



**PHASE I ENVIRONMENTAL SITE ASSESSMENT  
DOWNTOWN WATERFRONT SPECIFIC PLAN  
DOWNTOWN WATERFRONT SPECIFIC PLAN  
SUISUN CITY, CA**

**PREPARED FOR:**

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## EXECUTIVE SUMMARY

Ninyo & Moore was retained by AECOM to perform a Phase I Environmental Site Assessment (ESA) on select properties located within the proposed Downtown Waterfront Specific Plan (DWSP) update area in Suisun City, California (Figures 1 and 2).

The objective of this ESA is to identify, to the extent feasible pursuant to the process described in ASTM E1527-13, recognized environmental conditions (RECs), which are defined by ASTM as "the presence or likely presence of any hazardous substances 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. The results of this ESA are summarized below:

- The Downtown Waterfront Specific Plan (DWSP) was created in 1983 and was comprehensively amended in 1999. The creation of this specific plan was included as an implementation measure of the 1979 General Plan as the General Plan, recognized the need for special treatment of the Historic Downtown and Waterfront. The Priority Development Area (PDA) program was jointly developed by the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) in order to facilitate infill development near existing and planned transportation facilities. Suisun City has one PDA; the Downtown Waterfront. The regional agencies have currently made available Federal funding to Solano Transportation Authority (STA) for planning studies associated with PDAs. The Suisun City Council in March of 2013 approved the update and expansion of the current DWSP, and to complete the necessary Environmental Impact Report (EIR), through this funding opportunity. This ESA is being prepared to supplement the CEQA environmental Initial Study supporting a Mitigated Negative Declaration (MND), which is being prepared by AECOM.
- As part of this ESA, the DWSP update area was broken into nine "sub-areas" where land use changes would be expected. The entire Downtown Specific Plan Area includes 400 acres, with the sub-areas accounting for approximately 120 acres. The nine sub-areas include Area A, Area B, Area C, Area E, Area F, Area G, Area H, Area I, and Area J (Figures 3 through 11).
- Historical research dating back to the 1930s revealed that much of the DWPA update area consisted of undeveloped marsh land with some rural residential and commercial/industrial development. A tank farm was located on the north end of Suisun Slough (Area J) dating back to the 1930s. This tank farm was operated by Sheldon Oil Company until the late 1980s/early 1990s. The Suisun Slough was subsequently expanded in the 1990s across a portion of the former Sheldon Oil Company tank farm, which resulted in the southern area of the former tank farm to be inundated by the expansion of the Suisun Slough. In the 1930s and 1940s, development within Suisun City was primarily focused on areas to the west and north of Suisun Slough. Suisun City continued to grow and expand during the 1940s and 1950s, and the DWSP update areas were

developed to include a school (Area A), commercial development (Areas B and C), residential and industrial/commercial development (Area J), and a boat launch facility (Area I), while the remainder of the DWSP update areas remained mostly undeveloped. By the 1960s and 1970s, further development of the DWSP update areas included a corporation yard (Area E), a wastewater treatment plant and a marina (Area H). By the early 1990s, the residential development within Area J had been removed and replaced with open space. The former Sheldon Oil Company tank farm was demolished in the early 1990s, and the wastewater treatment plant was demolished sometime between 1993 and 1998.

- On October 8, 2015, Mr. Randy Wheeler of Ninyo & Moore conducted a site reconnaissance of the property. The reconnaissance involved a visual inspection of the site, and observations of adjoining properties. Specific details about each study area are discussed below:

- Area A encompasses two vacant parcels totaling approximately 9.6 acres of land. The area was the location of the prior Crystal School. Cordelia Street bisects the northern portion from the southern portion. Several gravel and asphalt piles were noted on the area.
- Area B encompasses 16 parcels totaling approximately 6.27 acres of land. Area B is generally triangular in shape, and is located south of Railroad Avenue and Spring Street, east of the railroad tracks, west of Main Street, and north of Sacramento Street. Development within this area includes a variety of retail and commercial development. The majority of the businesses within this area are located on Benton Court and Travis Court, with some located along Railroad Avenue and Spring Street. Commercial development along Benton Court includes several automotive repair/supply facilities (T.O.E Performance Products (211 Driftwood Drive), Kyron's Body Shop (201-205 Benton Court), Extreme Cyclez (213 Benton Court), and Hi-Tech Auto - 237 Benton Court), a small brewery (Right-Eye Brewery - 221 Benton Court), a sign company (Clear Image Signs - 227 Benton Court), a pest control company (Hitman Pest and Termite Control - 229 Benton Court), a small construction company (Konni Construction - 247 Benton Court), an electrical contractor (Golden West Electric - 241 Benton Court), and a roofing supply company (Suisun Roofing Company - 260 Benton Court). The area includes two undeveloped parcels utilized for roofing materials storage, and one vacant parcel (526 School Street) that was the location of the former Sheldon Oil truck washing facility. Commercial development also includes a party rental business (Platinum Party Rentals), pet grooming (Tidy Tails), and a candy/cookie store (Family Cookie Company - 302 Spring Street). Two multi-tenant commercial buildings are located along Travis Court (233-247 Travis Court and 228-303 Travis Court). Tenants in these units include a spa (Tokyo Spa), SH Mechanical, a church, an education center (Learning without Limits), and a roofing contractor (RoofMasters).

- Area C encompasses eight parcels totaling approximately 7.38 acres of land. Area C is generally rectangular in shape, and is located east of the railroad tracks, and north of Lotz Way. State Route Highway 12 bisects the central portion of Area C. The southern portion of Area C is utilized for car parking, and the northern portion is vacant.
- Area E encompasses five parcels totaling approximately 34.9 acres of land. Area E is generally triangular in shape, and is located north of Highway 12, southeast of the railroad tracks, and west of Marina Boulevard. A portion of Area E, identified as APN 32-230-31, was previously utilized by the City as a corporation yard until 1994. The remainder of the area is vacant, undeveloped land. A large water tank and a small brick building are the only remaining structures on the property. An underground Kinder Morgan petroleum pipeline crosses the western portion of the area from Railroad Avenue southwest to Main Street.
- Area F encompasses five parcels totaling approximately 9.07 acres of land. Area F is generally rectangular in shape, and is located south of Highway 12, west of Marina Boulevard, and north of Lotz Way. The area is currently vacant, undeveloped land. A large stand-mounted, triangular-shaped sign is located in the northeastern corner of the area.
- Area G encompasses three parcels totaling approximately 7.06 acres of land. Area G is generally rectangular in shape, and is located south of Highway 12, east of Marina Boulevard, and north of Driftwood Court. The area is currently vacant land bordered on the east by a waterway, to the west by Marina Boulevard, and to the south by Driftwood Court.
- Area H encompasses 14 parcels totaling approximately 29.32 acres of land. Area H is generally located in the southeastern portion of the study area and is bordered by the Suisun Slough along the south portions of the area, and by residential development to the north. The area is currently comprised of developed and undeveloped land. The primary development in this area includes the Suisun Pacific Marina and Storage facility (RV, boat and trailer storage) located in the northeastern portion of the area. The storage facility includes open areas for outdoor storage of boats, RVs, automobiles and trailers, along with enclosed storage units in the northeastern portion of the facility. The central portion of the study area consists of vacant land and undeveloped marshland. The vacant portion of land in the center of the area was originally developed to be part of a planned 1960s development referred to as Suisun Pacific, the name of a big custom-home-and-marina project planned for the city. Suisun Pacific was to include a marina located at the southern end of Marina Boulevard. This marina was to have 400 berths, lagoon-view homes, a gas station, a snack bar, a boat shop and dry storage. The uncompleted marina opened in October 1964. The Suisun Pacific project petered out in subsequent years and the marina closed. The homes slated for construction were never completed, with only the circular

Marina Circle constructed. A lift pump, which is operated by the Fairfield-Suisun Sewer District (FSSD) is located in the southern portion of the study area, and is used to pump water from an adjacent drainage canal to Suisun Slough to the south. The western, vacant portion of the area was the location of the former FSSD wastewater treatment plant (WWTP).

