Phase I Report
Targeted Brownfields Assessment
South I Street Mill Reuse Project
Arcata, California

September 2002

Prepared For:

EPA United States Environmental Protection Agency

U.S. Army Corps of Engineers

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LIST OF ACRONYMS

A&MRRR	Arcata & Mad River Railroad
ACM	asbestos-containing material
AGT	aboveground tank
APN	Assessor's Parcel Number
ASTM	American Society for Testing and Materials
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene and xylenes
City	City of Arcata
CDD	Community Development Department
DPW	Department of Public Works
EDR	Environmental Data Resources, Inc.
ESA	Environmental Site Assessment
ESD	Environmental Services Department
HCDEH	Humboldt County Division of Environmental Health
ITSI	Innovative Technical Solutions, Inc.
LLI	Little Lake Industries, Inc.
LUST	Leaking Underground Storage Tank
MSDS	Material Safety Data Sheet
MTBE	methyl tertiary butyl ether
NCRWQCB	North Coast Regional Water Quality Control Board
NRM	Natural Resources Management Corporation
NWPRR	Northwestern Pacific Railroad
PAHs	polynuclear aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PG&E	Pacific Gas and Electric
ppb	parts per billion
ppm	parts per million
Site	South I Street Mill Reuse Project
TBA	Phase 1Targeted Brownfields Assessment
TPH-d	Total Petroleum Hydrocarbons as diesel
TPH-g	Total Petroleum Hydrocarbons as gasoline
TTLC	Total Threshold Limit Concentrations
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	underground storage tank
VOCs	volatile organic compounds

1.0 INTRODUCTION AND SUMMARY

1.1 PROJECT DESCRIPTION

Innovative Technical Solutions, Inc. (ITSI) performed a Phase I Targeted Brownfields Assessment (TBA) on the South I Street Mill Reuse Project (Site) in Arcata, California (Figure 1). This TBA was performed for the U. S. Army Corps of Engineers, San Francisco District (USACE) under contract number DACW07-02-P-0015 and on behalf of the U. S. Environmental Protection Agency (USEPA) as part of a TBA Program grant to the City of Arcata (City).

The Arcata Community Development Department (CDD) is planning for the redevelopment of the South I Street property, a former lumber mill known as Little Lake Industries or Beaver Lumber of Arcata. The adjoining undeveloped land, located across South I Street and known as the Johnson Tract, is also included in this project. It is anticipated that future development may potentially impact wetland areas, and therefore this project also included performing a wetlands delineation to identify designated wetland areas. The wetlands assessment is provided under separate cover.

Representatives from several agencies were involved in this project, including Mr. Jay Semmler (USACE) and Mr. James Hanson (USEPA). Representatives for the City on this project were Mr. Dan Hauser, City Manager; Mr. Larry Oetker, Project Manager for the TBA with the CDD; Mr. Franklin Klopp, Director of Public Works; Mr. Doby Class, Deputy Director of Public Works; Mr. Steve Tyler, Director of Environmental Services; and Mr. Mark Andre, Deputy Director of Environmental Services.

The Brownfields Initiative was enacted by the USEPA to empower states, communities, and other stakeholders in economic development to work together in a timely manner to assess, safely clean up, and attain sustainable reuse of Brownfields sites (USEPA, 2000). Brownfield is a site that has actual or perceived contamination and an active potential for redevelopment or

reuse. These sites are generally vacant or under-used industrial or commercial properties, in which redevelopment are complicated due to known or potential contamination. The TBA program is designed to help states, tribes, and municipalities minimize the uncertainties of contamination often associated with Brownfields (USEPA, 2000). Under the TBA Program, the USEPA provides funding and/or technical assistance for environmental assessments at Brownfields sites throughout the country.

The Site consists of approximately 15 acres of land located on both sides of South I Street in Arcata, California (Figures 1 and 2). The majority of the Site is located along the eastern side of South I Street and was formerly known as Little Lakes Industries, Inc. (LLI). The City acquired the LLI parcels in July, 2001. The LLI parcels (Humboldt County Assessor's Parcel Numbers [APN] 503-252-04, -13, and –16) were the location of a historic lumber mill, and currently house the abandoned structures and building foundations from these past operations. In addition, the City is also in the process of acquiring the Johnson Tract, which is located across South I Street from the LLI parcels and is included in this TBA. The Johnson Tract is currently part of a larger property, which, it is proposed, will be split as part of the property transaction currently under consideration. The Johnson Tract (APNs 503-251-01 and –10) has also had historic industrial uses, and currently consists of undeveloped, heavily vegetated land located at the southern portion of the Johnson Industries manufacturing complex.

It should be noted that the Scope of Work provided to ITSI by the USACE inaccurately described the Site as encompassing 22.34 acres, rather than approximately 15 acres. This acreage appears to have included the full parcel 503-251-01, rather than just the southern portion proposed for the parcel split, which is the subject of this TBA. The northern boundary of the proposed parcel split of 503-251-01 had not been formally determined at the time of this TBA. As a result, the Site acreage used in this Phase I report may vary slightly from that included in the wetlands delineation.

The Site has a long history of use. From approximately 1918 through 1943, the LLI parcels were primarily agricultural. The LLI parcels were developed for industrial use after 1943, and in 1948

the parcels were operating as the lumber remanufacturing facility known as Tacoma Lumber Sales. From that time forward, the parcels changed ownership several times, although the lumber remanufacturing operations remained largely unchanged. Operations ceased in 1988, under the ownership of LLI. In June 1990, Beaver Lumber of Arcata purchased the LLI parcels; however, it appears lumber activities were never reactivated. Following the shutdown of lumber operations, the condition of the LLI buildings deteriorated significantly. In January 2002, a majority of the structures were demolished, because their severely dilapidated condition posed a public nuisance. At the time of the visit for this TBA, building demolition had occurred, and only the drying kiln, boiler, and office buildings remained on the LLI parcels.

The Johnson Tract appears to have been used as agricultural land until at least 1948. By 1954 it had been developed as the Arcata Plywood Company. The southern part of a log pond occupied the portion of the former mill included in the Site. No mill structures appear to have been present on the Johnson Tract, which is the subject of this TBA. The log pond became inactive sometime between 1974 and 1981, and the land is currently re-vegetated. A composting operation reportedly also existed on the Johnson Tract for several years during the 1990s. No other past uses are known. All current industrial activities are conducted in the area north of the proposed City acquisition, and not on the Site.

The existing Johnson Industries facility, to the north of the proposed City acquisition, occupies the previous Arcata Plywood buildings, and is employed in the manufacturing of products such as galvanized piping. In addition, portions of the manufacturing complex are occupied by other businesses.

1.2 SCOPE OF WORK

The Scope of Work for this project, dated November 15, 2001, involved performing a TBA of the South I Street Mill Reuse Project in Arcata, California. The purposes of this TBA are to compile historical information and to prioritize areas with a potential for environmental concerns or contamination.

Tasks included in the Scope of Work for this TBA were:

Initial Site Visit

- Attend an initial Site visit with the City, USEPA, and USACE prior to beginning any work under this task order.

Phase I Environmental Site Assessment

- Perform a Phase I Environmental Site Assessment (ESA) in accordance with American Society for Testing and Materials (ASTM) Standard E 1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.
- Research data gaps, as reasonably ascertainable using available information, in several areas of specific concern that had been previously identified. These concerns include: confirming the number of underground storage tanks (UST) and above ground tanks (AGT) that were on-site and the number of tanks that were removed; confirming the kiln boiler fuel source; determining if wood treatment occurred on the Site; locating septic tanks; and determining the disposal location of any teepee burner ash.

Report

- Provide a verbal summary of the Phase I investigation; a Draft Phase I TBA Report to the City, USEPA, and USACE for review; and a final report to the City, USEPA, and USACE, based on all received comments. The report will be consistent with ASTM Standard E1527.

Workplan

- Develop a generalized work plan that describes the approach, cost, and schedule for performing additional characterization, if environmental problems are identified. The work plan will identify the activities needed to obtain required technical information and fill data gaps in order to fully characterize the Site and associated risks, cleanup, and costs in preparation of a Phase II Environmental Site Assessment.

Wetlands Assessment

- Conduct a wetlands delineation assessment, due to the potential for future development to impact existing wetlands. The wetland assessment is provided under separate cover.

Environmental sampling was not included in the Scope of Work for this project. In addition, providing a Chain of Title, and conducting a review of regulatory records outside of Humboldt County or the City of Arcata (i.e., at Regional Water Quality Control Board offices), was also not included in ITSI's Scope of Work.

This TBA was generally performed according to ASTM E-1527 standards, with the exceptions listed below. In addition, the TBA is consistent with the requirements of the Scope of Work as defined in the Request for Quotation dated November 15, 2001.

Deviations or deletions from the ASTM E-1527 standards include:

- During this TBA, the LLI parcels had recently undergone some demolition. Due to the presence of debris piles and the significant amount of soil disturbance which was evident throughout the parcels, previous features may have no longer been visible at the time of ITSI's inspection.
- Only partial access to the Johnson Tract was available for inspection due to the thick vegetative growth. In addition, the northern boundary of this Tract is to be established by a parcel split, which was not finalized at the time of ITSI's inspection.

1.3 SUMMARY OF FINDINGS

This Phase I TBA report presents the results of the assessment of the South I Street Mill Reuse Project site. These results are presented in detail in Sections 2 through 5 of this report. Key findings are summarized below.

The industrial history of the Site lends itself to various potential environmental concerns. Specific areas of potential environmental concern at the Site include the following:

LLI Parcels

- Two apparent drain outlets, along with associated structures, were observed in one of the concrete pads of the previous LLI remanufacturing complex. There was no information on the past uses of these drains, therefore, it is not known whether potential environmental impacts may have occurred.
- A teepee burner was previously located just north of the remanufacturing complex between 1948 and 1970. No information was available to ITSI on the disposal practices of the teepee burner ash.
- An area of red-stained soil was identified south of the former sorting building. According to a previous ESA (Winzler & Kelly, Consulting Engineers [W & K], 1998), *Phase One Environmental Site Assessment, Beaver Lumber Property, 46 South I Street, Arcata, CA*), the red stains were caused by an accidental release of an iron oxide pigment. No testing of the stained soil has been conducted on the LLI parcels to verify the nature of the released material.

- The remanufacturing complex was destroyed by fire in March of 1973. The previous ESA (W&K, 1998) stated that there was a reasonable likelihood that oil-containing transformers or capacitors were in the facility when it burned, and recommended that the soil be sampled for polychlorinated biphenyls (PCBs). Information was not available to ITSI to either verify or eliminate this concern, and no testing has been conducted in this area of the LLI parcels.
- A septic system was located on the LLI parcels north of the office building, and reportedly also serviced the toilet building and trailer. In the event that chemical substances entered the drain lines in the past, these materials could have entered the leach field, and represent a potential for subsurface contamination. Of particular concern is the past presence of an illegal drug laboratory in a trailer on the LLI parcels.
- The drying kiln building contains building materials of potential environmental concern, including cement block walls which have been coated with a black kiln seal containing naphtha and asphalt, and pipe insulation, which potentially include asbestos-containing materials (ACMs). These materials will require proper characterization prior to demolition and disposal.
- The section of the drying kiln building above the kiln rooms was previously identified as housing two transformers. This area was no longer accessible at the time of ITSI's inspection. In the event these units are still present on the LLI parcels, an evaluation into whether they are oil-filled, and therefore potentially contain PCBs, may be necessary.
- A water well or sump is located in the boiler building, along with a pipe which discharged through the adjacent building wall to a soil area directly outside. The well is believed to be a feed-water well for the boiler. However, documentation or evidence confirming the past use of this structure was unavailable. The potential for this structure to represent an open conduit to groundwater, along with the unknown nature of the discharge pipe to the area outside the building, represents environmental concerns associated with the possibility that unauthorized releases have occurred.
- An aboveground diesel tank was reportedly located outside the boiler room in the past. Information was not available to ITSI to verify the prior location of the tank. The tank was not visible on the historical aerial photographs reviewed, however if the tank was very small it may have been present but not discernable. The concrete pad north of the boiler room is believed to be the most likely location of the previous diesel aboveground tank (AGT). There has been no testing in this area to evaluate the potential for environmental impacts to have occurred.
- Hazardous materials and wastes were stored in the drying shed, previously located directly south of the kilns. In addition, prior environmental reports identified stains in this area. No testing has been performed to evaluate whether environmental contamination is present from past practices in this area.

