

## St. Paul Monitoring Wells

- 87 wells located at 8 sites on the island
- Wells provide data on groundwater contaminant concentration, fate, and transport
- Wells also provide a potential conduit for introducing contaminants to groundwater and impede the use of land

# St. Paul Long-Term Groundwater Monitoring Plan

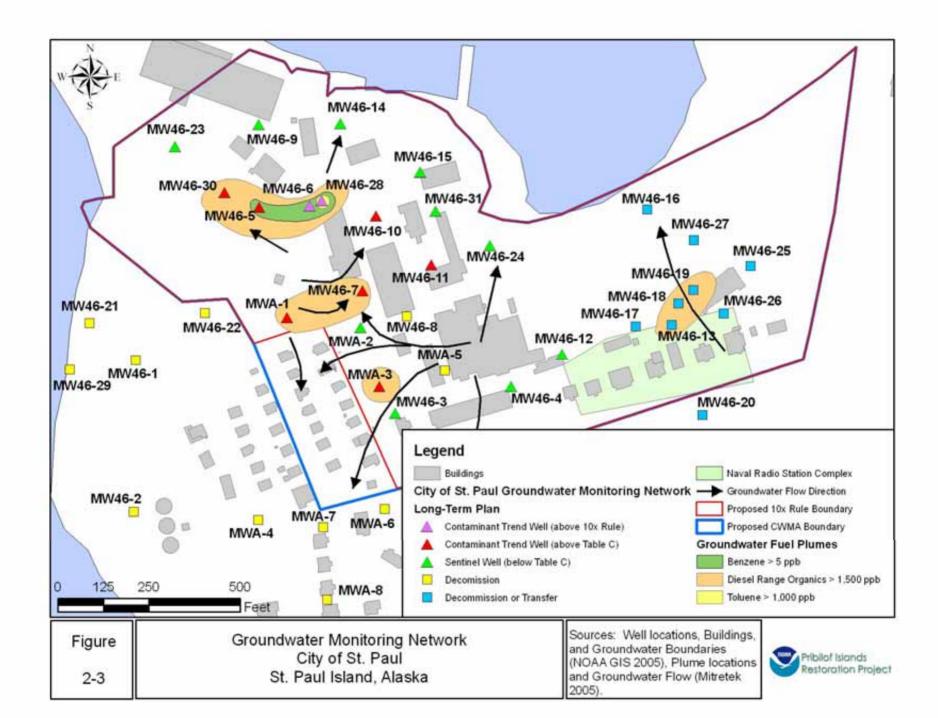
#### Wells will be:

- Retained for long-term monitoring
  - Trend monitoring (exceed ADEC criteria)
  - Sentinel monitoring (currently "clean" wells)
- Decommissioned
  - OR
- Transferred to other parties



## City of St. Paul Wells

- Currently 39 groundwater monitoring wells
  - Retain 10 wells for sentinel monitoring Sample sentinel wells semiannually
  - Retain 9 wells for contaminant trend monitoring Sample trend wells annually
  - Decommission 11 wells
  - Transfer or decommission 9 FUDS/3rd party wells