- Area I encompasses four parcels totaling approximately 6.96 acres of land. Area I is generally located east of Kellogg Street, south of Walnut Street, and west of the Suisun Slough. Area I is currently developed with a commercial development (California Marine Sports), a boat launch parking lot, and a boat launch ramp. The northeastern corner of Area I is mostly vacant land with an enclosed pad-mounted transformer, and a small portable office used by the Suisun Marina. Two 6,000-gallon fuel ASTs are located in the north-central portion of the site and are enclosed within a masonry-brick enclosure. The ASTs provide boat fuel to the adjacent marina via underground piping. Evidence of leaks or spills was not observed around the ASTs. The remainder of the area include the boat launch parking, the boat launch, and restrooms in the southwestern corner of the area. Suisun Slough borders the eastern area boundary and Kellogg Street borders the western area boundary.
- Area J encompasses 19 parcels totaling approximately 9.29 acres of land. Area J is generally located west of Civic Center Boulevard, south of Lotz Avenue, east of the Suisun Slough. Area J consists of mostly undeveloped land with a small public parking lot located in the central portion of the area. The western portion of the area includes part of the redeveloped Suisun Slough, which was historically utilized as the Sheldon Oil Tank Farm (426 Main Street) from the 1930s until the late 1980s/early 1990s. The northern and southern portions of the area were historically developed with residential houses and apartments from the 1930s until the mid- to late-1980s when the homes were demolished. Since then, these areas have been undeveloped.
- Ninyo & Moore did not observe quantities of hazardous substances or petroleum products used or stored on site during our site reconnaissance with the exception of materials used, stored and handled by the various repair/service shops, or other agency-permitted facilities. Other facilities or properties not identified through agency file review or from the site visit, may use, store or handle hazardous materials and may generate hazardous wastes in quantities that are not above agency-listing thresholds.
- Indications of aboveground storage tanks (ASTs), underground storage tanks (USTs), or hazardous material spills or leaks, were not observed from public right-of-ways during the site reconnaissance, with the exception of the two fuel ASTs at 1240 Kellogg Street (Area I)

- Review of an environmental database report obtained for this project indicated that many of the properties within the study areas were listing on various regulatory databases researched by Environmental Data Resources Inc. (EDR). These properties include Suisun Roofing Supply (Area B, 260 Benton Court, UST database), William Bowman (Area B, 263 Benton Court - UST database), and Sheldon Oil Company (Area J, 426 Main Street, LUST and UST databases). Suisun Roofing Supply was referenced as having a 10,000-gallon diesel UST removed in 1987, and the William Bowman property had a 2,000-gallon gasoline UST removed in 1987. Both of these properties received no further action determinations from the Solano County Environmental Management Department (SCEMD). As stated previously, Sheldon Oil company operated a tank farm facility at 426 Main Street from the 1930s until the late 1980s/early 1990s. As part of the downtown redevelopment, the Suisun Slough was subsequently expanded in the 1990s across a portion of the former Sheldon Oil Company tank farm, which resulted in the southern area of the former Sheldon Oil tank farm to be inundated by the expansion of the Suisun Slough. This facility received case closure from the Regional Water Quality Control Board (RWQCB) in 1995.
- Additionally, Ninyo & Moore requested regulatory files from the SCEMD for the non agency-listed properties within the study area. A discussion of the findings per area are presented below. Details of each are further discussed in Section 5.3.7.
  - Area A: The former Crystal school was located on Cordelia Street. A 2010 report indicated that a fuel oil bunker was discovered in May 2007 during demolition work just south of the Morgan Street sidewalk. Petroleum-impacted subsurface soil was at the north end of the Crystal School play yards. Fuel oil had apparently been used to heat the former grammar school. The concrete bottom of the bunker was briefly exposed during excavation (at a depth of about 7 or 8 feet), and was subsequently left in place. Fuel oil had apparently leaked into the subsurface (Raven, 2010). In June 2007 and December 2009, soil samples indicated hydrocarbon-impacted soil around the bunker. Concentrations exceeded state regulatory levels. In August 2010, a removal action workplan (RAW) was prepared, and subsequently approved, by the SCEDM, for the excavation and removal of approximately 3,000 square feet of hydrocarbon-impacted soil to a depth of around 8 feet bgs. To date, the City has not acquired the funds to complete the RAW, and as such, concentrations of petroleum-hydrocarbons above regulatory screening levels in soil remain.
  - Area B: Several agency-listed properties were located within this study area, including the following: T.O.E Performance Products (211 Driftwood Drive), Kyron's Body Shop (201-205 Benton Court), Extreme Cyclez (213 Benton Court), Hi-Tech Auto (237 Benton Court), Right-Eye Brewery (221 Benton Court), Hitman Pest and Termite Control (229 Benton Court), Suisun Roofing Company (260 Benton Court), Dewey Pest Control (263 Benton Court), Former Sheldon Oil truck washing facility (526 School Street), and Family Cookie Company (302 Spring Street). The majority of these properties were on various