- Hazardous materials were stored in the former maintenance shed, and oil-stained soils were noted in the area in prior environmental reports. Testing has not been performed in this area to evaluate whether environmental contamination is present from past practices in this area.
- Underground storage tanks (USTs) were previously located adjacent to the former maintenance shed, along with an aboveground gasoline tank. The tanks had been removed from the LLI parcels at the time of ITSI's inspection, and remedial activities had been completed. Prior environmental documents reviewed by ITSI contained inconsistencies regarding whether 2 or 3 USTs were removed from the LLI parcels. The source of these inconsistencies was not apparent, and it could not be determined that if a third UST was present that it was located near the two known USTs or at another location. ITSI considered the possibility that the prior documents referring to3 USTs were actually 2 USTs and 1 AGT. However there was no documentation to verify this possibility in the reports and files reviewed. Although the source of these inconsistencies was not apparent, the UST investigation was issued closure by the Humboldt County Division of Environmental Health (HCDEH) in March 2000, indicating all known USTs were removed from the LLI parcels.
- Waste oil was reportedly routinely sprayed over the roadways on the LLI parcels for dust suppression until approximately 1979. There has been no testing to evaluate whether this past practice has resulted in environmental contamination.
- Two drainage ditches and a small drainage pipe on the LLI parcels, which discharge runoff into Jolly Giant Creek, are present . No testing has been conducted in these drainages to evaluate whether potential environmental concerns are present from runoff entering the ditches during past industrial operations.

Johnson Tract

- Abandoned equipment and debris (including three old tanks and two soil piles) was observed in the brush near the fence line of the Johnson Industries manufacturing complex. According to the City, the equipment appears to be located outside of the proposed property boundary of the parcel split. However, the full extent of the debris was not visually accessible to ITSI during the inspection of the Johnson Tract due to the thick vegetation. In addition, regulatory records for the Johnson Industries manufacturing facility indicate a past history of hazardous waste violations in the general area of the fence line. Although all past violations have been addressed, there has been no testing to determine the potential for environmental impacts to the Johnson Tract as a result of past practices on the adjoining manufacturing complex to the north.
- The presence of a former log pond on the Johnson Tract represents a potential environmental concern. There is insufficient information regarding the closure of the pond, and it is not known whether fill was placed on the pond Site or whether the pond underwent natural sedimentation and revegetation. In addition, no

testing has been conducted to determine if environmental impacts have occurred from past lumber mill operations.

- The Johnson Tract has had problems with unauthorized trespassers dumping refuse and debris on the property. The heavy vegetation prevented observation of all areas of the Tract. The wastes observed appeared to be non-hazardous solid wastes. However, the full extent and composition of the refuse and debris present on the property is not known.

2.0 SITE CHARACTERISTICS

The following sections present descriptions of the Site's location, physical characteristics, and current and past uses. This section also presents a description of current and past uses of surrounding areas in the vicinity of the Site.

2.1 SITE LOCATION

The Site consists of an approximately 15-acre area located on both sides of South I Street in Arcata, Humboldt County, California (Figures 1 and 2). The Site is situated at the southern end of the Arcata City Limits, approximately 0.5 miles from Humboldt Bay. A majority of the Site (approximately 12 acres) is located on the eastern side of South I Street, near its intersection with Samoa Boulevard, and extends to the Arcata Marsh and Wildlife Sanctuary. This eastern portion of the Site was previously occupied by the LLI lumber remanufacturing facility, and has a street address of 46 South I Street.

The western portion of the Site, the Johnson Tract, (approximately 3.15 acres) consists of the undeveloped southern portion of the Johnson Industries facility, which has a street address of 1601 Samoa Boulevard. The Johnson Tract is a triangular-shaped area, at the southern end of the larger 10.76-acre Johnson Industries facility. This portion of the Site is located approximately 700 feet south of the intersection of Samoa Boulevard and South I Street, and extends to the intersection of South I Street and the Northwestern Pacific Railroad (NWPRR) line.

2.2 PHYSICAL CHARACTERISTICS OF SITE AND VICINITY

This subsection provides information on Site topography and geology/hydrogeology.

2.2.1 Topography

The topography of the Site and the surrounding area is characterized as relatively flat, with a gentle southward slope towards Humboldt Bay. The United States Geological Survey (USGS) 7.5-minute, Arcata South, California Quadrangle, 1959 (Photorevised 1972) topographic map shows that the elevation of the Site is approximately seven to 20 feet above mean sea level.

Surface runoff from the LLI parcels drains primarily east into Jolly Giant Creek, which is located adjacent to the eastern and southern Site boundaries. This area of Jolly Giant Creek is also known as Butcher's Slough. The majority of the LLI parcels were apparently graded to drain towards the creek. The elevations are relatively constant over the property due to this grading, but several slight depressions and drainage networks, consisting of ditches and pipes, exist**.** Large areas of puddling and saturated soils were observed throughout the LLI parcels, which is mostly unpaved. The northern part of the LLI parcels appears to have been graded towards the north and then east, where a remnant ditch line collected surface flow and directed it easterly towards the creek. Approximately 25% of the LLI parcels are currently identified as wetlands (Natural Resources Management Corp. [NRM], 2002). *Draft Report South I Street Mill Reuse Project Wetland Delineation*). Historically, the area likely housed a combination of mud flat and salt marsh habitats, and is located in a topographic position suitable to wetland hydrology (NRM, 2002).

The Johnson Tract is flanked by ditches along both the east and west sides. Surface runoff on the Johnson Tract flows primarily to a drainage channel which borders the western Site boundary along the railroad tracks. This drainage channel exhibits the characteristics of a perennially wet slough, and collects water from the north, apparently from concentrated surface runoff north of Samoa Boulevard. Local elevations on the Johnson Tract vary noticeably, and form shallow depressions, drainage patterns, and high spots. A majority of the Johnson Tract is identified as wetlands; however, the quality of the wetlands is impacted by the presence of the historic fill (NRM, 2002).

Much of the area south of the Site consists of wetlands, bordering Humboldt Bay, which have been restored during the past 20 years. The Arcata Marsh and Wildlife Sanctuary was one such project, and was completed by the City in its original 76-acre phase in approximately 1980. The sanctuary was expanded to154 acres in 1986 with the completion of the Butcher's Slough Restoration Project. Butcher's Slough, which is used interchangeably to refer to the lower end of Jolly Giant Creek, includes the sections of the creek adjacent to the eastern and southern boundaries of the LLI parcels. The slough restoration project included the portion of the

waterway directly south of the Site. This area previously housed the Van Vleet Lumber Company mill. A component of the slough restoration involved rerouting a portion of the waterway westerly, along the southern border of the LLI parcels, prior to the waterway meandering through the Arcata Marsh and Wildlife Sanctuary farther to the south. Before restoration of the slough, the westerly arm of the waterway was not present. The site is located in Flood Zone A, an area within the 100-year floodplain (Brooks, 2002).

2.2.2 Geology/Hydrogeology

Recent alluvium and bay sediments underlie the Site. The soils generally consist of sand, silt, and clay and are primarily classified as part of the Bayside-Loleta soil association. These soils occur near bay margins and sloughs, which are tidally influenced, and are moderately-well to poorly drained, fine to medium-textured (Gearheart and Hull, 1984).

Site soils have been characterized in environmental reports of past investigations conducted on the LLI parcels. The soils are described as silty gravel, grading with depth to fine sandy silt (W&K, 1998a). Interspersed layers of more clayey or more gravelly sands were also encountered (W&K, 1991). The LLI parcels are reportedly overlain by river-run gravel fill which was noted to have included up to 50% organic matter (wood debris) in some sample locations (W&K, 1998a). On the Johnson Tract, some of the soils appeared as river-run fill, while other soils were likely remnants of a composting operation that existed on the Tract for several years during the 1990s (NRM, 2002).

Depths to groundwater were measured on the Site in three groundwater monitoring wells, previously installed during a UST investigation on the LLI parcels. Groundwater was encountered at three feet below ground surface (bgs) during July of a typical year, and was found at the surface during March of a wet year (W&K, 1998a). The high water table was confirmed on the parcels during the wetland delineations in which test pits were dug. On the LLI parcels, subsurface flow entered at 18 inches bgs to fill a pit with standing water in the southern portion of the parcels, and subsurface water entered around 30 to 36 inches bgs at a pit near the creek at the north end of the parcels. On the Johnson Tract, subsurface water raised to within 10 to 18 inches bgs in several pits (NRM, 2002).

The groundwater gradient was determined in past investigations of the LLI parcels to be non-distinct due to tidal influences, and was calculated to be toward the east-southeast during initial measurements and toward the northeast during measurements conducted the following month (W&K, 1998a). Additional groundwater gradient measurements were not available for the Site. The monitoring wells were not visible on the LLI parcels during ITSI's inspection. However, there were no well closure records or well decommissioning permits identified for the LLI parcels during file reviews and conversations with the HCDEH. Additional information on subsurface contamination and cleanup at the LLI parcels is presented in Sections 2.4.5 and 4.1.1.

A water well or sump is currently located in the boiler building at the LLI parcels. The lid on the well structure was approximately three feet in diameter, and surrounded by a concrete curb. Water was visible within one foot of the top of the structure. While no specific records were identified for the structure, a feed-water well in this room is mentioned in a prior hazardous material inventory document, and is presumed to refer to this structure.

A prior ESA also makes reference to an old water well on the LLI parcels (W&K, 1998). A 12-inch diameter well, which was reported north of the employee restroom, appeared filled with sand and gravel during a 1989 inspection of the LLI parcels. This well was not observed on the parcels during ITSI's inspection. The HCDEH reported that no records of industrial or drinking water wells, or well abandonments, were available for the LLI parcels. However, County records are only available from approximately 1974.

2.3 CURRENT SITE USES

Neither plot of land included in the Site is currently in use. The larger LLI parcels, located on the eastern side of South I Street, house the abandoned structures, building foundations, and debris from a former lumber remanufacturing facility. This area has been considered a blighted industrial site, with evidence of trespassing and vagrant use of the land. The LLI parcels had recently undergone demolition work and clearing of many of its structures, equipment, and

debris at the time of ITSI's inspection. Several remaining demolition tasks planned for the LLI site involve demolition of the office building and removal of the demolition debris piles.

The area of the Site on the western side of South I Street (Johnson Tract) is heavily vegetated, undeveloped land. Transient encampments appear to have been established, and trash piles litter the area.

2.4 PAST SITE USES

A variety of historical records were obtained and/or reviewed as part of this TBA. These records included, but were not limited to, the following:

- Historical Aerial Photographs
- Sanborn Fire Insurance Maps
- Historical Chain of Title
- Historical Records from the City of Arcata Department of Public Works
- Prior Environmental Reports

Interviews with Mr. Larry Oetker, City of Arcata, CDD; Mr. Mark Andre, City of Arcata, Environmental Services Department (ESD); and Mr. Scott Baker, City of Arcata, Department of Public Works (DPW), and file reviews of documents from these parties provided further historical information on the site.

2.4.1 Historical Aerial Photographs

Historical aerial photographs of the Site taken in 1931, 1939, 1941, 1948, 1954, 1958, 1962, 1966, 1970, 1974, 1981, 1988 and 1996 were viewed at the Humboldt County Department of Public Works, Natural Resource Division in Eureka, California. Aerial photographs of the Site taken in 1943, 1954, 1965, 1974, 1983, 1985, 1989, 1990, 1993, and 1998 were provided for review by the California Trade and Commerce Agency. These photographs were reviewed for indications of past activities and uses of the Site and vicinity. Table 1 provides a description of observations from the historical aerial photographs.

2.4.2 Sanborn Fire Insurance Maps

ITSI contacted the Environmental Data Resources, Inc. (EDR) library to determine if Sanborn fire insurance maps were available for the site. Sanborn maps show the location of underground storage tanks and pipelines, and indicate the types of buildings/structures, and industrial activities on properties. Although Sanborn maps of the general Site area were provided for the years 1900, 1908, 1919, 1928, 1941, 1951 and 1961, the maps do not appear to extend far enough south along I Street to include the Site. A notation indicating the boundary of the Arcata City Limits during this period is located north of the Site, and therefore, it appears coverage did not extend beyond this boundary.

The Sanborn maps do include the northern end of the Arcata Plywood Company, which is associated with the log pond historically located on the Johnson Tract. However, coverage is limited to the section of the facility along Samoa Boulevard (previously 4th Street) between approximately L Street (currently the NWPRR line) and I Street, and does not include the section of the Johnson Tract that is included in this TBA.

The maps also include the area directly north to the LLI parcels, along Samoa Boulevard, possibly extending to the northern boundary of the LLI parcels. However, the remanufacturing lumber mill, which is the subject of this TBA, is outside the map boundaries.

The following notations on the Sanborn maps were indicated for these adjoining areas:

In 1900, a barley mill and a shed are noted near the corner of 4th Street (currently Samoa Boulevard) and I Street, directly north of the LLI parcels. This indicates that the agricultural land use and farm buildings north of the LLI parcels observed in aerial photographs in 1931already existed by 1900. The Arcata & Mad River Railroad (A&MRRR) is present along the future route of South I Street, and extends north of the site. No buildings are indicated on the west side of I Street in the area of the Johnson Tract or the Johnson Industries manufacturing complex.

On the 1908 map, the buildings near the LLI parcels at the corner of 4th Street and I Street are noted to be a feed mill. Additional notes on the buildings are not legible. The areas to the south are vacant fields. By 1919, the structure previously identified as a mill is labeled as vacant. A stable is present south of the vacant structure, apparently near the northern boundary of the LLI parcels.

On the 1928 map, the old barley mill building is indicated as a warehouse, and several other small buildings, including a residence, are located north of the LLI parcels. The stable is still visible near the northern boundary of the LLI parcels. On the west side of I Street, a railroad spur off the A&MRRR appears to intersect the area north of the Johnson Tract near 4th Street and J Street. A train shed is noted along the spur. In addition, several dwellings and stables are also noted in the area north of the Johnson Tract, at 4th Street and K Street.

