Prepared for:

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

15690 California Highway 89
Crescent Mills, California

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Project Number: SAC147K

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1.0 INTRODUCTION

Geosyntec Consultants, Inc. (Geosyntec) completed this Phase I Environmental Site Assessment (ESA) for the approximately 26.27-acre premises located at 15690 California Highway 89, Crescent Mills, Plumas County, California (the Site, **Figure 1**). The Site is currently vacant with the exception of remnants of the former Louisiana Pacific (LP) lumber mill and is associated with Assessor Parcel Numbers (APNs) 111-050-065, 111-050-066, and 111-050-067. This Phase I ESA was completed by Geosyntec for the California Department of Toxic Substances Control (DTSC) and Sierra Pacific Institute for Community and Environment (hereafter referred to as "Sierra Pacific" or "User").

This report documents the methods and findings of the Phase I ESA performed in general conformance with the scope and limitations of ASTM International's (ASTM) Standard E 1527-13 and the Environmental Protection Agency (EPA) Standards and Practices for All Appropriate Inquiries (40 CFR Part 312). The purpose of the Phase I ESA is to identify "Recognized Environmental Conditions" (RECs), historical recognized environmental conditions ("HRECs"), and/or controlled recognized environmental conditions ("CRECs") at the Site and potential impacts from nearby facilities. For the purpose of this report, and as defined by ASTM Standard E 1527-13, a REC is, "… *the presence or likely presence of any hazardous substance or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.*"

A HREC is "… *a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).*"

A CREC is a REC "… *resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).*"

1.1 Scope of Work

The scope of the Phase I ESA activities included:

- A review of the general Site setting and condition, including known information regarding the regional and local geologic and hydrologic conditions.
- A review of information provided by the User. Copies of documents provided to Geosyntec by the User are included in **Appendix A**.
- A review of regulatory agency records to obtain information regarding environmental investigations on or near the Site. The records review included retaining the services of a commercial database firm (EDR, Inc.), to provide a listing of publicly documented environmental records for the Site and at nearby properties within a one-mile radius. A copy of this report is included as **Appendix B**.
- A review of available public agency records for information regarding environmental permits, violations, or incidents, and/or the status of enforcement actions. Agencies contacted included the following:
    - Plumas County Zoning;
    - Plumas County Building Department;
    - Plumas County Planning Department;
    - Plumas County Fire Department;
    - Plumas County Environmental Health Department;
    - CalRecycle Solid Waste Information System (SWIS);
    - State of California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) website;
    - State of California, DTSC, Envirostor Database; and
    - State of California, State Water Resources Control Board (SWRCB), GeoTracker Database.

  Copies of relevant documents obtained from agency files are included in **Appendix C**.
- A review of historical records for the Site and nearby facilities to assess potential for environmental impairment. Historical records reviewed included historical aerial photographs, historical topographic maps, historical Sanborn Fire Insurance

maps (if available), and historical city directory files. Copies of these historical records are included in **Appendices D** through **G**.

- Performance of a Site reconnaissance to observe general conditions at the Site and adjacent properties as they relate to potential environmental impacts. The purpose of the reconnaissance was to identify, to the extent possible, current uses and improvements of the Site, past uses of the Site, current uses of adjacent properties, and evidence of existing and historical hazardous materials use, disposal, storage, and releases on the Site and/or adjacent properties. Photographs representative of Site conditions at the time of the reconnaissance are presented in **Appendix H**.
- Preparation of this Phase I ESA, which documents the above activities, our findings and opinions as they pertain to the identification of RECs, and data gaps.

1.2 Significant Assumptions

While this report provides an overview of potential environmental concerns both past and present, this Phase I ESA is limited by the availability of information at the time of the assessment. The conclusions and recommendations regarding environmental conditions presented in this report are based on observed conditions during the time of the Site reconnaissance and on information gathered during interviews, review of agency records, and execution of the scope of work previously described.

1.3 Limitations and Exceptions

This Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs, HRECs, and CRECs to be present at the Site. Not every property warrants the same level of assessment. Consistent with good commercial or customary practice, the appropriate level of assessment was guided by the type of property subject to assessment and the information developed in the course of inquiry.

Additional services considered optional by ASTM Standard E 1527-13, such asbestos-containing building materials, biological agents, cultural and historic resources, ecological resources, endangered species, health and safety, indoor air quality, industrial hygiene, lead-based paint, lead in drinking water, mold, radon, and wetlands were not included in the scope of work.

The findings and conclusions presented in this Phase I ESA are the result of professional interpretation of the information collected at the time of this study. This Phase I ESA was not an exhaustive search of all available records. Geosyntec cannot “certify” or guarantee

that any property is free of environmental impairment; no warranties regarding the environmental quality of the property are expressed or implied. Specific limitations to our conclusions as a result of information gaps or incomplete information are documented in Section 7.3

The findings of this report, to the best of our knowledge, are valid as of the date of this report. However, changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate regulations and standards may occur, whether they result from legislation, from the broadening of knowledge, or from other reasons. Per the ASTM E 1527-13 Standard (the Standard), a Phase I ESA completed less than 180 days prior to the date of acquisition of the Site is presumed valid. A Phase I ESA for which the information was collected or updated within one year of the date of acquisition of the Site may be used, provided that the report is updated within 180 days of the date of purchase or intended transaction. Per the Standard, if a Phase I ESA or Phase I ESA Update is not completed within 12 months of the information collected, a new Phase I ESA is required.

Specified information contained in this report has been obtained from publicly available sources and other secondary sources of information. Although care has been taken in compiling this information, Geosyntec disclaims any and all liability for any errors, omissions, or inaccuracies of the third parties in such information and data.

The work was performed using the degree of care and skill ordinarily exercised under similar circumstances by environmental consultants practicing in this or similar localities at the time these services were provided. No other warranty or guarantee, expressed or implied, is made as to the findings, opinions, and conclusions included in this report.

1.4 Special Terms and Conditions

This work was completed for the Sierra Institute in accordance with Task Order #16-T4205 issued by the DTSC and approved on 20 October 2016. Except as noted in Geosyntec's proposal dated 22 September 2016, no special contractual terms and conditions were taken into account as part of this project or influenced the interpretations and conclusions presented herein.

1.5 User Reliance

This Phase I ESA report has been prepared solely for the benefit of the DTSC and Sierra Pacific, the User. Geosyntec has issued the Phase I ESA report to this entity and grants the right to rely on the report contents.

No third party shall have the right to rely on Geosyntec opinions rendered in connection with the services without Geosyntec's written consent, which may be conditioned on the third party's agreement to be bound to acceptable conditions and limitations similar to Geosyntec's proposal. It should be noted that Geosyntec's consent to provide a right-to-rely on this Phase I ESA report is subject to the DTSC's and User's approval and to agreement with Geosyntec's terms and conditions associated with Geosyntec's performance of this specific Phase I ESA.

2.0 PROPERTY DESCRIPTION

2.1 Location and Legal Description

The Site is located at 15690 California Highway 89 in Crescent Mills, California (**Figure 1**). The Site is situated within the United States Geological Survey's (USGS) topographic Crescent Mills quadrangle (USGS, 2012). An assessor's map for the parcels associated with the Site was available from the Plumas County Assessor's website and is included in **Appendix C**.

2.2 Site and Vicinity General Characteristics

2.2.1 General Site Setting

According to the EDR report and the 2012 USGS topographic map (USGS, 2012), the Site has an elevation of approximately 3,600 feet above mean sea level (msl). The Site exists within the low-lying area associated with Indian Valley and the Site and surrounding areas to the east are relatively flat. The surrounding areas to the west has mountainous terrain. The Site is located in the Crescent Mills area approximately 1/8-mile west of Indian Creek.

Mining operations have reportedly been ongoing in Plumas County since the 1800s. There are approximately 14,667 claims in Plumas County, 1,537 of which were active as of February 2017. Weelock Mine is located approximately ¼-mile west of the Site. Digmore was the next closest mine located approximately 1-mile northwest of the Site. Jackson Group, Crescent Mine and Prospect Claim were also observed in the vicinity of the Site. Engels Copper Mine is located in the northern region of Indian Valley (https://thediggings.com/usa/california/plumas-ca063).

2.2.2 Regional Geology and Hydrogeology

According to the USGS Bulletin 353 on the Geology of the Taylorsville Region, the Indian Valley is underlain by Quaternary-aged alluvium deposited by Indian Creek, (USGS, 1908). The Indian Valley is surrounded by mountains of complex geologic origin formed by uplift, folding, faulting, and volcanic activity related to the formation of the Sierra Nevada mountain range. The mountains in the Indian Creek watershed are predominately of metamorphic origin and are pre-Silurian to Cretaceous in age. There are also some formations of more recent Tertiary age andesitic bedrock of volcanic origin within the Indian Creek watershed.

