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**Title:** Can Recreation Values for a Lake Consititute a Market for Banked Agricultural Water?
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**Revised Abstract:**

This study focuses on one of Nevada's four terminus lakes, Walker Lake, which is often considered dying due to upstream agricultural diversions. The objective of this study was to measure the value of recreation when enhancing water levels at Walker Lake. This study was completed as part of a larger project to determine if water banking (purchasing water from other users, such as agriculture) was a feasible method to improve fish habitat and water levels. The recreation demand model used, measured when the recreation trips were taken between three seasons as well as where they were taken, choosing between five alternative lakes in the region. Variables considered in this model include individual's travel cost to and from the lakes, the air temperature at the site and for each season, and the percent deviation of the water level at each lake from the maximum measured level in 1996.

According to survey results and adjustments of values, 120,000 recreators visited at least one or more of the five sites included in this model and $8 each is used to reflect the value for recreators who do not visit Walker Lake (but potentially might in the future). 20,000 people visited Walker Lake and $147 per person represents the value of this lake to these people. Therefore, the total approximate value of recreation at Walker Lake is $4 million if water level is kept constant.

In order to preserve the Walker Lake fishery, an additional 50,000 acre-feet of water needs to be purchased annually to prevent water level declines from the 1996 levels. The highest estimate of value of water for agricultural use is $45 per acre-foot, which means that the water is worth $2,250,000 if kept in agriculture. These basic computations show that there is definitely demand for Walker Lake recreation water that may be large enough to purchase or rent water rights to save the Lake's fishery.

There was some variance in how water level affected recreation participation since there are a variety of recreational uses considered. For example, people who prefer shoreline recreation might prefer a lower lake volume because it opens up more beachfront while boaters prefer a higher lake volume for easier access and less likelihood of hitting objects in shallower water. However, as a group the sample is likely to prefer higher water as the majority (40% average and as many as 85% during the winter) come to Walker Lake to fish and low water levels increase salinity, which has an effect on the primary sport fish at a certain level. According to survey results, salinity also affects boating and swimming. Birdwatching, another popular activity at Walker Lake, is affected by salinity as well since the birds depend on the fish and if the fish stocks decrease, the bird food supply decreases.