No significant changes are shown on the 1941 map. By the 1951 map, the Arcata Plywood Mill is shown north of the Johnson Tract, along 4th Street (Samoa Boulevard). No building details are provided on this map. The northern tip of the log pond is also shown on the 1951 map. The dwellings are still noted in the area of 4th Street (Samoa Boulevard) and K Street, although the stables are not present. The A&MRRR is still present along the future route of South I Street, although the train shed is no longer visible. To the north of the LLI parcels, only one structure is now visible, and is indicated to be an office. The stable is also still present.

On the 1961 map, the Arcata Plywood Company is more fully developed north of the Johnson Tract. The map shows a plywood mill; an office building; two machine shops, with one housing gas and oil storage; a plywood warehouse with a steam dryer; and lumber pile in the yard. A notation for the northern tip of the log pond is also present. The dwellings near 4th Street (future Samoa Boulevard) and K Street are no longer present. The area north of the LLI parcels now shows two office structures. The stable is still present, and scattered log piles are noted near the northern boundary of the LLI parcels. I Street is now present south of 4th Street (Samoa Boulevard), along the route previously occupied by the A&MRRR line.

2.4.3 Historical Chain of Title

2.4.3.1 Historical Chain of Title for the LLI Parcels

A Chain-of-Title report was prepared for the LLI parcels as part of a previous ESA conducted on the parcels in 1989 (W&K, 1998). A copy of this earlier report was provided to ITSI for review, and indicates the following ownership:

- Prior to 1918 – Hector and Angie Nelson
- October, 1918 to July, 1947 – Axel and Gertrude Anderson (Parcels 1 & 2) and
- October, 1918 to January, 1952 - Axel and Gertrude Anderson (Parcel 3)
- July, 1947 to January, 1953 – Tacoma Lumber Sales (Parcel 1) and
- July 1947 to August 1950 - Tacoma Lumber Sales (Parcel 2)
- August, 1950 to June, 1958 – M.W. Crook (Parcel 2)
- January, 1952 to June, 1967 – Arcata Lumber Services, Inc.(Parcel 3)
- January, 1953 to June 1958 – Humboldt Lumber Handlers (Parcel 1)
- June, 1958 to September, 1972 – All-Brite Lumber Company (Parcel 1)
- June, 1958 to June, 1958 - Wes-Cal Mfg. Co. (Parcel 2)
- June, 1958 to September, 1972 – All-Brite Lumber Company (Parcel 2)
- June, 1967 to September, 1972 – All-Brite Lumber Company (Parcel 3)
- September, 1972 to December, 1972 – Georgia Pacific Corporation (Parcels 1, 2, & 3)
- December, 1972 to May, 1973 – Louisiana-Pacific Corporation (Parcels 1, 2, & 3)
- May, 1973 to September, 1987 – Harris Pine Mills (Parcels 1, 2, & 3)
- 1987 – Harris Pine Mills underwent bankruptcy
- September, 1987 – Little Lakes Industry, Inc., owner of record

The Chain-of-Title records ended at this date. However, information in an update of the W&K 1998 ESA indicates that LLI retained ownership of the parcels until 1990, when it was sold to Mr. Richard Winkel, owner of Beaver Lumber of Arcata (W&K, 1998). In September 1992, Beaver Lumber of Arcata entered into a boundary line agreement with the State Lands Commission to establish a fixed line as the Ordinary High Water mark of Butcher's Slough and establish the boundary between private and State lands. The City of Arcata purchased the LLI

parcels in July, 2001. A Preliminary Title Report prepared for the City identified Richard and Karen Winkel as the owners of record at the time of its sale.

2.4.3.2 Historical Chain of Title for the Johnson Tract

The City prepared a Chain-of-Title report for the Johnson Tract. These records indicate the following ownerships.

For the primary parcel (APN 503-251-01):

- 1948 to April, 1951 – Ralph W. Ball
- April, 1951 to April, 1976 – Arcata Plywood Corporation
- April, 1976 to June, 1976 – Sierra Pacific Industries
- June, 1976 to May, 1987 – Mary Margaret Schmidbauer
- May, 1987 to present – Kay Johnson

For the smaller parcel (APN 503-251-10):

- April, 1978 – Harris Pine Mills
- April, 1978 to May, 1987 – Mary Margaret Schmidbauer
- May, 1987 to present – Kay Johnson.

Earlier records for these parcels were not available from the City.

2.4.4 Historical Records

Several historical maps of Arcata were reviewed by ITSI at the City DPW. A map of the City of Arcata from1933 shows the Site as open land south of the City limits. The A&MRRR is visible along the future route of South I Street and the intersection of the NWPRR and the A&MRRR, (which currently forms the southern tip of the Johnson Tract), is indicated. An 1870 map of Humboldt Bay from the U.S. Coast Survey, appears to show the area of the Site already in use as agricultural land at that time. The A&MRRR line along the future route of South I Street also appears to be present. However, there is no map legend and features are difficult to distinguish.

2.4.5 Prior Environmental Reports

Several previous environmental reports prepared for the LLI parcels were provided to ITSI for review. Some of the prior reports address a UST investigation and cleanup at the LLI parcels. A summary of these previous investigations is presented here.

There are discrepancies in the reports regarding whether two or three USTs were removed from the LLI parcels. The tanks were reportedly installed in 1959 and consisted of 1,000-gallon diesel USTs located southeast of the former maintenance shed (W&K, 1991). The USTs were removed from the LLI parcels in August,1987, while the property was owned by Harris Pine Mills (W&K, 1991). The parcels were sold to LLI during that same year, after Harris Pine Mills declared bankruptcy.

Documentation from regulatory agency files also includes references to both two and three UST removals. The UST Unauthorized Release Report in HCDEH files identifies two USTs at the LLI parcels, and the sample results from the 1987 tank removal found in HCDEH files also references two tanks. A UST Removal Plot Plan from the files shows two diesel USTs, along with a diesel pump and an aboveground gasoline tank. However, the Case Closure Summary for the LLI parcels identifies three USTs as having been removed. This document was completed by the HCDEH, and may be considered an official site record. Although there is a potential that the 3 USTs were mistakenly identified in regulatory documents in reference to the two USTs and one AGT, there is no information available to verify the source of the discrepancy in the prior reports. However, there is no evidence that known USTs remain on the LLI parcels.

The UST investigation at the LLI parcels yielded the following results. Initial sampling results from the tank excavation identified 130 parts per million (ppm) total petroleum hydrocarbons as diesel (TPH-d) in soil, and was non-detect for TPH-d in the groundwater which pooled in the excavation (WCC, 1991). In 1990, LLI had the tank location re-excavated. Testing indicated 1,200 ppm TPH-d in the soil near the former fuel pump; 1,100 ppm TPH-d in the soil at the south end of the tank excavation; and 130 parts per billion (ppb) TPH-d in the groundwater that collected in the tank pit (WCC, 1991). Approximately 200 cubic yards of soil were removed during the re-excavation and stockpiled on the LLI parcels. Later in 1990, LLI sold the property to Beaver Lumber of Arcata, but retained the responsibility for the assessment and cleanup of the USTs. The North Coast Regional Water Quality Control Board (NCRWQCB) performed the regulatory oversight of the UST cleanup at that time.

In 1991, a Work Plan was prepared for the LLI parcels (*Woodward-Clyde Consultants [WCC], Work Plan, Little Lake Industries, Inc., Former Facility at 46 South I Street, Arcata, California*), followed by an initial subsurface investigation, under order by the NCRWQCB, to determine the extent of soil contamination and characterize groundwater in the vicinity of the removed tanks. The 1991 investigation included the installation of three groundwater monitoring wells and five soil borings. Low levels of diesel contamination were detected in the soil at up to 43 ppm TPH-d (W&K, 1991). Diesel was detected in a groundwater sample from well MW-1 at a concentration of 140 ppb (W&K, 1991). Benzene, toluene, ethylbenzene, and xylenes (BTEX) were non-detect in the soil and groundwater samples. The soil stockpiles were also sampled in 1991, and up to 2,000 ppm of TPH-d was detected (W&K, 1991). The groundwater gradient was determined to be east-southeast in August, and northeast in September (W&K, 1991). The variation in gradient was believed to be a result of tidal influences. Groundwater was encountered at three feet bgs.

In 1992, LLI declared bankruptcy and the investigation was abandoned without any further testing or cleanup at that time. In 1998, additional work was conducted for the property owners, Beaver Lumber, as part of the potential sale of the property to the City. At the time of the 1998 investigation, the UST excavation was still open and filled with water. Soils were still stockpiled on the parcels. The plastic covering the soil piles had degraded and a thick growth of weeds had established on the piles (W&K, 1998a). The HCDEH took over regulatory oversight of the cleanup in 1998. Further soil and groundwater sampling was performed, which included the analysis of total petroleum hydrocarbons as gasoline (TPH-g) and methyl tertiary butyl ether (MTBE). The TPH-gasoline analysis was requested by the HCDEH, due to the presence of a gasoline AGT previously located in the area of the USTs (W&K, 1998a). A Hazardous Material Inventory document for the LLI parcels from 1987 identifies the AGT as a 300-gallon steel tank. No additional references to the prior uses or removal of the gasoline AGT were identified in regulatory documents.

The results of the1998 investigation determined no contaminants to be present in the groundwater (W&K, 1998a). Samples from the soil stockpiles contained a maximum concentration of 350 ppm TPH-d (W&K, 1998a). Wastewater, consisting of well development water, purge water and rinsate had been collected in eight drums during the 1991 and 1998 investigations. A composite wastewater sample from these drums was also tested and 180 ppb of TPH-g and low concentrations of BTEX were detected. Groundwater gradient measurements were not possible in 1998, due to the high groundwater table, which resulted in the wells overflowing when they were opened on two occasions. The W&K report concluded that over-excavation of the UST pit had removed the source of any further groundwater contamination as evidenced by the lack of contaminants identified in 1998 investigation, and recommended that the LLI parcels site be closed.

The LLI parcel site was issued closure for the UST cleanup on March 8, 2000. Based on this regulatory closure, all know USTs and AGTs appear to have been properly removed and closed on the LLI parcels.

A Phase I ESA was also conducted at the LLI parcels in 1998, concurrently with the subsurface investigation, as part of the potential sale to the City. The 1998 Phase I report also included, in its entirety, the text of a prior Phase I conducted at the parcels in November 1989. The 1998 ESA was conducted as an update of the earlier report, and investigated only those changes to the parcels that had occurred between the 1989 and 1998 assessments. The 1998 report recommended the following actions:

- "*Areas of oil-stained soil inside the maintenance shop at the north end and outside the south end should be excavated and sampled to determine the extent of contamination.*"

- "*Soil samples should be obtained from the area of the remanufacturing complex and analyzed for PCBs. This recommendation is based on the possibility that PCBs were released from electrical transformers or capacitors when the structure was destroyed by fire. This is a precautionary measure, for we have no specific indication that transformers or capacitors were burned in the fire, but there is a reasonable likelihood that oil-containing transformers or capacitors were in the facility when it burned*."

- "*The area of red soil should be tested for iron to support the indication that the red material is iron oxide pigment. This area should also be tested for mineral spirits to verify that a petroleum-based wood staining process did not cause the soil staining.*"

- "*Waste materials presently on site must be disposed of properly. These waste materials include: car batteries, household chemical products stored in the maintenance and storage building, drums of waste oil, leftover barrier kiln seal, and soils contaminated with oil or diesel*."

- "*During demolition of existing buildings, new waste materials will be generated that may require special handling and disposal measures*."

At the time of ITSI's inspection, all previously identified waste containers had been removed from the LLI parcels. No additional sampling of the areas outlined in the prior ESA appears to have been conducted on the LLI parcels. Documentation regarding the closure of the UST case and removal of waste materials from the LLI parcels, obtained in file reviews conducted by ITSI, is discussed in Section 4.1.1.

An additional third-party review of the above reports was prepared for the LLI parcels in 1998. Recommendations for further assessment were identified and include the following. The status of these recommendations is also presented below, where applicable.

- "*Additional groundwater flow assessment should be considered to assess the adequacy of the monitoring well network. In lieu of or in addition to, groundwater sampling should be considered in areas not adequately assessed that may lie downgradient. Additional groundwater sampling should include total petroleum hydrocarbons as gasoline*."

The HCDEH has issued a closure letter for the LLI parcels, after additional groundwater testing in 1998. Groundwater sampling for TPH-g was conducted at that time and was found to be non-detect.

- "*Sampling that is proposed for oil stained areas that will be excavated outside the maintenance shop should include chlorinated solvents*."

No sampling has been conducted in this area of the LLI parcels.

- "*Additional sampling should be considered to assess the potential widespread impacts on shallow soil from used oil applications*."

No sampling has been conducted in this area of the LLI parcels.

- "*Additional sampling should be considered to assess potential impacts on shallow soil and groundwater from heavy equipment operations in the area of the former manufacturing complex*."

