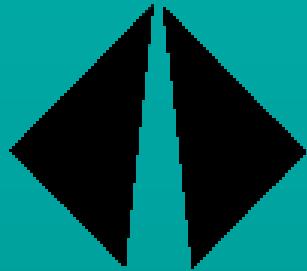


BMP'S SUCK

HWWA

October 15-17 2025

www.boardofwatersupply.com



INTERNATIONAL
Trucks of Hawaii



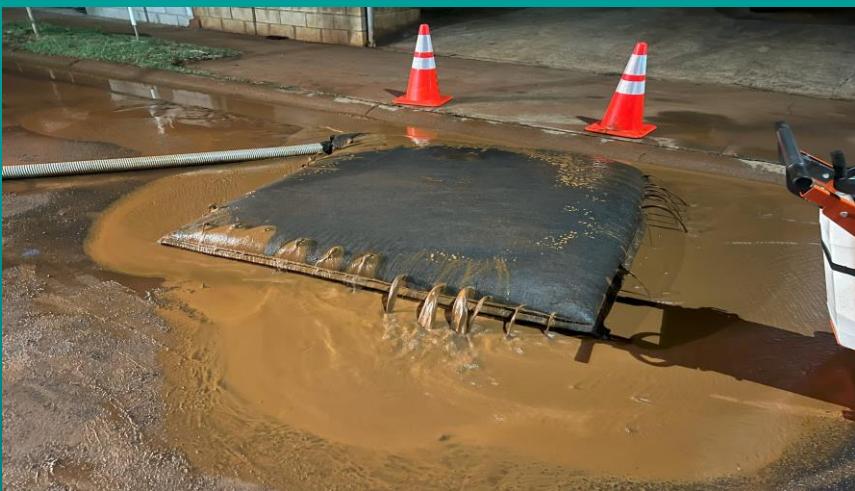
What are BMPs?

Best Management Practices (BMPs)

- **Common in:** Agriculture, construction, and stormwater management.
- **Meaning:** Strategies or practices that are effective and practical for protecting natural resources and improving performance (e.g., reducing pollution, managing runoff).



BMPs may include Silt fence, Straw or fiber wattles, Erosion matting or blankets, at the Board of Water we may use wattles, de-watering bags, gutter guards, witches hats, Geotech fabric.



WHY IS Bmp's **IMPORTANT**

PROTECTS THE ENVIRONMENT.

IT'S THE LAW



THE CLEAN WATER ACT

The Clean Water Act is the main federal law that regulates water pollution in the United States. Basically, it means we must keep our coastal waters, rivers, streams, lakes, and even storm drains clean.

The Clean Water Act covers *point source discharges* — things like pipes, ditches, and drains — and requires each state to set water quality standards for its rivers, lakes, and coastal waters.

It also prohibits the discharge of pollutants into U.S. waters unless you have a permit, most commonly known as an **NPDES permit** — the National Pollutant Discharge Elimination System.



Who sets the standards for Hawaii?

- **Hawaii Department of Health (DOH).**
- The DOH is responsible for issuing **NPDES permits** for any discharges into state waters — including stormwater permits for construction projects, utility work, and industrial sites.



