Disappearing Sierra meadows bad news for water

By Matt Weiser, Water Deeply

Mountain meadows are starting to get some respect. For over a century, meadows were the first alpine environments targeted for development, grazing and farming, because they tend to be flat and packed with rich soil and nutritious plants. But we're starting to understand that meadows have a much more important role to play for society at large.

Meadows, it turns out, are water banks. As winter snows melt, the runoff flows into meadows, where deep organic soil holds the moisture like a sponge and then releases it slowly. This helps minimize downstream flooding during spring. Meadows release that runoff over a longer period, helping stretch valuable water supplies through the long, dry summer months.

Efforts are underway to restore meadows, which have lost some of their water-holding ability as they've been compacted and eroded by grazing, logging and other activity. Unfortunately, a new threat has emerged: climate change.

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