



ORMAT UPDATE

Geothermal Pumping Threatens Local Water Supplies

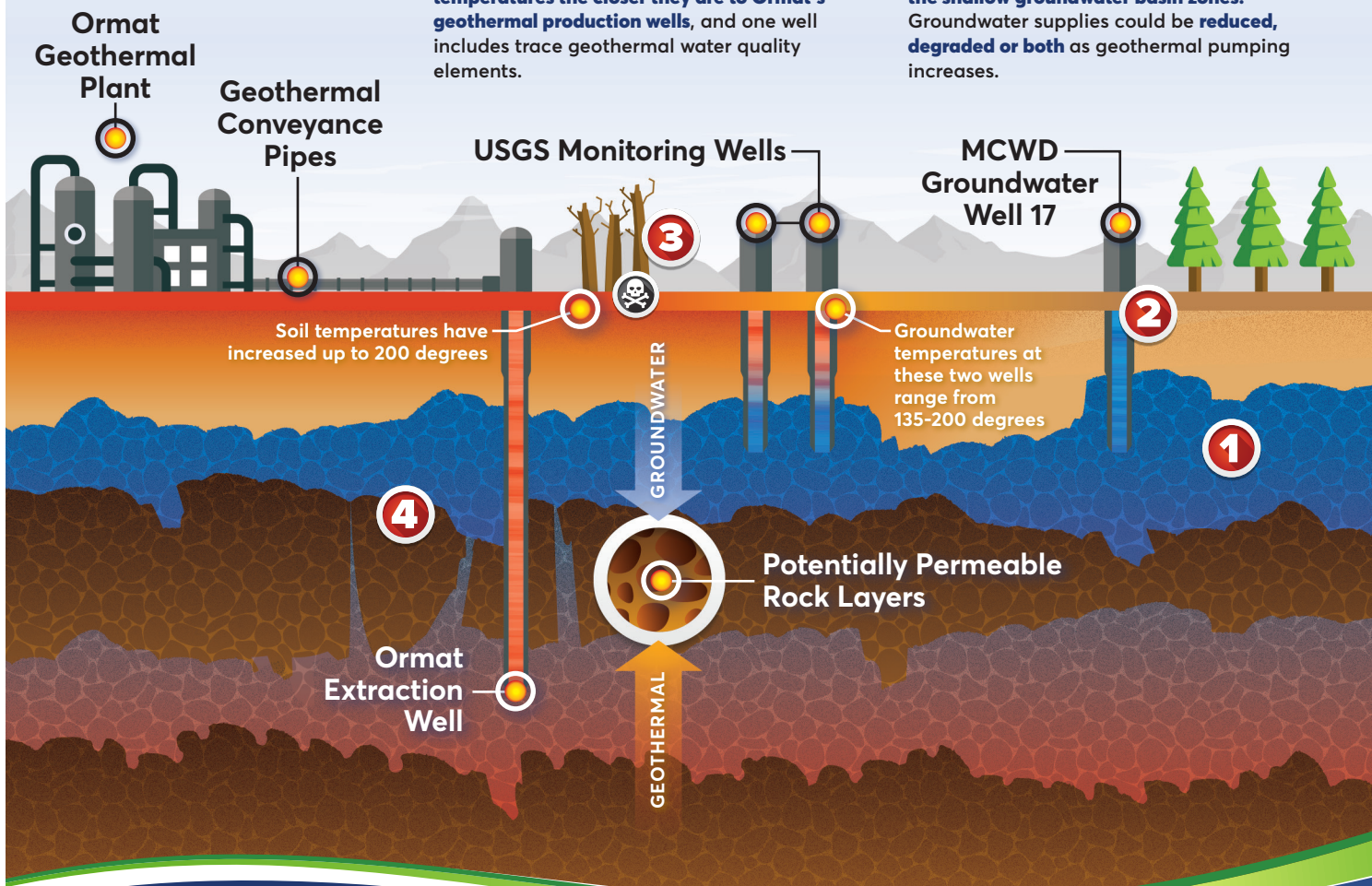
ORMAT:

THE WRONG WAY TO PRODUCE CLEAN ENERGY

CLEAN ENERGY MUST NOT COME AT THE COST OF RELIABLE WATER SUPPLIES

As California expands geothermal energy, an examination of how geothermal projects operate, monitor and mitigate for impacts will ensure the long-term availability of water resources.

- 1** Groundwater aquifers provide water to Mammoth Lakes' homes and businesses. Due to the persistent drought, **the Mammoth Lakes community is almost entirely dependent on groundwater supplies as surface water diminishes.**
- 2** The Mammoth Community Water District (MCWD) has wells that record **hotter temperatures the closer they are to Ormat's geothermal production wells**, and one well includes trace geothermal water quality elements.
- 3** The U.S. Geological Survey has revealed an **increase in tree deaths in the areas closest to Ormat's expanded operations. Rising soil temperatures and hydrogen sulfide concentrations** can be attributed to geothermal production.
- 4** **Fractured rock may be allowing flows between the deep geothermal zones and the shallow groundwater basin zones.** Groundwater supplies could be **reduced, degraded or both** as geothermal pumping increases.



Find out more by visiting www.mcwd.dst.ca.us



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ORMAT'S ENVIRONMENTAL ANALYSIS IS FLAWED IN MANY WAYS



Various 'experts' who opined on the lack of potential groundwater impacts were paid for by Ormat



Inadequate attention was given to MCWD's expressed concerns



The modeling used to justify the project was not designed to address the vulnerability of local water supplies to geothermal pumping

CASA DIABLO IV

Ormat Technologies' (Ormat) proposed geothermal expansion, Casa Diablo IV, will double geothermal pumping near the Town of Mammoth Lakes. The Great Basin Unified Air Pollution Control District and the U.S. Bureau of Land Management approved the project's environmental document despite an inadequate impact analysis and strong opposition from MCWD, elected officials and local community groups.

WHAT DOES THIS MEAN FOR OUR COMMUNITY?

Geothermal water extraction could reduce water supplies at a time when we need it most.

Studies in the Mammoth Lakes groundwater basin have produced data suggesting that geothermal reservoirs could be connected to local water supply aquifers and the ground surface. This information indicates that geothermal operations could significantly impact the quality and quantity of the community's water supply.

Clean energy must not come at the cost of critical water supplies that serve our communities, or negatively impact other environmental resources.

Appropriate measures must be put in place to ensure sustainable, safe and reliable water supplies for our community.

THERE IS A RIGHT WAY AND A WRONG WAY TO DEVELOP CLEAN ENERGY SOURCES

For Mammoth Lakes, the right way for Ormat to conduct geothermal operations in our Town includes:

- ▶ *Carefully monitoring the impacts its operations may be having on the quality and quantity of our groundwater supplies and forest resources;*
- ▶ *Mitigating for impacts; and*
- ▶ *Ensuring problems do not persist.*

MCWD continues fighting on behalf of the community, while protecting taxpayer dollars, for a more comprehensive plan to protect our environment and groundwater resources.



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