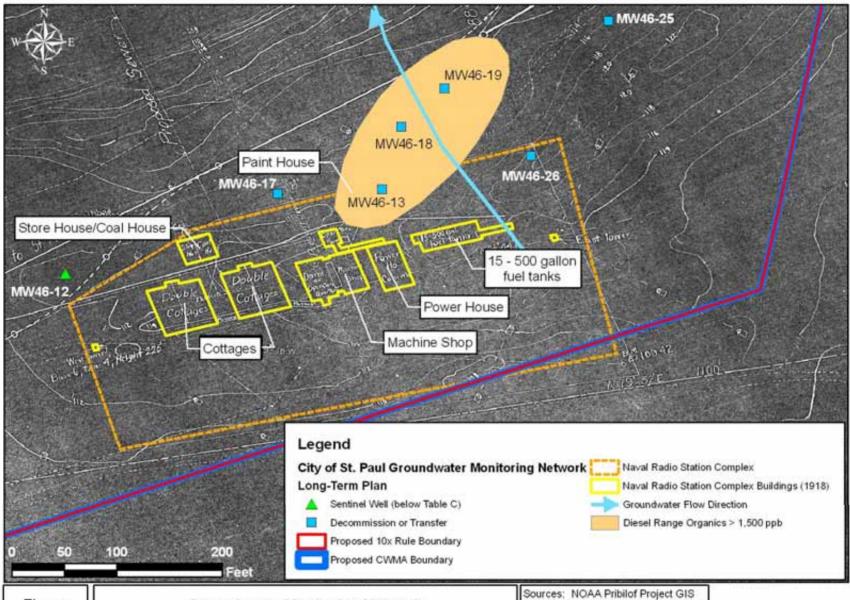


## City of St. Paul Wells

- Retained wells to be monitored for 5 years
  - Evaluate data and recommend follow-up sampling at end of 5-year period
- Analytes will be those found in Tract 46 above ADEC criteria
  - GRO, DRO, benzene, and toluene

## City of St. Paul Wells

- Decommission wells in accordance with ADEC regulations
- Offer for transfer wells in FUDS areas
  - NOAA cannot fund maintenance of wells for use in FUDS or third-party sites
  - Transferred wells may be useful for future FUDS or third party remediation work



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Groundwater Monitoring Network Naval Radio Station Complex St. Paul Island, Alaska Sources: NOAA Pribilof Project GIS (2005), Groundwater Plume and Flow Direction (Mitretek 2005), Naval Radio Station Historical Map (A.C. Reynolds, 1918, based on 1917 surveys by William Hayne).





## Salt Lagoon Diesel Seep

- Currently 5 groundwater monitoring wells
  - Retain 1 well for sentinel monitoring Sample sentinel well semiannually
  - Retain 1 well for contaminant trend monitoring Sample trend well annually
  - Visually inspect for sheens on the salt lagoon channel
  - Decommission 3 wells



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Groundwater Monitoring Network Diesel Seep St. Paul Island, Alaska Sources: Well Locations and Excavation Extent (NOAA GIS 2005), Satellite Imagery (Ikonos 2001).



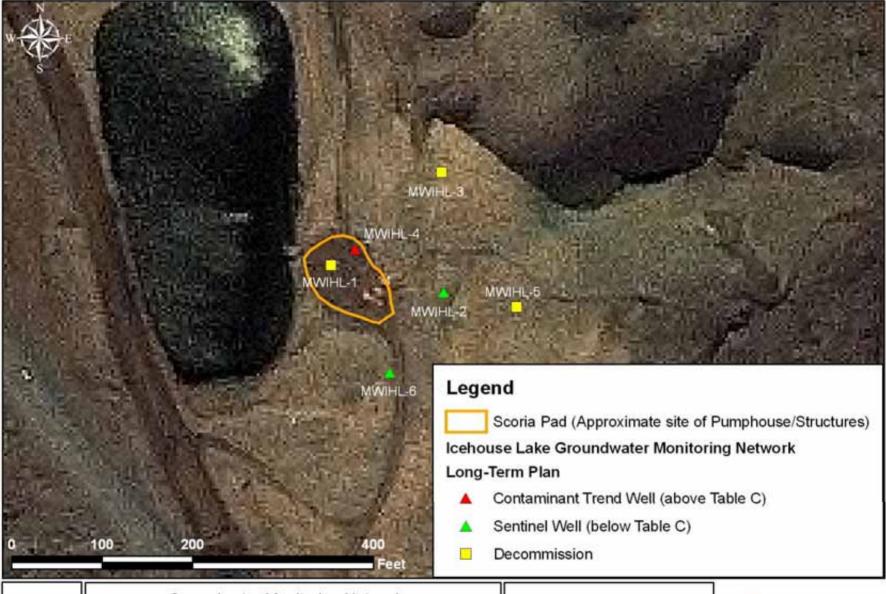
## Salt Lagoon Diesel Seep

- Retained wells to be monitored for 3 years
  - Evaluate data and recommend follow-up sampling at end of 3-year period
- Analytes will be those found in the Diesel Seep Site above ADEC cleanup criteria
  - DRO



#### Icehouse Lake

- Currently 6 groundwater monitoring wells
  - Retain 2 wells for sentinel monitoring Sample sentinel wells semiannually
  - Retain 1 well for contaminant trend monitoring Sample trend well annually
  - Decommission 3 wells



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Groundwater Monitoring Network Icehouse Lake St. Paul Island, Alaska

Sources: Well Locations and Scoria Pad (NOAA GIS 2005), Satellite Imagery (Ikonos 2001).