2.2.3 Site Geology and Hydrogeology

According to EDR, Paleozoic eugeosynclinal deposits underlie the Site. The soil at the Site is reportedly Plumas variant, which is a well-drained soil with moderate infiltration rates.

Boring logs from previous investigations at the Site and the adjacent property to the north indicated that the soil beneath the Site is predominantly composed of sand, silt, and gravel, which is typical of an alluvial floodplain (Resna, 1992; Ecology and Environment, Inc. [E&E], 2014b, Geosyntec, 2017). Boring logs from the Geosyntec 2017 investigation concluded that there was 3 to 5 feet of surficial fill overlying alluvial deposits in borings at the Site.

Groundwater at the Site and at the adjacent property to the north was reported at shallow depths from approximately 5 to 10 feet below ground surface (bgs) during past investigations (Resna, 1992; Geocon, 2002; E&E, 2014b). During the Geosyntec 2017 investigation, groundwater was encountered between 1 and 10 feet bgs depending on the topography (Geosyntec, 2017). Groundwater flow beneath the Sacramento Valley Moulding facility which adjoins the Site to the north, was reported in 1992 to be in a southeast direction at 0.01 feet/foot in shallow monitoring wells installed to assess impacts from a leaking underground storage tank (UST) (Resna, 1992).

The Site is within the flood plain associated with Indian Creek (USGS, 2012). According to CH2M Hill (1991) and personal communication with the Plumas County Environmental Health Department (PCEHD), the Site reportedly flooded in 1986 and again in 2009. Throughout Geosyntec's Targeted Site Investigation (TSI) conducted in February 2017, the Site was inundated by standing water in low-lying areas during a major storm.

2.3 Current Use of the Site and Adjoining Parcels

The Site is an approximate 26.27-acre parcel located at 15690 California Highway 89 in the town of Crescent Mills, Plumas County, California as shown in **Figure 1**. The Site is currently vacant with the exception of remnants of the former Louisiana Pacific (LP) lumber mill operations as shown in **Figure 2**. On-Site remnants observed included soil and wood waste stockpiles, building foundations, construction debris, roads, drainage inlets, and an uncapped well.

The Site is located in an area that is primarily developed with residential and industrial properties. Adjacent properties include:

- To the north – the Sacramento Valley Moulding facility which formerly made wood moulding and currently contains abandoned structures;
- To the south – The Mount Huff Golf Course;
- To the east – a riparian area and Indian Creek; and
- To the west – A Pacific Gas and Electric (PG&E) electrical sub-station on a small parcel between the Site and the Union Pacific Railroad. Further west on the other side of the railroad include various residential and commercial properties in the town of Crescent Mills.

The adjacent properties were observed from vantage points along the perimeter of the Site during the Site reconnaissance. The purpose of these observations were to attempt to identify sources of potential environmental impairment in close proximity to the Site that could represent potential threats to the Site due to surface water runoff, groundwater transport, or other contaminant transport pathways. These observations are discussed in Section 5.3 of this report.

3.0 USER-PROVIDED INFORMATION

In accordance with ASTM Standard E 1527-13, Geosyntec requested that the User of the Phase I ESA provide information and complete a User Questionnaire that would assist in identifying the possibility of RECs in connection with the Site. Ms. Camille Swezy with the Sierra Institute was interviewed on 4 April 2017. Pertinent information received from Ms. Swezy is summarized below and provided in **Appendix A**. It is Geosyntec's understanding that the Site is being considered for purchase.

3.1 Title Records

The User did not engage with a title company or professional to review recorded land title records or lien records.

3.2 Environmental Liens or Activity and Use Limitations

Ms. Swezy was not aware of environmental liens or activity and use limitations (AULs) associated with the Site.

3.3 Specialized Knowledge

Ms. Swezy indicated that she did not have any specialized knowledge of the Site. She believed the lumber mill may have begun operations as early as the 1940s and LP owned the property since the early 1980s to 1986. She mentioned that she was aware of USTs that were supposedly removed and that there is likely a water well on the Site. She noted that anti-staining and anti-fungal agents historically had been applied to treat the lumber at the Site and that ash and oil were likely to have been spread on the Site for dust control historically. When asked by Geosyntec, she stated that people have speculated that mine tailings have been used to fill the area around the Site and town of Crescent Mills; however, she was not aware of any documentation or historical information supporting the use of mine tailings as fill in the area.

3.4 Commonly Known or Reasonably Ascertainable Information

Ms. Swezy indicated that she did not have any commonly known or reasonably ascertainable information regarding the Site.

3.5 Valuation Reduction for Environmental Issues

Ms. Swezy did not believe the valuation of the property was reduced for environmental issues. She indicated that Sierra Pacific thought the price of the Site was high.

3.6 Owner, Property Manager, and Occupant Information

Greg Lehman purchased the property from LP around 1986. The Site is currently vacant and Mr. Lehman uses the property to sell existing stockpiled material.

3.7 Reason for Performing This Phase I ESA

According to Ms. Swezy, this Phase I was being conducted as part of their due diligence for purchasing the Site. It is our understanding that the Sierra Institute is looking to redevelop the Site into a wood processing facility.

3.8 User Provided Documentation

The User provided Geosyntec with documentation regarding the Site and nearby facilities, summarized below. Copies of these documents are provided in **Appendix A**.

3.8.1 CH2M Hill, 1991. *Property Transfer Site Assessment, Louisiana Pacific Corporation, Crescent Mills, Plumas County, California.* May 1991.

A 1991 *Property Transfer Site Assessment* (CH2M Hill, 1991) was reviewed as part of this Phase I. According to this report, pentachlorophenol (PCP) was reported in soil at concentrations up to 5 milligrams/kilogram (mg/kg) during a sampling event that took place in December 1988 in the vicinity of the anti-stain application area near the former sawmill. This exceeded the United States Environmental Protection Agency's (U.S. EPA's) November 2013 industrial regional screening levels (RSL) for PCP of 2.7 mg/kg. Tetrachlorophenol (TCP) was reported at concentrations up to 3 mg/kg was well below the U.S. EPA's December 2013 RSL for TCP of 18,000 mg/kg. CH2M Hill reportedly noted the presence of discolored soil outside the building in an area used for dispensing oil during their 1991 investigation. Oil and lubricants were reportedly stored in oil shed. Oil-soaked sawdust was noted on the floor of the oil shed. Sacks and containers of boiler chemicals were reportedly stored inside the boiler building in the northern half of the Site and empty condensate tanks were noted at the north and east side of the boiler building. Discolored soil was reportedly observed in front of the maintenance shop along the northern boundary of the Site; however, there were no drains or cracks in the concrete floor below the maintenance area. There was no water in the recycle pond in the southeast

portion of the Site at the time of CH2M Hill's investigation. The bed of the recycle pond was reportedly dark in color.

A water storage tank and two aboveground storage tanks (ASTs) were reported as part of CH2M Hill's 1991 report. One AST was described as being used to collect used oil and was located in a secondary containment. The other AST did not have size or contents reported; however, stained soil was noted below it. Oil staining was observed with petroleum odor in the wood waste disposal area near the ash disposal area during CH2M Hill's 1991 Site visit.

Two 6,000-gallon diesel USTs and one 10,000-gallon leaded gasoline UST were reported for the Site. The USTs were reportedly removed in 1987 by LP. No soil or groundwater samples were collected when these USTs were removed. A fourth UST was reported by CH2M Hill to remain at the Site near the maintenance shop. The contents or size of the fourth UST were not reported. This tank was removed from the "LP Greenville facility". Since the lumber mill activities ceased at the Site in 1986, it is possible that this UST was never installed at the property. Geosyntec conducted a geophysical investigation in the vicinity of the former maintenance shop in an effort to locate the UST; however, the results were inconclusive (Geosyntec, 2017). Possible sump locations were identified by CH2M Hill from an LP 1985 memo. The 1985 memo indicated a gravel-lined pit used for disposal of cooling water and boiler blow-down water was replaced with a perforated drum. According to the memo, concentrations of the sulfite and aliphatic amines used to treat the water were below hazardous or designated waste levels.

3.8.2 Resna, 1992. *Assessment of Soil and Groundwater Contamination, Sacramento Valley Moulding Facility, 1 Mill Road, Crescent Mills, California.* 20 November 1992.

