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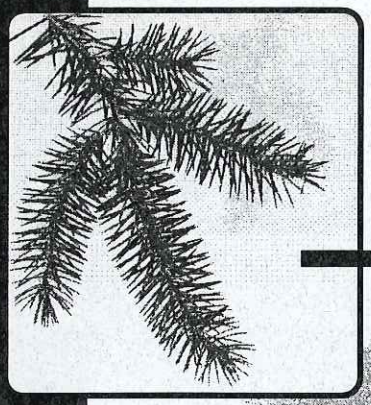

Alaska Pulp Corporation

Sitka Mill Site

Current Situation/Site Conceptual Model Report

Revision 0

prepared for:
Alaska Pulp Corporation
Sitka, Alaska

prepared by:
Foster Wheeler Environmental Corporation

July 1996

CURRENT SITUATION AND SITE CONCEPTUAL MODEL REPORT
ALASKA PULP CORPORATION
SITKA, ALASKA

Prepared by
FOSTER WHEELER ENVIRONMENTAL CORPORATION

JULY 1996

Reviewed by: Dan McCarthy

Dan McCarthy
Project Manager

CURRENT SITUATION/SITE CONCEPTUAL MODEL REPORT

Sign-Off and Acceptance

Mr. Rich Cormack
Site Remediation Project Manager

In April 1992, a water sample identified as leachate from the landfill was analyzed for acute toxicity and BOD. The bioassay yielded a result of no acute toxicity and the final BOD concentration was 7 mg/L.

In 1995 during the EPA integrated removal assessment, a subsurface soil sample (TAT Sample Number T5060067) was collected at the landfill (Ecology and Environment, Inc., 1995b). The sample was analyzed for TPAHs and PCBs on site using immunoassay test kits. The immunoassay results were reported at less than 1 ppm and less than 10 ppm for PCBs and TPAHs, respectively. The sample was also analyzed by an off-site, fixed-base laboratory for the presence of dioxins/furans. Results indicated 2,3,7,8-TCDD (0.25 ng/kg); 1,2,3,6,7,8-HxCDD (4.1 ng/kg); and 1,2,3,4,6,7,8-HpCDD (56.8 ng/kg) were present.

Potential COCs in the leachate from the landfill include dioxin/furan congeners and metals. The low permeability cap (shotrock and pitrun) used to cover the landfill makes the leachate exiting the site the primary pathway for contaminants to reach the environment.

4.5 LANDFILL NEAR FILTER PLANT

4.5.1 Site Background

4.5.1.1 Location

The Landfill Near Filter Plant, more appropriately called an equipment storage or a waste disposal site, is located on the eastern side of Sawmill Creek Valley, northeast of the Mill and east of the acid plant. A site inspection conducted in February 1996 identified three potential areas where Mill wastes may have been placed (Foster Wheeler Environmental, 1996a). All areas are within 200 to 300 feet of the Filter Plant. Two of the three areas are located directly east of Sawmill Creek and north and east of the Filter Plant. The third area is located east of Sawmill Creek and south of the Filter Plant, adjacent to the access road and security gate.

4.5.1.2 Site Boundaries

There are three areas near the Filter Plant that have potentially been used as waste disposal or used equipment storage sites. The two potential areas north and east of the

Filter Plant are small, approximately 30 to 50 feet long and 15 to 30 feet wide, and contain only surface debris (including metal debris and plastic sheeting). The third potential area, located approximately 250 feet southwest of the Filter Plant, is approximately 60 to 70 feet long and 15 to 20 feet wide. This site also appears to contain only surface debris (metal debris). The site is bounded to the north, south, and west by Sawmill Creek and to the east by Bear Mountain. The boundaries are shown in Figure 4-5.

4.5.1.3 Physiography and Geology

The Filter Plant is located on the eastern side of Sawmill Creek Valley northeast of the Mill. A recent site visit to the Filter Plant and surrounding areas has identified three potential areas where Mill waste may have been disposed of. All the areas are within 200 to 300 feet of the Filter Plant. Two of the three areas are located directly east of Sawmill Creek and north and east of the Filter Plant. The third area is located east of Sawmill Creek and southwest of the Filter Plant adjacent to the access road and security gate.

The two potential areas north and east of the Filter Plant are small, approximately 30 to 50 feet long and 15 to 30 feet wide. The two areas are located between the Filter Plant to the south, Sawmill Creek valley to the west and north, and steeply rising rock cliffs to the east. Material disposed of at these two sites appears to have been dumped on the ground and pushed up against the rock cliffs into small piles. Small amounts of Mill waste are visible in these piles, including steel banding, visqueen, and steel debris.

