

**The History of Parcel 6f, the ATCO Building, and the Windmill
Wells on St. Paul Island, Alaska as it Relates to Soil and
Groundwater Cleanup Needs and Responsibilities**



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Executive Summary

The objective of this report is to clarify cleanup and closure needs and responsibilities for Parcel 6f, the ATCO building, and the windmill wells on St. Paul Island, Alaska. Under Public Law (P.L.) 104-91, the National Oceanic and Atmospheric Administration (NOAA) is responsible for the clean up of debris and contamination on St. Paul Island resulting from the activities of it and its predecessor agencies. NOAA's responsibility does not extend to formerly used defense sites (FUDS), for which P.L. 106-562 expressly prohibits NOAA from expending cleanup funds. Additionally, NOAA is not responsible for the cleanup of contamination and debris caused or contributed to by local entities, officials, or landowners after March 15, 2000; or for releases at any time by third parties on private property following property transfer under the Alaska Native Claims Settlement Act (ANCSA) or the Transfer of Property Agreement.

Parcel 6f is located within the area of the former Naval radio station complex, which the Department of Defense transferred to the U.S. Bureau of Fisheries, a predecessor agency of NOAA, in 1937. In 1979, pursuant to ANCSA, NOAA conveyed the majority of the land occupied by the former Naval radio station complex to the Tanadgusix Corporation (TDX) but retained Parcel 6f. The Department of Defense identified the former Naval radio station complex as a FUDS in 2003. NOAA has removed three underground storage tanks (USTs), presumably installed after the land was transferred from Department of Defense to the Bureau of Fisheries, and their associated petroleum-contaminated soil (PCS) from Parcel 6f. NOAA has also removed PCS associated with an active, on-site aboveground storage tank (AST). Confirmation samples collected during the PCS removal actions revealed the presence of lead above its cleanup level at two sampling locations. NOAA believes the presence of lead at this site is attributable to activities other than fueling operations. Further, NOAA presumes that any soil contamination other than that related to three former USTs and the active AST is associated with the former Naval radio station complex and is therefore a FUDS issue.

The ATCO building is located less than 50 feet northeasterly of the Parcel 6f boundary on land owned by TDX. Aerial photographs indicate that the ATCO building was constructed sometime between 1982 and 1993. The building purportedly was used to house fish processing plant employees and/or breakwater construction workers. NOAA investigated groundwater and soil about the ATCO building, beyond NOAA's property boundaries, to evaluate potential migration of contamination for which NOAA is responsible. NOAA pursued this effort prior to the identification of the former Naval radio station complex as a FUDS. Based on groundwater monitoring data, soil data, and anecdotal information (*e.g.*, observations of fuel line leaks and stained soil, historic photographs) for the ATCO building vicinity, NOAA presumes that area groundwater contamination is associated with either a significant release at the ATCO building or previous FUDS activities (the Naval radio station complex's electrical shop was located up gradient of the ATCO building). Nevertheless, to address the St. Paul Island Village groundwater contamination for which NOAA and its predecessor agencies may be responsible, NOAA is working with the Alaska Department of Environmental

Conservation (ADEC) and the Alaska Department of Natural Resources to designate a Critical Groundwater Management Area as an institutional control prohibiting well installation and groundwater use within the designated area. Free product and PCS removal remain to be addressed by a responsible party.

At the request of the Navy, the Department of Commerce, Bureau of Fisheries agreed to assist the Navy in the installation of a system of windmill-powered wells (windmill wells) in 1927. Ultimately, three windmill wells were constructed along the east side of Polovina Turnpike just north of the current St. Paul post office. Currently, the northern most well is filled in with soil. The south and central wells are large vaulted spaces and each is capped with a large concrete box sealed with a plywood top. NOAA tasked its contractor with investigating the windmill wells as part of a larger site characterization effort before the history of the wells was clear. The investigation found that water samples from the wells did not exceed ADEC Table C cleanup levels. Various types of debris were observed in two well vaults. Per Title 18 of the *Alaska Administrative Code* (AAC) 75.346(j), the wells require decommissioning in accordance with ADEC *Recommended Practices for Monitoring Well Design, Installation, and Decommissioning*. Given that NOAA is unaware of any potential sources for petroleum constituents in the windmill wells and NOAA now considers these wells part of the Naval radio station complex FUDS, for which P.L. 106-562 expressly prohibits NOAA from expending cleanup funds, no additional investigative activities or formal well closure are planned by NOAA.