### Icehouse Lake

- Retained wells to be monitored for 3 years
  - Evaluate data and recommend follow-up sampling at end of 3 year period
- Analytes will be those found at Icehouse Lake above ADEC requirements
  - DRO, GRO, Lead (Dissolved and Total)



## Lukanin Bay

• Decommission 3 existing wells



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Groundwater Monitoring Network Lukanin Bay St. Paul Island, Alaska

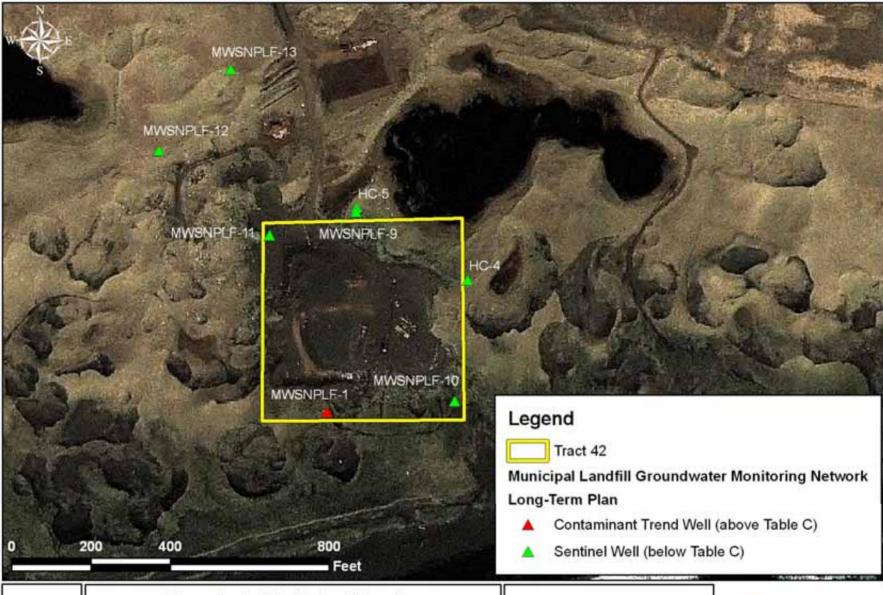
Sources: Well Locations (NOAA GIS 2005), Satellite Imagery (Ikonos 2001).





#### St. Paul Landfill/Tract 42

- Currently 8 groundwater monitoring wells
  - Retain 8 wells for sentinel/contaminant trend monitoring Sample wells annually



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Groundwater Monitoring Network St. Paul Municipal Landfill St. Paul Island, Alaska

Sources: Well Locations and Tract 42 (NOAA GIS 2005), Satellite Imagery (Ikonos 2001).



#### St. Paul Landfill/Tract 42

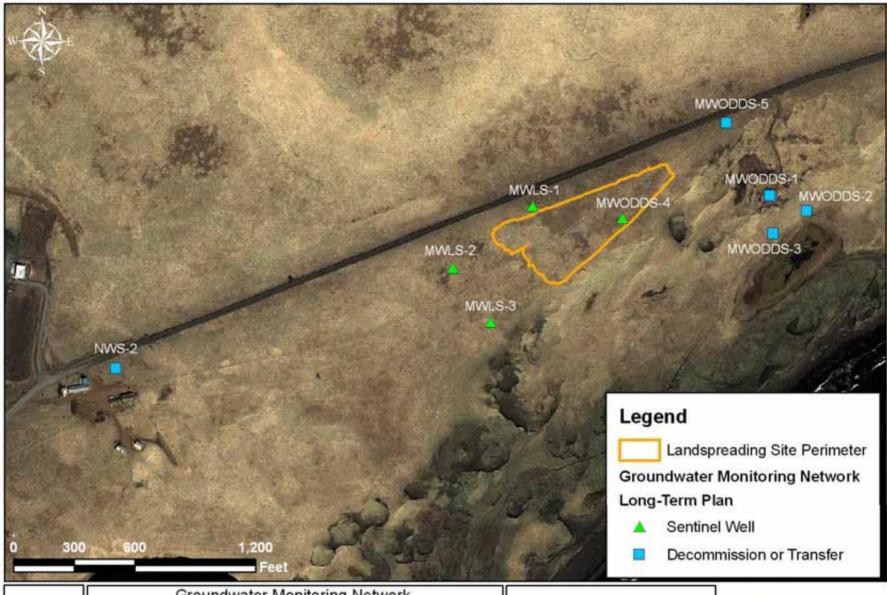
- Retained wells to be monitored for 5 years
  - Evaluate data and recommend follow-up sampling at end of 5-year period
- Analytes will be those found in PCS placed in Cell C, plus lead due to one sample exceedance
  - DRO, GRO, benzene, toluene, ethylbenzene, xylene, lead (dissolved and total)

