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PROTEST FEE PAID

SC #11-02572

LATE PROTEST

OFFICE OF THE STATE ENGINEER
DIVISION OF WATER RIGHTS
STATE OF UTAH

In the Matter of Application for Permanent Change of Water (a37400) by the San Juan Spanish Valley Special Service District (Water Right No. 09-2349)	PROTEST and HEARING REQUEST June 22, 2011
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On behalf of the Canyonlands Watershed Council, please accept the following Protest and Request for Hearing regarding the Change Application (a37400) filed by the San Juan Spanish Valley Special Service District (SJSVSSD) on April 27, 2011. This protest is filed pursuant to Utah Code Ann. §73-3-7.

The Canyonlands Watershed Council (CWC) is a project of Friends of the Abajos (FOA). FOA is a 501(c)3 non-profit organization dedicated to protecting the mountains, canyonlands and waters of southeastern Utah. The Canyonlands Watershed Council is dedicated specifically to the protection and enhancement of the water resources and waterways of southeastern Utah.

FOA and CWC have staff and members affected by the proposed water right change. The organizations thus represent "persons interested" as specified in Utah Code Ann. §73-3-7.

*Enailed Copy on
June 22, 2011
original with fee
rec'd on 6/22/11.*

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CWC protests Change Application a37400 on the following grounds:

1. The proposed diversion is likely to impair the water rights of current water users.

a. The Glen Canyon Aquifer system: an undefined connection with the valley fill aquifer

SJSVSSD's Application proposes to use water from the aquifer located in the unconsolidated fill in upper Spanish Valley, which the Utah Geological Survey (UGS) has identified as connected to the Glen Canyon Aquifer, though the nature and location of the connection has not been conclusively determined. Current hypotheses posit that the Glen Canyon Aquifer provides recharge to the valley fill aquifer. It is possible that the connection could reverse, pushing valley fill water through rock fractures in the Glen Canyon aquifer, should pumping or other conditions reverse the balance of water pressure. The problem is that the exact nature of the connection between the two aquifers, though suspected, has never been extensively studied. Exigent studies are, as the City of Moab's protest to this Application notes, "reconnaissance level and have contradicting information." The most recent UGS report, Special Survey 120 (2007), notes, for example, that the report's dependence on old well driller's logs to ascertain the composition of the valley fill is "limited because of the variable quality of logs." (p. 21) Thus, it is not known how vulnerable the Glen Canyon Aquifer would be to contamination from the valley fill aquifer that this Change Application proposes to tap, or how the amount of water in the Glen Canyon Aquifer might be affected by pumping from the valley fill aquifer.

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The Grand Water and Sewer Service Agency (GWSSA) depends on wells tapping the Glen Canyon Aquifer. GWSSA wells provide culinary water to Grand Valley residents as well as supplementary irrigation water in times of lower surface flows into Ken's Lake (which have occurred several times in recent years). GWSSA's water right would be impaired by any harm to the Glen Canyon Aquifer.

The City of Moab currently obtains all of its drinking water from four springs and five wells that derive groundwater from the Glen Canyon Aquifer system. The Environmental Protection Agency has designated this a Sole Source Aquifer, Class 1B (Irreplaceable Drinking Water). If this aquifer were to be compromised in quantity or quality, the consequences to the population of Moab would be severe. All possible caution must therefore be taken when considering any action that might harm this source.

In 2002, applications from Grand County water providers to pump additional water from the Glen Canyon Aquifer were met with protests from the City of Moab, and the applications were not granted as requested. The City's protest cited the lack of reliable and meaningful studies of the hydrogeologic conditions affecting the area's water supply. That year, the City of Moab, Grand County and GWSSA all passed resolutions endorsing the need for better information about the valley's aquifers in order to inform future water management decisions. As an October 22, 2002 memo from Moab City consultants explains,

In order to plan for future water consumption, a thorough understanding of the water resources (i.e., the groundwater aquifers [the Glen Canyon Aquifer system

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and the valley-fill aquifers| and the surface water features) in the area must be established...the hydraulic connection between surface water and groundwater as well as between and within the groundwater aquifers must be determined. (p.3)

The requested funding for such studies, however, has not materialized, and aside from the “reconnaissance” information in the 2007 UGS report, no further information relevant to water budgets has been obtained. Without significant additional information on underground water flow and recharge rates, directions, and limitations, appropriating further water from the valley-fill aquifer threatens the rights of current water users.

b. The valley fill aquifer: unknown quantity and vulnerability to contamination

The uses described in the proposed Change Application would depend on developing water resources primarily from the “valley fill aquifer” in Spanish Valley. This aquifer, in part, suffers from the same problem as the Glen Canyon Aquifer described above: a lack of information on flow directions and recharge rates. There is no scientific study that puts forth a well-documented idea of how much water is actually contained in the valley fill aquifer, how quickly it is recharged, or how existing and expected pumping from the Glen Canyon Aquifer affects that recharge rate. It is very possible, therefore, that appropriating water in any significant additional amount from the valley fill aquifer would cause existing rights to be impaired by over-pumping. The Paradox member of the Hermosa formation, which contains abundant salt deposits, underlies the valley fill aquifer, making deeper water unsuitable for municipal use. SJSVSSD’s Application

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tacitly acknowledges this set of problems and uncertainties by naming the Colorado River as an alternate water source should wells prove inadequate.