NOAA has taken responsibility for the clean up of contamination and debris where it is associated with its and its predecessor agencies' use of sites and structures. NOAA's data and information on Parcel 6f, the ATCO building, and the windmill wells may be used to assist other entities in cleanup and closure activities as necessary.

1.0 Introduction

The objective of this report is to clarify cleanup and closure needs and responsibilities for sites and structures on St. Paul Island, Alaska, namely those known as Parcel 6f, the ATCO building, and the windmill wells (Figure 1). Under Public Law (P.L.) 106-562 Section 107, the National Oceanic and Atmospheric Administration (NOAA) is specifically prohibited from further expending funds for the remediation of formerly used defense sites (FUDS) on the Pribilof Islands. P.L. 106-562 Section 105 also states that the Secretary of Commerce may not seek or require financial contribution by or from any local governmental entity of the Pribilof Islands, any official of such an entity, or the owner of land on the Pribilof Islands, for cleanup costs incurred; however this should not limit the authority of the Secretary of Commerce to seek or require financial contribution from any person for costs or fees to clean up any matter that was caused or contributed to by such person on or after March 15, 2000.

2.0 Background and History

2.1 Parcel 6f

Parcel 6f encompasses a duplex and the Former Electrical Shop (also known as the E-Shop), collectively known as Two Party Agreement (TPA; NOAA 1996) Site 9i (Figure 2). Parcel 6f was previously referred to as Parcel 7—housing and Airport Road shop—in the Transfer of Property Agreement (TOPA; NOAA 1984). It is located within the area of the former Naval radio station complex. Maps from 1918 (Reynolds 1918) and 1951 (Bishop 1951) indicate that the Naval radio station complex included a power house (the E-Shop), radio towers, a coalhouse, a paint house, cottages, operator's quarters, a machine shop, a fuel tank farm, a hall, a tank house, and a pump house (Figures 3 and 4).

The E-shop originally served as the powerhouse of the former Naval radio station, which was constructed in 1911 on approximately 19 acres separating Village Cove from a small seasonal pond (New York Times 1911, DOD 2003). An aboveground storage tank (AST) farm with fifteen 500-gallon tanks fueled the electrical power generation at the former powerhouse (Reynolds 1918; Figures 3 and 5). A photograph from ca. 1919 (see cover photograph; St. George Tanaq collection) shows an additional AST tank farm located about 100-200 feet easterly and oriented perpendicular to the E-Shop AST farm.

In 1937, the Department of Defense transferred the radio station complex to the U.S. Bureau of Fisheries, a predecessor agency of NOAA (DOD 2003; Appendix I). The transfer agreement required the Bureau to maintain the communications capability between St. Paul and the Naval radio station at Dutch Harbor, Alaska. The Navy removed most of the radio and ancillary equipment at the time of disestablishment, leaving only enough equipment for maintenance of communications with Dutch Harbor.

At the time of the transfer, a tank farm fueled the E-Shop. The tank farm was removed on an unknown date prior to 1951 (Bishop 1951). Presumably the Bureau of Fisheries or NOAA subsequently installed an underground storage tank (UST) to service heat in the E-Shop.

The duplex was relocated to its current site, about 50 feet north of its previous location, sometime after 1951 (CESI 2000, Bishop 1951). At that time, USTs were presumably installed on the east and west sides to service the heating system.