Why do BMPs suck

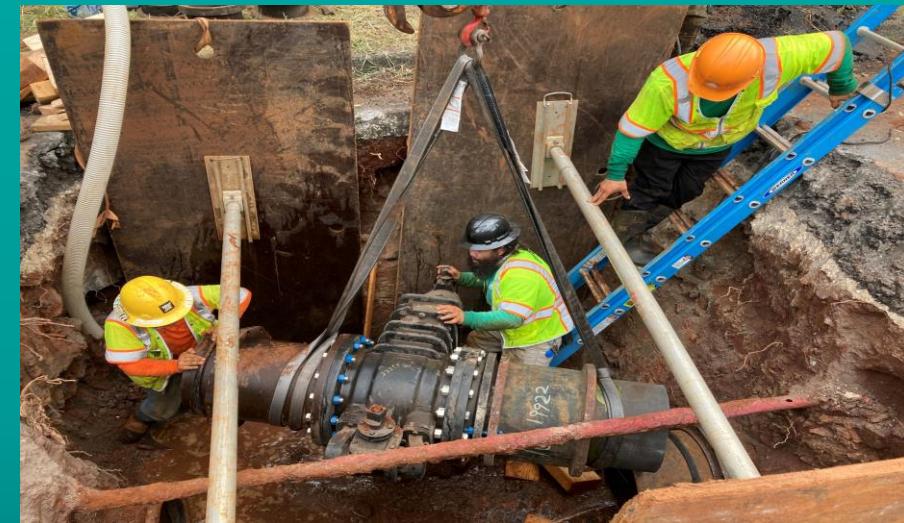
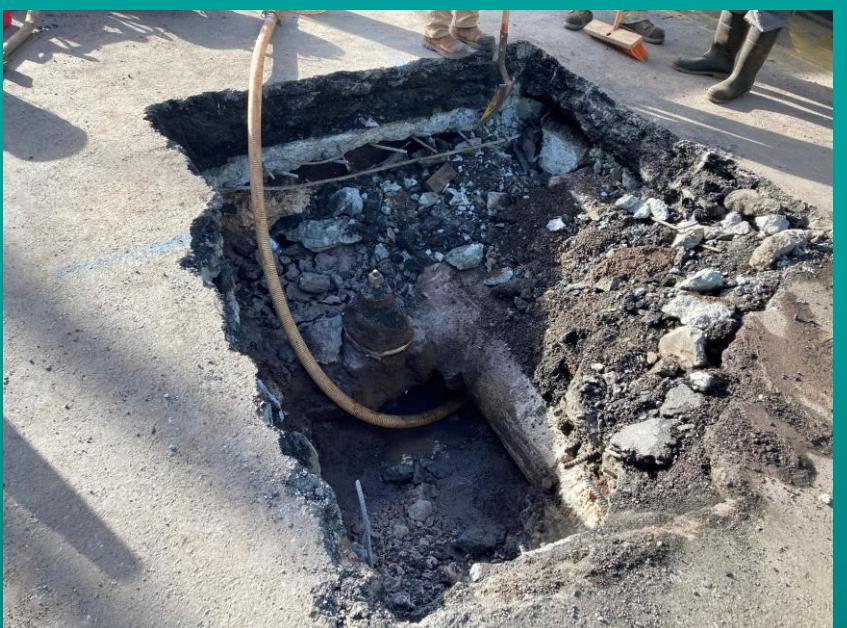
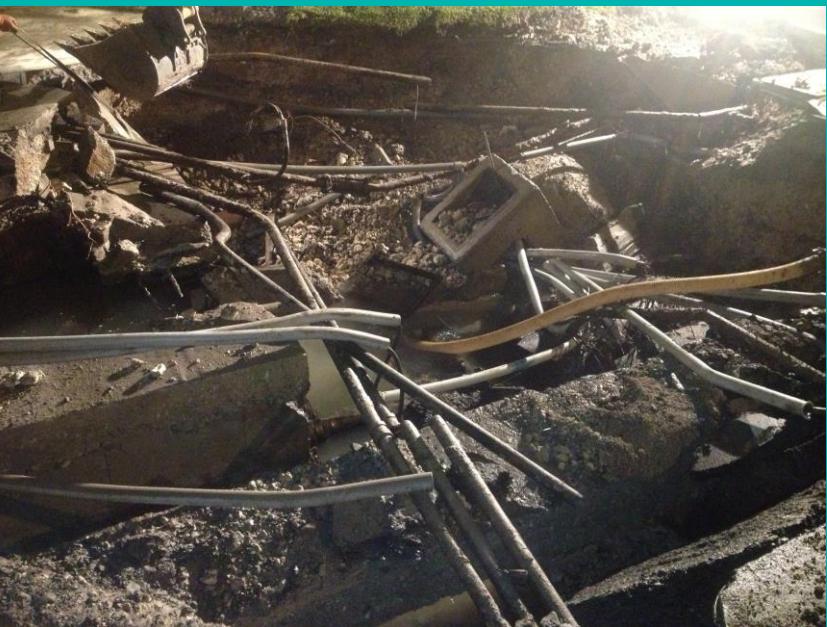
They're not perfect. BMPs don't work 100% of the time. They're called *Best Management Practices* because, honestly, they're just that — the **best we can do** to manage runoff and pollution.



