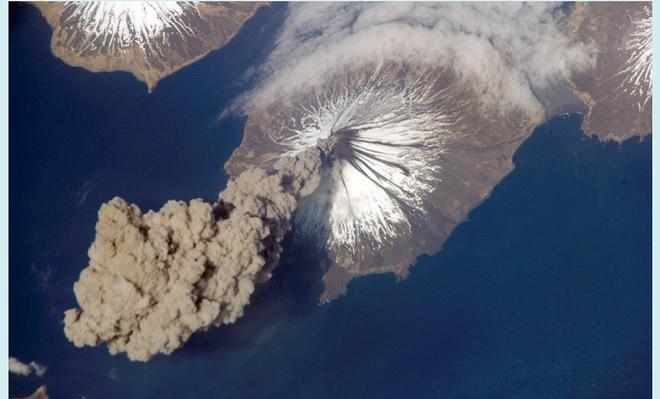


# Volcanic ashfall

## Water treatment

### VOLCANIC ASH CAN:

- Increase turbidity, or the cloudiness in water, in surface water sources.
- Lead to increased demand during clean-up phase of the event.
- Cause operation problems in treatment systems.



*Ash cloud from Mt. Cleveland, May 2006.*

### PREPARING FOR AN ASHFALL EVENT

- Stay aware of volcanic activity in your area or region. Sign up for local notifications: <https://volcanoes.usgs.gov/vns2/>
- Keep your storage tank near full if there is an increased risk of volcanic activity.
- Have adequate treatment chemicals and testing reagents on hand. You will likely have an increased need for both during an ashfall event.
- Ensure intake screens in surface water sources are free of debris.
- Identify any emergency water sources and communication plan(s) in your community.

### DURING AN ASHFALL EVENT

- Monitor raw and finished water quality (turbidity, pH and chlorine).
- Make process changes as needed. These may include:
  - Adjusting coagulant and chlorine dosage to account for increased turbidity.
  - Allowing ash to settle in reservoir before drawing it into treatment system.
  - Changing source water intake depth to account for changes in water quality.
  - Increased monitoring of intake screens, water production, filter pressure differential, pH, turbidity readings and need for backwashing.
- Communicate system status with RMW program and local utility management.



## AFTER ASHFALL

- Continue to monitor and adjust treatment operations as needed.
- Be prepared for increased water use during the clean-up phase. Keep storage tanks full, if possible.
- Inspect, clean, flush or repair any systems components damaged during event including:
  - Intake screens, raw water transmission lines and any pretreatment components (cyclones/screens).
  - Filters and plant diagnostic equipment.
  - Distribution system flushing (if needed).
  - Safely remove ash from building, outdoor tanks etc.
- After significant or prolonged ash fall events, you may need to drain and clean your reservoir.
- Continue to communicate system status with RMW program and system management.



*Protective face mask to prevent inhalation of ash during cleanup.*

[https://volcanoes.usgs.gov/volcanic\\_ash/personal\\_protection\\_equipment.html](https://volcanoes.usgs.gov/volcanic_ash/personal_protection_equipment.html)

## RESOURCES

[https://volcanoes.usgs.gov/volcanic\\_ash/](https://volcanoes.usgs.gov/volcanic_ash/)

<https://www.cdc.gov/disasters/volcanoes/during.html>

<http://dhss.alaska.gov/dph/Epi/Pages/volcanoes/default.aspx>



**ALASKA NATIVE  
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CONSORTIUM**

For more information, contact the ANTHC Community Environment and Health department at [CEH@anthc.org](mailto:CEH@anthc.org).