In 1979, NOAA conveyed the majority of the land occupied by the former Naval radio station complex, as well as other island properties, to the Tanadgusix Corporation (TDX) as part of the land withdrawals made pursuant to Alaska Native Claims Settlement Act (ANCSA). The complex has been subdivided and is now in use for residential housing and commercial purposes. NOAA retained Parcel 6f during the 1979 land withdrawal. Under the TOPA (NOAA 1984), NOAA agreed to transfer Parcel 6f (then Parcel 7) to the Aleut Community of St. Paul Island. The property has not yet been conveyed. Currently, however, the St. Paul Indian Reorganization Act (IRA) Council uses the E-Shop for the island's Head Start Program, and TDX utilizes the duplex as rental units.

The Department of Defense identified the former Naval radio station complex as a FUDS in 2003. Its FUDS property identification number is F10AK1042 (DOD 2003).

2.2 ATCO Building

The ATCO building is located approximately 80 feet northeast of the E-shop, outside of Parcel 6f on land owned by TDX (Figure 1). Historic maps, blueprints, and aerial photographs from as early as 1918 show no development in this area as recent as 1982 (Reynolds 1918, Bishop 1951; Figure 6). Septic leach fields (associated with the Naval radio station complex and Tract 46 operations) were present in the area (Reynolds 1918, CESI 2000). Aerial photographs indicate that the ATCO building was constructed sometime between 1982 and 1993 (Figure 6). The building purportedly was used to house fish processing plant employees and/or breakwater construction workers.

2.3 Windmill Wells

Three former windmill-powered wells, herein referred to as the north, central, and south wells, are located along the east side of Polovina Turnpike between the St. Paul post office and the NOAA staff quarters building (Figure 7). The northern most well (*i.e.*, the north well) is filled in with soil (IT Alaska 2001). The south and central wells are large vaulted spaces and each is capped with a large concrete box sealed with a plywood top.

At the request of the Navy, the Department of Commerce, Bureau of Fisheries agreed to assist the Navy in the installation of a system of windmill wells in 1927 (Davis 1927; Appendix I). Naval plans approved February 12, 1927 show details for the construction of three wells powered by one windmill at the location described above (Figure 8). The plans indicate that the Navy should “discontinue using water from Well No. 1 [the south well] as soon as Wells Nos. 2 and 3 are put in commission and reconstruct as shown about one year later, if water has freshened in the interval.” According to the Bureau of Fisheries 1927 St. Paul Island agent's log, Albert Christoffersen and eight temporary workers commenced preparations for construction of the Navy wells on May 31, 1927, completing work on October 20, 1927. A March 13, 1928 letter (Appendix I) to Mr.

Christoffersen from his superintendent states, “Mr. Miller of the Navy Yard [Puget Sound, Washington] was just over and wants us to dig another well for him this year. He states that the two wells built are working very satisfactory... there should be one well 12x12 for emergency.” A 1945 inventory for St. Paul Island (Appendix I) indicates that the requested 12-foot by 12-foot well was built in 1928. An August 1930 photograph indicates at least one additional windmill had been constructed to support the Naval radio station wells by that time (Figure 9).

3.0 Previous Investigations and Cleanup Activities

3.1 Parcel 6f

In August 2000, NOAA contractor Columbia Environmental Sciences, Inc. (CESI 2000) removed the E-Shop UST with assistance from their subcontractor Bering Sea Eccotech (BSE). During the removal, NOAA and its contractors discovered that the UST had been constructed from a retrofitted 55-gallon drum. The soils in the UST excavation were highly contaminated based on field observations, soil screening, and fixed-laboratory analyses; however, the presence of the E-Shop and utilities limited the excavation of the contaminated soil.

Soil samples collected during site characterization efforts in 2000 and 2001 revealed the presence of DRO and RRO above Alaska Department of Environmental Conservation (ADEC) Method Two cleanup levels between the E-Shop and the duplex (CESI 2001; Figure 10).

