

Resetting the Meadow

The most recent history of Van Norden, or Summit Valley (Yayalu Itdeh in Washoe*), is a plan to take it back almost two hundred years to the state in which it was before the coming of civilization. That's an almost unique and ambitious goal.

In 2012 The Truckee Donner Land Trust bought three thousand acres of land on Donner Summit. Part of that purchase was the Van Norden meadow. In 2015 The Land Trust sold the meadow to the Forest Service which had had its eye on the "jewel of the Sierra," a unique high mountain meadow. The Forest Service then worked with the South Yuba River Citizens' League to develop the plan to return the meadow to its pre-civilization state, the "Van Norden Meadow Restoration & Recreation Project". The focus is on restoration of hydrology and flora, recreational opportunities, and pre-history management.

Prior to the plan, as snow melted and rain fell on Van Norden Meadow in its "civilized" state, it raced to the eroded cuts that were Castle Creek, which drains all of Castle Valley below Castle Peak and Boreal; Lytton Creek, which comes into the valley from about Norden; and the Yuba River, the source of which is on the flank of Mt. Judah. Ironically, because all that water raced quickly down the stream channels it dried out the valley making it hospitable to Lodgepole Pines. One of the

*The indigenous group that occupied Donner Summit in summers.



Above, the Yuba River in Summit Valley. Below, the filled channel.



goals of the rehabilitation project is to restore the hydrologic operation of the meadow close to what it was prior to the white man's arrival. That means slowing down the water as it goes through the valley. Complete rehabilitation will never be possible because there are roads and other human disturbances that for various reasons cannot be undone.

As the berms and the old original dam spillway were removed (left) the dirt and the tree grindings from removing the unhealthy dense lodgepole forest were used to fill the Yuba River and Castle Creek channels. In addition, excavation was done on the Lytton Creek entry to the meadow to slow surface water movement.

Mother Nature then took over the restoration efforts.

Water draining from the surrounding areas now "sheets" across the valley rather than races down the channels. The sheeting keeps the water in the valley longer and allows it to percolate down to recharge the ground water table. That slower water movement also reduces flooding potentials downstream since water moves more slowly. This reduces the effects of rain on snow events which have been happening more regularly. There is a delay draining the valley after those events so water will have time to flow down the Yuba River below the meadow rather than flood down the Yuba.

The final component of the plan removes a very invasive grass species, Reed Canary grass (*Phalaris arundinacea* - see picture below), which out competes the original vegetative inhabitants and makes bird nesting and amphibian movement difficult due to its density.

More Effects

Moving the water more slowly and filtering it through the water table will improve water quality, improve biodiversity, and improve carbon sequestration. This is called "ecosystem services."

Slowing the water down will also improve the biological diversity of the valley, "providing wet habitat for high elevation aquatic species and migratory birds, along with high quality forage for terrestrial wildlife, [which] will become increasingly important to support wildlife adaptation in a changing climate." It is hoped that the plan will result in beavers taking up residence again. Their work will result in improved hydrology by working to slow water movement with their dams. In the meantime beaver analogs (think of beaver dams) will be built to slow water movement too.

These changes will make a sustainable habitat for the next fifty to one hundred years, but the plan's implementation will be continually followed up with what is called "adaptive management," the idea that changes in execution might be needed from time to time to meet the objectives of the plan: pre-history management, recreation, bio-diversity and



hydrology improvement. For example, if confers begin to grow back in dryer areas, they'll be removed on an ongoing basis.

That's the modern history of Van Norden. Still to come are recreational components: parking, bathrooms, interpretation, trails, a boardwalk, ADA access, and viewing areas.



Lodgepole pines have been creeping across the valley from the adjacent forests ever since the original Van Norden Lake was emptied in 1976. You can see that by looking at the tall forests around the edge behind the newer shorter stands of timber, the left and right arrows above, respectively. The line between the two shows the extent of the influence of Lake Van Norden on Lodgepole expansion. With water slowing its travel to the Yuba River below the original dam, the meadow will stay wetter longer, which Lodgepoles do not like.



Baby lodgepoles intent on colonizing the meadow

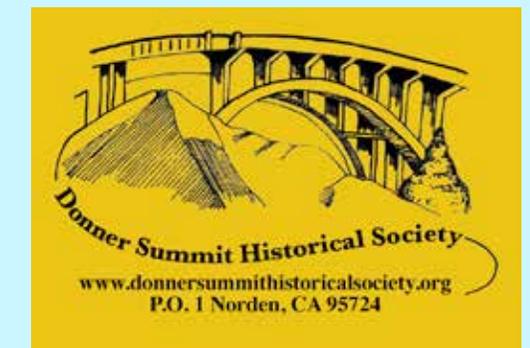
SUMMIT VALLEY

A.K.A LAKE VAN NORDEN

A.K.A. YAYALU ITDEH*



HISTORY & FUTURE OF A SIERRA JEWEL



*The Washoe name for Summit Valley