

LONG VALLEY HYDROLOGIC ADVISORY COMMITTEE

DRAFT SPECIAL MEETING MINUTES March 13, 2019

PUBLIC MEETING ATTENDEES

Ormat: Cheryl Eanes, John Ackerly, Matt Sophy (teleconference)

USGS: Jim Howle

BLM: Mark Spendel

DOGGR: Amar Rao

USFS: Colleen Garcia

Great Basin Unified Air Pollution Control District: Grace Holder, Jan Sudomier

MCWD: John Pedersen, Irene Yamashita

Mono County: Nick Criss & CD Ritter

Guests: Dave Harvey, Southern Mono Historical Society

1. **Call to order & introductions:** Nick Criss called the meeting to order at 10:03 a.m. in the Town/County Conference Room at Minaret Village Mall, Mammoth Lakes. Attendees introduced themselves and their agencies
2. Public comment: None
3. Approve minutes of August 1, 2018
4. Subcommittee status reports: Ormat data on production and injection wells.
5. **USGS monitoring data (Basalt Canyon temperature logs):** Jim Howle reported 14A25 north of Shady Rest Park has year worth of data now. Slight downward gradient. 28-25 south of Shady Rest. Steep decline after 2016-17 big winter, recharge backed off in 2018. February trip canceled due to heavy snowpack. Originally talked of postponing but canceled instead. BLM1 from May 2018: water levels in piezometers track closely, less than year worth of data. Plateau with early summer 2018 recharge. 28-25 near 28A monitoring well. Steep rise beginning in May 2018 after slug of cold water put down into well. Correlate with changes in injection at Casa Diablo. Keep track of datum during instrumentation gaps. Less injection, less pressure. Shallow LV-19 between Mammoth Creek and Convict Creek near Doe Ridge. Check recharge after another big winter (not as wet). Wells Sc-2, SC-2 at Sherwin Creek campground. Big spike after 2017 winter. Steadily increasing since 2018. Recharge signal there. Long way from decade ago at wells. Temp logs: 600' deep 14A. August transient pulse. Hot water sends wave of heat into surrounding rock. Slight thermal pulse from month-long flow test. Distinct data points above resolution of measuring device (0.1 degrees C). Capacity to dissipate heat as get closer to surface.
Spendel: Less or more permeable? *Howle:* Area stripping away heat. Bottom of well gradient decreases slightly. Free-flowing water strips heat.
28A-25: 28-25 deep well drilled. Cooled off shallow parts. By November stopped equilibrating. Check it out in May.
BLM-1 at RV park: Only 3 degrees C variant. Gradient reversal, high permeability zone. Early logs in 14A actually warming, to equilibrium. Warming not unexpected.

Water moving around? *Howle: Suspect so, maybe not as much. Basalt zones dense. Scoria and fractures. Piezometers within close range between shallow and deep. Impermeable zone unlikely.*

28-25: Very little change in temp. Bottom temp varied only 0.2 degree C. All plots top down, platinum device. USGS logging calibrated: 501-ft static water level.

6. **USGS water chemistry of MCWD wells and new Basalt Canyon monitoring wells:** Place on agenda for next meeting, as Bill Evans is in New Zealand.
7. **New monitoring wells update:** Nothing else to discuss.

Pedersen: Fish Hatchery springs? *Howle: Steady state, no data surprises or irregularities.*

Pedersen: Precipitation gauge at visitor center? *Howle: No one took care of it. Only other data at SNARL or Lake Mary, different latitude and elevation. Hard to provide missing data at ranger station. Regression analysis possible.*

Pedersen: Gauge at MCWD, data off Weather Underground. Weekly, daily, monthly. Several gauges in town. MCWD would modify to back up USFS gauge. *Howle acknowledged valuable record.*

Spendel indicated BLM will follow up with visitor center. Maybe permanent employee instead of visitor center staff.

8. **CD IV Groundwater Monitoring & Response Plan (GMRP):** Spendel attended quarterly meeting, discussed potential relocation of BLM-2. Get special use permit from USFS to drill well on forest. Get drilling schedule when campgrounds wind down.
Pedersen: Shallow well near Sierra Nevada Inn. Perhaps site constraints but possibilities nearby. Try to fill data gap. Maybe shallow well between gushing wells. About 600 feet.
9. Adjourn at 10:40 a.m. to next meeting August 7, 2019

Prepared by CD Ritter, LV HAC secretary