



15 FACTSHEET

WHIDBEY'S WATER

PREPARING WHIDBEY'S WATER SUPPLY FOR NATURAL DISASTERS

How Prepared Are Whidbey's Water Systems for Earthquakes and Major Hazards?

1. Over 7,000 Systems, Almost No Disaster Plans

- Widespread but unprepared: Whidbey relies on thousands of independent water systems serving 60,000 residents. Most have no Hazard Mitigation Plan, no emergency protocols, and no backup water supply strategy.
- Scale of exposure: These systems serve anywhere from 5 to 2,000 customers each — all of whom will need safe drinking water immediately after a disaster.

Core Problem: A decentralized water system with almost no disaster planning leaves tens of thousands vulnerable when earthquake caused disruption strikes.

2. Limited Operational Capacity When Disaster Hits

- Volunteer-run systems: Many small systems are managed by HOAs with limited technical experience.
- Operator shortages: Larger systems depend on contract operators who may be unavailable during a regional emergency.
- Slow recovery: Damaged pumps, cracked tanks, and broken pipes may take weeks or months to repair.

Core Problem: The expertise needed to keep water flowing may be unavailable exactly when it is needed most.

3. Physical Vulnerability of Infrastructure

- Earthquake risk: Wells, storage tanks, and distribution pipes are highly vulnerable to seismic damage.
- Tank drainage: Without seismic shutoff valves, storage tanks can empty instantly during strong shaking.
- Aging systems: Much of Whidbey's water infrastructure was built decades ago and is nearing end-of-life.

Core Problem: A single seismic event could disable drinking water access across many systems at once.

4. Fragmented Systems and Governance

- Patchwork structure: Whidbey's water supply is a mix of HOAs, small systems, private wells, municipal systems, and special districts.
- Coordination gap: No single entity is responsible for island-wide water emergency response, shared backup supplies, or unified communication.

Core Problem: Fragmented governance makes coordinated disaster response extremely difficult.

5. Household and Community-Level Preparedness Is Essential

- Household storage: Homes should store **100–300 gallons** of emergency water in barrels or containers.
- Community storage: Whidbey needs **designated Disaster Water Storage Centers** distributed across the island, equipped with:
 - Large storage tanks
 - Earthquake shut off valves
 - Backup power
 - Gravity-fed distribution taps
 - Clear public access plans

Core Problem: Without household and community storage, many residents may have no access to safe drinking water after a major disaster.

6. Gaps in Current County Hazard Mitigation Planning

The County identifies water supply as critical infrastructure, but current planning does not fully address:

- Extreme decentralization of water systems
- Lack of seismic shutoff valves
- Absence of island-wide emergency water storage
- Operator shortages during disaster recovery
- Long repair timelines for wells and tanks
- Need for standardized Hazard Mitigation Plans for Class A & B systems

Core Problem: Existing planning does not match the scale of Whidbey's water system vulnerability.

7. A Path Forward: Building Community Water Resilience

A resilient disaster strategy includes:

- Standardized Hazard Mitigation Plans for all systems
- Prioritize seismic shutoff valves for critical tanks
- Island-wide Disaster Water Storage Centers
- Shared operator emergency support
- Backup power for critical wells
- Community water distribution protocols
- Public education on water storage and safety

Core Problem: Disaster readiness requires coordinated planning, shared infrastructure, and community-level action.

BOTTOM LINE

Whidbey's decentralized water system is highly vulnerable to earthquakes and other disasters. Without seismic upgrades, emergency storage, and coordinated planning, thousands of residents could lose access to safe drinking water for extended periods.

Preparedness is essential.

Every system, every household, and every community must play a role.