

**Pre-1998:** all oil and natural gas wells have VERTICAL shafts ONLY. Use of wells to supply drinking water is preferred over surface water sources to avoid contamination

**1998:** Slick-water Fracturing is Developed, which means HORIZONTAL drilling for Oil and Natural Gas using hydraulic mining process has the potential to cross contaminate drinking water wells. **NHI funded by Packard Foundation promotes the "environmentally preferred" Delta alternative and also transfers of water and reselling of water.**

**1999** EPA grants fracking exception for drillers in Monterey County. **Allows hydraulic mining in effect, but subsurface.**

**2000** USGS produces detailed maps of oil and natural gas available in California using fracking methods, which require using water...back to hydraulic mining despite ban and legislation of 1884. EPA creates new laws for drinking water wells and CALFED ROD focuses on use of surface waters of Northern California to increase exports of clean water to the oil fields of Southern California  
[http://www.deltarevision.com/2002\\_docs/ca\\_natural\\_gas\\_fields.pdf](http://www.deltarevision.com/2002_docs/ca_natural_gas_fields.pdf)

**2003** DWR hands over Kern Water Bank to control of Resnick & Kern area water contractors

**2005** Energy Policy Act allows use of chemicals for hydraulic fracturing for oil, gas or geothermal production even though cross-contamination of drinking water wells and AQUIFERS is possible. Fresh, clean water is needed for "fracking"

**2009** Tulare County area contractors granted fracking permission based on contractor claim there is sufficient drinking water in the area so aquifer can be exempt from contamination restrictions.

**2012** California agencies begin to question risks to drinking water and seismic risk. In the meantime, all commercial drinking water wells in fracking areas have to be tested daily.

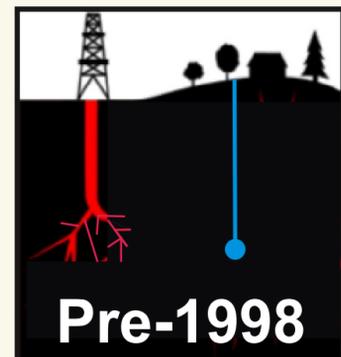
1854: When drilling for water well, Stockton also finds natural gas, which is used to heat local courthouse. Pioneers use oil from natural seeps for lubrication and light fuel.

1884: Hydraulic mining is banned due to damaged caused to navigation and farm lands and environment.

1887: Stockton is the first city to use natural gas for community fuel. Oil continues to seep and some land owners dig to expose more oil seeps for use as heating fuel and lubricant.

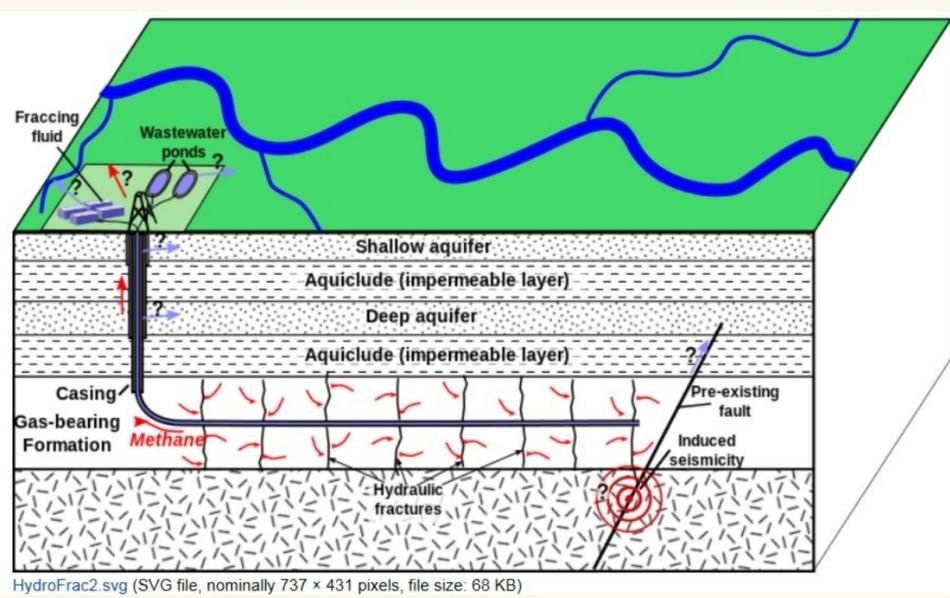
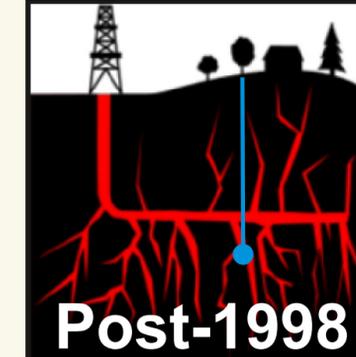
1892: California's first oil gusher from a drilled well in Santa Paula brought on the California oil boom.

Drinking water for cities and rural areas came from wells as a preferred source



1900's Oil wells and natural gas wells are dug using vertical shafts, and drinking water wells are not cross-contaminated..

1980's Oil wells of the lower central valley are drying up



HydroFrac2.svg (SVG file, nominally 737 x 431 pixels, file size: 68 KB)

FTP directory /pub/oil/new\_database\_format/Production\_Injection at ftp.consrv.ca.gov

To view this FTP site in File Explorer: press Alt, click View, and then click Open FTP Site in File E

Up to higher level directory

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