No sampling has been conducted in this area of the LLI parcels.

- "*Additional research should be considered to assess impacts to soil along the drainage ditch/culvert east of the dry kilns*."

No sampling has been conducted in this area of the LLI parcels.

- "*Additional research should be completed to document the kiln boiler source. Based on the findings additional soil sampling may be warranted*. "

During ITSI's inspection, a natural gas pipe was observed adjacent to the boiler room as the fuel source of the boiler. The date of manufacture marked on the boiler equipment was April 17, 1959. Additional research conducted by ITSI indicated a Pacific Gas & Electric (PG&E) gas pipe was installed at the LLI parcels in 1959 (PG&E, 1969). Therefore, there is no indication of a fuel source other than natural gas for the existing kiln boiler.

- "*Additional sampling should be considered of the soil below the location of the emergency generator diesel fuel tank*."

No documentation or field evidence was found during ITSI's investigation clearly identifying the location of the prior emergency generator diesel fuel tank. However, a concrete pad directly north of the boiler room is believed to be the most likely prior location of the tank. No sampling has been conducted in this area of the LLI parcels. According to the previous ESA, the tank was above ground, and was no longer in place at the time of the 1989 assessment. References

indicate the tank was located outside the boiler room, above a condensate drainage ditch (W&K, 1998). A condensate drain is described as being located along the south side of the drying kilns, and then directing the condensate westward, around the perimeter of the kilns to the boiler (W&K, 1998). ITSI observed an open concrete drain between the south side of the kilns and the boiler room, which housed piping from the boiler room. This trench appears to be the condensate drain identified in the earlier ESA. A concrete pad is located in the area in front (north) of the boiler room, where the condensate drain reaches the boiler, and appears to be the location referenced in the earlier ESA. It should be noted that several contradictions in this description were identified in the prior ESA. Specifically, the earlier ESA states that the boiler blowdown and overflow from the condensate ditch were connected to the sanitary sewer during the last years of operation. Research conducted by ITSI found no indication that any sewer connections existed at the LLI parcels based on available sewer plans.

- "*Additional research should be completed to investigate the operational history and handling of transformers for potential impacts from PCBs. Additional sampling should be considered in the locations of the transformers if adequate operational history cannot be documented.*"

PG&E records indicate one pole-mounted transformer to be present on the LLI parcels, adjacent to the prior electrical shed. This transformer appears to date from 1988, and belongs to PG&E. By the time of the ITSI inspection, the transformer had been disconnected. PG&E has scheduled the removal of the equipment. PG&E records do not identify any additional transformers on the LLI parcels. The prior ESA references electrical transformers previously located in the following locations at the LLI parcels: the employee restrooms (which appear to have been located adjacent to the trailer); above the drying kilns (two units); on the wall of the storage and maintenance building; and on the west wall of the storage shed located at the southeast corner of the LLI parcels. It is not known whether these transformers were oil-filled or dry units. The equipment was not present on the LLI parcels at the time of ITSI's inspection with the possible exception of the units reported to be above the drying kilns. This area was not accessible to visual inspection at the time of ITSI's site reconnaissance due to the severely dilapidated condition of the structure. No additional operational history on the equipment is available. The demolition contractor, who salvaged equipment and metal parts during demolition activities conducted in January 2002, indicated that no transformers were found on the LLI parcels.

- "*Additional research should be completed to identify the wood treatment process used for lumber brought on site. Additional sampling should be considered depending on the process identified*."

No additional information was available regarding the treatment processes used prior to lumber arriving at the LLI parcels. All reports in the earlier ESA from previous parcel operators stated that no treatment was conducted on the LLI parcels. This information is consistent with common practices at mills in which only lumber remanufacturing was conducted.

- "*Additional research should be completed to identify the operational history and configuration of the on site sewage disposal system. Additional sampling should be considered depending on whether there is a potential for the system to have been used for disposal of liquids other than sewage*."

A septic system is present along the north side of the office building on the LLI parcels. The septic tank was observed by ITSI during the inspection, although it could not be opened at the time. The recent demolition at the LLI parcels included locating the septic system for the office, toilet building, and trailer. According to the demolition contractor, the one septic tank next to the office building serviced all three structures, and had been filled with pea gravel during their work. Information on the potential for the disposal of other liquids into this septic system is discussed in Section 4.1.1.

Additionally, the 1991 work plan prepared for the subsurface investigation at the site by WCC references a two-inch PVC pipe which was partially exposed in the northeast wall of the former UST excavation (WCC, 1991). The pipe was believed to be part of a septic system that had serviced a bathroom in the maintenance building (WCC, 1991). No further documentation is available on this pipe in subsequent reports, and therefore it is not known whether the use of the pipe was ever confirmed, or how the pipe was handled during the completion of the UST cleanup. No aboveground features indicating a septic system in the area of the former maintenance shed were observed by ITSI during the inspection. Since demolition work had recently been completed at the time of ITSI's inspection, a significant amount of soil disturbance was evident throughout the LLI parcels, along with large debris piles. Previous parcel features

may have been eliminated or disturbed. Research conducted by ITSI found no indication of any sewer connections at the LLI parcels as of the 1977 sewer plans at DPW. There is insufficient information to verify the reported maintenance shed septic pipe. However, it is likely that excavation of the area for the UST cleanup included the area identified as housing the potential septic pipe.

- "*The City should recognize that the Environmental Site Assessment does not claim to conform with ASTM property transaction standards. The lack of a standardized assessment may affect lender and insurance underwriter review*."

ITSI's Phase I ESA meets ASTM standards.

- "*The City should recognize that existing and additional contamination assessment data may place restrictions on site development. These restrictions may affect the proposed land use and build out. Moreover, a contingency plan should be considered to address the potential identification of new contamination during site development process."*

No additional contamination data is available beyond the prior ESA and UST investigations. Recommendations for additional testing of potential areas of concern which have not been addressed previously are presented in Section 5.0.

- "*The City should recognize that if a letter of 'No Further Action" is desired from the RWQCB related to the presence or absence of regulated materials at the site then additional steps will need to be taken. These steps will likely include RWQCB review of UST documents and Phase I ESA and a work plan to address any un-addressed areas of concern*."

The HCDEH became the lead agency for the oversight of the UST cleanup in 1998 and issued a closure letter for the LLI parcels on March 8, 2000. Further regulatory involvement with the LLI parcels may still occur, depending on the findings of additional testing that may be performed.

2.5 CURRENT AND PAST USES OF THE ADJOINING PROPERTIES

Land uses in the adjoining properties of the Site are a mixture of industrial, residential, and open-space/recreational land. In addition, Humboldt Bay is located approximately 0.5 miles south of the Site. ITSI observed the following surrounding uses during its Site reconnaissance.

North

- The LLI parcels are bordered to the north by a small commercial parcel housing an Enterprise Car Rental office. Various commercial buildings and older residential properties are located across Samoa Boulevard, to the north.
- The Johnson Tract is bordered to the north by the C&K Johnson Industries facility which is engaged in steel pipe manufacturing. The current address for the Johnson Industries facility is 1061 Samoa Boulevard. Several other businesses also occupy portions of the Johnson Industries manufacturing complex to the north, including the Arcata Body Shop and Pacific Clears. The current address of these tenant businesses is 1017 Samoa Boulevard. To the north of the Johnson Industries manufacturing facility, across Samoa Boulevard, are commercial and industrial buildings including Cash Oil Mini Mart Gas Station and Industrial Electric Service Company. The abandoned Beaver Lumber Company mill site is located across Samoa Boulevard, northwest of the Johnson Industries property, at 1220 5th Street.

South

- The southern boundary of the LLI parcels is bordered by an arm of Jolly Giant Creek, followed by the open space and recreational land of the Arcata Marsh and Wildlife Sanctuary. Farther south are the Arcata Wastewater Treatment Plant, the Wastewater Aquaculture Project, the Wastewater Oxidation Ponds, the Arcata Salt Marsh, and Humboldt Bay.
- The NWPRR intersects South I Street at the southern tip of the Johnson Tract. Open pastureland previously associated with the Hunt dairy farm is located south of the Tract. This area was acquired by the City as part of the McDaniels Slough restoration project. The ponds and open space of the Arcata Marsh and Wildlife Sanctuary are located farther south of the Johnson Tract.

East

- Jolly Giant Creek borders the LLI parcels directly to the east, followed by various residential, commercial, and light industrial properties with frontages along H Street. At the southeastern end of the site, adjacent properties include the Sandpiper Trailer Park, Renaissance Computing, Complete Engine Service, and Redwood Electric Repair. In addition, J&M Paint & Body Shop, Mac's Body Shop, and Mac's Towing are located across Jolly Giant Creek to the east.
- South I Street borders the Johnson Tract to the east, followed by the LLI parcels.

West

- South I Street borders the LLI parcels to the west, followed by the Johnson Tract and the Johnson Industries manufacturing facility.
- The NWPRR tracks border Johnson Industries to the west, followed by open pastureland previously associated with the former Hunt dairy farm. This area has been acquired by the City as part of the McDaniels Slough restoration project.

Past uses of the adjoining properties are similar to land uses observed today, with the following exceptions:

- The area of the Arcata Marsh and Wildlife Sanctuary south of the LLI parcels was a lumber mill, with the mill's log pond area directly adjacent to LLI to the south. This area was previously developed in the 1950s as two mills; the Durable Fir Mill and the Durable Plywood Mill (Gearheart and Hull, 1984). The log pond, along with dikes along Jolly Giant Creek (referred to in this area as Butcher's Slough), and a railroad spur were constructed at that time. The two adjoining mills included numerous industrial structures and a teepee burner during their active years. One mill was located just south of the LLI parcels, along South I Street, and the second mill was farther south, located at the southern tip of the log pond. In the early 1960s, the two mills were sold to the Van Vleet Lumber Company (Gearheart and Hull, 1984). The mills reportedly operated until the late 1960s, when they were closed due to economic difficulties. The mills were left unused, and fell into disrepair until approximately 1976, when a clean-up of the Van Vleet Lumber Company was begun by the Van Vleets (Gearheart and Hull, 1984). At that time, buildings were demolished, equipment removed, Butcher's Slough was cleaned up, and the log pond was drained. In 1981, the property was donated by the Van Vleets to the State of California (Gearheart and Hull, 1984), and by 1986, the land had been incorporated into the Arcata Marsh and Wildlife Sanctuary.
- The area directly north of the Johnson Tract, which currently houses the Johnson Industries pipe manufacturing facility, housed the Arcata Plywood Mill. Limited historical information is available on this adjoining site. Based on aerial photograph and Sanborn map reviews, the lumber mill was developed sometime

between 1948 and 1951. Numerous industrial structures were part of the mill during its active years, including a teepee burner. Most of these structures are present today, with new site uses, although the teepee burner was removed. The mill was largely inactive by 1974.

Further discussion of off-site environmental conditions is presented in Section 4.0 of this report.

3.0 RESULTS OF SITE RECONNAISANCE AND INTERVIEWS

A Site reconnaissance of the South I Street Mill Reuse Project was conducted on January 15 and 16, 2002, by Ms. Anita Trafficante (ITSI) who was accompanied by Mr. Larry Oetker of the City of Arcata.

The results of the Site reconnaissance are presented below. Appendix A presents photographs of the site. The discussion includes information obtained during the Site inspection; from interviews with City personnel, with the demolition contractor (Wendt Construction), and with Kay and Chris Johnson (current owners and operators of the Johnson Industries manufacturing complex); from a prior ESA report (W&K, 1998); and from demolition contract documents describing the previous LLI mill structures.

3.1 LITTLE LAKES INDUSTRIES PARCELS

During this TBA, the LLI parcels had recently undergone demolition work, and a majority of the old mill buildings had been removed because their severely dilapidated condition posed a public nuisance. At the time of ITSI's Site inspection, only the drying kiln, boiler, and office buildings remained, along with the foundations of the demolished structures. Numerous debris piles generated during demolition activities were also present. These debris piles had been sorted into similar materials, and included: refuse; scrap metal and equipment; wood scrap; and vegetative debris. Due to the presence of these piles, and significant soil disturbance throughout the LLI parcels, previous parcel features may not have been detectable at the time of ITSI's inspection. Additional demolition work planned for the LLI parcels include demolition of the office building and removal of the demolition debris piles.

The LLI parcels previously operated as a lumber remanufacturing facility. Activities conducted on the parcels included drying, storing, and shipping lumber (W&K, 1998). The lumber was reportedly rough cut but unplanned when received at the LLI parcels. The lumber was stacked and stored in the yard for two to six months to dry, and then placed in the drying kilns for three to fifteen days, depending on its moisture content (W&K, 1998). Some of the rough cut lumber would be trimmed and/or planed and cut to length, particularly prior to 1973. The ends of the

lumber were reportedly coated with a white soluble wax. According to the prior ESA, there was no indication that wood treatment or preservatives were applied on site (W&K, 1998). The information in the prior ESA was obtained through interviews with former mill personnel familiar with the site, who were still accessible at that time. The remanufacturing complex buildings were destroyed by fire in March 1973 (W&K, 1998).

