

PATTERSON LAKE STORAGE SITE

Patterson Lake is one of the potential storage sites under consideration in the storage assessment grant. The site offers several possible uses for stored water. Water can be stored in the lake and transferred to the Twin Lakes kame terrace to recharge the aquifer to maintain the recreational trout fishery, aquifer levels, and augmentation of main Methow River flows later in the summer. Stored water could also be pumped from Patterson Lake over a lift of about 80-90 feet to fill existing depressions and created wetlands in Elbow Coulee that would provide groundwater inflow into Twisp River. Added flow in the Twisp River will help existing irrigators by improving late season stream flows. The town of Twisp could appropriate this water by pumping from wells in continuity with the Twisp River as an uninterrupted water source after it entered the Methow River. Water stored in Patterson Lake can also be transferred to the Methow River above the town of Winthrop. Winthrop could similarly use the water as an off set for pumping more groundwater from their well near the Methow River.

It is estimated that Patterson Lake can be raised an additional 10 feet providing about 1,500 acre feet of additional storage (assuming Patterson Lake is about 150 acres). This extra capacity would be filled by diverting an additional 8 to 10 cfs from Wolf Creek during the spring freshet. Three key improvements will have to be made to do this: 1) enlarge the present fish screen, 2) replace about 7,000 of present piping above Patterson Lake to accommodate the need for additional flow to fill the expanded reservoir and 3) reconstruct the present dam to permit the additional vertical 10 feet of the stored water.