The third potential area is located approximately 250 feet southwest of the Filter Plant. This site is situated between Sawmill Creek to the west, the Filter Plant to the north, and the access road to the Filter Plant to the east. It is similar to the other two sites in that material disposed of at the location appears to have been dumped on the ground and pushed up against a rock outcrop to the west. Visible Mill waste at this site includes an 8-foot diameter steel dome and small amounts of metal debris

Steep slopes rise sharply to the east to an elevation of 984 feet above sea level. Sawmill Creek and the steeply cut valley of the creek are located to the west of the three sites. The sites are approximately 80 feet above the valley floor. There are no man-made drainages around these sites. Surface water drainage from the two sites northeast of the

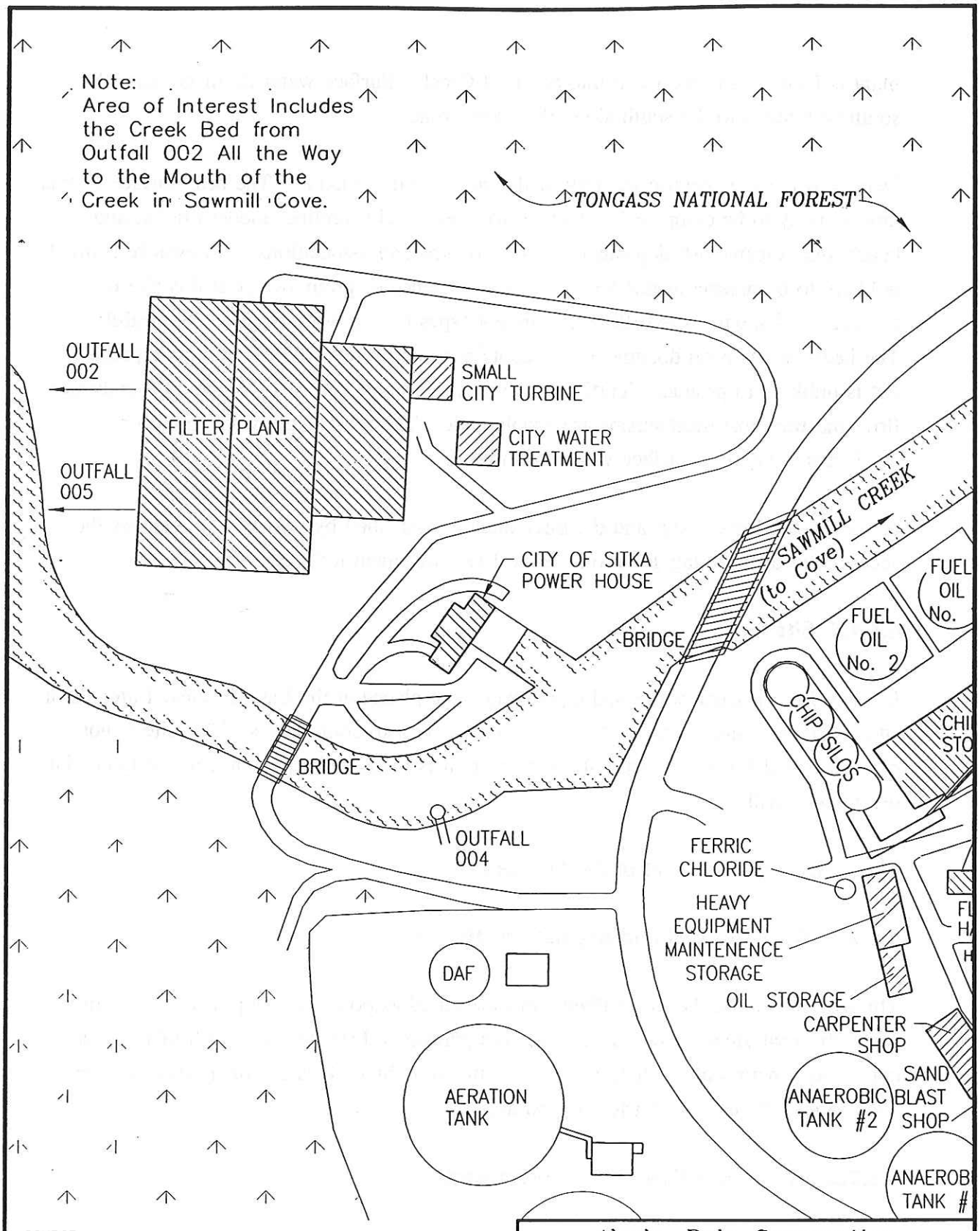

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Figure 4-5
Boundaries for the Landfill Near Filter Plant & Old Landfill Near Blue Lake Hydro Plant

Foster Wheeler Environmental Corporation

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plant is from east to west and into Sawmill Creek. Surface water drainage from the southwest site is to the south along the access road.

Details of the site-specific geology of this area are unavailable. The near surface of this unit is likely to be composed of glacial drift, elevated shoreline, modern delta, and beach and volcanic ash deposits of various depths and associations. Graywacke bedrock is likely to be present at this location. The presence of groundwater at this site is currently unknown. The different sediment types have a wide range of permeability. The bedrock has been documented to contain groundwater when fractures are present, but is unlikely to produce significant volumes of water (Yehle, 1974), and groundwater flow and transport mechanisms are problematic. The most likely water transport mechanism would be surface water infiltration.