#### NWS Land Spreading Area and Oil Drum Dump Site



# NWS Land Spreading Area and Oil Drum Dump Site

- Currently 8 groundwater monitoring wells
  - Retain 4 wells for contaminant trend monitoring
     Sample trend wells annually
  - Transfer or decommission 4 Oil Drum Dump Site (TPA Site 1) wells



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Groundwater Monitoring Network
National Weather Service, Landspreading Area,
and Oil Drum Dump Site
St. Paul Island, Alaska

Sources: Well Locations (NOAA GIS 2005), Satellite Imagery (Ikonos 2001).



# NWS Land Spreading Area and Oil Drum Dump Site

- Retained wells to be monitored for 3 years
  - Evaluate data and recommend follow-up sampling at end of 3-year period
- Analytes will be those found in PCS placed in the area
  - GRO, DRO, benzene, toluene, ethylbenzene, xylene



### Vehicle Bone Yard

- Currently 13 monitoring wells
  - All will be decommissioned or transferred

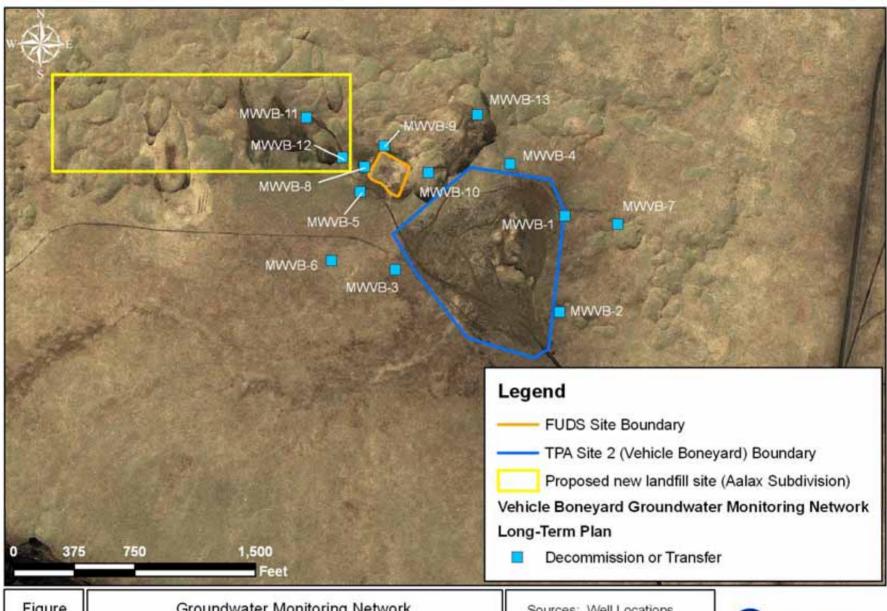
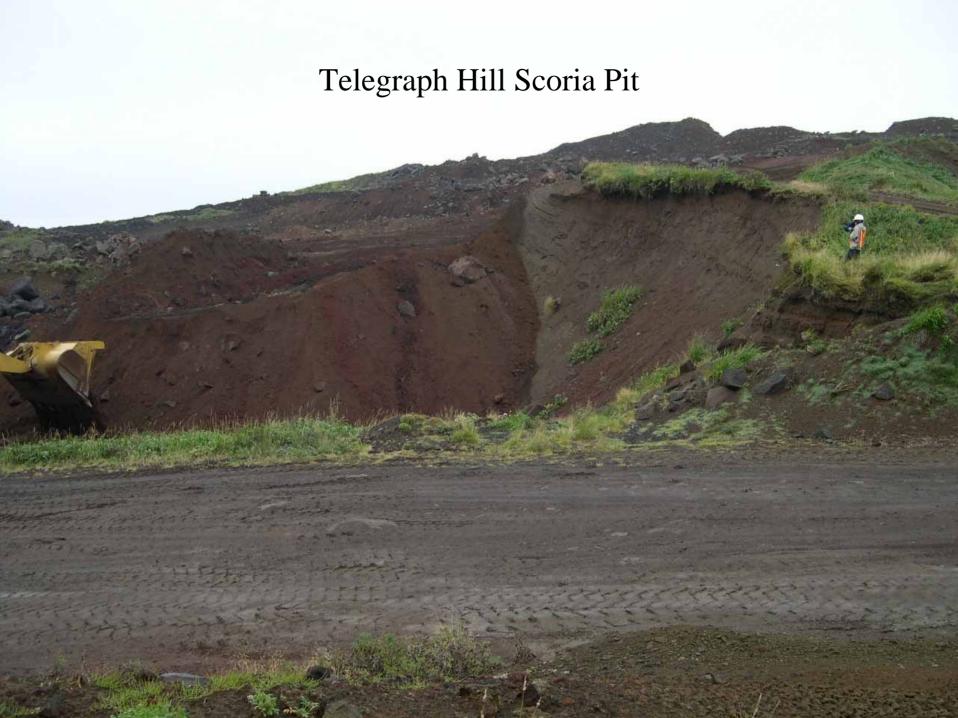