Hydro Vacuum Excavator

12 YARDS OF DEBRIS AND 1,200 GALLONS OF WATER.
THE PRESSURE WASHER PUTS OUT **800 PSI**,
VACUUM SYSTEM PULLS AN IMPRESSIVE **6,000 CFM** — CUBIC FEET PER MINUTE.
EVERYTHING WE EXCAVATE IS SAFELY CONTAINED IN THE HOLDING TANK.





What is hydro excavation?

Hydro excavation, or hydrovac, is a non-destructive digging method that uses high-pressure water to break up soil and a strong vacuum to simultaneously remove the resulting slurry of dirt and water, safely and precisely for construction. It is a safer, cleaner, and more efficient alternative to traditional excavation, especially in sensitive areas or when working near underground infrastructure like gas, water, and electrical lines.









Pros of hydro excavation in relations to NPDES

- **Environmental Protection**
- Keeps sediment, oils, and debris out of stormwater systems.
- Aligns with the Clean Water Act's goal of protecting surface and groundwater quality.
- The slurry generated during hydro excavation can be vacuumed up and properly disposed of, preventing it from entering stormwater systems.
- Hydro excavation is more precise than mechanical digging, which minimizes the amount of exposed soil.



SAFETY

1. Safe Around Utilities

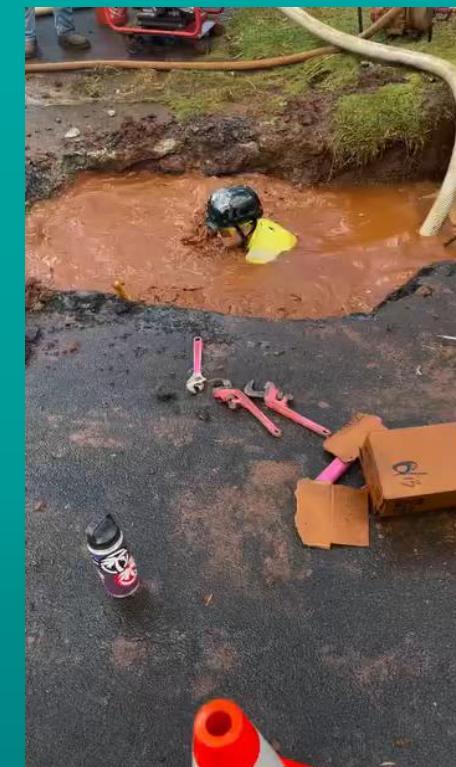
- Minimizes risk of damaging underground utilities (water, gas, telecom, electrical).
- Non-destructive compared to mechanical digging.



Faster Utility Locating

Saves time compared to hand digging.

When digging near 811-marked utilities, you must always hand dig within a specific "tolerance zone" (3 ft on each side of mark a total of 6 ft)



Precision & Accuracy

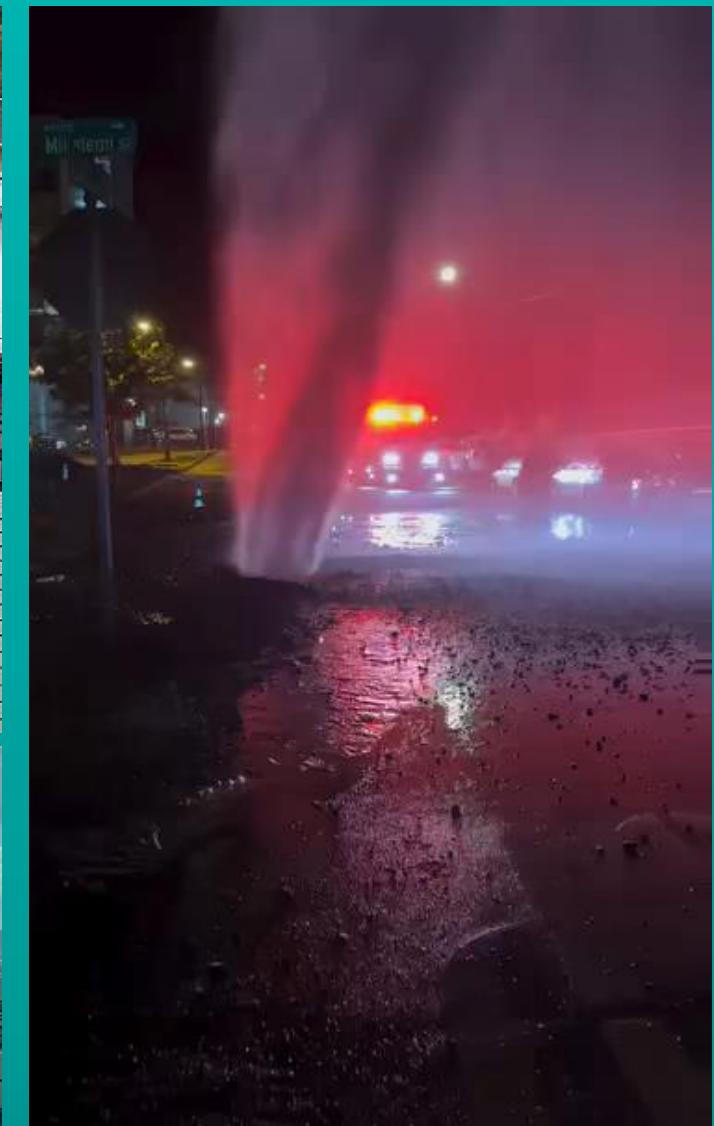
Allows for very controlled excavation in tight or sensitive areas.