Resna submitted an *Assessment of Soil and Groundwater Contamination* for the property adjacent to the north of the Site on 20 November 1992. According to the report, a 350-gallon diesel USTs and a 350-gallon gasoline UST were removed from the facility in November 1992. Nine soil borings were drilled, four of which were converted to monitoring wells. Eight of the nine borings were located down gradient from the former tank pit and one was placed up gradient. No benzene, toluene, ethylbenzene, or xylene (BTEX), total petroleum hydrocarbons (TPH) in the gasoline or diesel range were detected in the soil or groundwater samples. Lead was detected in three soil samples at concentration of 2.4 parts per million (ppm; equivalent to mg/kg), 3.1 ppm, and 31 ppm. Resna concluded that due to the fact that the lead detected in one soil sample was inconsistent with other samples and was not located down gradient from the former tank

pit, this detection (31 ppm) could be an anomaly. Resna noted that the TPH impact to the soil was confined to the area near the former tank location and groundwater sampling indicated that it did not appear that there were impacts to groundwater, and if any, they were present in a limited area.

3.8.2 Geocon, 2002. *Supplemental Site Investigation Report, Former Louisiana Pacific Sawmill Facility, Plumas County, California.* 23 December 2002.

During Geocon's Site Investigation, 19 soil samples and 6 groundwater samples were collected from 13 boring locations from the following areas of concern:

- Former UST locations;
- Sawmill/lumber sorter/anti-stain area;
- Dry kiln/boiler blow-down sump;
- Transformer/oil dispensing unit;
- Wood waste disposal area;
- Maintenance shop trench drain outfall;
- Dry kiln fuel shed drain outfall; and
- Dry kiln/possible fueling area.

Soil and groundwater samples were reportedly analyzed for TPH (gasoline, diesel, motor oil), volatile organic compounds (VOCs), phenols, and heavy metals. Motor oil was reported above its environmental screening level (ESL) in one soil sample collected at ½-foot bgs at the trench drain outfall from the maintenance shop, according to the report. It was reported at a concentration of 550 mg/kg which is above its ESL of 500 mg/kg. However, motor oil was not reported in the soil sample collected from this boring at 3.3 feet bgs or in the groundwater sample collected at this boring. VOCs were reported in one sample including acetone at 45 micrograms/kilogram (µg /kg), and 2-butanone (MEK) at 9.9 µg /kg. However, these concentrations were below the U.S. EPA Region 9 Preliminary Remediation Goals (PRGs). Copper and lead were reported in soil at slightly elevated concentrations above background levels; however, the concentrations did not exceed U.S. EPA Region 9 PRGs for residential exposure. Barium, lead, and nickel were reported above California Maximum Contamination Levels (MCLs) in one groundwater sample. Geocon reportedly concluded that significant soil and groundwater impacts were not identified during the Site investigation and additional environmental Site investigation did not appear to be warranted at the Site.

4.0 RECORDS REVIEW

4.1 Standard Environmental Records Database Search

In accordance with ASTM Practice E 1527-13, Geosyntec reviewed applicable and reasonably accessible federal, state, and local records as part of this Phase I ESA. The environmental records review was performed in the form of an environmental database search by EDR, in an attempt to ascertain whether the Site or neighboring properties were suspected of having environmental conditions with the potential to impact (or that have impacted) the soil, soil gas, and/or groundwater at the Site. The database search includes regulatory agency lists of known or potential hazardous waste facilities, landfills, hazardous waste generators, and disposal facilities in addition to properties under investigation. The information provided in this report was obtained from publicly available sources. The locations of the properties listed in this report are plotted with a geographic information system (GIS) utilizing geocoding of property addresses. Specific records and search distances for these environmental databases were reported by EDR to be consistent with ASTM Practice E 1527-13 and are discussed in the EDR report (dated 31 March 2017); this report is presented as **Appendix B**.

4.1.1 Environmental Records Search Results

EDR's search of available "reasonably ascertainable" government records found numerous listings, including the Site address, within the ASTM-specified search distances in the sub-sections that follow.

4.1.1.1 Site Record Results

According to EDR, the Site was listed as Louisiana-Pacific Corp – Crescent Mills and was located on the east side of Highway 89. The Site was listed on the DTSC EnviroStor Database (ENVIROSTOR) database and Solid Waste Information System (SWF/LF) database . The confirmed constituents of potential concern (COPCs), according to EDR, were arsenic and dioxin (as 2, 3, 7, 8-tetrachlorodibenzodioxin (TCDD) toxic equivalency (TEQ)). A Site screening was reportedly conducted on 15 November 1990 and the Site received No Further Action (NFA) status according to the report, because no record was found and no evidence was observed that indicated a hazardous waste or chemical contamination problem existed at the Site at the time. It was also noted that the PCP spray booth was located inside a building over a concrete floor. A preliminary assessment report was submitted 14 December 1990. According to EDR, this report commented that the onsite unpermitted wood waste and ash landfills may be of concern to the Plumas County

Health Department, the California Integrated Waste Management Board (CIWMD) and / or the Regional Water Quality Control Board (RWQCB) and leachate from the wood waste could pose a threat to Indian Creek as the Site exists entirely in the floodplain. As of 24 June 2016, the Site status had been changed to "active". According to EDR, this facility was a solid waste disposal site that accepted wood waste. It was owned by Louisiana Pacific Corp – Samoa. No violations or releases were reported by EDR.

4.1.1.2 Adjacent and Offsite Record Results

One offsite facility was reported by EDR. The location of this facility is shown on the Overview Map and Detail Map in the EDR report (**Appendix B**). A summary of the facilities listed by EDR is presented below and the Site is described above.

- Crescent Mills Chevron / Crescent Mills Tow & Repair (located at 15803 Highway 89) – This facility was located approximately 3/5-miles north of the Site. It was listed on the Statewide Environmental Evaluation and Planning System Underground Storage Tank (SWEEPS UST) database and EDR Exclusive Historic Gas Stations (EDR HIST AUTO) database. This facility reportedly had three USTs including a 1,000-gallon regular unleaded gasoline UST, a 2,000-gallon premium unleaded gasoline UST, and a 550-gallon diesel UST. No violations or releases were reported by EDR; therefore, this facility is not considered a REC.

4.1.1.3 Orphan Sites

EDR did not identify any orphan properties, which could not be mapped by EDR due to poor or insufficient address information.

4.2 Additional Environmental Record Sources

Online resources of local and state agencies were reviewed for available current or previous documentation of hazardous materials use, storage, and/or unauthorized releases that may have impacted the Site. Section 1.1 of this Phase I ESA detailed the additional environmental record sources searched. The requested information and subsequent information received from the agencies is summarized below and provided in **Appendix C**.

4.2.1 Plumas County Zoning

On 4 April 2017, Geosyntec accessed the Plumas County Zoning Interactive map (https://mangomap.com/plumasgis/maps/47662/plumas-county-zoning#) for information regarding the Site. According to the map, the Site was zoned as heavy industrial.

4.2.2 Plumas County Building Department

On 4 April 2017, Geosyntec requested records regarding the Site from the Plumas County Building Department. The following records were provided:

- A construction/improvement permit for commercial electric work was obtained by Sierra Pacific Industries on 30 April 2008;
- A building department inspection report with no violations reported (dated 5 August 2008); and
- An undated, marked up assessor's parcel map of the Site and surrounding area. The following items were listed on the Site: shed roof, plumbing, "SHEOS", "P.P." (2), well, shed, fuel storage, grading, and two wells.

Copies of these records are provided in **Appendix C** of this report.

4.2.3 Plumas County Planning Department

On 4 April 2017, Geosyntec contacted the Plumas County Planning Department requesting records regarding the Site. Documents provided by the Plumas County Planning Department included records of construction that occurred on-Site, inspection records, and building plans. Types of projects included cooling sheds, dry kilns, planing mill, and shed roof for sorter chain. Records from 11 July 1974 indicated two wells were installed, one of which was for domestic use. Well logs for these wells were provided and indicated the domestic well was 155 feet deep and the irrigation well was 90 feet deep. A record for an irrigation well was provided for 11 June 1975; however, it is unclear whether this was a newly installed well or a record for the aforementioned irrigation well installed in 1974. A Site layout associated with this well depicted a septic tank on the eastern wall of the saw mill, a well labeled "old well" on the northwest corner of the saw mill, a "new well" approximately 300 feet east of the saw mill, and a 12-inch diameter well just north of the reservoir. Records from 26 April 1978 and 3 May 1978 indicated the construction of a fuel storage building. According to an Environmental Impact Evaluation, the proposed use of the building was going to be for storage of moist sawdust and there would be a minimum 20-foot separation distance from the nearest boiler structure.

4.2.4 Plumas County Fire Department

On 4 April 2017, Geosyntec contacted the Plumas County Fire Department, Crescent Mills office to request public records regarding the use or storage of hazardous materials/petroleum products at the Site or complaints or incidents involving hazardous materials/petroleum products at the Site. As of 17 April 2017, the Plumas County Fire Department has not responded to this request. Should a response that changes Geosyntec's findings of this report, Geosyntec will notify the User.