Office Building

The office building was in place at the time of ITSI's inspection. The prior ESA indicated this structure was also used as a residence for site caretakers after the lumber mill shut down (W&K, 1998). The structure was in poor condition, with evidence of vandalism and unauthorized occupants having used the building. The office is a wood building with a composite roof. Several small containers of paint and an old car battery were observed in the building at the time of ITSI's inspection. The structure was reportedly built in the 1960s. A fire in April 1973 burned down a part of the building (W&K, 1998). The office building included ceiling tiles, floor tiles, and linoleum with the potential to be ACMs. According to the demolition contractor (Wendt Construction) responsible for removing Site buildings, these materials were tested, and only the floor tiles and linoleum were determined to contain asbestos. At the time of ITSI's inspection, the demolition contractor was awaiting arrangements for the proper removal of ACMs. The building has subsequently been demolished, according to information provided to ITSI.

A small toilet building reportedly was located adjacent to the east end of the office building, and a small wood shed with a tin roof also was reportedly located south of the office, on the other side of the front gate. These two outbuildings had been demolished at the time of ITSI's inspection, and no evidence of the structures was apparent. According to Wendt Construction, the small wood shed was empty at the time of demolition, and no information on its previous purpose was available.

A septic tank associated with the office building was present on the north side of the structure at the time of ITSI's inspection. According to Wendt Construction, this septic tank serviced the

office building, the toilet building, and a trailer previously located north of the office. Their demolition contract included locating the septic system, and filling the tank with pea gravel. No information was available regarding the specific location of the leach field or pit associated with the septic tank.

Trailer

A trailer was previously located just north of the office building. The trailer was removed from the LLI parcels during demolition work. According to Wendt Construction, the trailer was transported to a landfill for disposal. The trailer reportedly was previously used as an office and as a caretaker's residence. Problems with unauthorized use of the trailer by trespassers reportedly occurred. Additional information on the potential concerns associated with the unauthorized use of the trailer is presented in Section 4.1.1.

Sorting Building

The sorting building was previously used in grading and sorting lumber. Only the foundation of the sorting building and adjacent rail tracks remained on the LLI parcels at the time of ITSI's inspection. This structure reportedly consisted of a metal building with a tin roof, and was removed as part of the demolition work. The adjacent rail tracks were used to move the lumber onto forklifts for transport around the parcels.

An area of red-stained soil south of the sorting building was identified in the ESA conducted on the LLI parcels in 1989. During ITSI's inspection, some limited remnants of the red staining were visible. However, the ground was saturated from recent rains and significant soil disturbance had occurred during demolition work, making the area difficult to distinguish. According to the previous ESA, the red stain was from iron oxide pigment used to stain redwood lumber (W&K, 1998). The prior report indicated that staining was conducted by LLI at their Fortuna site, and was not performed at the Arcata mill. The stained soils reportedly resulted from an accidental release from a few drums of iron oxide pigment that happened to be at the LLI parcels (W&K, 1998).

Remanufacturing Complex

The concrete pads for the foundation of the former remanufacturing complex are located just north of the sorting building. The old mill buildings in this area have been gone for quite some time. However, various pieces of old equipment were reportedly staged in this area until the recent demolition work, when they were dismantled. Items such as a conveyor belt, saws, and motors had been placed in several large scrap metal piles at the time of ITSI's inspection. According to the prior ESA, a fire which occurred on the LLI parcels in March 1973 destroyed most of the remanufacturing complex.

Several features of potential concern were observed in this area by ITSI. Two apparent drain outlets were observed along the south side of one of the concrete pads. The outlets were situated in such a way as to discharge to a dirt area between two of the pads. The drains appeared to extend beneath the concrete pads. Along one of the drain paths, a portion of a galvanized pipe was visible in a section of the concrete pad. Along the other drain path, a trench-shaped concrete patch was visible in the concrete pad. Both drain paths had interior endpoints into a rectangular dirt section in the middle of the concrete pad. The dirt area was approximately three feet by twelve feet in size. In addition, one of the drain paths appears as a small dirt-filled trench within the concrete pad, at its northern end. There was no information on the past purpose of these drains or the interior dirt section. In addition, no information was available on the specific operations previously conducted or the materials used or stored in this section of the complex. Therefore, it is not known whether potential environmental impacts may have occurred from the past uses of these drains.

When the LLI parcels were operational, a teepee burner was located just north of the remanufacturing complex. Typically, a teepee burner is used to burn wood waste from milling operations. The teepee burner was visible in aerial photographs of the site taken from 1948 to 1970. The teepee burner was no longer visible in a 1974 photograph and may have been removed due to the March 1973 fire that destroyed most of the remanufacturing complex. No information was available to ITSI on the location for disposal of any teepee burner ash. However, some soil samples collected during the 1991 subsurface investigation were

characterized as containing up to 50% organic matter, as wood debris (W&K, 1991). These samples were taken in the area southeast of the maintenance shed, as part of the former UST investigation. An engineering soils investigation in 1991 identified wood debris between three and six feet below ground surface in two locations: east of the stickering shed and east of the remanufacturing complex (Sweet, 1991).

Electrical Shed

A small concrete foundation identifies the former location of an electrical shed west of the remanufacturing complex. This small shed was removed during recent demolition activities. It was reported to house electrical switches and meters. A pole-mounted transformer is adjacent to the shed foundation. The transformer had been disconnected, but had not yet been removed at the time of ITSI's inspection. Research confirmed that the pole-mounted transformer is the property of PG&E and is scheduled to be removed by PG&E.

Drying Kilns

The drying kiln building is a concrete structure containing two large and two small kiln rooms with large metal doors. This building remained on LLI parcels at the time of ITSI's inspection. The demolition work at the parcels specified only securing the building to prevent trespasser's unauthorized use of the structure. The doors to the kiln rooms had been welded or locked, although access to the building had been created through an opening at the northeast corner of the building.

The kiln rooms are lined with cement block walls that have been coated with a black substance. According to the prior ESA, the coating is Vapor-Barrier Kiln Seal. A Material Safety Data Sheet (MSDS) for the substance indicates it contains naphtha and asphalt. Additional documentation in agency files indicated that the drums of kiln seal which remained on the parcels during closure were removed by a local roofing contractor.

Steam pipes used to heat the kilns run along the interior of the rooms, and large fans are located along the roof. The large kiln rooms are in poor condition and were not safely accessible. The

roof has fallen in and the floor was mounded with debris. A narrow section of building sits above the kiln rooms, also in extremely poor condition, and access to this building section is no longer present. Some control equipment was visible in this upper building section, although most portions of the upper building area were not visible from the ground.

The prior ESA mentioned the presence of pipe insulation, which is a potential ACM, in the area of the kilns. The report stated that a later review of LLI parcel records indicated that asbestos had been removed from the kiln and boiler buildings and manifested to Anderson Landfill for disposal (W&K, 1998). Wendt Construction, the current demolition contractors for the LLI parcels, provided additional asbestos information. According to Mr. Wendt, an asbestos contractor, New Life Services Company, took samples of the pipe wrapping at the time of the pre-demolition scoping walk-through. The samples reportedly indicated the material to be non-asbestos containing. However, Mr. Wendt did not have access to the laboratory reports for review.

A concrete trench housing the steam piping is present outside the front (southern end) of the kiln building. This trench appears to be the condensate drain identified in the earlier ESA conducted at the LLI parcels. The trench and associated piping run to the adjacent boiler building, located directly southwest of the kilns. According to the prior ESA, this drain was used to collect condensate and other liquids from within the kilns. These materials were then directed westerly to the boiler building, where the condensate was pumped into the boiler.

Boiler Building

The boiler building consists of a small metal shed directly adjacent to and southwest of the kilns. This building was still in place at the time of ITSI's inspection. The building contains two rooms, one housing the boiler and associated piping and equipment, and another small office or break room at the south end of the building. Recent use of the building by vagrants was apparent.

The boiler was still present within the building at the time of ITSI's inspection. The boiler was labeled as a Cleaver-Brooks Boiler, and dated April 17, 1959. The label identified the boiler as gas/or oil-fired, Model CB223-200.

A natural gas pipe was observed just north the boiler room, indicating natural gas as the fuel source of the boiler. Additional research conducted by ITSI indicated that a PG&E gas pipe was installed at the parcels in 1959 (PG&E, 1969). There is no indication of a prior fuel source being used for the existing kiln boiler.

Operating instructions on the equipment indicated that the valves should be blown down three times per day. According to the prior ESA, the boiler blowdown water was drained to Jolly Giant Creek during the early years of the LLI parcels operations, and later was drained to the sanitary sewer system in the last few years of LLI operations (W&K, 1998). Information confirming this earlier report was not available to ITSI. There was no visual evidence of a discharge directly from the boiler to the creek, and based on sewer system maps available to ITSI at DPW, no sewer connections have existed at the LLI parcels.

A water well or sump is located in the northwest corner of the boiler building. A metal plate, approximately three feet in diameter, covers the opening, and at the time of ITSI's inspection, water was visible within a foot of the surface through an opening in the metal cover. Piping protrudes from the metal cover, and one of the pipes extends along and through the adjacent building wall, with an open end pointing directly outside the building approximately four feet above the ground. During ITSI's document review at the HCDEH, a past Hazardous Material Inventory from 1987 indicated that spilled chemicals (such as boiler water treatment chemicals) in the boiler room, would be flushed into the feed water-well. This structure is believed to be the feed-water well for the boiler. However, documentation or evidence confirming the past use of this structure was unavailable. No information was available on the depth, source, or quality of the water. HCDEH records, which only date back to 1974, identified no well permits for the LLI parcels. If this well represents an open conduit to groundwater, then there may be environmental concerns associated with the potential for unauthorized releases to have occurred.

A concrete pad is present directly north of the boiler building and adjacent to the drying kilns. Some of the piping from the kiln was routed in this area, and support structures were present on the concrete pad. Information about the past uses of this pad was not available. However, the W&K 1998 ESA identified a diesel AST previously located outside the boiler room to power emergency generators (W&K, 1998). There was no evidence of the AST or the emergency generators at the time of ITSI's inspection. The prior ESA further describes the location of the previous AGT as being above a drainage ditch. There was not sufficient information available to ITSI to verify these references in the prior ESA. Although there are inconsistencies in the information, there is a probability that the previous diesel AGT was located on the concrete pad outside the boiler room.

Drying Shed

The area directly in front of the drying kilns previously housed a drying shed. This structure was demolished at the time of ITSI's inspection, and the concrete pad and rails used to move lumber in and out of the kilns remained. The drying shed was an open-walled wood frame building, with a metal and composite roof. The wood piers were stacked in front of the kilns.

When the site was operational, a private contractor reportedly serviced forklifts in the drying shed, and new and used oil was stored in this area (W&K, 1998). According to the prior ESA, waste oil was routinely sprayed over the site roadways for dust suppression. This practice was conducted until approximately 1979 (W&K, 1998). The prior ESA identified oil stains on the concrete floor of the drying shed, and the presence of three waste oil drums (since removed) under the shed roof (W&K, 1998). In addition, the Hazardous Material Inventory from 1987, reviewed by ITSI in HCDEH files, indicated the drying shed was a storage area for engine oil, transmission fluid, hydraulic oil, and mineral spirits. All hazardous materials had been removed from the Site at the time of ITSI's inspection, and the stains were not visible, perhaps due to overlying stacks of demolition debris.

Maintenance Shed

A maintenance and storage shed was located east of the kiln building. The structure had been demolished at the time of ITSI's inspection, and only the concrete foundation remains. The maintenance shed previously consisted of a wood frame building with a composite roof. There is limited information on the specific past uses of the building. The prior ESA identified oil-stained soils inside the shed at the north end, and outside the shed at the south end of the building (W&K, 1998). Chemical products including paint, paint thinner, lacquer, varnish, insecticides, and gasoline reportedly were stored in the shed (W&K, 1998). An electric winch was previously located south of the maintenance shed (W&K, 1998).

The former USTs were located adjacent to the southeast end of the building, and an aboveground gasoline tank was also apparently located immediately east of the USTs. All these hazardous materials and tanks had been removed from the site at the time of ITSI's inspection. The former UST excavation and the previously identified soil stockpiles were no longer visible at the time of ITSI's inspection. More detailed discussions of the prior tanks are presented in Sections 2.5.5 and 4.1.1.

Stickering Shed

The stickering shed was located north of the maintenance shed. This structure had been demolished by the time of ITSI's inspection, and only the shed foundation remained. The stickering shed was a wood-sided building with a tin roof. According to information provided to ITSI, lumber was sorted by size and grade, and then "stickered" to allow air flow between the boards, before being stacked in the yard for drying.

Southern Storage Sheds

Two storage sheds were located at the southern end of the LLI parcels. These structures had been demolished by the time of ITSI's inspection, and only the foundations remained. A raised concrete foundation slab associated with one of these sheds remains at the southeastern corner of the site. The southern storage sheds were located along a railroad spur, and were reportedly used to store lumber. The buildings were wood-framed with composite roofs. A local construction

contractor, Figas Construction, was using these sheds for the storage of trailers, engines, and engine parts at the time of the 1998 ESA (W&K, 1998). No vehicle maintenance or repair was reportedly conducted on the LLI parcels. Mr. Figas originally planned to construct a mill on the property in 1993, after LLI operations had ceased (W&K, 1998). Although some mill equipment was brought on site at that time, the sawmill was never completed.