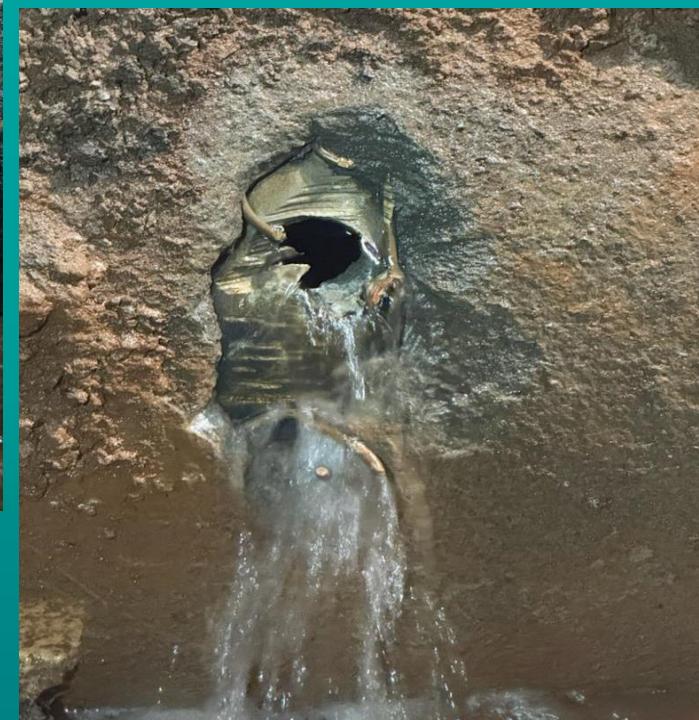


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