

## Exchange of San Juan-Chama Water across the Otowi Gage

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Exchange from Buckman Surface Diversion. Construction of a second diversion located below the Otowi gage can be avoided by establishing an exchange mechanism with the City and County of Santa Fe for use of the planned Buckman surface diversion facility. Such a mechanism would allow Pueblos in the Pojoaque basin to acquire water rights below the gage and use them, by exchange, above the gage. As illustrated below, the rights would be transferred to Buckman and a like amount of San Juan-Chama water would be exchanged for diversion above the gage at San Ildefonso. This mechanism would not implicate the Rio Grande Compact and, in particular, would not require compact accounting adjustments.

The Otowi gage is used to establish the compact delivery obligations from Elephant Butte Reservoir. Using an inflow-outflow schedule, the Compact requires that for any given quantity of Rio Grande (non-imported) water measured at Otowi a specified quantity must be delivered from Elephant Butte Reservoir in each year.

Functioning in this manner, the Otowi gage is a barrier to the change of point of diversion from one to the other side of the gage. The Compact's inflow-outflow relationship was established based on calculated depletion amounts on the Rio Grande as of 1929, both above and below the gage. A change in point of diversion across the gage would disturb the depletion assumptions on which the inflow-outflow schedule is based. The State Engineer could approve a permit for such a transfer but a corresponding adjustment in compact accounting would be necessary to maintain the current use and allocation assumptions. Because a compact accounting adjustment requires approval of the three signatory states, the State Engineer has adopted the policy of not issuing permits to change points of diversion of water rights across the gage.

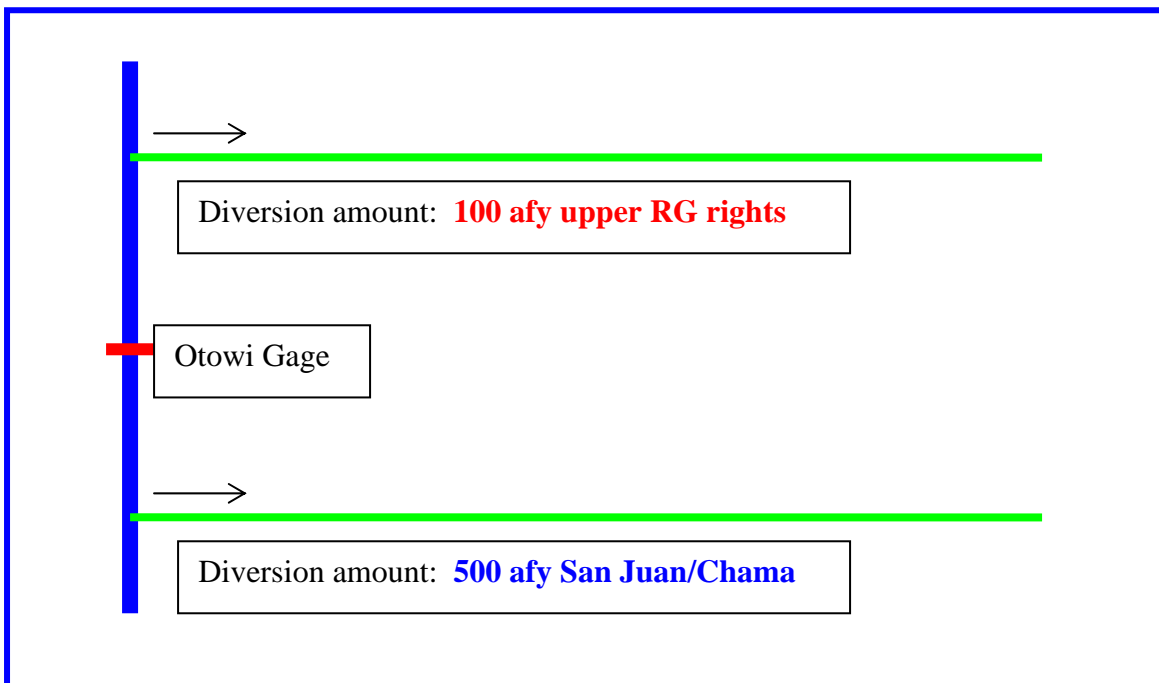
This presents a problem for development of a water system serving the Pojoaque basin as part of settlement of the Aamodt case, because the proposed point of diversion at San Ildefonso is just above the Otowi gage and therefore does not have access to the water rights market below the gage. If for example, a Pueblo in the Pojoaque basin desired to purchase water rights from the middle valley, it would not be able to transfer the rights farther upstream than the Buckman diversion, which is just south of the gage.

