

MONITORING VOG ON OAHU

Joy Nishida
OCN 318

ENVIRONMENT, RATIONALE, AND CHALLENGE

- The most recent eruptions at Kilauea started in Dec 2024
- Vog poses health risks for people with respiratory conditions
- Vog contains sulfur dioxide (SO₂) and fine particulate matter (PM_{2.5})
- On Oahu, there are only a couple weather stations that monitor SO₂ levels

PHYSICAL AND CHEMICAL MEASUREMENTS NEEDED

- Sulfur dioxide (SO₂)
- Particulate matter (PM_{2.5})

SPATIAL SAMPLING REGIME

- Urban: UH Manoa
- Residential/Coastal: Windward (Kaneohe)

TEMPORAL SAMPLING REGIME

- Continuous monitoring, every 5 minutes
- Daily summary, average hourly measurements

PARTS, VENDORS & COSTS