



Utah Division of Water Rights
Utah State Engineer
1594 North Temple, Suite 220
P.O. Box 146300
Salt Lake City, Utah 84114-6300

May 25, 2009

Also Via FAX: 801-538-7467

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526-09

Re: Protest of Change Application a35402, Water Right 89-74

Dear Mr. Jones:

On behalf of The Center for Biological Diversity ("Center"), please accept the following Protest of the Change Application for Water Right 89-74, which seeks to change the point of diversion for this water right to facilitate and support the construction of a nuclear power plant in Emery County near the town of Green River.

The Center is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over 220,000 members and on-line activists throughout Utah and the United States.

The nature, design and requirements of the proposed nuclear power plant are almost completely unknown based on the information available to the public. The public is informed by Application a35402 that a water right diversion is requested to be moved from Kane County and Lake Powell to Emery County and the Green River in the amount of 29,600 acre-feet for the proposed purpose of constructing the Blue Castle Project nuclear power plant with an estimated capacity of 1500 to 3000 megawatts. We are also informed that a 100 acre, 2,000 acre feet holding pond will be constructed to support the nuclear plant's needs. Beyond this we know nothing of the plants design, hourly, daily or yearly water requirements, expected project life, plan for the disposal of wastes, safety designs, or other environmental protections or mitigations.

However, the change in point of diversion would result in water being taken from the Green River near the town of Green River. The Green River is critically important habitat for several imperiled species of fish, including the following species which are federally protected as Endangered under the Endangered Species Act:

- a. bonytail (*Gila elegans*)
- b. Colorado pikeminnow (*Ptychocheilus lucius*)
- c. humpback chub (*Gila cypha*)
- d. razorback sucker (*Xyrauchen texanus*)

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We are concerned that individuals of these species, particularly juveniles, could be killed or harmed, which is prohibited “take” under the Endangered Species Act,¹ by mean of their ingestion into the intakes for the nuclear plant. Such plants require vast amounts water during normal operations to absorb the waste heat left after making electricity, and to cool the reactor, equipment and buildings used in generating that electricity or for use in emergencies. The proposed plant is envisioned to being capable of producing 1500-3000 megawatts of electricity. Studies cite that a modern 1600 megawatt plant requires about 1,144,000 gallons of water per minute for once-through cooling.²

While screens and filters are used, the water pressure from such voluminous intake traps aquatic life in and against the filters resulting in their death. There is also potential take associated with the discharge of the cooling water back into the river. The warm discharge water alters the downstream habitat making it potentially unsuitable for the fish of concern. The impacts of reducing river flows and altering aquatic habitat characteristics during periods of drought may also result in take of some or all of the above species. In light of these impacts, the use of this water in this way will require an “incidental take permit” pursuant to section 10 of the Endangered Species Act.³

The Green River also provides habitat to the roundtail chub (*Gila robusta*), blueheaded sucker (*Catostomus discobolus*) and flannelmouth sucker (*Catostomus latipinnis*), all of which are species receiving special management under a Conservation Agreement in order to preclude the need for Federal listing.⁴ These species also could be adversely affected by the water diversion in the ways described above.

The Center is also concerned about the impacts of the disturbances from the power plant and reservoir upon terrestrial species protected under the ESA that are found in the general vicinity of the project’s location. The San Rafael cactus (*Pediocactus despainii*) is listed as Endangered, while the Jones’s cycladenia (*Cyladenia jonesii*) and the Maguire’s daisy (*Erigeron maguirei*) are listed as Threatened.⁵ Any Take of these species would fall under similar requirements for an Incidental Take Permit under the ESA.

Furthermore, the kit fox (*Vulpes macrotis*), white-tailed prairie dog (*Cynomys leucurus*), ferruginous hawk (*Buteo regalis*) and corn snake (*Elaphe guttata*) – all Utah species of

¹ The term “take” means “to harass, harm, pursue, hunt, shoot, would, kill, trap, capture, or collect, or to attempt to engage in any such conduct”. 16 U.S.C. § 1532(19).

² Union of Concerned Scientists, 2009. Issue Brief – Got Water? Nuclear Power Plant Cooling Water Needs. Accessed on-line on May 12, 2009 at:

http://www.ucsusa.org/nuclear_power/nuclear_power_technology/got-water-nuclear-power.html.

³ 16 U.S.C. § 1539.

⁴ Utah Conservation Data Center. Accessed May 12, 2009 at:

<http://dwrcdc.nr.utah.gov/ucdc/ViewReports/sscounty.htm> .

⁵ Utah Sensitive Species List, December 14, 2007. Accessed at

<http://dwrcdc.nr.utah.gov/ucdc/viewreports/sslist.htm> , on May 12, 2009.

concern – are reported to occur at or near to the proposed power plant and ancillary facilities.⁶

The Center asserts that the needs of federally and state protected wildlife and plant species and the maintenance of the natural condition of their habitats imposes a significant beneficial use consideration under Utah Code at 73-3-8 (ii) and 73-3-8 (v)(b)(i). We respectfully ask that you consider our concerns in any up-coming hearing and that you recognize us as a formal protestant under Utah Statute, R655-2-1.

I can be contacted at: rmrowka@biologicaldiversity.org, or postal mail at: 4261 Lily Glen Ct, North Las Vegas, NV 89032. My phone number is: 702-249-5821.

Thank you for your consideration in this matter.



Rob Mrowka
Conservation Advocate/Ecologist

⁶ *ibid*