## BEFORE THE OFFICE OF THE STATE ENGINEER

In the Matter of Application for Permanent Change of Water (a37400) by the San Juan Spanish Valley Special Service District

## PROTEST OF CITY OF MOAB

217 E. Center Street Moab, UT 84532

City of Moab, Utah, a Utah municipal corporation, hereby protests and objects to Permanent Change Application a37400 based on Water Right No. 09-2349 filed by San Juan Spanish Valley Special Service District ("Applicant") on the following grounds:

1. The City of Moab objects to the subject application on the grounds the diversion under the proposed application will interfere with and impair the City of Moab's water rights and the sources upon which it relies to deliver municipal water supplies to the residents and properties in Moab. The City of Moab obtains its municipal water from wells and springs in the Glen Canyon Aquifer on the eastern side of the Moab/Spanish Valley. This water source has been designated as a Sole Source Aquifer by the Environmental Protection Agency in 2002 and has been categorized as Class IB – Irreplaceable Ground Water, which recognizes that the consequences of damaging the aquifer would be devastating to the community. The quality of water in the Glen Canyon Aquifer is currently Class IA – Pristine. The quantity of water in this aquifer, its recharge abilities and the safe yield are presently unknown. The populations of Moab and the surrounding areas are continuing to grow and expand. Since this is the City's only source of water, it is imperative that it is maintained for the current and future beneficial use of the community.

The State of Utah Division of Water Rights has issued specific direction regarding the water appropriation in Area 05 – Moab Vicinity of the Upper Colorado River Drainage. "All applications, including changes on existing water rights, are considered on their individual merits, with emphasis on their potential to interfere with existing rights and to ensure that there is no enlargement of the underlying rights." (UDWR Website)

- 2. It is our understanding that the Applicant is intending to utilize the valley-fill aquifer as the first source of water to be developed. Based on existing studies and water quality samples, it appears that the valley-fill aquifer is connected to the Glen Canyon Aquifer (UGS Special Study 120, 2007). This means that groundwater extraction from the valley-fill aquifer may have the capability to directly affect the City's wells and springs.
- 3. Regardless of the degree of the interconnection of the aquifers, if the valley-fill aquifer is degraded in quality or quantity, it could cause greater demands on the Glen Canyon Aquifer to provide the water needs of the Moab/Spanish Valley residents and properties, potentially stressing or exceeding its resources.
- 4. Some of the Applicant's proposed wells are in the City's source protection zones, and many are adjacent. These have the potential to cause contamination to the City's Sole Source Aquifer.
- 5. The change application requests a total of 5,000 Acre-Feet, which is a relatively large amount of water for this area to sustain. To put this in perspective, the City of Moab currently uses about 2,300 Acre-Feet and GWSSA uses about 900 Acre-Feet. It is uncertain whether this quantity of water exists on a sustainable basis. The valley-fill aquifer is underlain with the Parado RECEIVED

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WATER RIGHTS SALT LAKE formation, which is highly saline, limiting the capacity of the valley-fill aquifer. Many of the previous studies have been reconnaissance level and have contradicting information. Much of the hard data upon which these studies are based is over twenty years old. It is therefore necessary and prudent to have an overall, detailed study completed to better understand the interaction between the Glen Canyon Aquifer System and the valley-fill aquifer, the subsurface lithology and geology, the interaction between groundwater and surface water, the recharge capabilities of the aquifers and the safe yield(s) to maintain the beneficial use of both aquifers. Until a study of this type has been completed, it is not prudent to expand the demands on the aquifers.

- 6. The Applicant has not clearly identified what portion of the 5,000 Acre-Feet it intends to extract from the valley-fill aquifer and what portions will be from Kane Springs or the Colorado River though it had identified that the valley-fill aquifer is the first to be developed. Anticipated flows from each of the three points of diversion should be specified. We request that the Applicant provide a build-out plan to show need for the water and technically and economically feasible plans for obtaining, treating, storing and conveying this water to prospective users in order for the State Engineer to have sufficient information to evaluate the application and the financial ability of the Applicant per the requirements of Utah Code 73-3-8.
- 7. Utilizing 5,000 AF of water in the proposed area would entail a density greater than one equivalent residential unit per acre. Based on previous studies, the recommended maximum septic tank density is one per ten to twenty acres depending on location in the valley (UGS Special Study 120, 2007). It appears from this information that the build-out of the Spanish Valley cannot be adequately served by septic systems. Because of the makeup of the valley-fill aquifer, surface pollution will quickly and easily mix in with the groundwater. Therefore, wastewater disposal becomes an integral component of the beneficial use of the water. We request that technically and financially feasible plans for addressing wastewater be required as part of the application to ensure that there will be no interference to existing water rights caused by water quality degradation.
- 8. The Applicant stated in its application that it will use 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." Management should be based on the findings of the detailed study. Before any change in the appropriation can be approved, we request that this management program be established in detail with specific monitoring requirements and trigger points for mitigation.

## **Conclusion**

Based on the provisions of Utah Code Ann. §§ 73-3-3 and 73-3-8, the foregoing application should be rejected. The City of Moab respectfully requests a hearing before the State Engineer regarding the subject application and reserves the right to submit additional information and evidence in support of its protest at the hearing.

DATED this 17<sup>th</sup> day of June, 2011.

Sincerely.

Rebecca Andrus, PE Moab City Engineer

Rebecca Andrus

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