Railroad Spur

A railroad spur ran along the southern boundary of the LLI parcels. This spur is visible in aerial photographs as early as 1948. Much of the railroad tracks and ties were removed as part of the recent demolition work.

Ditches and Culverts

Several drainage ditches, which flow easterly into Jolly Giant Creek, were observed on the LLI parcels. In addition to these distinct features, the grading and layout of the parcels was conductive to other drainage routes forming during the rainy season. The eastern portion of the LLI parcels includes a number of concrete fingers, oriented east-west along the creek, which were reportedly used for driving forklifts to the lumber stacks placed in this area of the site. The dirt areas between these concrete fingers reportedly could become saturated during the winter, and could then direct runoff into the creek.

One of the drainage routes (visible at the time of ITSI's inspection) included a drainage ditch with a culvert pipe east of the stickering shed. This drainage ditch, which is also identified in the prior ESA, appeared relatively dry at the time of ITSI's inspection. A second drainage route consisted of a flowing ditch in the east-central area of the LLI parcels. According to the City, this ditch flows with water relatively year-round. A small drainage pipe, which discharged to the creek, was observed just north of the raised concrete slab at the southeastern corner of the parcels.

3.2 JOHNSON TRACT

The Johnson Tract consists of the land on the west side of South I Street that is part of this TBA. A parcel split, which had not been finalized at the time of ITSI's inspection, will establish the northern boundary of the Johnson Tract. Due to this situation and the lack of landmarks or demarcations, the precise northern boundary of the Johnson Tract was not discernible in the field. However, for the purposes of the site inspection, the City directed ITSI to use the fence line separating the undeveloped land from the yard area of the Johnson Industries manufacturing complex as the general location of the northern boundary. This area is heavily vegetated, undeveloped land. Only partial access to the Johnson Tract was possible due to the thick vegetation.

Along the northern section of the Johnson Tract, abandoned equipment was observed in the brush. According to the City, this equipment appears to be located outside of the proposed property boundary. ITSI observed three abandoned tanks and various pieces of miscellaneous equipment, potentially associated with the adjoining Johnson Industries facility. A rear gate in the fence of the Johnson Industries yard was observed in this area. Debris observed in this area included metal scrap, concrete rubble, discarded equipment, wood scrap, and an empty drum. In addition, two soil piles, one with the remnants of a plastic cover was observed. The soil piles appeared overgrown. A shallow depression was also visible in the area adjacent to the rear gate of the Johnson Industries yard.

According to Mr. Johnson, the old equipment and debris are discarded items from the Johnson Industries operations to the north. He is not aware of past uses of the tanks or the source of the soil piles observed in this area during the ITSI inspection. According to Mr. and Mrs. Johnson, industrial activities have never occurred on the Johnson Tract during their ownership of the tract. The fence establishing the boundary between the active industrial yard and the undeveloped section of the land reportedly has been in place for approximately 10 years.

The Johnson property, including both the Johnson Tract and the Johnson Industries facility, was reportedly purchased by George Schmidbauer in the late 1970's. The manufacturing complex

north of the Tract consisted at that time of the empty buildings from the old Arcata Plywood Company mill. Mr. Chris Johnson, who is married to the Schmidbauer's daughter Kay, has managed the Johnson Industries pipe manufacturing operations since their start-up on the Johnson Tract in approximately 1980. Property ownership was transferred to Kay Johnson in the mid-1980's. The Arcata Plywood Company log pond, previously occupying the Johnson Tract had already been non-operational when the property was purchased by Mr. Schmidbauer. The Johnsons had no information on how the pond had been drained/closed, if fill had been placed in the pond, or if it had undergone natural sedimentation and re-vegetation. In addition, the Johnsons were not familiar with specific operations conducted by the Arcata Plywood Company.

In addition to pipe manufacturing operations, the Johnson Industries complex to the north of the Johnson Tract has included several other industrial tenants since its operation by the Johnsons in the 1980s. Current tenants include Pacific Clears; a lumber remanufacturing facility, which has operated on the Johnson Industries site since their start-up; the Arcata Body Shop, which has also operated on the Johnson Industries property since the 1980s; Wildwood, a banjo and guitar making shop; and an insurance company. Past tenants also include S&S Plating, which was located on the Johnson Industries property for approximately five years; and Redwood United, a nonprofit organization for the handicapped, which assembled wood products such as tables.

In the east-central section of the Johnson Tract is an open, grassy area. According to the City, this area is a remnant of a composting facility previously located on the Tract. No evidence of dumping was visible in this area at the time of ITSI's s inspection. However, an abandoned vehicle was observed in the area. The Johnsons indicated that the composting operation handled primarily lawn and yard debris and operated for approximately five years in the early 1990's.

ITSI inspected the western boundary of the Johnson Tract along the railroad tracks bordering the site. A small drainage ditch or creek runs parallel to the railroad tracks at the western boundary. Evidence of a homeless encampment was visible through the brush. Scattered refuse was also observed in the area. According to the Johnsons, vagrants and trespassers have been an ongoing problem on the Johnson property. There is reportedly quite a bit of refuse throughout the

Johnson Tract from these unauthorized activities. The debris appears to be primarily nonhazardous solid wastes.

4.0 RECORDS REVIEW

To evaluate potential environmental concerns regarding the Site and surrounding properties, regulatory agency records were reviewed for historic or ongoing environmental enforcement actions. This consisted of a review of available records or conversations with personnel from the following sources:

- Environmental Data Resources, Inc. (EDR)
- Humboldt County Division of Environmental Health
- City of Arcata Environmental Services Department
- City of Arcata Department of Public Works
- City of Arcata Fire Department

4.1 ENVIRONMENTAL DATA RESOURCES, INC.

A regulatory agency database search was performed for the Site and vicinity by EDR. The EDR electronic database search included environmental databases for federal, state, and regional regulatory agencies applicable for a Phase I ESA performed according to ASTM E-1527 standards. A copy of the EDR report is included in Appendix B, and a description of the databases searched is included in the EDR report.

The EDR database report was reviewed for any reported releases on the South I Street Mill Reuse Project Site or in the surrounding vicinity that indicate an environmental condition which could potentially impact the Site. Reported release sites listed in the database search were evaluated with respect to the nature and extent of the release, the distance of the reported release from the Site, and the position of a reported release with respect to known or expected local and/or regional groundwater flow directions. Generally, reported release sites located within 0.5 mile upgradient, 0.25 mile cross-gradient, or adjacent downgradient were considered to have a potential to impact the Site. Properties that were listed in the database search report but not identified as release sites (for example, a site listed as a hazardous waste generator but not as having had a release) were not considered to have a potential to impact the Site.

4.1.1 Site Listings

LLI Parcels

A review of the EDR database report indicated the LLI parcels address listed on the following environmental databases.

- Historic UST – Harris Pine Mills
- Cortese – Little Lake Industries
- LUST – Little Lake Industries

The EDR report identified one historic diesel UST under the ownership of Harris Pine Mills. The LUST/Cortese listing references the UST investigation as discussed in Section 2.4.5 of this report. The EDR report indicates the LLI parcel site status as "signed off, remedial action completed or deemed unnecessary," and further indicates that the incident was categorized as minor, requiring no remedial action. According to EDR, the LLI parcel site was closed on March 8, 2000.

ITSI conducted a file review of the 46 South I Street address at the HCDEH to obtain additional regulatory information on the LLI parcels. The closure letter from the HCDEH, which certified that remedial action at the LLI parcels was complete, and dated March 8, 2000, was verified in the agency file review.

ITSI also attempted to clarify whether two or three USTs were removed from the LLI parcels. Conflicting information on the number USTs closed at the LLI parcels were previously identified in investigation reports. The UST release report in the agency files, which was completed by Harris Pine Mills on February 18, 1988, identified two 1,000-gallon USTs. In addition, sample results from the 1987 tank removal in HCDEH files also reference two tanks. A UST Removal Plot Plan from the files shows two diesel USTs, along with a diesel pump and an aboveground gasoline tank. However, the Case Closure Summary Report for the LLI parcels, which was completed by the HCDEH, identified three 1,000-gallon diesel USTs as being removed from the LLI parcels. The Case Closure Summary is an official regulatory document. Although the

source of the discrepancy in the prior reports cannot be determined definitively, there is no evidence that known USTs remain on the LLI parcels.

Additional documentation was found in HCDEH files regarding the removal of hazardous materials during closure of the LLI facility. Various containers of hazardous materials were documented on the LLI parcels during the 1998 ESA inspection and regulatory inspections conducted in 1998. These materials included waste oil, paint residuals, Vapor-Barrier Kiln Seal, one-gallon cans of used paint, car batteries, a one-gallon container of a crystal alkaline substance, and other small cans of paint and thinners. ITSI identified documentation in the files showing the off-site disposal of these materials. In addition, the drums of Vapor-Barrier Kiln Seal were noted as being picked up by Arcata Roofing for use in a roofing project.

Well development and purge water was previously stored in drums on the LLI parcels. A letter documenting HCDEH approval for landspreading some of the water on the LLI parcels (HCDEH, 1999), and a hazardous waste manifest documenting off-site disposal of the remaining drummed water, were also found in regulatory files.

References to the disposal of stockpiled soil from the UST investigation were also found in agency files. A letter from HCDEH indicated that most of the stockpiled soil might be eligible to be returned to the tank excavation pit, if a leachability test indicated the soils posed no threat to groundwater (HCDEH, 1998). One pile (No. 5) was noted as requiring off-site disposal at a licensed facility. Although subsequent documentation indicates that other disposal options were under consideration, leachability tests were conducted in January 1999 and were forwarded to the HCDEH. No additional documentation was identified in HCDEH files verifying the final disposition of the soil. At the time of ITSI's inspection, the tank excavation had been backfilled, and the soil piles were no longer visible. The area in which the piles were previously located did contain noticeably disturbed soils, perhaps resulting from the recent demolition activities. Based on the issuance of a closure letter for the UST cleanup, its unlikely that significant environmental concerns remain from prior USTs at the LLI parcels.

Hazardous materials records were also identified in the HCDEH files for the Harris Pine Mill operations. A hazardous material inventory from January 1987 identified the following chemicals in use on the LLI parcels:

- Formula 1156 – sodium hydroxide mixture, stored in boiler room
- Formula 80 – non-hazardous mixture, stored in boiler room
- Formula 49 – diethylaminoethanol, ethoxylated tallow alkylamine mixture stored in boiler room
- Formula 445 - diethylaminoethanol, stored in boiler room
- GC Formula 242 – hydrochloric acid, used by boiler water contractor in boiler room
- Formula 60 – non-hazardous silicone emulsion, used by boiler water contractor in boiler room
- Unleaded gasoline – stored in an AGT adjacent to and east of UST location
- Diesel fuel – stored in USTs equipped with typical dispensers, adjacent to maintenance shed
- Motor oil – stored in 55-gallon drums in drying shed
- Transmission fluid – stored in a 30-gallon drum in drying shed
- Hydraulic oil – stored in a 55-gallon drum in drying shed
- AMSCO Solv 1005 – mineral spirits, stored in 30-gallon drums in drying shed

Based on this information, it appears the designated chemical storage areas primarily included the boiler room, the drying shed, and the fueling area east of the maintenance shed. Chemicals stored in the boiler room were distributed by Garratt-Callahan, and appear to be related to boiler water treatment. The reference to these boiler water chemicals included a notation that spillage would be flushed into the feed-water well. This well is presumed to be the structure identified by ITSI in the northwestern corner of the boiler building.

ITSI also identified a Notification of Hazardous/Toxic Chemicals in the 46 South I Street file related to an illegal drug laboratory on the LLI parcels. On February 28, 2000, the California Department of Justice conducted an investigation into a report of an illegal methamphetamine laboratory staged in the trailer on the vacant LLI parcels. Several small containers of laboratory waste were contained in a 55-gallon drum being used as a trash container. The chemicals found

reportedly amounted to five or six gallons of hazardous materials, and included muriatic acid, iodine, red phosphorus, denatured alcohol, and caustic soda. The chemicals were removed from the property by the government on June 28, 2000. The incident report indicated the materials were contained; however, a letter was sent to the property owners advising them of the potential for hazardous materials to be present on the site. There was no information identifying any ongoing investigation of chemical contamination at the LLI parcels by the HCDEH. The trailer was removed from the property during the recent demolition activities.

Johnson Tract

The Johnson Tract does not have a street address, due to the fact that it is currently undeveloped land. However, since the tract is currently included in the larger Johnson Industries facility, the address for the Johnson Industries facility was researched. A review of the EDR database report indicated the Johnson Industries address, 1061 Samoa Boulevard, is listed on the following environmental databases.

- ERNS (emergency response notification system) for 1061 Samoa Boulevard
- HAZNET – C&K Johnson Industries, 1061 Samoa Boulevard

The EDR report did not provide information on the ERNS listing, which is a database of sites in which a chemical release has occurred. The HAZNET database refers to facilities that generate hazardous wastes. The EDR report identified hydrocarbon solvents, oil-containing waste, and inorganic solid wastes as some of the records for C&K Johnson Industries. No additional information on the Johnson Tract was available through EDR.