4.2.5 Plumas County Environmental Health Department (PCEHD)

Following an interview with Mr. Jerry Sipe of the PCEHD (refer to Section 6.3), the following records were provided for Geosyntec to review. Records showed that Greg Lehman was listed as the owner of the Site. A letter from the Solid Waste Local Enforcement Agency was sent to Mr. Lehman on 9 December 2003. This document indicated that the Site had historically been a disposal facility and operations had ceased prior to current standards for soil waste disposal facilities, including closure of such facilities. Operations reportedly ceased around 1978/79, however, little was known about the disposal site. According to this document, the Solid Waste Local Enforcement Agency concluded that as long as the Site was left alone, little or no potential hazard to public health, safety or the environment existed. According to Mr. Sipe, the Solid Waste Local Enforcement Agency has reportedly conducted annual inspections of the Site to assure Site conditions have not changed starting as far back as 1995. Copies of these records are provided in **Appendix C**.

4.2.6 CalRecycle Solid Waste Information System (SWIS)

On 4 April 2017, Geosyntec accessed the CalRecycle Solid Waste Information System (SWIS) (http://www.calrecycle.ca.gov/SWFacilities/Directory/32-AA-0020/Detail/) for further information regarding the Site. According to this database, the facility was a closed solid waste disposal facility for wood waste. This information was consistent with what was provided by EDR.

4.2.7 State of California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) website

Geosyntec visited the California Division of Oil, Gas, and Geothermal Resources (DOGGR) website (https://maps.conservation.ca.gov/doggr/wellfinder/#close) on 4 April 2017 to obtain information about past or present oil, gas or geothermal wells in the vicinity of the Site. No wells were found on or near the Site. A map from the DOGGR

website showing the lack of current and former oil and gas well locations on or in the vicinity of the Site is included in **Appendix C**.

4.2.8 State of California, State Water Resources Control Board (SWRCB), GeoTracker Database

Geosyntec reviewed the State of California, SWRCB GeoTracker database for additional information regarding the Site and adjacent properties on 29 March 2017. The listing for the Site provided by GeoTracker was generally consistent with what was provided by Envirostor (refer to Section 4.2.9).

Two closed leaking underground storage tank (LUST) cleanup sites were located approximately 300 feet west of the Site. These facilities were not included in the EDR. One LUST was associated with Indian Valley High School located at 430 Main Street. A leak of heating oil / fuel oil was reported on 25 July 1997. A NFA letter was issued on 24 November 1998 for this facility, however a copy of this letter was not available on GeoTracker. The second closed LUST case was associated with Sierra Lodge located at 305 Main Street. A leak of heating oil / fuel oil was reported on 27 December 2000. A NFA letter was issued on 6 April 2001; however, a copy of this letter was not available GeoTracker. Based on the NFA status of each of these facilities, they are not likely to have adversely affected the Site.

4.2.9 State of California, DTSC, Envirostor Database

Geosyntec reviewed the State of California, DTSC Envirostor database for additional information regarding the Site and adjacent properties on 29 March 2017. An open evaluation listing was found for the Site. Available documents for this listing are summarized below and included the following:

- E&E, 2014. *Phase I Environmental Site Assessment for Former Louisiana Pacific Lumber Mill, 15690 Highway 89, Crescent Mills, California*. July 2014.
- E&E, 2014. *Targeted Brownfields Assessment Report for Former Louisiana Pacific Lumber Mill, 15690 Highway 89, Crescent Mills, California*. November 2014.
- Weston Solutions, Inc. (Weston), 2016. *Analysis of Brownfields Cleanup Alternatives, Crescent Mills, 15690 Highway 89, Crescent Mills, Plumas County, California*. March 2016.

- DTSC, 2016. *Document Review for Voluntary Cleanup Agreement for Crescent Mills Property Located at 15690 Highway 89 in Crescent Mills. California 95934.* 20 July 2016.
- Geosyntec, 2017. *Targeted Site Assessment Work Plan, Crescent Mills Industrial Site*. 2 February 2017.

Other available documents for the Site listing included correspondence letters, signed contracts, and figures and pictures of the Site.

E&E, 2014. *Phase I Environmental Site Assessment for Former Louisiana Pacific Lumber Mill, 15690 Highway 89, Crescent Mills, California*. July 2014.

A Phase I ESA was conducted at the Site by E&E in July 2014. According to the report, the Site was listed on the database of facility and manifest data (HAZNET) in relation to the offsite disposal of approximately 333.75 tons of "contaminated soils from site cleanup" in 1999. Further information regarding the source of soil or contamination was not provided.

During E&E's 10 April 2014 Site walk, observations of the Site reportedly did not reveal the presence of obvious soil staining or stressed vegetation. No illegal dumping areas, pits, or significant piles of debris/garbage were noted by E&E except a few scattered areas of steel and concrete debris from demolition of the former structures. Imported fill was reportedly present just offsite as a two- to three-foot bank beyond the eastern Site boundary. E&E stated this fill was most likely placed during initial Site development or in the late 1970s when LP expanded its facility. Large stockpiles of soil, ash, and bark were observed on the Site by E&E.

Geocon's 2002 *Site Investigation Report for Crescent Mills Mitigation Site* for the property adjacent to the east of the Site (Former LP Wood Waste Disposal Area) was reviewed as well. According to E&E, Geocon collected 12 soil samples, one surface water sample, and five groundwater samples from five boring locations, two exploratory trenches, and one surface water location at depths ranging from ½-foot bgs to 5 feet bgs. Areas of sawdust fill and surface debris were targeted in this investigation and samples were reportedly analyzed for TPH (gasoline, diesel, motor oil), VOCs, phenols, and heavy metals. According to E&E, Geocon concluded that no additional investigation was warranted based on the absence of COPCs.

E&E reviewed Geocon's 2011 *Debris Removal Summary Report* for the property adjacent to the northeast of the Site. Geocon performed a survey for buried metallic objects in an

area of wood waste and debris east of the former Sacramento Valley Moulding facility (adjacent to the north of the Site). Debris was removed from two of the five excavations, including crushed 55-gallon drums with residual black tar and various types of metallic debris. Two soil samples were collected from the bottoms of the two excavations where 55-gallon drum debris was encountered and analyzed for TPH, PCP, polychlorinated biphenyls (PCBs), and metals. None of the COPCs were detected above concentrations of concern, according to the report.

E&E provided information about other offsite facilities including the Crescent Mills Chevron / Crescent Tow located at 15803 Highway 89 and Daniel Steel located on Highway 89. According to the E&E, one 2,000-gallon gasoline UST, one 1,000-gallon gasoline UST, and one 550-gallon gasoline UST were removed from the Crescent Mills Chevron / Crescent Tow in December 1992. Low concentrations of petroleum products were reportedly detected during confirmation sampling; however, the PCDEH did not require further action, according to E&E. On 14 March 1994, approximately 45 gallons of gasoline were released from an AST at the Crescent Tow facility. Gasoline reportedly flowed mostly over pavement, but some migrated into a drainage ditch along Highway 89. Ten cubic yards of contaminated soil was reportedly excavated from the roadside ditch. E&E reported that no regulatory case file was opened in relation to the spill and no further excavation was required based on field notes taken by the PCDEH. On 27 March 1990, a 2,000-gallon UST was reportedly closed in place after contaminated soil or suspected contaminated soil was removed from the UST excavation at the Daniel Steele facility. The soil was aerated at the UST closure site. E&E reported that no regulatory case file was opened and no further action was required in relation to the UST closure. As such, E&E concluded that these facilities would not be considered RECs with respect to the Site.

In the Phase I ESA, E&E identified several RECs at the Site including:

- The documented presence of PCP in soil near the anti-stain application area which indicated a release of anti-stain agent containing PCP had occurred;
- The presence of discolored soil in front of the maintenance shop and southeast corner of the boiler building in 1991;
- The documented practice of disposing boiler and incinerator ash on roadways and along with wood waste; and
- The presence of wood waste stockpiles that may have contained ash and anti-stain agent-treated wood waste.

De minimis conditions were identified in relation to the Site as well and included:

- The observed presence of oil-soaked saw dust on the floor of the oil shed, which had a perimeter containment berm and no observed release from the containment in 1991;
- The documented presence of petroleum hydrocarbons as motor oil in 2002 at the discharge point for a trench drain at the maintenance shop; and
- The historical practice of spreading used oil on mill roads for dust suppression.

E&E, 2014. *Targeted Brownfields Assessment (TBA) Report for Former Louisiana Pacific Lumber Mill, 15690 Highway 89, Crescent Mills, California*. November 2014.

