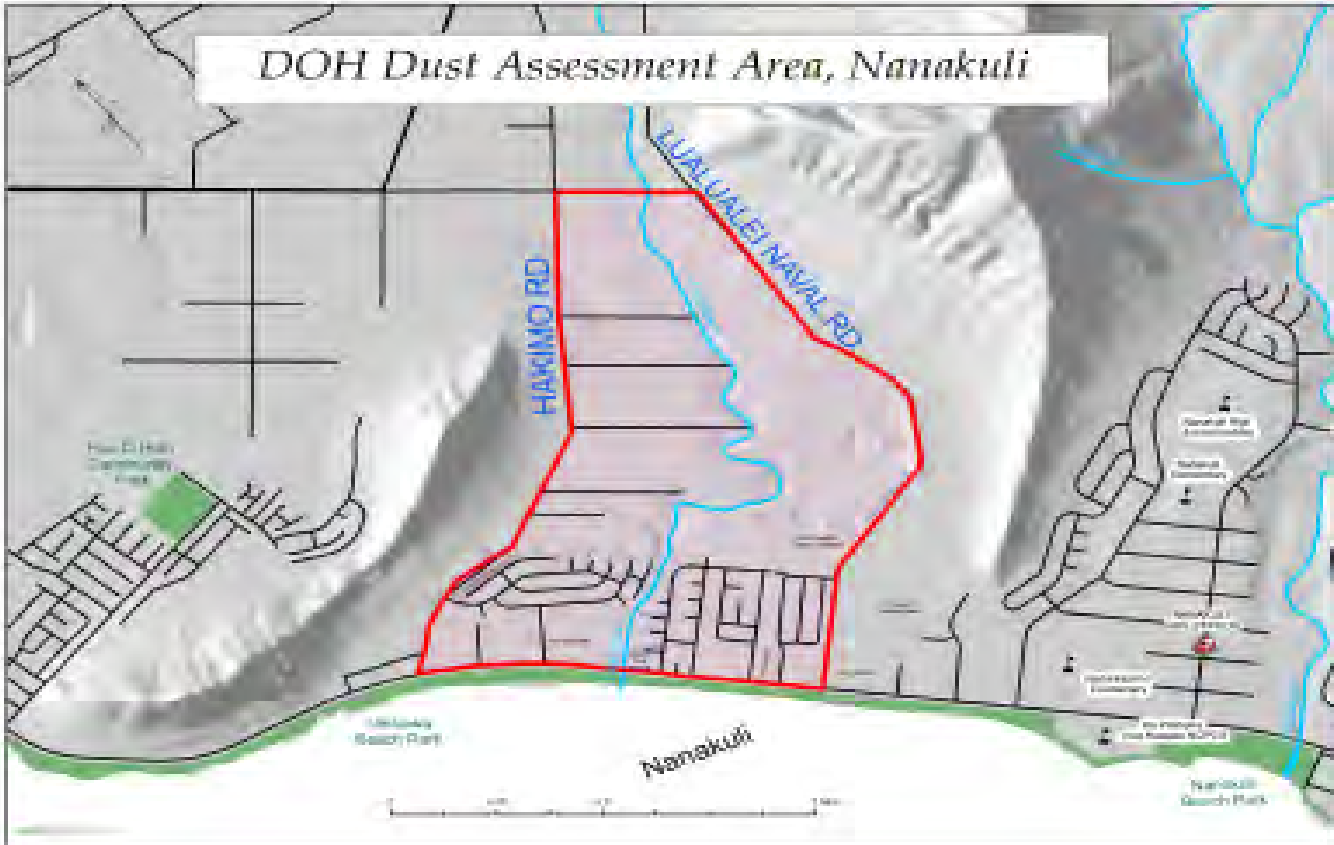


# NANAKULI DUST STUDY



TETRA TECH





# NANAKULI DUST STUDY

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## Objectives

- Evaluate dust sources
  - Naturally occurring
  - Industrial
  - Agricultural
- Evaluate impacts to residents
- Recommend feasible and realistic methods to address and reduce dust



# NANAKULI DUST STUDY

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## Tasks

- Questionnaire and photo brigade
  - 1,100 copies mailed to residents
  - Results compiled in Summary Sheet and Maps
- Conducted public meeting and resident interviews
- Evaluated nearby and localized traffic patterns
- Completed site visit to neighborhood and nearby facilities



# NANAKULI DUST STUDY

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## Tasks (cont.)

- Evaluated dust from multiple sources
- Reviewed air quality and meteorological data from nearby and regional monitoring stations
- Reviewed relevant technical documents
- Developed conclusions and recommendations

# NANAKULI DUST STUDY – CONCLUSIONS

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## POTENTIAL SOURCES

- Industrial
- Roadway
- Residential
- Naturally occurring
- Other



# NANAKULI DUST STUDY – CONCLUSIONS

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## **Industrial**

- Crushing
- Waste and material handling
- Vehicle traffic
- Soil movement
- Bare working surfaces





# NANAKULI DUST STUDY – CONCLUSIONS

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## Roadway

- Unpaved shoulder
- Vehicle speed
- Traffic volume
- Road dust



# NANAKULI DUST STUDY – CONCLUSIONS

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## Other Sources

- Unvegetated or barren residential lots
- Mixed use area off Hakimo Road
- Naturally Occurring







# NANAKULI DUST STUDY - CONCLUSIONS

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- Dust is a nuisance
- Air monitoring data demonstrates dust is not a health concern
  - PVT TSP data reports show TSP well below health-based levels
  - PVT metals not detected or present at very low concentrations
  - TSP and metals data similar to other DOH ambient monitoring stations
  - Data collected using sound scientific methods
- PVT to collect additional TSP and metals data

# NANAKULI DUST STUDY – CONCLUSIONS

- Dust from PVT Site #1 showed highest TSP concentrations
- Some dust appears to be tied to emissions from Lualualei Road
- Wind patterns affect dust transport





# NANAKULI DUST STUDY - RECOMMENDATIONS

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- Recommendation #1 – Lualualei Naval Road Improvements and Maintenance
- Recommendation #2 – Enforcement of Speed Limit on Lualualei Naval Road



# NANAKULI DUST STUDY - RECOMMENDATIONS

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- Recommendation #3 – Reduce Emissions at Entrance to PVT
  
- Recommendation #4 – Reduce Emissions on Capped Landfill Sections at PVT





# NANAKULI DUST STUDY - RECOMMENDATIONS

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- Recommendation #5 – Evaluate Reasonable Dust Controls on Other Surrounding Industrial, Commercial, and Agricultural Areas
  
- Recommendation #6 – DOH Community Involvement



# NANAKULI DUST STUDY - RECOMMENDATIONS

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- Recommendation #7 – DOH Obtain Data from PVT
  
- Recommendation #8 – Neighborhood Awareness and Improvement Plan