ITSI conducted a review of the 1061 Samoa Boulevard file at the HCDEH to obtain additional regulatory information on the Johnson Tract. The results of the file review identified activities associated only with the active Johnson Industries manufacturing facility, which is considered off-site for the purposes of this TBA. The following information is therefore considered to be a discussion of off-site issues.

File documents identified a spill incident which occurred on the Johnson Industries site on September 7, 1999. This incident is presumed to coincide with the ERNS listing on the EDR report. The spill incident reportedly occurred when an employee unintentionally discharged a water storage tank prior to relocating the vessel. Approximately 100 to 200 gallons of a one percent oil mixture were released to the ground. The oil mixture was used as a cutting lubricant for steel manufacturing at the Johnson Industries facility. Johnson Industries removed the impacted soil to a depth of two feet. The excavated soil was stockpiled and covered with plastic sheeting. Confirmation sampling detected only low levels of hydrocarbons remaining on site (26 to 240 ppm petroleum hydrocarbons as diesel/motor oil). Based on inspection notes in the HCDEH file, the spill area was located north of the Johnson Tract, which is the subject of this TBA. The most concentrated spill area was approximately 100 feet north of the fence line that demarcates the facility yard from the undeveloped area, and approximately 150 feet north of the proposed northern boundary of the Johnson Tract. Regulatory records show a settlement was reached with Johnson Industries in January 2001, indicating that past issues with this spill incident were resolved to the satisfaction of regulatory agencies. Based on this information, it appears impacted soils were properly disposed. The soil piles observed on the Johnson Tract during ITSI's Site inspection appear to be from another unknown source.

Records in the Johnson Industries file identified other past practices indicating improper management of hazardous materials and hazardous wastes. Those past practices with potential relevance to this TBA included improper storage practices near the yard fence line. During past HCDEH inspections, a pallet of miscellaneous small containers of hazardous waste was identified in the southwest corner of the lot, overgrown by berry bushes. A pallet of waste batteries was noted along the south-central fence line. A stockpile of metallic dust was observed behind the lot fence line, and may have been in the vicinity of the Johnson Tract that is the subject of this TBA. The dust was reportedly mill scale and blasting beads, which are an iron composite. HCDEH file documents indicated the waste was to be excavated and recycled with the scrap metal.

The Johnson Industries facility also generates a zinc-based paint dust. Several buckets of zinc-dust wastes were identified in the facility dumpster in the HCDEH inspection. The waste was removed and disposed of as a hazardous waste. Other wastes generated by the facility included waste oil, oily water, oily sludge, and mineral spirits. In addition, wastes from a plating operation previously located on the property were identified in the HCDEH inspection report. According to Mr. Johnson, the plating shop was a tenant on the property for approximately five years.

Several other past violations were also listed in the site files. These violations included: oil draining from the facility into the ditch along South I Street, illegal disposal of oily absorbents, and documentation violations in July 1995; improper storage of zinc wastes, fuel leaks, and labeling and waste accumulation violations in January 1997; and additional waste accumulation, labeling, and documentation violations in January 1998. Based on these past compliance problems, including the oily water spill and zinc waste in the dumpster which occurred in September 1999, legal action was initiated by the Humboldt County District Attorney. The matter was settled in approximately January 2001.

Although the environmental practices identified above do not appear to have taken place on the portion of the Johnson Tract that is the subject of this TBA (with the possible exception of the mill scale and blasting bead waste), these compliance issues still represent a potential concern to the Johnson Tract. In particular, since the existing fence line was not always present, and a rear gate is present along the fence line, it is possible that environmental impacts may have occurred on the Johnson Tract.

4.1.2 Surrounding Property Listings

The EDR database search identified the following surrounding properties as release locations within the evaluation criteria described previously.

- One CAL-SITES record
- Eleven Leaking Underground Storage Tank (LUST) records
- Ten Cortese records
- Six Orphan sites

CAL-SITE

The one CAL-SITE identified by the EDR report in the surrounding area is the Beaver Lumber Company of Arcata. The Beaver Lumber site is located at 1220 5th Street, approximately 0.25 mile west-northwest of the LLI parcels and approximately 0.25 miles directly north of the Johnson Tract. The EDR report identifies the lead agency for this site to be the NCRWQCB, and ITSI's file review at the HCDEH confirmed that no local regulatory files were available for this site. Since file review at the NCRWQCB was outside the scope of this TBA, no further information is available regarding the nature and extent of contamination associated with this site.

LUST Sites

Seven of the eleven LUST sites identified by the EDR report in the surrounding area are listed as requiring no further action, having impacts to soil only, or conducting post-remedial monitoring, and therefore are not considered to represent an environmental concern to the Site. Two of the remaining LUST sites were duplicates in the EDR report, and were not listed by the HCDEH as having local or RWQCB files. One LUST site, the City of Arcata Corporation yard at 601 G Street, was identified as a RWQCB file. Since a file review at the RWQCB was outside the scope of this TBA, no further information is available regarding the nature and extent of contamination associated with this site. The remaining site, Vagles Uniontown Tire, is located at 437 G Street. Only minimal information was available regarding this site. However, the contaminant of concern is reportedly motor oil, which is generally less mobile in subsurface environments than other petroleum products, and therefore, this site is considered unlikely to represent an environmental concern to the Site.

Cortese Sites

The ten Cortese sites identified in the surrounding area within the evaluation criteria are also previously included as LUST or CAL-SITE listings, and were discussed above.

Orphan Sites

Three of the six orphan sites identified in the surrounding area were also listed under other databases, and are addressed in the discussion above. One of the remaining orphan sites is

identified as the City of Arcata Landfill, which is located at the south end of South I Street. This site is an old closed landfill, and is located in close proximity to the Bay. The Arcata Marsh and Wildlife Sanctuary is situated between the old landfill and the Site. The surrounding environment is likely to minimize any potential for environmental impacts to the Site from the closed Arcata Landfill. Another orphan listing of potential concern is identified as the Marsh Commons LUST site, located at 101 G Street, within 1/8 mile southeast of the Site. According to the ESD, the environmental issues associated with the Marsh Commons were limited to petroleum hydrocarbons, and the site was cleaned up prior to the construction of the new development which currently exists on the property. Therefore, this LUST orphan listing is considered unlikely to represent an environmental concern to the Site.

4.2 HUMBOLDT COUNTY DIVISION OF ENVIRONMENTAL HEALTH

Files were reviewed at the HCDEH for several of the sites discussed above, and select information has been incorporated into that discussion, as appropriate. In addition, telephone interviews were conducted with the HCDEH to inquire about well permits at the LLI parcels. According to information provided by the agency, there is no record of abandonment permits for the monitoring wells previously associated with the UST investigation at the LLI parcels. In addition, ITSI inquired about industrial water well permits for the LLI parcels in an effort to verify the structure identified in the boiler building, which appears to be a feed-water well. According to the HCDEH, there is no record of any water well permit for the LLI parcels. However, the HCDEH well records reportedly only date back to 1974.

4.3 CITY OF ARCATA DEPARTMENT OF PUBLIC WORKS

Records were reviewed at the DPW. The only building permits identified for the LLI parcels were two demolition permits for the LLI parcels, which referenced part of the kiln building and the building to the south of the kiln building. Although not specifically identified in the permit documents, the building directly south of the kiln building was the drying shed. The permits were dated April 25, 1986, and November 4, 1987. No additional details were noted on the documents.

Inquiries into the presence of any sewer lines at the LLI parcels were also made at the DPW. According to Mr. Scott Baker, there were no sewer laterals to the parcels indicated on the 1977 plans for the West Side Interceptor Replacement Project, which involved replacing the sewer line along South I Street. In addition, no lateral sewer lines to the parcels were indicated on the older DPW maps from the 1950s. The Samoa Boulevard Highway Improvement Project was also reviewed by DPW to determine if sewer line information relevant to the LLI site was included in the project. However, the highway improvement project did not extend far enough south along South I Street to include the LLI site. No additional sewer line information was available from DPW.

The location of City water pipes to the LLI parcels was researched at DPW. According to Mr. Scott Baker, a two-inch water line was present along South I Street to the office building/ structure on the parcels. In addition, a six-inch diameter fire suppression line was present in the area of the stickering shed, and supplied a sprinkler system to buildings on-site.

Several old maps of the City of Arcata were reviewed at the DPW. Relevant information has been incorporated into appropriate sections of the report. These maps included a US Coast Survey of the North Coast of Humboldt Bay, dated 1870; a NWPRR Map, dated 1916 and revised in1919; and a Map of Arcata, dated 1933. A blue-line aerial photograph from 1967 was also available at DPW for review.

4.4 CITY OF ARCATA ENVIRONMENTAL SERVICES DEPARTMENT

The ESD was contacted to inquire about records on environmental projects and documents relevant to the Site. ITSI was provided with information on the Butcher's Slough Wetlands Restoration Project, located directly south of the LLI parcels. A log pond was previously located on this adjoining site, which has now become part of the Arcata Marsh and Wildlife Sanctuary. ITSI reviewed the environmental impact report on this adjoining site to identify information that might be relevant in determining the characteristics of the Johnson Tract, which also previously housed a log pond.

Soil profiling of the log pond conducted at the Butcher's Slough site revealed that the only waste materials in the former log pond were sawdust and chips. Soil inspection revealed no hydrocarbons or visual traces of solvents (Gearheart, 1984). However, it appears the soil trench profiles of the soil were obtained visually and analytical sampling of soils was not performed. Water quality sampling was also conducted at the Butcher's Slough site. Analysis for certain heavy metals revealed the copper, chromium, nickel, and lead concentrations o be below detection limits (Gearheart, 1984). Elevated levels of iron and zinc were identified, but were determined to be the result of the corrosion of metal debris in the pond (Gearheart, 1984). Removing the debris from the site mitigated this condition.

Additional information on the potential impacts from log ponds was obtained through an environmental contact provided by the ESD with Louisiana Pacific Corporation, which is performing an investigation of a log pond at another location in California. According to this environmental representative, the primary environmental concerns identified at log ponds are the natural degradation products of bark materials, which tend to fall from the logs while in the pond. These constituents have been found to be tannins, lignin, and formaldehyde. There appear to be no regulatory levels for tannins and lignin; however, formaldehyde can require some investigation, depending on the levels and the proposed land use. In the case of the Johnson Tract, in which the proposed land use involves stormwater retention and incorporation into the Arcata Marsh and Wildlife Sanctuary, a mitigating factor may be that biodegradation of formaldehyde takes place in water within a few days (USEPA, 1995). Log ponds reportedly operated with as little as four feet of water, and can undergo sedimentation and revegetation naturally.

4.5 CITY OF ARCATA FIRE DEPARTMENT

The City of Arcata Fire Department was contacted to inquire about records of the Site. According to the Assistant Fire Chief, there were no files for the Site.

4.6 CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, NORTH BAY REGION

The review of files with NCRWQCB was outside the scope of work for this project. In addition, due to the status of the LLI parcels being closed, and changes in regulatory personnel, there was no one available at the NCRWQCB to provide Site information via telephone interviews.

5.0 CONCLUSIONS AND RECOMMENDATIONS

This section presents the conclusions of this TBA and the recommendations based on those conclusions.

5.1 CONCLUSIONS

The South I Street Mill Reuse Project Site encompasses approximately 15 acres located on both sides of South I Street in Arcata, California, and has a long history of industrial use.

The City acquired the LLI parcels, located along the eastern side of South I Street, in July 2001. These parcels were the location of a historic lumber remanufacturing facility. Currently, the abandoned structures and building foundations from these past operations remain on the LLI parcels. Past activities conducted on these parcels included primarily drying, storing, and shipping lumber. Some of the lumber was also cut, trimmed and/or planed (remanufactured) on site. ITSI did not identify any information indicating that lumber treatment occurred on the LLI parcels. Hazardous materials reportedly used on the LLI parcels included fuels, oils, mineral spirits, kiln seal, and boiler water treatment chemicals. In January 2002, the City demolished a majority of the mill structures, because their severely dilapidated condition posed a public nuisance. Former USTs and AGTs had been removed from the LLI parcels prior to the initiation of this TBA, and the associated clean-up had been issued regulatory closure. In addition, all hazardous material containers had been removed from the parcels at the time of this TBA.

The Johnson Tract, on the western side of South I Street across from the LLI parcels, is under consideration for purchase by the City. The Johnson Tract is currently part of a larger parcel which may be split as part of the property transaction, and consists of the undeveloped, heavily vegetated land located south of the Johnson Industries manufacturing complex. The Johnson Tract was the historic location of a log pond associated with the Arcata Plywood Company mill. No mill structures appear to have been present on the Johnson Tract. The log pond became inactive sometime between 1974 and 1981 and the Johnson Tract has remained largely unused since that time, with the exception of a community composting operation during the 1990s. All

current industrial activities at the Johnson Industries manufacturing complex are conducted in the area north of the proposed acquisition, and not on the Site.

The industrial history of the Site lends itself to various potential environmental concerns. These areas of potential environmental concern are described in the following subsections.