Figure 2-10

Groundwater Monitoring Network Vehicle Boneyard St. Paul Island, Alaska

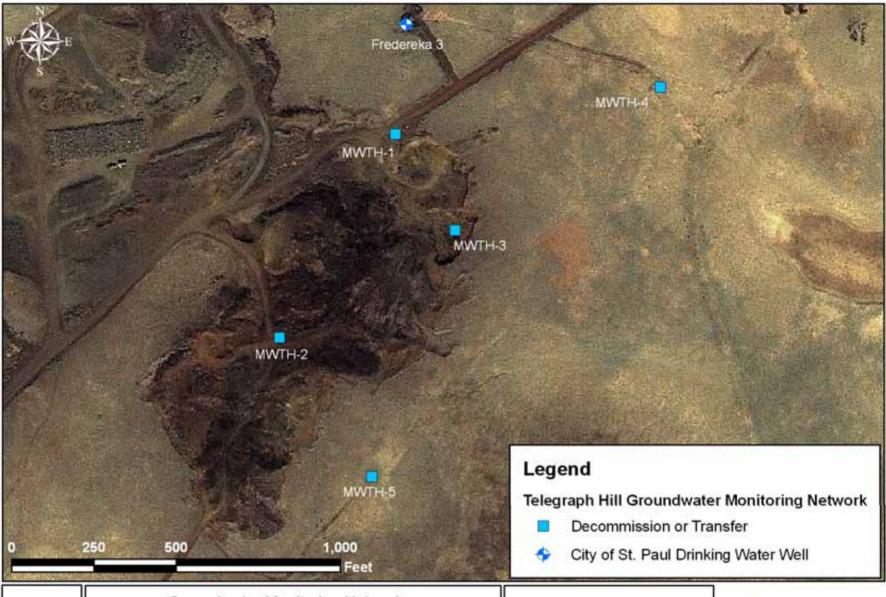
Sources: Well Locations (NOAA GIS 2005), Satellite Imagery (Ikonos 2001).





## Telegraph Hill Scoria Pit

• Decommission or transfer 5 monitoring wells



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Groundwater Monitoring Network Telegraph Hill St. Paul Island, Alaska

Sources: Well Locations (NOAA GIS 2005), Satellite Imagery (Ikonos 2001).