The following scenarios illustrate an exchange arrangement that as part of a regional system serving both the Pojoaque and Santa Fe basins could overcome the Otowi barrier. The City and County of Santa Fe hold a San Juan-Chama contract that allows them to use 5,605 afy. Because this water is imported it may be used either above or below the Otowi gage with no compact implications. This water is explicitly excluded from the baseline for calculation of the inflow-outflow relationship. By creation of a

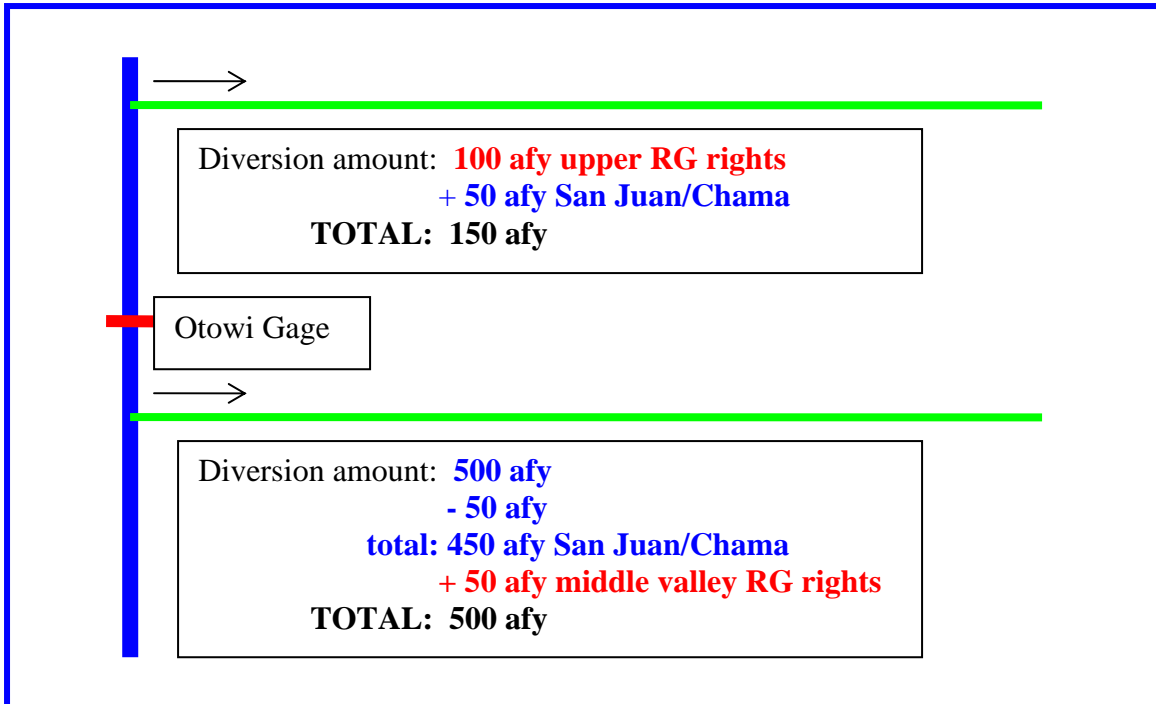
regional system that includes both the Pojoaque and Santa Fe basins a water exchange could be created that would function to allow a transfer across the gage in the form of an exchange.

Figures 1 and 2 illustrate operation of the exchange when a water user in the Pojoaque basin purchases 50 afy of water rights and transfers them from the middle valley to the south diversion in exchange for a like amount of San Juan-Chama water to be diverted at the north diversion.

**Figure 1: Before Exchange**



**Figure 2: Transfer and Exchange of 50 afy of middle valley RG rights**



By use of an exchange program, the legal barrier posed by the Otowi gage could be overcome. Rather than having to engineer around the gage by building multiple diversions for the Pojoaque basin, with one below and one above the gage, only one new diversion is needed. Also eliminated is the need for a separate pipeline going from the diversion below the gage up to the Pojoaque basin.

Reference: Rio Grande Compact of 1938, NMSA 1978, § 72-15-23.