

# Water Forum

Mount Shasta Library

June 18, 2019

# Medicine Lake and Water Issues

Michelle Berditshevsky

- ▶ Founder - Mount Shasta Bioregional Ecology Center and
- ▶ Senior Conservation Consultant and Project Lead - Save Medicine Lake Highlands and Aquifer campaign



# Mount Shasta Bioregional Ecology Center



Established 1988, longstanding environmental organization in Mount Shasta and Siskiyou County



Halted large ski/condominium development on the Panther Meadows side of Mount Shasta, a pristine area held sacred by native tribes



Today we continue our work, through numerous programs to preserve, protect and restore our bioregion



Our work happens through a multi-level approach including science, advocacy, education and culture



More information at [mountshastaecology.org](http://mountshastaecology.org)

# Importance of Medicine Lake Aquifer

Feeds the largest spring system in California

- ▶ Major source of spring water for the Upper Sacramento River System
- ▶ Redding is affected: this system is an important part of this area's water source
- ▶ The aquifer is the main source for the Fall River Springs, California's largest spring system
- ▶ Dr. Robert Curry: *"Almost half of the drought period monthly total flows from the Pit River to Shasta Lake are from this remarkable groundwater reservoir"*
- ▶ Geothermal drilling over 9000 feet into the ground would put this important water source at risk from pollution, spills, seismic activity

These resources are unlikely to be economically viable without large public subsidies.

# Geothermal Fracking - High Risk for California's Water Resources

More details on MSBEC's website [mountshastaecology.org](http://mountshastaecology.org) (menu: Programs → Medicine Lake)

- ▶ Leases encompass the entire Medicine Lake Caldera, believed to be the groundwater source for Fall River Springs
- ▶ Calpine's claim - that this geothermal resource is separate from regional aquifers - is entirely unproven; it is a dangerous assumption regarding the area's hydrology
- ▶ Needs comprehensive study - we don't understand this fully
- ▶ Similarly, major risks and consequences of fracking are not fully analyzed
- ▶ Hydrofluoric acid to be used is extremely toxic, even at a few parts per million
- ▶ Impacts include accidents, spills, seismic stimulation, flow diversions and direct contamination of waters
- ▶ Existing approval of a single well (the "productive lease") involved no environmental review - proposed geothermal fracking is very high risk!

# Protect Medicine Lake Highlands and Aquifer

## Timeline:

- ▶ **1970s** - USGS declares the Medicine Lake Highlands as a Known Geothermal Resource Area (KGRA) after exploratory drilling in the 1960s.
- ▶ **1980s** - BLM awards geothermal leases on 134,000 acres in the KGRA with only minimal environmental review and no consultations with Native Americans.
- ▶ **1997-1999** - USFS and BLM issue EIS's on two 49.9 megawatt geothermal developments – the Fourmile Hill project and Telephone Flat project – disclosing adverse effects on Native American cultural resources but minimizing environmental impacts and ignoring water.
- ▶ **1998** - BLM extends leases for 40 years without consultations with Native Americans or environmental review

# Protect Medicine Lake Highlands and Aquifer

## Timeline:

- ▶ **1999** - MLH Traditional Cultural District designated by National Register of Historic Places in the Caldera, expanded in 2005 to 113 square miles to include most of the MLHs.
- ▶ **2000-2002** – USFS and BLM issue decisions to approve the Fourmile Hill Project ( $\frac{1}{4}$  mile outside the Medicine Lake Caldera) and deny the Telephone Flat Project (within the Caldera). However, Bush administration reverses Telephone Flat decision in 2002.
- ▶ **2002-2010** - Coalition including Ecology Center, Pit River Tribe, Native Coalition, Medicine Lake Citizens - appeals and court cases, culminating in victorious 2006 Ninth Circuit decision that Fourmile Hill lease extensions are invalid.
- ▶ **2010** - Our Telephone Flat lawsuit challenged extensions on 26 remaining leases extended based on a 27th lease being considered a “productive” well - won in District Court.
- ▶ **2017** - BLM appeals the decision.

# What's Next



May 2019 – Ninth Circuit Court heard BLM's appeal. Decision expected in next few months.



If we win: 26 lease extensions are abolished and again would require a new EIS review



If we lose: we have a third court action challenging the 27<sup>th</sup> "productive" lease which if successful would also negate these 26 lease extensions

# Other Actions

A Petition to Amend the USFS Forest Plans for the Shasta-Trinity, Modoc and Klamath national forests is in process

We advocate stronger protections for the aquifer through this petition

Your letters of support will be needed soon; please sign Ecology Center email list to be notified

Also, we are working toward the addition of volcanic aquifers to the State of California's Bulletin 118 to protect high-level water sources such as the Medicine Lake Highlands and Mount Shasta

# This is Our Standing Rock

---

Huge importance to all of California, including Redding, and of course to native tribes

---

Geothermal leasing is privatization and a giveaway of public lands.

---

We are in for the long fight, as are the tribes and others in our coalition.

---

We are grateful to the Stanford Environmental Law Clinic for extensive legal support, highlighting the importance of this magnificent landscape and aquifer.

---

We advocate creating a North State Water Preserve for future generations

