



ABOUT Newton County Landfill

- ✓ 640 acres
- ✓ Proud community partner
- ✓ Landfill gas and sustainability
- ✓ State of the art leachate treatment
- ✓ Extensive groundwater monitoring

NCLF Deepwell

24/7

Monitoring and instantaneous safety controls

60+

Daily semi-truck trips to be eliminated, helping reduce carbon emissions

2,640

Feet of thick, impermeable geologic formations, permanently securing landfill liquids

3K-5K

Feet below ground surface where liquids are permanently secured

13

Deepwells already operating statewide today

3

Steel casings, cemented for maximum safety



What is an Industrial Well?

Class I wells allow for the injection of leachate far below the lowermost groundwater drinking zone.



Layered concrete and steel barriers

DRINKING WATER AQUIFER

Steel and cement barriers separate and protect drinking water aquifers

Pressurized well seal fluid is monitored continuously

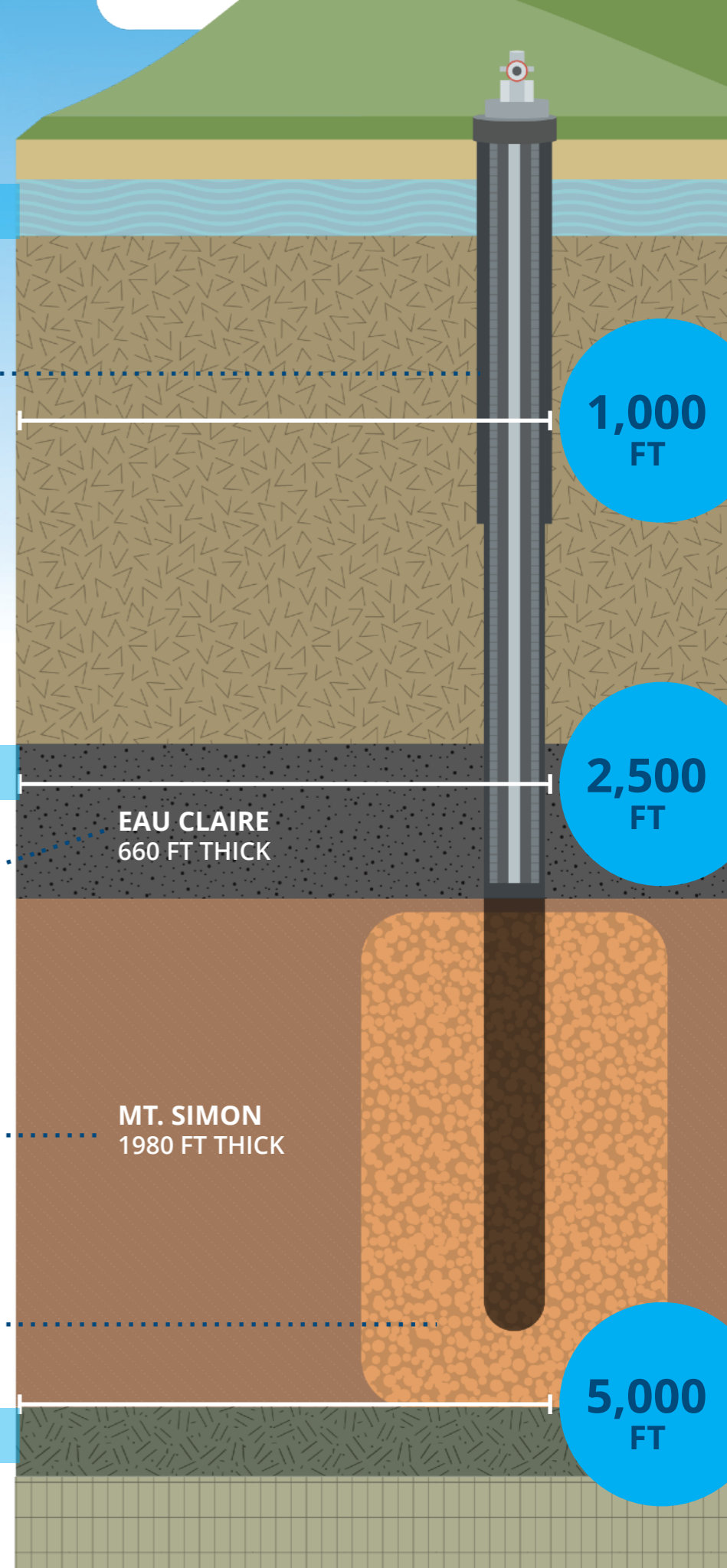
CAP ROCK

Injection zone capped by 660 feet of a low permeability formation to confine all wastewater