Following the Phase I investigation summarized above, a TBA was conducted by E&E (2014b). The investigation included collection of eight 5-point composite soil samples, four of which were from former mill roads and four of which were from soil and wood waste stockpiles; and advancement of three borings for soil sampling, two of which were also advanced for groundwater sampling. Soil and groundwater sample analyses included PCP, TCP, TPH, metals, dioxins and furans, and VOCs.

Contaminant impacts above project-specific screening levels were reported in 16 samples. TPH in the diesel range and TPH in the motor oil range were reported in soil and groundwater in the central portion of the Site and in the soil composite samples from the former mill road near the maintenance shop in the northeastern portion of the Site and the former mill road near the location of the former USTs and ASTs on the western portion of the Site. Dioxins and furans as 2,3,7,8-TCDD TEQ were reported at low concentrations in the four soil composite samples from wood waste stockpiles and former mill roads. One former mill road sample from the northwestern portion of the Site in the vicinity of the boiler buildings had a reported 2,3,7,8-TCDD TEQ concentration of 19.98 picograms per gram (pg/g). According to the report, this was the only dioxin/furan TEQ concentration above the selected project screening level of 18 pg/g. Dioxins and furans were not analyzed in soil or groundwater samples collected from soil borings. Arsenic exceeded the project-selected screening level of 5 mg/kg in soil samples from two of the soil borings, and in each stockpile and road composite sample. Arsenic was reported in soil samples at concentrations of 5.9 to 130 mg/kg, with the majority reported at less than 25 mg/kg. E&E concluded that these results suggested that background concentrations of arsenic may be greater than the screening level at this Site. Arsenic was not reported in the two groundwater samples collected. Other metals were reported in soil and groundwater, but remained below selected project screening levels. PCP and TCP were not reported in soil or groundwater from any of the soil borings or wood waste stockpile samples; however, the groundwater laboratory reporting limit of 10 µg/L was greater than the current U.S. EPA MCL of 1 µg/L for PCP.

Weston, 2016. ***Final Analysis of Brownfields Cleanup Alternatives (ABCA), Crescent Mills – Highway 89, 15690, Crescent Mills, Plumas County, CA*****. March 2016.**

The cleanup action objective of this report was to mitigate the identified contaminants to levels appropriate for planned Site reuse as a wood chip processing facility, bioenergy facility, or other forest biomass related business. Based on the planned reuse of the Site, Weston evaluated two options for Site cleanup – (1) No Action and (2) Excavation and Institutional Controls. Based on the nature and extent of contamination, bioremediation was not evaluated as an alternative, nor was treatment of groundwater. The No Action Alternative was included as a baseline for comparison and assumed the impacted media would remain in place without treatment. The Excavation and Institutional Controls Alternative included excavation of 1 foot of soil from unpaved surfaces on the Site. The low end of the cost range was based on excavating soil from approximately 9% of the Site that was identified as the former mill roads and the northwest corner of the Site. The higher end of the cost range was based on excavating soil from approximately 33% of the Site. Gravel would be installed as backfill to the current grade. Institutional controls in the form of land use controls (LUCs) would be recorded as needed, limiting the future use of the Site to appropriate scenarios until additional investigations and/or remedial actions could be taken. The alternative would not address the possible contamination in other areas of the Site such as soil underneath paved areas, areas covered by existing stockpiles, and areas east and south of the substation. Figures of the proposed excavation areas are provided as part of this ABCA report in **Appendix C**.

DTSC, 2016. ***Document Review for Voluntary Cleanup Agreement for Crescent Mills Property Located at 15690 Highway 89 in Crescent Mills, California 95934.*** **20 July 2016.**

In accordance with the Voluntary Cleanup Agreement between the DTSC and the Sierra Institute, the DTSC reviewed E&E's 2014 Phase I ESA, E&E 2014 TBA, and Weston's 2016 ABCA report. Summaries of the findings of each report were summarized by the DTSC and were generally consistent with the summaries provided above. According to this document, the analytical suite of the TBA sampling appeared to be incomplete and/or truncated without sufficient justification. The sampling was too limited to address the findings in E&E's 2014 Phase I report and support a remedial alternatives evaluation on selection analysis. This document also noted that the proposed background value for arsenic of 24 mg/kg was unsuitable for use in remedial decision making at the Site.

4.3 Historical Documentation Review

4.3.1 Historical Aerial Photograph Review

As part of this Phase I ESA, an aerial photograph review was conducted to help evaluate past uses of the Site and the adjoining properties. The EDR Aerial Photograph Decade Package provided Geosyntec with aerial photographs dated 1946, 1953, 1973, 1981, 1998, 2005, 2009, 2010, and 2012. A copy of the aerial photographs package obtained from EDR is included as **Appendix D** to this report. The following sections describe conditions at the Site and surrounding areas over time based on aerial photograph interpretations and observations.

4.3.1.1 Site

In 1946, the Site appeared to be vacant. Some disturbed soil was observed in the southern-central portion of the Site. An unimproved road was observed along the western boundary of the northern portion of the Site.

In 1953, there appeared to be some development along the unimproved road along the western boundary of the northern portion of the Site, possibly an outdoor storage area. The area of disturbed soil in the southern-central portion of the Site was no longer observed. A large area, dark in color, was observed along the eastern boundary of the Site.

By 1973, there was further development of the northern portion of the Site. Ten large buildings had been constructed in the northwestern portion of the Site. Two storage containers were observed in the northern half of the Site as well. The majority of the northeastern portion of the Site appeared to be used for outdoor storage of materials. The land in the central portion of the Site had been cleared.

By 1981, the Site had been developed further. Three large buildings had been constructed in the northern portion of the Site. The majority of stored materials in the outdoor storage area appeared to have been moved offsite; however, there were some storage containers and materials stored in the northern half of the Site. The southern portion of the Site was occupied by a rectangular feature that was dark in color. There was a linear feature along the eastern and southern boundaries of the dark feature.

By 1998, the structures had been removed from the Site; however, their foundations remained. The Site was vacant except for the building foundations and a stockpile in the

eastern-central portion of the Site. The land in the southern portion of the Site had been cleared.

In 2005, the building foundations were still observed in the northern portion of the Site. The stockpile in the eastern-central portion of the southern half of the Site appeared to contain three different materials. Another large stockpile was observed along the eastern boundary of the northern of the Site.

In 2009, the stockpiled material in the eastern-central portion of the Site appeared to have been reduced to two smaller-sized stockpiles. Conditions of the Site appeared to remain relatively consistent with what was observed in the 2005 photograph.

In 2010, a small soil stockpile was observed on a building foundation in the northwest corner of the Site. Conditions of the Site appeared to be relatively consistent with what was observed in previous photographs through 2012.

4.3.1.2 Surrounding Areas

In 1946, Indian Creek was observed approximately 250 feet east of the Site, flowing generally north-south. Small buildings and a road associated with the town of Crescent Mills were observed along the western boundary of the northern portion of the Site. Railroad tracks were observed adjacent to the western boundary of the Site oriented generally northeast-southwest. The area further west of the Site appeared to be vacant, mountainous land and the area further east of the Site appeared to be undeveloped.

In 1953, conditions of the surrounding area appeared to be relatively consistent with what was observed in the 1946 photograph. By 1973, three large buildings had been constructed on the property adjacent to the north of the Site. An area of land clearing was observed approximately 250 feet north of the Site. More small buildings were observed in the town of Crescent Mills west of the Site.

By 1981, a fourth structure had been constructed on the property adjacent to the north of the Site. Materials were being stored on the property adjacent to the east of the Site. There was development on the small square property on the western boundary of the Site.

In 1998, five large and four smaller buildings had been constructed approximately 250 feet north of the Site. The materials that were being stored on the property adjacent to the east of the Site were no longer present. Two more buildings had been constructed on the property adjacent to the north of the Site.

In 2005, stockpiled material was observed on the property adjacent to the east of the Site. The four smaller buildings that were approximately 250 north of the Site were no longer present, and two large building had been constructed in their place. The roads in the town of Crescent Mills had been paved. An electrical substation was observed in the small square property on the western boundary of the Site. Conditions of the surrounding area appeared to remain relatively consistent through 2012.

4.3.2 Historical Topographic Map Review

A historical topographic map review was conducted to evaluate past uses of the Site and surrounding properties. The EDR Historical Topographic Map Report provided Geosyntec with topographic maps dated 1950 (Greenville), 1980 (Crescent Mills), 1993 (Crescent Mills), and 2012 (Crescent Mills). A copy of the topographic map package is included as **Appendix E** to this report. The following sections describe conditions at the Site and surrounding areas over time based on topographic map interpretations and observations.