In a 2003 corrective action, NOAA contractors removed petroleum-contaminated soil (PCS) from the northeast and southeast corners of the E-Shop (NOAA 2003, Tetra Tech 2005a). The excavation at the northeast corner was conducted in the area of the former UST. Approximately 20 cubic yards of soil were removed from the area. The presence of active phone and electrical lines and the likely presence of an active water line limited the excavation. The excavation at the southeast corner was beneath an active AST, which was temporarily moved. During the excavation, numerous copper rods were uncovered, presumably electrical grounding rods associated with the former Naval radio station complex. Approximately 30 cubic yards of soil were removed from the area. The presence of the E-shop, utility lines, a phone line, and an unknown pipeline restricted further excavation.

Following excavation, one confirmation sample collected from the northeast corner exceeded the DRO alternative cleanup level of 2,500 mg/kg, with a concentration of 2,700 mg/kg (Figure 11). No further excavation was practicable in the area of this sample. One confirmation sample collected from the southeast corner at 5 feet below ground surface (bgs) exceeded the lead cleanup level of 400 mg/kg, with a concentration of 4,090 mg/kg lead (Figure 11). No other contaminants were identified at concentrations above the soil cleanup levels.

The 2003 corrective action also addressed the removal of the two USTs at the duplex (Tetra Tech 2005a). Along the east side of the duplex 50 cubic yards of soil were

removed along with the UST. No evidence of contamination was observed either in the excavation or in soil removed from the excavation. Results of five confirmation samples indicated concentrations of all contaminants were below the ADEC Method Two cleanup levels.

Along the west side of the duplex 70 cubic yards of soil were removed along with the UST. Excavation was limited in lateral extent by the building and utility lines. Results of seven confirmation samples indicated that four samples exceeded the ADEC Method Two cleanup level of 250 mg/kg DRO, but none exceeded the alternative cleanup level of 2,500 mg/kg DRO (Figure 11). One sample collected from approximately 2 feet bgs exceeded the lead cleanup level of 400 mg/kg, with a concentration of 627 mg/kg lead (Figure 11).

To address the lead cleanup level exceedances at the E-Shop and duplex, representatives from NOAA and the U.S. Environmental Protection Agency (EPA) conducted site characterization sampling for lead in 2004 (Tetra Tech 2005a; Figure 12). Data indicated that concentrations of lead within 1 foot of the ground surface above the previous sampling locations do not exceed the lead cleanup level. Soil samples collected from within the Head Start Program play area also indicated that lead concentrations were below the cleanup level in the top foot of soil.

NOAA has monitored the groundwater plume(s) from Parcel 6f using monitoring wells MW46-13, MW46-16, MW46-17, MW46-18, and MW46-20 (IT Alaska 2002; Figure 13). Generally, these wells were sampled quarterly between September 2000 and September 2001 (IT Alaska 2002) and between October 2003 and July 2004 (Tetra Tech 2005b) for petroleum hydrocarbons, including DRO, GRO, benzene, toluene, ethylbenzene, and xylenes. No ADEC Table C cleanup level exceedances were detected in up gradient well MW46-20 or in down gradient wells MW46-16 and MW46-17. In down gradient wells MW46-13 and MW46-18, located south of Parcel 6f and near the west-southwest side of the ATCO building, DRO exceeded the ADEC Table C cleanup level of 1.5 mg/L. For well MW46-13, maximum concentrations of 12 mg/L and 5.5 mg/L DRO were detected during 2000-2001 and 2003-2004 sampling events, respectively. For well MW46-18, maximum concentrations of 2.3 mg/L and 3.2 mg/L DRO were detected during 2000-2001 and 2003-2004 sampling events, respectively.

3.2 ATCO Building

On August 25, 2000, in an attempt to delineate the eastern extent of the contamination plume from the E-Shop, CESI (2000) drilled and installed monitoring well MW46-19 immediately north of the northwest end of the ATCO building (Figure 13). According to CESI, the soils were heavily contaminated. Over two feet of light, non-aqueous phase liquid (LNAPL) was found in the well floating on the water column. CESI reported that the LNAPL had the appearance and smell of fresh diesel fuel, and that the soil did not have the same appearance or odor as the contaminated soils in MW46-13 and MW46-18 borings. Subsequent analysis of groundwater from below the LNAPL in well MW46-19 identified the presence of DRO, GRO, and benzene above ADEC Table C cleanup levels

(1.5 mg/L, 1.3 mg/L, and 0.005 mg/L, respectively). DRO was detected at 2.6 mg/L, GRO at 2.7 mg/L, and benzene at 26 mg/L (CESI 2001, IT Alaska 2002; Figure 13).