Access to the Filter Plant and the three sites is controlled by a locked gate across the access road to the Filter Plant on the west side of Sawmill Creek.

4.5.1.4 Site Use

It is not known when waste and equipment were placed at the Landfill Near Filter Plant sites. All three areas appeared to contain scrap construction debris. This site is not currently used for waste disposal. However, it is likely to be part of a future industrial use for the Mill.

4.5.2 Nature and Extent of the Problem

4.5.2.1 Waste-Related and Regulatory History

Three areas around the Filter Plant were identified as potential equipment storage or waste disposal areas. None of the sites are permitted disposal areas. All of the sites appear to contain only a small amount of surface debris. It is not likely that these sites were repeatedly used as waste disposal areas.

4.5.2.2 Known and Suspected Contaminants

During a site inspection conducted in February 1996 (Foster Wheeler Environmental, 1996a), the three waste disposal areas identified around the Filter Plant appeared to contain scrap construction debris. Members of the SIRT visited this site on March 28,

1996, and discussed its retention on the list of other potential areas for evaluation. A decision was reached to remove this site from the list since the site visits did not reveal evidence of spills or buried materials. This decision will be revisited if additional evidence is presented that creates, in the judgement of the SIRT, a reason to believe that COCs are present at the site.

4.6 OLD LANDFILL NEAR BLUE LAKE HYDRO PLANT

4.6.1 Site Background

4.6.1.1 Location

The Old Landfill Near Blue Lake Hydro Plant was a used equipment storage site and is not a permitted landfill. The site is located approximately 300 feet northwest of the Blue Lake Hydro Plant and is adjacent to the north perimeter fence of the Mill Wastewater Treatment Plant, and occupies a small, relatively flat area approximately 100 feet above Sawmill Cove. The Old Landfill Near Blue Lake Hydro Plant covers an area approximately 250 feet long (northwest to southeast) and approximately 30 feet wide (southwest to northeast).

4.6.1.2 Site Boundaries

The Old Landfill Near Blue Lake Hydro Plant is approximately 250 feet long (northwest to southeast) by 30 feet wide (southwest to northeast), and contains only surface debris (including metal, wood, gratings, and other Mill wastes) (Foster Wheeler Environmental, 1996a). The site is bounded to the south by the Mill Wastewater Treatment Plant, and to the north and east by Sawmill Creek and the Blue Lake Hydro Plant. Boundaries for the Filter Plant and Blue Lake Hydro Plant Landfill Potential Operable Units are shown in Figure 4-5.

4.6.1.3 Physiography and Geology

The Old Landfill Near Blue Lake Hydro Plant is located approximately 300 feet northwest of the Blue Lake Hydro Plant and adjacent to the north perimeter fence of the Mill Wastewater Treatment Plant. This former equipment storage area occupies a small, relatively flat area approximately 100 feet above Sawmill Cove, and covers an

area approximately 250 feet long (northwest to southeast) and approximately 30 feet wide (southwest to northeast).

Steep slopes rise sharply to the north and west to an elevation of 2,625 feet above sea level. One small unnamed creek flows downhill past the site along the north boundary of the landfill. Surface water runs onto the site from the north and west and flows across the site to the south and east. The surface gradient across the site (from northwest to southeast) is approximately 6 percent (15 feet/250 feet). There are no man-made drainage diversions at this site.

Details of the area's site-specific geology are unavailable. The near surface of this unit is likely to be composed of glacial drift, elevated shoreline, modern fluvial, and volcanic ash deposits of various depths and associations. Graywacke bedrock is likely to be present at this location. The presence of groundwater at this site is currently unknown. The different sediment types have a wide range of permeability. The bedrock has been documented to contain groundwater when fractures are present, but is unlikely to produce significant volumes of water (Yehle, 1974), and groundwater flow and transport mechanisms are problematic. The most likely water transport mechanism would be surface water infiltration.

Mill waste disposed of at this site is not believed to have been buried. Waste at the site appears to have been dumped on the ground surface. Visible waste at the site includes a large green water treatment tank, a truck box, various stacks of Mill drain cover grates, lumber, and concrete debris. The area is covered with grass and larger alder trees (up to 4 inches in diameter), which are spread sparsely across its surface.

4.6.1.4 Site Use

It is estimated that this site was used from 1970 to 1980. Originally the Mill had a small cement batch plant on what is now the Dissolved Air Floatation (DAF) Clarifier Area. When the Mill stopped using this plant, some of that equipment was stored at this site. The material there now includes a small trailer that used to be part of the batch plant, old cement forms, a large fiberglass tank that was originally part of the primary clarifier, and some other items. The site is covered with alder trees and various types of debris, including a woodshed, green tank, small trailer, car parts, and wood debris. According to personnel who conducted a site visit in February 1996, it appeared that the debris had been on site for 15 to 20 years (Foster Wheeler Environmental, 1996a).