4.3.2.1 Site

In 1950, the Site existed in the low-lying areas on the southwestern perimeter of the Indian Valley. An unlabeled road was depicted along the western boundary in the northern portion of the Site. By 1980, only two segments of the road were depicted on the Site. Eight large buildings were observed in the northwest corner of the Site and a ninth building was observed in the central portion of the Site. A portion of another building was observed in the northwest corner. By 1994, a small building had been constructed in the northwest portion of the Site. A large building had been constructed in the central portion of the Site and second small building had been constructed along the eastern boundary in the south-central portion of the Site. A stream channel was observed cutting through the central portion of the Site. No buildings were depicted on the 2012 topographic map.

4.3.2.2 Surrounding Areas

. In 1950, the Western Pacific Railroad was observed running generally northeast-southwest along the western boundary of the Site. Highway 89 was observed adjacent to the railroad to the west. Approximately ¼-mile north of the Site, the railroad continued northeast and Highway 89 turned north. Small buildings were observed along Highway 89 approximately ½-mile north of the Site. The town of Crescent Mills was observed along the northwestern boundary of the Site. Thirteen small buildings were observed on the property adjacent to the west of the Site. Indian Creek was depicted approximately

¼-mile east of the Site. Two small buildings were observed on the property adjacent to the north of the Site. A "game refuge boundary" was observed approximately ½-mile south of the Site. Cherokee Mine was observed approximately 1½-miles west-northwest of the Site. The area west and south of the Site appeared to be hilly and the area east of the Site appeared to have low relief and contained stream channels.

By 1980, four large buildings had been constructed on the property adjacent to the north of the Site. A fifth building was observed to partially exist on the Site, as described in Section 4.3.2.1. The town of Crescent Mills appeared to have expanded. A golf course was observed approximately ¼-mile south of the Site. A borrow pit was observed approximately 1¼-mile northeast of the Site, along the railroad.

In 1994, the railroad was labeled Union Pacific. Five large buildings had been constructed approximately 1/8-mile north of the Site. A relatively linear depression was observed between the railroad and Highway 89 along the western boundary of the southern portion of the Site. A red boundary was depicted approximately 1-mile west of the Site and 1-mile south of the Site. This boundary was observed around an area labeled "PNF" approximately 1½-miles southeast of the Site as well. This was the boundary of the Plumas National Forest.

In 2012, no buildings were depicted on the topographic map. A fire station and post office were labeled in town of Crescent Mills west of the Site. The golf course south of the Site was labeled Deer Valley Golf Course.

4.3.3 Sanborn Fire Insurance Map Review

Sanborn Fire Insurance map coverage of the Site was not available. A copy of the Sanborn Fire Insurance map package documenting lack of coverage is included as **Appendix F** to this report.

4.3.4 City Directory Review

Historic City Directory listings were obtained from EDR for the Site and adjoining properties. Directories were available and reviewed for the years of 1970 through 2013, non-inclusive. Directories were available for the target street, Highway 89 and the cross street, Main Street. A copy of EDR's City Directory Report is included as **Appendix G** to this report.

4.3.4.1 Site

The Site was not identified in the Historic City Directory listings.

4.3.4.2 Surrounding Areas

Facilities in the vicinity of the Site between 1990 and 2013 included an excavation company, an automotive facility, a post office, as well as a few residences.

4.4 Recent Geosyntec Investigation

Geosyntec conducted a TSI in 2017 to provide information and analytical data to assess the extent of impacts that may remain from the former lumber mill operations. A detailed discussion of the TSI and associated results is provided under a separate cover (Geosyntec, 2017); however, a summary of the investigative activities and results is provided below.

During the TSI, samples were collected for various analytes from 34 locations, including 20 incremental sampling methodology (ISM) soil composite samples, 14 discrete soil samples, and 13 groundwater samples. Samples were analyzed for metals, petroleum hydrocarbon-related compounds, dioxins and furans, anti-stain agents [PCP, 2,4,6-trichlorophenol (2,4,6-TCP), and carbamate compounds], PCBs, and VOCs (in groundwater only). Soil samples were collected from the ground surface to five feet bgs and groundwater samples were collected from first encountered groundwater at 1 to 10 feet bgs.

Results for soil samples collected for this TSI suggested that arsenic and TPH in the diesel range were present in soil at concentrations that exceeded screening criteria; however, neither of these COPCs were found to impact groundwater at concentrations above screening levels. Arsenic was present in soil at concentrations of 1.3 to 35 mg/kg and much of the Site contained concentrations above the established background arsenic concentrations of 9.8 mg/kg for the top three feet of fill and 4.7 mg/kg for the native soil beneath the fill. Arsenic was only present at a low concentration in one groundwater sample. TPH in the diesel range was reported in soil at concentrations of 0.60 J to 1,600 mg/kg and was found to be present above the ESL of 230 mg/kg in seven locations throughout the Site. TPH in the diesel range was reported in four groundwater samples at concentrations ranging from 15 J to 28 J mg/L, which was below the ESL of 100 milligrams per liter (mg/L).

Other soil COPCs had method detection limits (MDLs) that were greater than regional screening levels (RSLs) in soil, including polycyclic aromatic hydrocarbons (PAHs) in numerous locations and PCP in the anti-stain area of the Site. Due to limitations of the currently available laboratory methods, it was impossible to collect data in all locations for these analytes below the applicable screening levels. However, based on the lack of positive detections above MDLs in soil at the Site of either PCP or PAHs, their potential presence may be considered negligible at this time with respect to the planned commercial development and use of the Site.

Groundwater sample results suggested that there were little to no definitive impacts to groundwater above the appropriate screening levels. The grab groundwater sampling method used to collect samples was considered to be appropriate for screening level data only based on the lack of protection from matrix interference due to sample turbidity and volatilization. Groundwater sample results were found to be below the groundwater MCLs, with the exception of one calculated result for 2,3,7,8-TCDD TEQ of 45 J pictogram/liter (pg/L), downgradient of the boiler building, which exceeded the groundwater MCL of 30 pg/L. This result appeared to be a false positive as it was derived from data with elevated reporting limits due to detections of dioxin and furan isomers in the method and equipment blanks. Other dioxin and furan groundwater primary sample data from the other three sampled locations across the Site ranged from 4.6 J to 14 J pg/L, which was below the MCL but above the tap water RSL for 2,3,7,8-TCDD TEQ of 0.12 pg/L. PAHs in groundwater near the maintenance shop waste oil AST were reported at a benzo(a)pyrene TEQ of 0.14 µg/L (compared to the RSL of 0.0034 µg/L and MCL of 0.2 µg/L). Other groundwater COPCs that were not detected above detection limits but had detection limits in excess of RSLs included hexavalent chromium, antimony, PAHs, PCP, PCBs, and 2,4,6-TCP.

As a result of the TSI, Geosyntec concluded that although arsenic concentrations were below the background concentration established for the Site in some of the soil and wood waste stockpiles, the material in the stockpiles was not suitable for unrestricted use due to arsenic concentrations that are in exceedance of the RSL established by the DTSC. Geosyntec recommended a remedial investigation/feasibility study to evaluate whether or not remediation or engineered controls would be suitable for addressing the COPCs that were detected above screening levels at the Site. Geosyntec also recommended implementation of an erosion control plan around soil stockpiles and the decommissioning of the existing on-Site well.

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

Mr. Arthur Forma and Mr. Pete Dennehy of Geosyntec performed a reconnaissance of the Site on 10 November 2016 to assess the environmental conditions on and around the Site. Additional Site visits were performed in February and March 2017 as part of the TSI activities at the Site. Ms. Melessia Downham from the DTSC arranged with the current property owner to provide access to the Site. Geosyntec was permitted access to all areas of the Site during the Site reconnaissance.

As part of the Site reconnaissance, Geosyntec looked for evidence of the presence of hazardous substances used, stored, or discarded at and in the vicinity of the Site. Moreover, Geosyntec surveyed the Site for areas of disturbed or discolored soil, suspect equipment that may contain hazardous substances, areas of distressed vegetation, wastewater discharge areas, storage tanks/septic systems, waste management/disposal areas, lagoons, pits, sumps, surface water management areas, stained surfaces, etc.

Adjoining properties were observed from the perimeter of the Site or via access roads and entrances into these properties. Selected photographs taken during the Site reconnaissance are presented in **Appendix H**.

5.2 General Site Setting

5.2.1 Current Use of the Property

At the time of Geosyntec's performance of this Phase I ESA, the property was mostly vacant with limited activities relating to the distribution of stockpiled wood waste as a soil amendment. **Figure 2** shows the layout of the property at the time of Geosyntec's Site reconnaissance.