LLI Parcels

The identified areas of potential concern for the LLI parcels were based on ITSI's investigation and previous investigations at the facility. At the time of ITSI's inspection, only the drying kiln, boiler, and office buildings remained on the LLI parcels, along with the foundations of the demolished structures and numerous debris piles of materials generated during demolition. Due to the presence of the demolition debris and the significant amount of soil disturbance throughout the LLI parcels, previous site features may not have been visible at the time of ITSI's inspection.

- At the previous remanufacturing complex, ITSI observed two apparent drain outlets along the south side of one of the concrete pads. The outlets appeared to discharge to a dirt area between two of the concrete pads. In addition, the drain paths extended beneath the concrete to a rectangular dirt section in the middle of the pad. The dirt area was approximately three feet by twelve feet in size. One of the drain paths also appeared as a small dirt-filled trench within the concrete pad, at its northern end. There was no information on the past purposes of these features, and no information was available on the specific operations previously conducted or the materials handled in this section of the complex. Therefore, it is not known whether potential environmental impacts may have occurred from the past uses of these drains.
- A teepee burner was previously located just north of the remanufacturing complex between 1948 and approximately 1970. No information was available to ITSI on the disposal practices of the teepee burner ash. Therefore, it is not known whether potential environmental concerns are present on the LLI parcels from past teepee burner operations. It should be noted that soil samples collected during previous subsurface investigations at the LLI parcels identified up to 50% organic matter, as wood debris, in the area southeast of the maintenance shed, and wood debris was identified between three and six feet below ground surface east of the stickering shed and east of the remanufacturing complex.
- An area of red-stained soil south of the former sorting building was identified in a 1989 ESA. During ITSI's inspection, remnants of the red staining were visible. However, the ground was saturated from recent rains and significant soil

disturbance had occurred during Site demolition work, making the area difficult to distinguish. According to the previous ESA, the red material was an iron oxide pigment used to stain redwood lumber. Although lumber staining was reportedly not conducted at the LLI parcels, an accidental release had occurred from a few drums of pigment that happened to be on parcels in the past. No testing of the stained soil has been conducted, and therefore it is not known whether contaminants of concern are present in the subsurface in this area.

- The remanufacturing complex was destroyed by fire in 1973. The previous ESA stated that there was a reasonable likelihood that oil-containing transformers or capacitors were in the facility when it burned, and recommended that the soil be sampled for PCBs. Information was not available to ITSI to either verify or eliminate this concern, and no testing has been conducted in this area of the LLI parcels. Therefore, it is not known whether contaminants of concern are present in the subsurface in this area.
- ITSI identified a septic tank, on the north side of the office building, which reportedly also serviced the toilet building and trailer previously located north of the office. Although the tank was reportedly filled with pea gravel during recent demolition work, there is no information on the location of the leach field or pit associated with the septic system. If chemical substances entered the drain lines in the past, these materials could have entered the leach field, and may represent a potential for subsurface contamination. This potential environmental condition is of particular concern due to the past presence of an illegal drug laboratory in the trailer. The drug manufacturing chemicals were confiscated from the Site, and HCDEH files did not indicate an ongoing environmental investigation. However, it is not known whether chemical substances associated with the illegal drug laboratory entered the septic system in this area.
- The drying kiln contains building materials of potential environmental concern, which will require proper handling and disposal. The cement block walls of the kiln rooms have been coated with a Vapor-Barrier Kiln Seal, which contains naphtha and asphalt. Although the drums of kiln seal remaining on Site after closure were picked up by a local roofing contractor, additional requirements may be applicable to the material once it becomes a waste. Pipe insulation is a potential ACM, and may be present in the area of the kilns. The prior ESA indicated that asbestos had been removed from the kiln and boiler buildings, and the current demolition contractor for the LLI parcels indicated that testing of the pipe insulation conducted in a pre-demolition walk-through determined the material to be non-asbestos containing. However, there was no documentation available to ITSI to verify the locations of the areas previously tested or the adequacy of the tests.
- Electrical transformers were noted in the prior ESA at several locations on the Site, including: in the employee restrooms; above the drying kilns; in the maintenance building; and in the storage shed at the southeast corner of the Site. Most of these buildings, with the exception of the kilns, had been demolished at

the time of ITSI's inspection, and verification of the past references to transformers in these areas was not possible. The demolition contractor who salvaged equipment during recent demolition activities indicated that no transformers were found on the site. The only area remaining on site which was previously identified as housing transformers is above the drying kilns. This area was not accessible during ITSI's inspection, due the structure's unsafe condition. Therefore, it is not known whether transformers are currently present in this structure. There is a potential that the transformers identified in the previous ESA were dry units and do not represent a PCB concern. Based on available information, there is insufficient data to warrant further investigation of these past transformer units at this time, with the exception of the area above the kiln. The area above the kilns will require inspection as part of future demolition activities.

- A water well or sump is located in the northwest corner of the boiler building. This structure is believed to be the feed-water well for the boiler. However, information was not available to ITSI to confirm the past uses or design of this structure. At the time of ITSI's inspection, water was visible within a foot of the surface. Past regulatory documents for the Site stated that spillage of boiler water treatment chemicals in the boiler room would be handled by flushing the spills into the feed-water well. ITSI also observed a pipe protruding from the structure, and discharging, approximately four feet above the ground, through the adjacent building wall to a soil area directly outside the building. The potential for this structure to represent an open conduit to groundwater, along with the unknown nature of the discharge pipe to the area outside the building, are environmental concerns associated with the potential for unauthorized releases to have occurred.
- According to the prior ESA of the LLI parcels, an aboveground diesel tank was previously located outside the boiler room to power an emergency generator. Information was not available to ITSI to verify the prior location of the tank. However, the concreter pad north of the boiler room is believed to be the most likely location of the previous diesel AGT. There has been no testing to evaluate the potential for environmental impacts to have occurred in this area.
- Based on information from the prior ESA, the drying shed located directly south of the kilns was used to store new and used oil. Three waste oil drums and oil staining on the concrete floor were present in the area during a 1998 Site inspection. In addition, regulatory documents indicate that transmission fluid, hydraulic oil, and mineral spirits were also stored in the shed. All hazardous materials had been removed from the Site at the time of ITSI's inspection, and the stains were not visible, perhaps due to the demolition debris.
- A concrete trench, which reportedly collected condensate from the kilns, was also located in the area between the drying shed and the kilns. No testing has been performed in this area to evaluate whether environmental contamination is present from past practices.
- The prior ESA identified oil-stained soils at the north and south ends of the previous maintenance shed. In addition, chemical products including paint, paint

thinner, lacquer, varnish, insecticides, and gasoline reportedly were stored in the shed. All hazardous materials had been removed from the Site at the time of ITSI's inspection, and visual evidence of the stains was no longer apparent. However, testing has not been performed in this area to evaluate whether environmental contamination is present from past practices.

- The former USTs were located adjacent to the southeast end of the maintenance shed, along with an aboveground gasoline tank which apparently was located slightly farther east. All known tanks had been removed from the Site at the time of ITSI's inspection. Regulatory and prior site investigation documents reviewed by ITSI contained inconsistencies regarding whether two or three USTs had been removed from the Site. Although the source of these inconsistencies was not apparent, the UST investigation was issued regulatory closure by the HCDEH in March 2000, and there is no indication that known USTs remain on Site. Since regulatory closure has been received, it appears unlikely that environmental concerns remain from the former fuel tanks at the LLI parcels.
- According to the prior ESA, waste oil was routinely sprayed over the LLI parcels roadways for dust suppression until approximately 1979. There has been no testing to evaluate whether this past practice has resulted in environmental contamination.
- Two drainage ditches which discharge runoff into Jolly Giant Creek are present on the LLI parcels. These drainage routes include a ditch with a culvert pipe, approximately east of the former stickering shed; and a flowing ditch in the east-central area of the site. In addition, a small drainage pipe, which discharges to the creek, is located just north of the raised concrete slab near the southeastern corner of the site. No testing has been conducted in these drainages to evaluate whether potential environmental concerns are present from runoff entering the ditches during past industrial operations.

Johnson Tract

The areas of potential concern for the Johnson Tract were identified based on ITSI's investigation. Due to the heavy vegetation present on the land, not all areas of the Tract were accessible for inspection.

- ITSI observed abandoned equipment and debris in the brush near the fence line of the Johnson Industries manufacturing complex. The items included three old tanks, metal scrap, concrete rubble, discarded equipment, wood scrap, and an empty drum. In addition, two soil piles, one with the remnants of a cover, were observed. The soil piles appeared overgrown. According to the City, the equipment appears to be located outside of the proposed northern boundary of the parcel split. However, the full extent of the debris may not have been visually accessible to ITSI due to the thick vegetation. Regulatory records for the Johnson Industries manufacturing complex north of the Tract indicate a past history of

hazardous waste violations, including improper storage and disposal of wastes along the fence line, and stockpiling metallic dust, composed of mill scale and blasting beads, behind the lot fence line. A rear gate from the Johnson Industries complex previously allowed access to this area, and a shallow depression in the soil was also visible in the area. There has been no testing to determine the potential for environmental impacts on the Johnson Tract as a result of past practices on the adjoining Johnson Industries manufacturing complex.

- The presence of a historic log pond on the Johnson Tract represents a potential environmental concern. There is insufficient information regarding the closure of the pond, and it is not known whether fill was placed on the pond or whether the pond underwent sedimentation and re-vegetation naturally. In addition, no testing has been conducted to determine if natural degradation products or contaminants are present in soils on the Tract from the past lumber mill activities conducted directly north of the pond area.
- The Johnson Tract has had problems with unauthorized trespassers dumping refuse and debris on the property. The heavy vegetation present at the time of the ITSI inspection prevented visual observation of all areas of the Tract. The wastes which were observed appeared to consist of non-hazardous solid wastes. However, the full extent and composition of the debris is not known. These wastes will require some cleanup.

5.2 RECOMMENDATIONS

Based on the past industrial uses of the Site and observed conditions, a limited soil and groundwater investigation is recommended to evaluate potential environmental impacts from the historic site activities. Specific areas of concern and recommended activities include:

LLI Parcels

- Sampling should be performed in the area of the drains observed in one of the remanufacturing complex concrete pads to determine if environmental impacts have occurred from the past uses of these drains. Potential points of concern include the drain outlets, drain paths, and the dirt section in the middle of the pad. In addition, testing in the area of the remanufacturing complex should evaluate whether oil-containing transformers or capacitors were in the facility when it burned.
- The potential presence of ash from past wood burning operations should be evaluated relative to planned redevelopment options. If appropriate, sampling should be conducted in the area which previously housed the teepee burner, north of the remanufacturing complex.
- The area of red-stained soil south of the sorting building should be evaluated for the potential presence of metals and other chemicals associated with wood staining operations.

- The area surrounding the office/trailer septic tank should be evaluated to determine whether chemical substances entered the associated leach field. Of specific concern are waste chemicals from the clandestine drug lab operations.
- The cement block walls of the kiln rooms, which have been coated with kiln seal containing naphtha and asphalt, should be evaluated to determine the proper demolition and disposal methods. In addition, documentation on the asbestos testing of the kiln building pipe insulation should be reviewed, and additional testing performed, as appropriate.
- The section of the drying kiln building above the kiln rooms should be inspected prior to demolition. In the event the previously identified transformer is present, the unit should be evaluated as an oil-filled or dry unit to evaluate the potential presence of PCBs, as necessary.
- The potential water well or sump located in the boiler building, and the soil area beneath the discharge pipe outside west wall of the building, should be evaluated. The construction of the feed-water well should be determined, and then it should be properly abandoned following appropriate testing and investigation. The area of the concrete pad outside the boiler room, which potentially housed a diesel AST in the past, should be evaluated for the potential presence of petroleum hydrocarbons.
- The area of the former drying shed, located directly south of the kilns, should be evaluated for the potential presence of petroleum hydrocarbons and waste oil.
- The former maintenance shed located east of the kilns should be evaluated in the areas previously identified as containing stained soil for the potential presence of petroleum hydrocarbons and other materials formerly stored and used in the building.
- The roadways throughout the site should be investigated to determine potential impacts from waste oil being sprayed over the Site.
- The drainage areas that discharge runoff into Jolly Giant Creek should be investigated for the potential that runoff during industrial operations resulted in environmental impacts. These areas include the ditch with a culvert pipe, south-east of the stickering shed; the flowing ditch in the east-central area of the LLI parcels; and the small drainage pipe just north of the raised concrete slab at the southeastern corner of the Site.

Johnson Tract

- The northern boundary of the Johnson Tract should be formally established and demarcated. The brush should be cleared along this boundary, and any equipment or debris identified within the property boundary should be categorized and removed. The soils should be evaluated for the potential presence of chemicals past practices on the adjoining Johnson Industries manufacturing complex and from the abandoned equipment observed in the area.

- Limited soil test trenching should be performed at selected locations on the Johnson Tract previously occupied by the historic log pond to verify pond closure methods and the potential presence of residual chemicals from past operations.
- The refuse and debris scattered on the Johnson Tract from unauthorized trespassers should be properly disposed off site.

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