Following the discovery of free product in well MW46-19, CESI drilled wells MW46-20, MW46-25, MW46-26, and MW46-27 in another attempt to delineate the contaminant plume(s) (CESI 2000; Figure 13). Well MW46-20, south of Parcel 6f, served as a background well and confirmed that the regional groundwater flow gradient is generally from south to north. Well MW46-25, east of the ATCO building, bound the eastern extent of groundwater contamination. Well MW46-26, south of the ATCO building, delineated the groundwater plume from the duplex USTs and the UST at the residence to the east of the duplex. Well MW46-27, north of the ATCO building, bound the northern extent of the groundwater plume. DRO, GRO, and benzene were not detected above cleanup levels in these wells. DRO was detected in wells MW46-25, MW46-26, and MW46-27 with a maximum concentration of 0.17 mg/L (IT Alaska 2002).

CESI also collected soil samples during monitoring well installation and from additional soil borings (CESI 2001; Figure 14). Soil data indicate that DRO concentrations are high (above the Ten Times Rule cleanup level) near the northeast and northwest corners of the ATCO and on the west side of the ATCO. Soil boring intervals near the groundwater table were as high as 10,000 mg/kg DRO at RBSB-10. In sample SS46-5-1, a surface sample collected from a stained area west of the ATCO, RRO exceeded the Method Two cleanup levels for all pathways with a concentration of 39,000 mg/kg.

DRO and RRO were not detected in two soil borings north of the ATCO (RBSB-11 and RBSB-16), east of monitoring well MW46-19 where free product was found. To the south of the ATCO, DRO and RRO concentrations did not exceed Method Two cleanup levels.

On September 8 and 9, 2000, CESI (with permission from TDX) conducted a reconnaissance on the interior and exterior of the ATCO building (CESI 2000). An AST was present at the east end of the building. Four oil-fired furnaces were located along the north wing of the building, and three oil-fired furnaces were located along the south wing of the building. It appeared that piping ran from the AST along the ground underneath the north and south wings of the building to the furnaces. Further inspection beneath the north wing of the building found an iron fuel-distribution line that ran from the east end of the building (near the AST) to the west end of the building (near MW46-19). CESI observed the appearance of leaks along the line in two locations—about 50 feet from the east end of the building, and at the end of the line near MW46-19. Both locations were near fittings that appeared to have been inadequately tightened.

CESI observed soil staining and a strong, fresh petroleum smell at the end of the line near MW46-19. CESI dug a test pit to 2.5 feet bgs at this location and collected three soil samples. Screening results indicated that the soil samples were contaminated at levels above 20,000 mg/kg total petroleum hydrocarbons (CESI 2000, CESI 2001).

Based on field sampling and observations, CESI (2000) hypothesized that the ATCO building plume is distinct from the E-Shop plume and is younger. CESI removed about 12 gallons of LNAPL as part of an interim removal action (CESI 2000). After each period of removal, the free product recovered to near its original depth, indicating the amount of LNAPL in the plume is large relative to the amount removed.

Between October 2003 and July 2004, Tetra Tech (2005b) resampled wells in the vicinity of the ATCO building on a quarterly basis (Figure 13). DRO continued to be detected above the ADEC Table C cleanup level in well MW46-19, and also in wells MW46-13 and MW46-18 as discussed in section 3.2. Previously found above cleanup levels, GRO was detected below its Table C cleanup level and benzene was not detected in well MW46-19. As in the 2000 sampling, DRO, GRO, and benzene were not detected above cleanup levels in wells MW46-26 and MW46-27 (Note: Due to damage to the well, MW46-25 was not sampled in 2003-2004).

