INJECTION WELLS IN CALIFORNIA
Crucial Backbone of Oil Production

HOW IT WORKS

Injection wells have been used for decades in California to assist in oil production – to increase oil recovery and safely dispose of water produced with oil and gas.

When oil is pumped from underground, it comes out co-mingled with water – called “produced water.” That water is either treated and used for enhanced oil recovery (EOR) or disposed of by injecting it back underground. A small portion is treated and provided for agricultural purposes, providing a critical source of irrigation water during the drought. This water must meet specific water quality standards and permit requirements dictated by local regulators.

48,200 ENHANCED OIL RECOVERY WELLS
1,800 WATER DISPOSAL WELLS

PRODUCED WATER:
- Not suitable for public water supply systems
- High in salt and naturally occurring elements
- Water separated from oil during production

EVERY BARREL OF OIL PRODUCED ALSO GENERATES ON AVERAGE
15 BARRELS OF WATER

80-85% OIL PRODUCTION IN CALIFORNIA RELIES ON INJECTION WELLS

2,000 FEET AVERAGE INJECTION WELL DEPTH

A SMALLER PERCENTAGE IS TREATED FOR AGRICULTURAL USE

RECOVERED OIL AND PRODUCED WATER ARE SEPARATED

PRODUCED WATER IS INJECTED INTO WELL FOR EOR OR DISPOSAL

INJECTION WELLS IN CALIFORNIA
50,000 WELLS

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The Safe Drinking Water Act prohibits disposing of produced water into aquifers used for public water supply systems.

**INJECTION WELLS IN CALIFORNIA**
Crucial Backbone of Oil Production

**LOCATION IS EVERYTHING**
The Safe Drinking Water Act prohibits disposing of produced water into aquifers used for public water supply systems.

**NOT ALL AQUIFERS ARE CREATED EQUAL**

- **"NON-EXEMPT"** Potential public water supply, such as drinking and irrigation water
  - INJECTION PROHIBITED

- **"EXEMPT"** Not usable for public water supply, such as drinking and irrigation water
  - INJECTION ALLOWED

**REGULATORY OVERSIGHT & COORDINATION**
The Underground Injection Control (UIC) program regulates the operation of injection wells, providing both federal and state agency oversight:

- U.S. Environmental Protection Agency
- California Division of Oil, Gas & Geothermal Resources
- State Water Resources Control Board

**RELIABLE DOMESTIC ENERGY SOURCE**

- **3rd OIL PRODUCING STATE IN THE NATION**
- **455,940 JOBS**
- **$204 BILLION IN ECONOMIC ACTIVITY PER YEAR**
- **$38 BILLION IN LABOR INCOME PER YEAR**
- **EVERY BARREL PRODUCED IN CALIFORNIA IS USED IN CALIFORNIA**

**ENERGY SECURITY**
Reducing dependency on foreign countries or other states for oil imports


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