5.2.2 Current Use of Adjoining Properties and the Surrounding Area

The Site is located in an area that is primarily developed with residential and former industrial properties extending to the north and west beyond the Site boundary. South of the Site boundary is the Mount Huff Golf Course and east is a riparian area along Indian Creek. North of the Site is the former Sacramento Valley Moulding facility which had similar uses and operations as the former lumber mill at the Site. Adjacent to the western boundary of the Site is a railroad followed by an alley and residences.

Utilities observed adjacent to the Site included an electrical sub-station, a communication/control box for the railroad west of the Site, and overhead power lines. No municipal sewer, water, or natural gas services were observed to be present.

Based on conditions observed, it did not appear likely that adjacent properties would be considered RECs. Additional information regarding the Sacramento Valley Moulding site and their associated UST is provided above in Sections 4.2.9.

5.3 Observations

5.3.1 Hazardous Substances/Petroleum Products

Geosyntec did not observe hazardous substances/petroleum products during the Site reconnaissance except as described in the sections below.

5.3.2 Hazardous Substances/Petroleum Products in Containers (Not Including Tanks)

Geosyntec observed two possible paint cans on Site. The cans were located along the western fence near the location of the Old Dry Kiln in their original containers and had a capacity of approximately 5 gallons. The cans appeared to be in good condition with no evidence of release.

5.3.3 Hazardous Substances/Petroleum Products in Storage Tanks

5.3.3.1 Aboveground Storage Tanks (ASTs)

No ASTs were observed at the Site during Geosyntec's reconnaissance.

5.3.3.2 Underground Storage Tanks (USTs)

No evidence (i.e., fill ports or vent pipes) indicative of the presence of USTs was observed during the Site reconnaissance.

5.3.4 Indications of Polychlorinated Biphenyls (PCBs)

Two locations where transformers were once used were identified and no evidence of staining was observed. No evidence of other equipment potentially containing PCBs was observed during the Site reconnaissance.

5.3.5 Stained Soil or Pavement

No stained soil or pavement was observed during Geosyntec's Site reconnaissance. It appeared that the parking lot had been recently resurfaced.

5.3.6 Stressed Vegetation

Stressed vegetation was observed between the former Saw Mill, Sorter and Stacker, and Green Chain structures during the Site reconnaissance near the former anti-stain area.

5.3.7 Pits, Ponds, and Lagoons

The Log Deck Recycling Pond noted on various Site Plans (CH2M Hill, 1991; Geosyntec, 2017) was observed in the southeastern area of the Site. The pond was dry at the time of the Site reconnaissance. The nearest surface water is Indian Creek approximately 400 feet east of the Site.

5.3.8 Pools of Liquid

Pools of liquid were not observed at the time of the Site reconnaissance. Flooding with standing water was observed across a majority of the Site during the Site investigation associated with substantial rainfall in January and February 2017..

5.3.9 Odors

No strong chemical odors were noted at the time of Geosyntec's Site reconnaissance.

5.3.10 Septic Systems

A septic tank was observed near the former Saw Mill during the Site reconnaissance. There is no local municipal sewer system servicing the town of Crescent Mills.

5.3.11 Drains and Sumps

A drain trench was observed along the western edge of the former Maintenance Shop.

5.3.12 Wastewater

No wastewater was observed at the time of reconnaissance; however, it is likely that the historical use of the former boiler generated waste water.

5.3.13 Wells

An existing supply well was observed at the Site adjacent to the former Log Deck Recycle Pond. The well was not secured or sealed at the surface. It is unclear if additional wells remain on-Site (refer to Section 4.2.3).

5.3.14 Onsite Solid Waste Disposal and Filled Areas

Debris associated with the razing of the former lumber mill structures were observed across the Site. There were six stockpiles of wood waste and fill material located across the Site.

5.3.15 Stormwater

Five stormwater drainage inlets were observed during Site reconnaissance. The outlet from the on-Site stormwater drainage system was not located.

6.0 INTERVIEWS

6.1 Interview with Owner

On 12 April 2017, Geosyntec interviewed the owner of the Site, Mr. Greg Lehman. Mr. Lehman owns Cinderlite Trucking and purchased the property from LP in 1999. According to Mr. Lehman, the Site is mostly vacant; the primary activities at the Site include removing and selling existing compost piles. Mr. Lehman was not aware of spills or releases of hazardous materials / petroleum products on the Site and has not seen evidence of dumping. According to Mr. Lehman, the Site does not operate a waste water or waste water pretreatment system. He indicated that the power company had electrical transformers on their adjacent property. He was not aware of spills or chemical releases at the property or of environmental cleanups that have occurred on the Site.

6.2 Interview with Occupant

The Site is currently vacant; therefore, no occupants were interviewed.

6.3 Interview with Local Government Officials

Mr. Jerry Sipe with the PCEHD was interviewed on 3 April 2017. According to Mr. Sipe, this facility was formerly used as a lumber mill and historically had a solid waste disposal facility onsite for wood waste. According to Mr. Sipe, wood waste was generated, stored and disposed of on-Site. The Site was reportedly inspected annually to confirm that Site conditions have not changed. According to Mr. Sipe, Sierra Institute was planning to redevelop the Site into a biomass facility. Mr. Sipe indicated that the Site and surrounding areas appeared to have been filled above the valley floor. According to Mr. Sipe, there were rumors that the fill material was from tailing from the Engle Copper Mine located in the northern portion of Indian Valley; however, he was not aware of any records or documents that could confirm this. He was not aware of any illegal dumping activities, complaints or any AULs regarding the Site. Mr. Sipe noted that there is no municipal sewer system within five miles of the Site and the Site is on a septic system. He noted that there was water supply to the Site. He was not aware of environmental cleanups that had been conducted at the Site.

6.4 Interview with Others

On 5 April 2017, Geosyntec spoke with Mr. Scott Lawson of the Plumas County Museum for information regarding the use of mine tailings as fill on and around the Site. Mr. Lawson indicated that he had not heard this before, but that it could be possible. He noted

that Crescent Mills reportedly had problems with sinkholes from the tunnels caving in under the town that were associated with gold mining in the area.

On 11 April 2017, Geosyntec interviewed Ms. Mary Ann McCary with Caltrans. Ms. Swezy recommended speaking with Ms. McCrary because she was familiar with the property adjacent to the Site to the east and may have some information about current land uses of the Site. According to Ms. McCrary, grading activities have occurred on the adjacent property and materials generated from this, including rock material and sand, were stored on the south end of the Site. Old wood waste from the Caltrans property was reportedly stored on the Site as well. Ms. McCrary was not aware of any illegal dumping or spills or releases of hazardous substance / petroleum products on the Site.

7.0 EVALUATION

7.1 Findings and Opinions

These findings and opinions are based on Geosyntec's evaluation of the information gathered through the following means: environmental database review; Site visit; aerial photographs; topographic maps; environmental file review; and a review of other obtained documents regarding the Site and historical land use at and in the vicinity of the Site.

1. **Historical Use of the Site as a Lumber Mill** – Based on available documentation and interviews, the Site was historically used as a lumber mill from at least the early 1970s through 1980s. Operations at the lumber mill included treating wood with an anti-stain agent that contained PCP. Oil and lubricants were reportedly stored in an oil shed. Sacks and containers of boiler chemicals were reportedly stored inside the boiler building in the northern half of the Site and empty condensate tanks were noted at the north and east side of the boiler building. ASTs at the Site included a waste oil tank to the north of the maintenance shop, two condensate tanks near the boiler building, one water storage tank, and one tank of unidentified nature in an area indicated as a possible fueling area. Soil staining has historically been reported at the Site during previous investigations and records indicated that ash and waste oil was sprayed on the roadways for dust suppression. Based on previous investigations and Geosyntec's 2017 investigation, soil at the Site was impacted by TPH and arsenic. Groundwater concentrations exceeded tap water RSLs, but were less than groundwater MCLs for several PAHs at one location near the maintenance shop and 2,3,7,8-TCDD TEQ throughout the Site. TPH-d was reported in 2014 in one sample at a concentration slightly above the ESL by E&E, but step-out sampling by Geosyntec in 2017 did not reveal additional impacts. As such, Geosyntec considers impacted soil associated with historical activities to represent a REC. Furthermore, constituent concentrations have been reported in groundwater above established screening levels, therefore Geosyntec considers impacted groundwater at the Site to also represent a REC.

2. **On-Site Waste Piles, Fill Material, and Historical Use of Site as Disposal Facility** – Piles of wood waste and soil are currently located at the Site and sold as compost by Cinderlite Trucking. Available records indicated that the Site had historically been a disposal facility during the years associated with the lumber mill activities. Operations reportedly ceased around 1978/79; however, little was

known about the disposal operations. Further, topography at the Site indicates that the natural grade has been filled in and elevated over time. Based on Geosyntec's 2017 investigation, elevated levels of arsenic have been reported in the wood waste piles and fill material at the Site. As such, Geosyntec considers this finding to represent a REC.