3.3 Windmill Wells

During the site characterization efforts for Tracts 46 and A, under contract to NOAA, CESI observed sheen on the surface water of two windmill wells (Lindsay 2001) [note: the third and northern most windmill well had been previously filled in with soil]. Concerned that this sheen may have origins associated with historic releases, NOAA tasked IT Alaska, Inc. (IT Alaska) to further investigate the wells (IT Alaska 2001). IT Alaska visually examined the two wells (*i.e.*, the south and central wells). Standing water was visible in both wells at depths varying from a few inches up to approximately 1.5 feet. The water appeared to be relatively clear but had moderate organic surface scum and a weak sheen that appeared to be of biogenic rather than petroleum origin. It was unclear whether the water represented groundwater or perched surface water. Various types of debris were visible at the bottom of the well vaults.

IT Alaska installed a monitoring well (MWWW-1) to determine if the groundwater had been impacted between the two existing wells. Water samples were collected from MWWW-1 and the south and central windmill wells for laboratory analysis of GRO, DRO, RRO, polynuclear aromatic hydrocarbons (PAHs), and BTEX [Note: no ADEC-approved analysis method exists for RRO in water; thus RRO results will not be discussed.]. The sample from MWWW-1 was also analyzed for volatile organic compounds (VOCs). Findings indicated that although petroleum-related compounds are present in the groundwater, concentrations are below ADEC Table C cleanup criteria (IT Alaska 2001). DRO was detected in all the wells. GRO was detected only in the south well, and then at an estimated concentration. BTEX and PAHs were not detected in any of the wells.

4.0 Potentially Remaining Cleanup Needs

4.1 Parcel 6f

NOAA removed the source of DRO contamination (*i.e.*, USTs) from Parcel 6f along with associated PCS to the extent practicable. Confirmation sampling indicated that lead contamination remains in two locations. Table C exceedances for DRO were detected in

two groundwater-monitoring wells (MW46-13 and MW46-18) that are considered down gradient of the E-Shop and duplex. However, investigations remain inconclusive regarding the source of the contamination observed in these wells.

4.2 ATCO Building

Free product (LNAPL) is present in well MW46-19, located immediately north of the northwest corner of the ATCO Building. Groundwater monitoring (below the LNAPL) has detected a DRO concentration as high as 15 mg/L in this well. Soil screening results for the vicinity indicated total petroleum hydrocarbon concentrations above 20,000 mg/kg. The suspected source of the contamination, an iron fuel-distribution line, is still present though it is inactive. The line has leaks in two locations—about 50 feet from the east end of the building and at the end of the line near MW46-19. Cleanup at this site will likely require the removal of the ATCO building from over the area of contamination, the excavation of contaminated soil, and the removal of LNAPL from the water table.

4.3 Windmill Wells

Various types of debris have been observed in two well vaults and may require removal. Per Title 18 of the *Alaska Administrative Code* (AAC) 75.346(j), the wells require decommissioning in accordance with *ADEC Recommended Practices for Monitoring Well Design, Installation, and Decommissioning* (ADEC 1992).

5.0 National Oceanic and Atmospheric Administration Mandates and Responsibilities

5.1 Parcel 6f

Under P.L. 106-562, the Pribilof Islands Transition Act approved December 23, 2000, NOAA is prohibited from expending any funds authorized under P.L. 104-91 and P.L. 106-562 to cleanup Department of Defense related wastes and debris, including petroleum products, on the Pribilof Islands. On Parcel 6f, NOAA presumes that any soil contamination other than that related to the three former USTs and the active AST is associated with the Naval radio station complex (*i.e.*, a FUDS). Further, NOAA presumes that any groundwater contamination in the vicinity of Parcel 6f is due to either FUDS or ATCO building activities.

