

A CONCEPTUAL MODEL OF GROUNDWATER FLOW IN SPRING  
VALLEY, NV, AND SNAKE VALLEY, NV-UT

by

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investigation of groundwater flow and would provide the geochemical composition of possible interbasin flow waters.

Interbasin flow from northern Spring Valley to northern Snake Valley (i.e. Gandy Spring, Flow path #8) is unlikely and can readily be explained as deeply circulated groundwater that mixes with modernly recharged water prior to discharge. This interpretation suggests that interbasin flow does not occur from northern Spring Valley to Snake Valley and suggests that interbasin flow estimates suggested by Welch and Bright (2007) and Nichols (2000) should be reallocated or estimated water budgets should be reevaluated.

Equally plausible alternative explanations to interbasin flow exist and suggest that interbasin flow paths are more complicated than previously recognized. The evidence for alternative explanations suggests that water budget allocations are less certain and should be redistributed or reevaluated. The use of current water budgets that allocate large components of water to interbasin flow to determine water right distributions, with regard to the SNWA groundwater development project, may result in an incorrect estimation of available water resources.