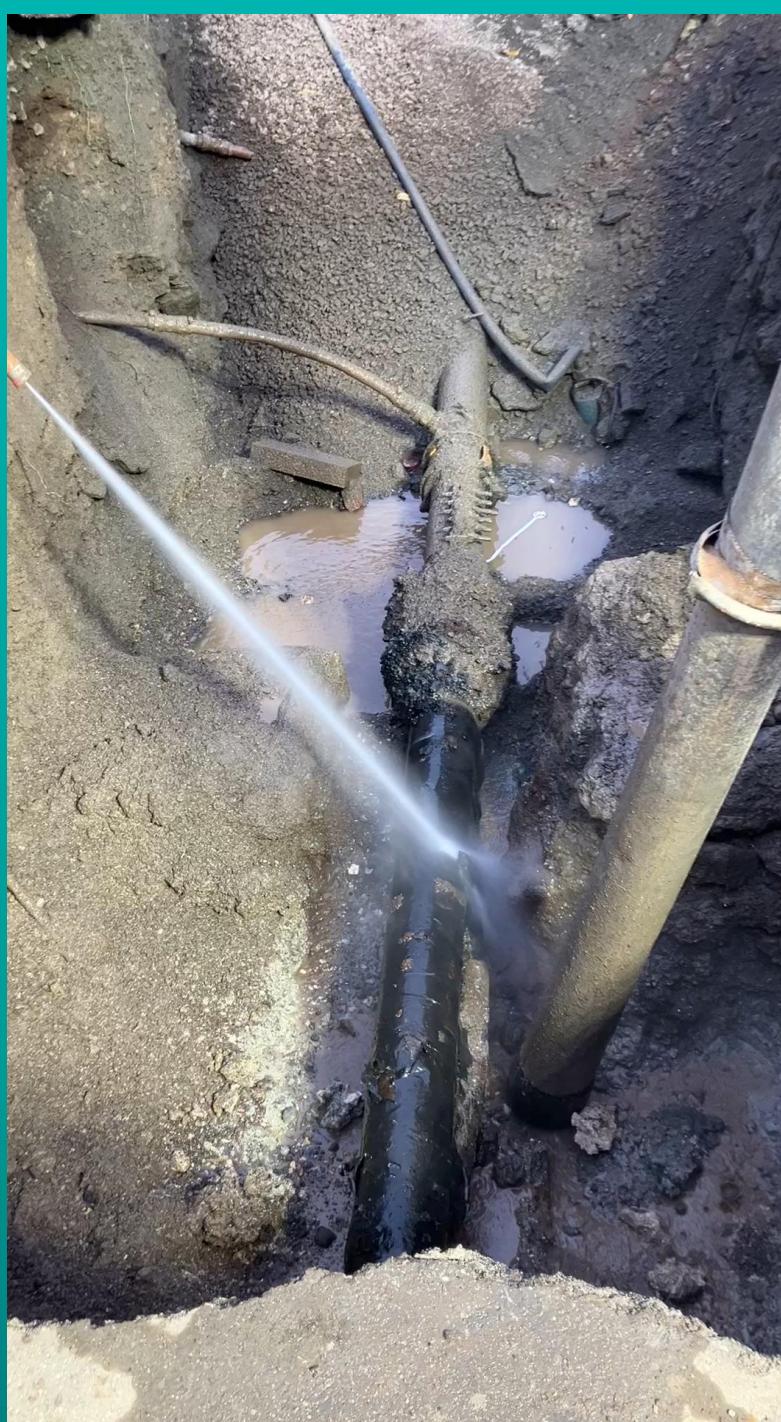
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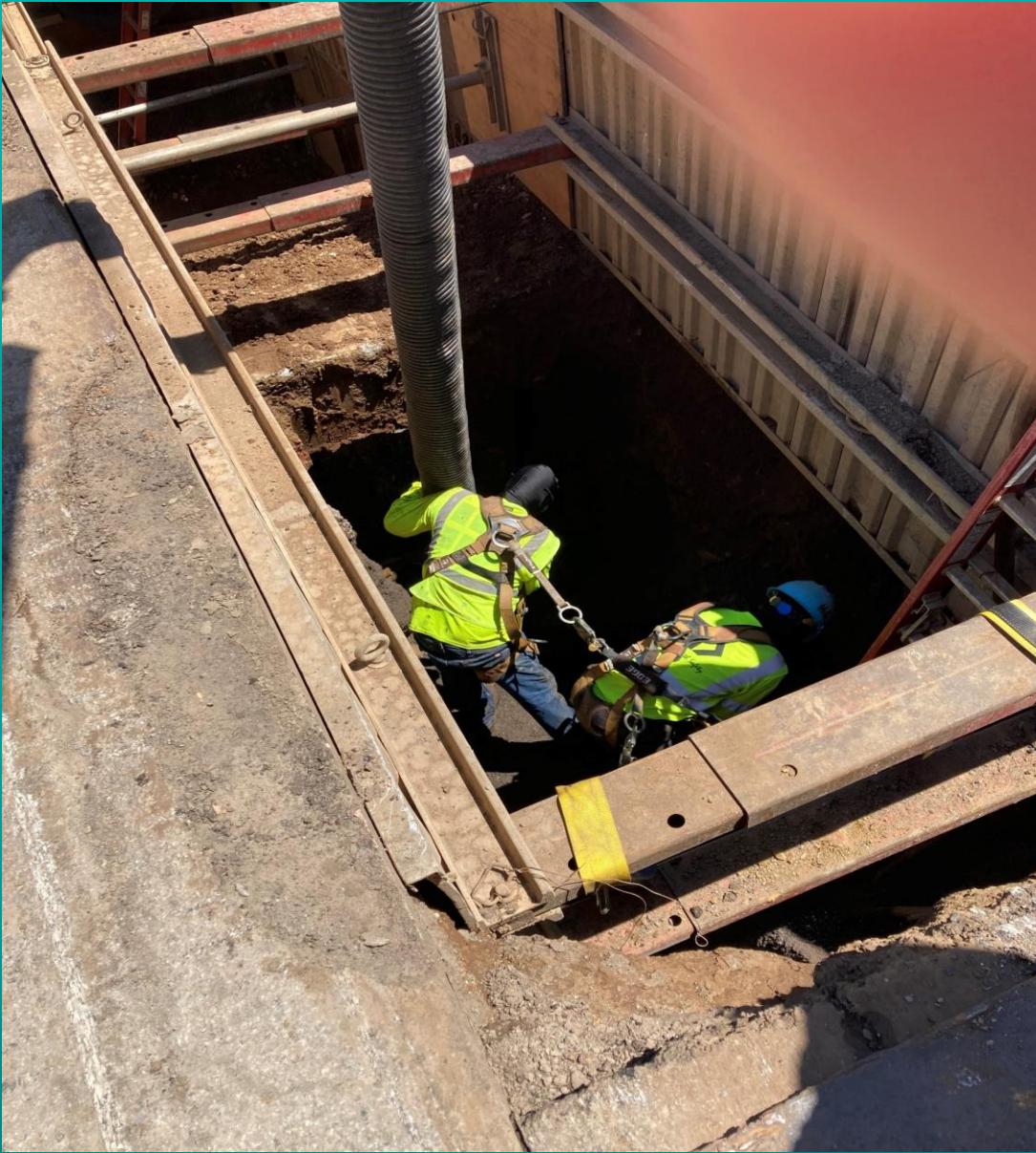


