. As part of the coordination mandate, FLPMA requires the Secretary to provide local governments with prior and early notice of planning or decision making processes, to provide local government the opportunity for "meaningful" involvement in the "development" of plans and decisions, and to use every practicable effort to reach consistency between the federal plan or action and local policy. 43 U.S.C. §§1712(a); 1712(c)(9).
- 169. Secretary Salazar issued the notice of segregation without coordination with any local government in Garfield, Washington, San Juan, and Kane Counties in Utah, and Mohave County and Fredonia in Arizona. Neither

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he, nor any of his designees, gave prior notice to the governing bodies of these units of local government of the development of or issuance of the Notice of Segregation. Neither he, nor any of his designees, gave the governing bodies the opportunity of any type of involvement, let alone meaningful, in the development, planning, or issuance of the Notice.

170. The Notice of Segregation and the ultimate withdrawal of the public lands is inconsistent with the policies and planning efforts of Coalition members, including Mohave County. Neither the Secretary nor any of his designees made any effort, much less every practicable effort, to resolve inconsistencies between the decision to withdraw the public lands and local plans and policies of the named local governments. Defendants also failed to coordinate the segregation decision with the cities of Blanding, Utah and Fredonia, Arizona which are adversely affected by the decision.

- 171. This failure to coordinate violates Section 202 of FLPMA, 43 U.S.C. §1712(a), (c).
- 172. In response to Defendants' failure to coordinate the initial notice of segregation, Coalition members, Garfield, Washington, San Juan, Kane and Mohave Counties and the city of Fredonia, adopted resolutions asserting their authority to engage in coordination to resolve the inconsistency between the Secretary's interest in withdrawing the land from mining and their local policies of retaining the land in multiple use as Congress ordered when it exempted the lands from wilderness designations. The governing bodies of the named local governments demanded, in writing, that the Secretary and/or his designees coordinate with them in accordance with the requirements Congress imposed in exercising its constitutional authority over federal lands by enacting FLPMA.

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- 173. The BLM District Manager also failed to coordinate with the local governments before or after issuance of the Notice to Segregate. He was unable to coordinate prior to the issuance of the Notice because he was not even informed that the Notice was being prepared in Washington, D.C. and was not informed of the Notice until it was publically announced.
- 174. Scott Florence, the District Manager, attended the first coordination meeting called by the local government members of the Coalition. He advised the governing bodies, including Mohave County, that (a) he did not request segregation or withdrawal, (b) he would not have segregated or withdrawn the lands if it were up to him as manager of the District, (c) the orders for segregation and withdrawal came directly from the Secretary's office; and (d) he was not even involved in discussions of the segregation and withdrawal, prior to receiving notice from DC.
- 175. Mohave County and the other Coalition members served as cooperating agencies. Defendants followed a process that was equally dismissive of the local government plans and authority. BLM largely ignored the information and comments. BLM declined to accept additional economic information on the basis that the Secretary set a deadline and BLM could not consider information that would interfere with BLM meeting that deadline.
- 176. Neither the Secretary nor his designees notified the local governments of the decision to withdraw one million acres of public land. There was no coordination regarding development of or issuance of the withdrawal and none of the local governments were provided the opportunity to be meaningfully involved in the planning of or issuance of the decision. The Secretary and his designees made no effort, much less "every practicable effort", to resolve the

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inconsistencies between the withdrawal and the local governments' policies in favor of retaining the lands in multiple use as provided by Congress. By failing to coordinate, the Secretary and his designees violated FLPMA.

- 177. The Secretary and his designees were given advance notice of every meeting held by the local government coalition for the purpose of coordinating the planning of, development of, and/or issuance of the withdrawal order. Even though the designated District Manager attended the meetings, no effort was made to even discuss reconciliation of inconsistencies between the proposed and expected withdrawal and local policies. The designated District Manager was not even authorized by the Secretary to discuss efforts to reach consistency, and the Secretary himself did not attend the meetings. After being given every opportunity to coordinate, the Secretary and his designees refused to do so, in violation of FLPMA.
- 178. When the Secretary personally visited the area to be withdrawn, he was invited to meet with the local governing bodies for the purpose of coordinating his decision with them, and he failed to even acknowledge the invitation.
- order by the Secretary or his designees with members of the Coalition, and the failure to coordinate resulted in a flawed FEIS, which contains numerous misstatements as to the environmental, economic and social impacts on the citizens served by the local governments. The failure and refusal to coordinate resulted in an insufficient analysis of the human environment, an insufficiency which could have been avoided had the Secretary or his designees coordinated

in good faith with the local governing bodies familiar with the economic and social impacts of a decision to withdraw the lands.

180. The FEIS does not address the inconsistencies between the federal withdrawal and local plans and policies supporting retention of the lands in multiple use as Congress ordered and any efforts made by the BLM to resolve the inconsistencies. The failure of the Defendants to coordinate with the local governments violates FLPMA. Defendants' refusal to coordinate when specifically requested to do so constitutes substantive and substantial violations of law, sufficient for the Court to set aside PLO 7787 and the FEIS as having been adopted without following procedures mandated by law.

181. The failure to coordinate violates the provisions of FLPMA and also resulted in BLM failing to consider how the withdrawal will harm the interests of Mohave County and other members of the Coalition. Had BLM engaged in coordination in good faith, it would have considered removing the public land located in Mohave County from the withdrawal and would have considered how closing the land to uranium mining adversely affects Mohave County's air quality due to the fact that it will otherwise rely on coal-fired power plants. It would also have considered how reduced revenues to the State of Arizona and the impacted local counties impair other county functions including road maintenance that reduces erosion and management of desert tortoise habitat.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully requests that this Court:

- A. Declare unlawful and set aside PLO 7787 on the grounds the withdrawal violates FLPMA and is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;
- B. Declare unlawful and set aside PLO 7787 on the grounds that Defendants violated FLPMA by justifying the NAW on impacts to subjective emotional sensibilities that enjoy no legal recognition and are not tied to historical or traditional sites or religious practices that do enjoy legal protection;
- C. Declare and set aside as unlawful the ROD and FEIS on the grounds that Defendants violated the procedures established by NEPA by failing to identify and address issues in scientific controversy and failing to adequately address the public comments and;
- D. Set aside in the PLO 7787 Northern Arizona Withdrawal in its entirety;
- E. Issue a permanent injunction enjoining Defendants from implementing any aspect of the Northern Arizona Withdrawal; and
- F. Grant Plaintiffs such further relief as may be just, proper, and equitable.

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