Further, the valley fill aquifer is not protected by an impermeable layer and is highly vulnerable to contamination from surface and underground development. The 2007 UGS study recommended that the density of septic systems be not more than 1 per 10-20 acres (depending on the section of the valley under discussion). San Juan County's current zoning for the area allows one septic system for every single acre. The level of development facilitated by the Change Application would require a major shift in San Juan County policy, either drastically reducing zoning density or providing an expensive wastewater treatment system. The Change Application does not address this at all.

Since development would have a major impact on water quality--and therefore the usability of existing rights--the issues of wastewater treatment and water apportionment are inextricably linked. SJSVSSD must address the problem of valley fill aquifer contamination, to ensure that existing rights are not impaired, before any significant change in water rights is granted.

The only part of the Application addressing the concerns above is the assurance, "The Applicant will develop ground water using an adaptive management approach to ensure that the safe yield of the ground-water system is not exceeded and existing water rights are not impaired." The nature of the adaptive management techniques to be used is not described, and no thresholds or monitoring systems are suggested. Given the potentially catastrophic nature of groundwater over-pumping and contamination in a sole-source aquifer in a low-income and

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isolated desert community, the assurance contained in the Application is not sufficient to ensure that existing rights will not be impaired.

3. The economically and physically feasible development of the beneficial use of the water is highly speculative.

SJSVSSD proposes to divert 5,000 acre feet of water; first from wells in the valley fill aquifer, second from wells in the Kane Springs area, and third from a diversion works along the Colorado River, several miles and several hundred vertical feet from the point of use.

The river diversion point is marked on the map at a vague point in the Matheson Wetlands, without further specification as to what property would be used as the point of diversion, the site for treatment works, or the corridor for uphill transport.

Given the uncertain nature of the groundwater supply in the valley fill aquifer and the massive amount of water claimed, it is quite possible that the proposed wells will not be able to deliver the requested amount of water. However, there is no specific location, cost estimate, feasibility analysis or other explanation of how water piped from Kane Springs wells, or a Colorado River pumping system, would be developed. The pumping apparatus, in particular, would require good land near to the river, rights of way to place a pipeline all along a narrow, rugged and mostly fully developed valley, and a massive amount of money for construction, pumping and treatment (since Colorado River water is nowhere near culinary quality). There is

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further no analysis of the cost of the monitoring systems and infrastructure that must be put into place to enact adaptive management techniques.

The level of development required to justify financing such a project is massive. Real estate growth in the Moab area has slowed considerably in the past few years, and even before that, population growth rates were lower than the state overall. This has already affected local service providers; for example, GWSSA has recently had to commission a study reevaluating their impact fee structure based on a severe slowdown in estimated growth rates.

Even if quick and lucrative development of the San Juan County portion of Spanish Valley was guaranteed, that would trigger problems mentioned previously: the lack of wastewater treatment facilities--or any plans for such--in the area, and the lack of reliable systems monitoring for groundwater contamination or overdraft.

Section 73-3-3(5)(a) of the Utah Code states, "The state engineer shall follow the same procedures, and the rights and duties of the applicants with respect to applications for permanent changes of point of diversion, place of use, or purpose of use shall be the same, as provided in this title for applications to appropriate water." The Code lists a number of application requirements for water appropriations. Among others, the applicant is required to describe:

§ 73-3-3(1)(b)(vi) the place on the stream or source where the water is to be diverted and the nature of the diverting works;

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(vii) the dimensions, grade, shape, and nature of the proposed diverting channel; and

(viii) other facts that clearly define the full purpose of the proposed appropriation.

(2) (a) In addition to the information required in Subsection (1)(b), if the proposed use is for irrigation, the Application shall show:

(i) the legal subdivisions of the land proposed to be irrigated, with the total acreage thereof; and

(ii) the character of the soil.

SJSVSSD's Application lacks specificity in several places, which, in addition to violating Code requirements such as those above, indicates the highly speculative and uncertain nature of the development of the requested rights.

Summary

The San Juan Spanish Valley Special Service District's Application for Permanent Change of Water is likely to impair the existing rights of current water users in violation of Utah Ann. Code §73-3-3(2)(b) and §73-3-8(1)(a)(i-ii). The Application is incomplete in violation of §73-3-3(5)(a) and §73-3-2(1)(b)(vi-viii), in that it does not describe diversion works or transport system bringing water from the Colorado River or from Kane Springs. The Application also violates §73-3-8(1)(a)(iii-iv), in that the applicant does not demonstrate the financial ability to complete

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the infrastructure required to divert water from the Colorado River, does not demonstrate the financial ability to monitor and remediate potential contamination or other impairments to existing uses. Finally, the Application appears to be based primarily on highly uncertain real estate speculation rather than a demonstrated and developable need for 5,000 acre-feet of municipal water in the area.

On all these grounds, Application a37400 should not be approved. The Canyonlands Watershed Council respectfully requests a hearing regarding this Application and reserves the right to submit additional evidence in support of its protest.

Sincerely,

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From: Laurel Hagen <hrh.laurel@gmail.com>
To: <sonianava@utah.gov>
Date: 06/22/2011 5:17 PM
Subject: Protest of Application a37400
Attachments: CWC SanJuanProtest a37400.pdf; Part.002

Hi Sonia--here is the Canyonlands Watershed Council's protest of the San Juan Spanish Valley Special Service District's Change Application (a37400). I'll send a paper copy and a check to your office tomorrow.

Thanks,

Laurel

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Canyonlands Watershed Council
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