Share















Hydro excavation cons

1. Higher Cost

- Equipment and operation are more expensive than hand digging or small mechanical excavation.

2. Slower for Large-Scale Jobs

- Not efficient for bulk soil removal or large open trenching projects.



Hydro excavation cons

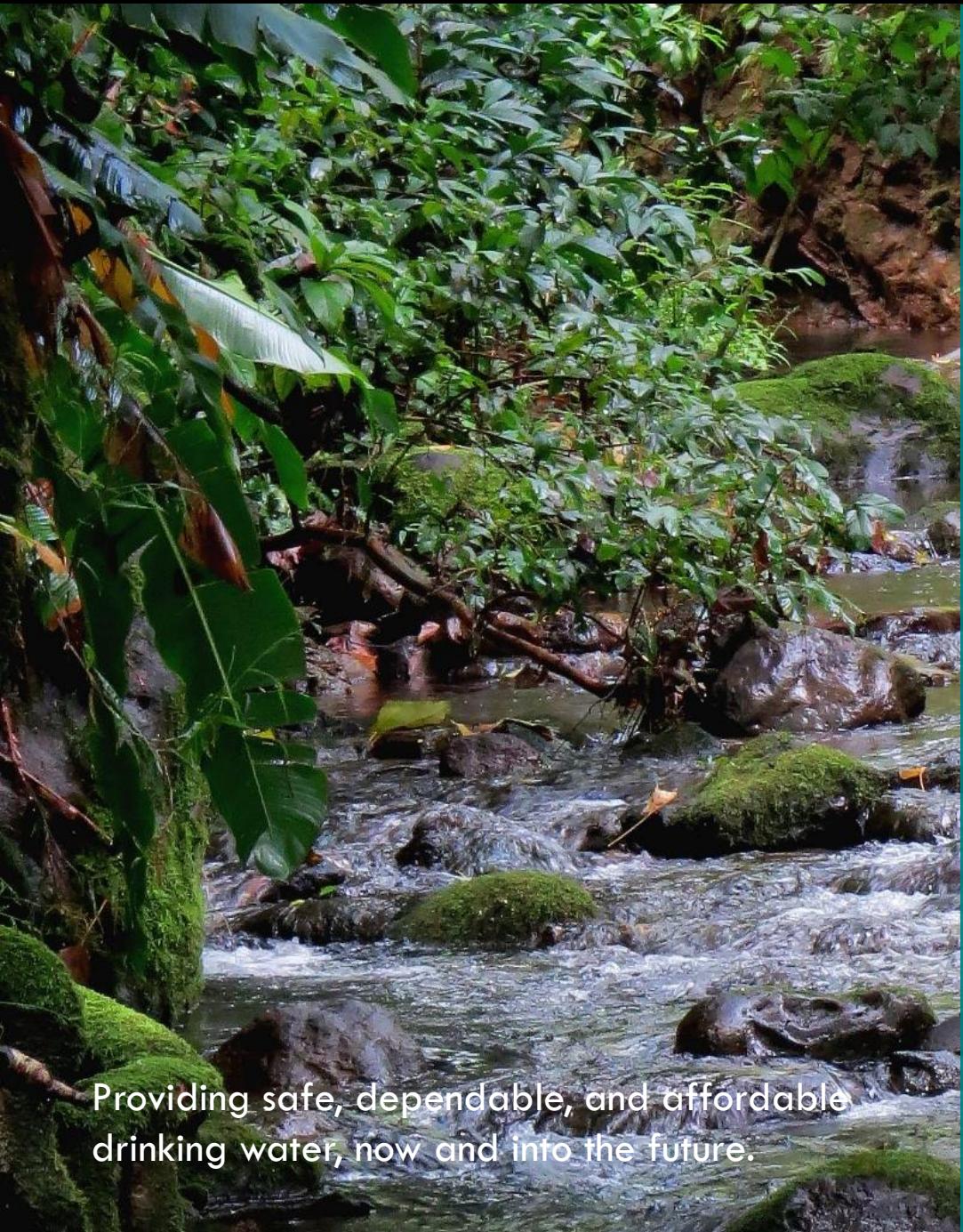
3. Water Use & Disposal (Hydro-Vac)