3. **Historical USTs Onsite** – Available records report that two 6,000-gallon diesel USTs and one 10,000-gallon leaded gasoline UST were located at the Site. These USTs were reportedly removed in 1987 by LP. Based on information provided in previous reports and Geosyntec's 2017 investigation data, no significant contamination in association with these USTs has been reported at the Site. As such, Geosyntec does not consider the historical presence of these three USTs to represent a REC for the Site. It should be noted that a fourth UST was also documented at the Site during a previous Site assessment conducted in 1991 (CH2M Hill). As reported by CH2M Hill "a single tank remains onsite near the maintenance shop. This tank was removed from the LP Greenville facility". Since the lumber mill activities ceased at the Site in 1986, it is possible that this UST was never installed at the property. Geosyntec conducted a geophysical investigation in the vicinity of the former maintenance shop in an effort to locate the UST; however, the results were inconclusive. The absence of additional information regarding this UST represents a data gap. However, based on the time frame in which this UST was reported (i.e. after closure of operations on-Site) and the lack of documentation associated with the registration or use of the UST, it is unlikely that the UST was installed and therefore Geosyntec does not consider this fourth UST to represent a REC at the Site.

4. **On-Site Water Supply Wells** – At least one water supply well is currently located at the Site and historical records indicate that up to 3 had been located on the Site in the past. The presence of groundwater supply wells at a Site by themselves do not represent a REC; however, if they are not properly secured and/or decommissioned, they may provide conduits for impacts to migrate to the subsurface.

5. **Historic Offsite Releases of Petroleum Products / Hazardous Materials in the Vicinity of the Site –** Available documentation reports that 2 facilities located within an 1/8-mile from the Site have had documented releases. These facilities included Crescent Mills Chevron/Crescent Tow at 15803 Highway 89 where three USTs were removed in 1992. Low concentrations of petroleum products were

reportedly detected during confirmation sampling, however, the PCDEH did not require further action, according to the report. On 14 March 1994, approximately 45 gallons of gasoline were released from an AST at the same facility impacting a drainage ditch. The impacted soil was reportedly removed and no further action was required by the PCEHD. Two closed LUST cleanup facilities also reported 300 feet west of the Site. Based on this information, Geosyntec does not consider this finding to represent a REC for the Site.

7.2 Conclusions

Geosyntec has performed a Phase I ESA of the Site, located at 15690 Highway 89, Crescent Mills, California, in conformance with the scope and limitations of ASTM Practice E1527-13. Any exceptions to, or deletions from this practice, are described in Sections 1, 7.3, and 7.4 of this report. This assessment has revealed no evidence of RECs, CRECs, or HRECs in connection with the Site, except for the following:

1. Impacted Soil and Groundwater Associated with Historical Use of the Site as a Lumber Mill
2. Impacted Material Associated with On-Site Waste Piles, Fill Material, and Historical Use of Site as Disposal Facility

7.3 Data Gaps

In accordance with ASTM E1527-13, this section documents data gaps in the information obtained and reviewed as part of this Phase I ESA and discusses the associated significance. A data gap is defined in ASTM E1527-13 as being "… *a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information*". Data gaps were identified; however, Geosyntec does not believe that these data gaps are significant enough to change the conclusions of this report. Data gaps included a lack of response to Geosyntec's request for records from the Plumas County Fire Department.

7.4 Exceptions and Deviations

In performance of this Phase I ESA, Geosyntec has not identified potential exceptions or deviations from the ASTM E 1527-13 standard of practice except where noted.

7.5 Signature by Environmental Professionals

We declare, that to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 Code of Federal Regulation (CFR).

We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Site. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Signed by: Peter Dennehy, P.G. – Senior Staff Geologist

Signed by: Wendy Key, P.G. – Senior Geologist

7.6 Qualifications

This Phase I Environmental Site Assessment was performed by Ms. Laura Foot of Geosyntec's Sacramento, California office. Mr. Peter Dennehy, P.G. and Mr. Arthur Forma, P.G., C.Hg., C.E.G., of the Sacramento, California office performed the Site reconnaissance. Ms. Wendy Key, P.G., C.E.M., of Geosyntec's Sacramento, California office provided senior review. Mr. Dennehy, Ms. Key, and Mr. Forma are Environmental Professionals as defined by the ASTM E1527-13 standard. Their professional qualifications are summarized in the following paragraphs.

Wendy Key, P.G., C.E.M.

Ms. Wendy Key has over 10 years of experience in a variety of environmental and geotechnical projects for the public and private sectors in both California and Nevada. Ms. Key is a licensed Professional Geologist in the State of California and the State of Washington and is a Certified Environmental Manager in the State of Nevada. She has experience in the planning, implementation, data analysis, and reporting phases of

environmental assessments including Phase I ESAs, subsurface soil and groundwater investigations, and routine groundwater monitoring tasks for environmental compliance and redevelopment activities. Ms. Key has also worked on geotechnical assessments for roadway and levee improvements, rock mass characterization, and fault investigations. Her responsibilities include communicating with clients and client attorneys to meet project goals, coordination with regulatory agencies to meet designated requirements and cleanup goals, and managing field staff and activities. In addition to these activities, Ms. Key provides technical support for large environmental litigation projects.

Peter Dennehy, P.G.

Mr. Dennehy has over six years of relevant experience as an environmental hydrogeologist. His responsibilities have focused on properties contaminated with chlorinated compounds, metals, pesticides, petroleum hydrocarbons, and fuel oxygenates in California, Massachusetts, New Hampshire, and Rhode Island. Mr. Dennehy's main responsibilities have included field investigations of contaminated sites, environmental data management, and regulatory compliance reporting. Mr. Dennehy has helped prepare Phase I and II site investigation work plans and reports, routine groundwater monitoring reports, remedial action plans and non-aqueous phase liquids (NAPL) Immediate Response Action reports. He has conducted numerous investigations of contaminated soil, groundwater, soil vapor, and indoor air. He has supervised exploration in various geologic media including alluvium, glacial till, and fractured bedrock utilizing a variety of drilling methodologies including rotosonic, direct push, hollow stem auger, and drive and wash. He has implemented aquifer testing of groundwater using Waterloo hydraulic profiling tool, slug testing, pump testing, and NAPL recovery tests. Mr. Dennehy has also overseen/conducted remedial activities including excavation, groundwater treatment, NAPL recovery, in situ enhanced bioremediation, in situ chemical oxidation, and in situ electrical resistance heating.

Arthur Forma, P.G., C.E.G., C.Hg

Mr. Forma has over 17 years of consulting experience in geologic, hydrogeologic, geotechnical, and hazardous waste investigation and remediation projects throughout California. Mr. Forma leads and coordinates projects with the Department of Toxic Substances Control, various Regional Water Quality Control Boards, County of Sacramento Environmental Management Department, and other counties and cities throughout California for properties contaminated with petroleum hydrocarbons, chlorinated solvents, polycyclic aromatic hydrocarbons, metals, pesticides, and perchlorate.

Mr. Forma's primary responsibilities include project management, contaminated soil and groundwater investigation, implementation of remedial action programs, and assuring compliance with regulatory requirements. He is also adept at the development and refinement of hydrogeologic conceptual site models for complex projects. Mr. Forma is experienced in the development and management of monitoring programs for projects in complex hydrostratigraphic terrains. He has experience in due diligence work including conducting numerous Phase I and Phase II Environmental Site Assessments for real estate transactions at industrial and commercial facilities, agricultural properties and residential developments. Mr. Forma has conducted various geologic and hydrogeologic investigations in soil, groundwater and soil vapor media utilizing a variety of subsurface drilling methodology including hollow-stem auger, sonic, direct-push sampling technology, mud rotary, air-rotary casing hammer, cone penetrometer testing, membrane interface probe, and laser-induced fluorescence technology.

Laura Foot

Ms. Foot has a strong interdisciplinary and academic background in the earth sciences and a bachelor's degree from California Polytechnic State University, San Luis Obispo. Ms. Foot has been involved in a variety of projects and has assisted with the development of Phase I ESAs, conducted data quality assurance reviews, and provided technical support in reviewing historical documents for large litigation projects.

8.0 NON-SCOPE CONSIDERATIONS

In accordance with Geosyntec's scope of work for this project, "non-scope considerations," as defined in ASTM E 1527-13 were not evaluated. These are environmental issues including asbestos-containing building materials, biological agents, cultural and historic resources, ecological resources, endangered species, health and safety, indoor air quality, industrial hygiene, lead-based paint, lead in drinking water, mold, radon, regulatory compliance, and wetlands that are beyond the scope of a traditional Phase I ESA.

9.0 REFERENCES

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