NOAA removed the UST at the E-Shop prior to the passage of P.L. 106-562. Regardless, NOAA presumes this UST and those at the duplex were installed after the building was transferred from Department of Defense to the Bureau of Fisheries. Given that the USTs' installation and fuel releases were distinct from FUDS activity, NOAA assumed responsibility for cleanup. PCS cleanup associated with the former USTs occurred in 2003. NOAA also removed PCS associated with an active, on-site AST. It is not known when this AST came into use, but presumably during NOAA or one of its predecessor agencies' watch.

Confirmation samples collected during the PCS removal actions revealed the presence of lead above its cleanup level at two sampling locations. NOAA believes the presence of

lead at this site is attributable to activities other than fueling operations. GRO was not detected in the samples with the lead exceedance, indicating that the presence of lead is not associated with fuel such as leaded gasoline. Historic operations at the Naval radio station complex likely included the use of lead solder as part of routine operations. Disposal of lead-containing batteries also may have occurred on site. In any case, NOAA does not consider the lead to be related to activities conducted by it or its predecessor agencies. Regardless of responsibility, because the former E-Shop is currently used for St. Paul Island's Head Start Program, NOAA felt it prudent to investigate surface soils in the vicinity for the presence of lead. Results of the investigation indicated that elevated lead concentrations are not present in the top 1 foot of soil.

5.2 ATCO Building

The ATCO building site is adjacent to NOAA property (*i.e.*, Parcel 6f). NOAA investigated groundwater and soil about the ATCO building, beyond NOAA's property boundaries, to evaluate potential migration of contamination for which NOAA is responsible. NOAA pursued this effort prior to the identification of the former Naval radio station complex as a FUDS.

Based on groundwater monitoring data, soil data, and anecdotal information (*e.g.*, observations of fuel line leaks and stained soil, historic photographs), NOAA presumes that groundwater contamination down gradient from the E-Shop, is associated with either previous FUDS activities or a significant release at the ATCO building. To address the groundwater contamination for which NOAA and its predecessor agencies may be responsible, NOAA is working with ADEC and the Alaska Department of Natural Resources to designate a Critical Groundwater Management Area (CWMA) as an institutional control under AS 46.15. A CWMA would prohibit groundwater well installation and groundwater use within the designated area. NOAA and the State are in agreement that a designated CWMA should include the areas of the former Naval radio station complex and the ATCO building. Groundwater in the area being considered for designation is not potable (ADEC 2002, Mitretek 2002), and thus a CWMA designation should not present a hardship for area residents. If the State determines that a CWMA is appropriate for the area, then groundwater contamination within the area would be under alternative cleanup levels equal to 10 times the ADEC Table C criteria (18 AAC 75.345 (b)). The free product would require removal in accordance with 18 AAC 75.325(f).

5.3 Windmill Wells

NOAA tasked its contractor with investigating the windmill wells as part of a larger site characterization effort at a time when the history of the wells was unclear. NOAA now considers these wells a part of the Naval radio station complex FUDS. There is no evidence the wells have been affected by contamination for which NOAA is responsible, and NOAA is unaware of any potential sources for petroleum constituents in the windmill wells. Further, data indicate that ADEC Table C cleanup levels are not exceeded in the wells. For these reasons, NOAA has no intention of undertaking additional investigative activities related to the wells or formal well closure (Lindsay 2001).

6.0 Conclusions

Under P.L. 104-91, NOAA is responsible for the clean up of debris and contamination on St. Paul Island resulting from the activities of it and its predecessor agencies. NOAA is not responsible for the cleanup of contamination and debris caused or contributed to by local entities, officials, or landowners after March 15, 2000; or for releases at any time by third parties on private property following property transfer under ANSCA or TOPA; or releases caused by the Department of Defense at any time. For the sites and structures discussed herein, NOAA has taken responsibility for the clean up of contamination and debris where it is associated with NOAA and NOAA predecessor agencies' use. NOAA's data and information on Parcel 6f, the ATCO building, and the windmill wells may be used to assist other entities in cleanup and closure activities as necessary.

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Figures

Appendix I

Historic Correspondence and Documentation