- Requires a significant amount of water.
- Creates slurry that must be contained, transported, and disposed of properly.

4. Limited by Tank Capacity

- Frequent stops to empty debris tank can slow productivity.





Providing safe, dependable, and affordable
drinking water, now and into the future.



Mahalo! BOARD OF WATER SUPPLY

Water Service Supervisor Field Operations
Jordan Kurahara

phone: 808-445-4352
email: jkurahara@hbws.org

The Legacy of Vactor/Truvac

- Over 100 Years in Manufacturing, pioneering vacuum technology for sewer cleaning and environmental solutions.
- Expanded through decades into municipal and industrial markets.
- Launch of Truvac brand in 2019: focus on safe digging and hydroexcavation solutions.
- Vactor/Truvac: trusted Federal Signal brands with a strong dealer network and decades of innovation.





Paradigm

 **TRUVAC**[®]

Evolution of Hydroexcavation

- **Hydroexcavation = non-destructive excavation using pressurized water + vacuum.**
- **Early adoption in oil & gas industries, then expanded to municipalities and utilities.**
- **Benefits: safer alternative to mechanical digging, especially around buried utilities.**
- **Vactor/Truvac equipment engineered to balance power, precision, and efficiency.**



FLXX

 **TRUVAC**®

Why Hydroexcavation Matters

- **Safety:** Prevents strikes on gas, water, fiber, and electric lines.
- **Accuracy:** Provides precise digging in congested underground areas.
- **Environmental protection:** Reduces soil disturbance and erosion compared to backhoes.
- **Cost efficiency:** Minimizes repairs, downtime, and liability for municipalities and contractors.





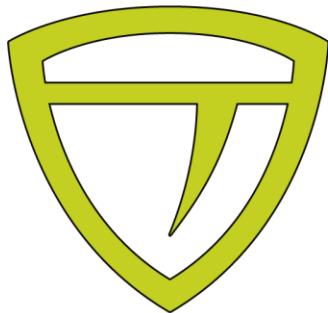
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 **TRUVAC**[®]

Impact & Future

- Hydroexcavation is now the industry standard for safe digging in North America.
- Growing adoption in Hawaii and across the Pacific region.
- Supporting critical infrastructure: water, sewer, telecom, energy.
- Future focus: sustainable technology, enhanced efficiency, and advanced safety systems.
- Call to action: Partner with Vactor/Truvac for proven hydroexcavation solutions that protect people, infrastructure, and the environment.





TRUVAC[®]

Hydroexcavators with  INTERNATIONAL Trucks of Hawaii

Contact TruVac Account Manager Blake Gammel with
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blake.gammel@intl-hi.com Direct: (808) 682-6262