Mt. Simon extends under Michigan, Ohio, Illinois and Indiana, with over 50 deep wells in operation

Liquids are permanently contained, like natural oil and gas deposits

CAP ROCK



1,000 FT

2,500 FT

5,000 FT

EAU CLAIRE
660 FT THICK

MT. SIMON
1980 FT THICK

Project Overview

Responsible operation of two regulated **Class I industrial waste wells** to safely dispose of onsite landfill liquids.



US EPA & State Regulations

- ▶ Siting
- ▶ Construction
- ▶ Operation, monitoring, inspection and testing
- ▶ Record keeping and reporting
- ▶ Closure

Proven Technology

Deepwell injection wells are a safe and environmentally responsible technology.

- ✓ Designed with multiple casings to prevent leakage
- ✓ Continuous monitoring with advanced technology
- ✓ Approximately 800 permitted, active Class I injection wells in the U.S.
- ✓ 13 permitted Class I wells in Indiana
- ✓ Republic operates 14 active injection wells



Environmental Safeguards

Several safeguards are in place to protect the environment, including:

- ✓ Pressurized seals to continuously monitor fluids
- ✓ Regularly scheduled mechanical integrity testing
- ✓ Regular inspections by U.S. EPA



Groundwater Safeguards

- ✓ Siting and construction
- ✓ No impact on groundwater
- ✓ Leveraging best-in-class engineering and technology
- ✓ Liquids will be injected deep – roughly one-half mile – below the nearest possible drinking water source
- ✓ U.S. EPA has said that Class I deepwells offer *“a particularly strong level of public health protection.”*
- ✓ Continued landfill groundwater monitoring



NCLF Deepwell

OUR PROMISE

We will follow U.S. EPA guidelines,
ensuring safe and responsible operations.

Our Commitment to Safe Practices

Feet below ground surface where
liquids are permanently secured

3,000-
5,000

Steel casings, cemented for
maximum safety

3

Monitoring and instantaneous
safety controls

24/7



Public Website

NCLFdeepwell.com

KEY PARTNERSHIP

36,000 ★ **14M** ★ **\$10B**
EMPLOYEES CUSTOMERS IN REVENUE

42
states

14
ACTIVE
INJECTION
WELLS

189
ACTIVE,
MODERN-DAY
LANDFILLS

212
TRANSFER
STATIONS

75
RENEWABLE
ENERGY PROJECTS

1.7B
POUNDS OF
COMPOST PROCESSED
EACH YEAR

300K
TONS OF C&D
WASTE DIVERTED FROM
LANDFILLS ANNUALLY

79
recycling centers
processing 6M tons
of recyclables

AWARDS AND RECOGNITION



In collaboration with



WHAT THE EXPERTS ARE SAYING

SAFETY

“EPA and other scientific experts have concluded that these liquid wastes are “removed from the environment” — isolated from the biosphere thousands of feet below the earth’s surface, where they will remain confined for millions of years.”^a

BENEFITS

EPA declared that underground injection “reduces human exposure to organic and inorganic chemicals and heavy metals by removing them from the environment.”^a

GROUNDWATER PROTECTIONS

“Because these wells inject waste below the deepest USDW, there is little chance of any negative effects on potentially usable groundwater.”^b

“EPA has taken a strong protective stand to assure that USDWs are not endangered in the short-term ... or the long term ...”^d

MINIMIZING RISK

“...a typical Class I non-hazardous well affords the public and the environment an extremely low level of risk”^c

APPENDIX

^a Removed from the Environment, Robert F. Van Voorhees, The Environmental Law Institute, <https://bit.ly/36CC2Dk>

^b Injection Wells: An Introduction to Their Use, Operation & Regulation, Groundwater Protection Council, <https://bit.ly/2UuB6vc>

^c Class I Underground Injection Control Program: Study of the Risks Associated with Class I Underground Injection Wells, U.S. EPA, <https://bit.ly/32MHPVB>

^d Class I Deepwell Injection Technology: A safe and proven liquid waste management option, Petrotek Engineering Corporation, <https://bit.ly/35zn4P4>