regulatory databases for their use and storage of hazardous materials (such as, but not limited to, motor oil, transmission fluid, gasoline, diesel, anti-freeze, lubricating oils, and compressed gases), and generate hazardous wastes (such as, but not limited to, used motor oil, used oil filters, used transmission fluid and anti-freeze, etc.). Several of the properties (260 and 263 Benton Court), had USTs removed in 1987, and one property is a former truck washing facility (526 School Street). Both the 260 and 263 Benton Court properties subsequently received a "no further action" required determination from the SCEHD. The 526 School Street property has undergone significant soil, soil vapor, and groundwater investigations, as well as some soil excavation, over the past 20-plus years. Concentrations of chlorinated solvents remain in soil at this property. The site has been recommended for closure as a low risk solvent case. According to Mr. Martin Musonge with the State Water Resources Control Board (SWRCB), he did not believe that the facility would be granted closure at this time because detected concentrations of trichloroethylene (TCE) at the wash rack area wells are still very high. The SWRCB is reviewing the closure request, but noted that it is possible they would be recommending additional monitoring and/or additional remedial actions. Based on this information, the 526 School Street property is considered a REC. Since the property is under regulatory oversight and the facility is considered an "open case," no further investigation is required in the regard to this ESA.

- Area C: No agency-listed properties were located within this study area.
- Area E: The former City Corporation yard was located within Area E. In 1989, a leaking diesel UST of unknown capacity was removed from the northwest corner of the Corporation yard parcel. Soil and groundwater were discovered to have been impacted by the leaking diesel UST. Elevated concentrations of diesel remained beneath the removed UST. In 1990, two 1,000-gallon gasoline USTs were removed from the Corporation yard parcel. Site investigations determined that soil and groundwater beneath the removed tanks had been impacted. Three groundwater monitoring wells were installed to monitor groundwater. The wells were sampled quarterly until 1997. A workplan for soil characterization and remediation was submitted to the County in May/June 1994. Information was not available as to whether the workplan scope of work was ever completed. In May/June 2005, Engeo Environmental (Engeo) conducted a Phase II ESA of the Corporation yard parcel. The assessment included a groundwater assessment that included collection and analysis of groundwater samples for TPH as diesel (TPHd), TPH as gasoline (TPHg), benzene, toluene, ethylbenzene and xylenes (BTEX), and Methyl tert-butyl ether (MtBE); a soil investigation that included collecting and analyzing seven soil samples for TPHd, TPHg, BTEX, and MtBE; and a groundwater investigation along the Kinder Morgan pipeline and the analysis of four groundwater samples for TPHd, TPHg, BTEX, and fuel oxygenates, including MtBE. Engeo concluded that limited groundwater

impact exists in the vicinity of the former USTs, and that the detected TPH/BTEX concentrations are likely associated with the isolated groundwater within the former UST backfill material. Additional groundwater characterization was not recommended by Engeo, however, reported benzene at 13,000 micrograms per liter (ug/l) exceeded the RWQCBs Environmental Screening Level (ESL) for the groundwater to indoor air residential exposure pathway. Engeo recommended that if land use changes from commercial to residential, some remediation or engineering controls, such as vapor barriers, would be necessary.

- Area F: No agency-listed properties were located within this study area.
- Area G: No agency-listed properties were located within this study area.
- Area H: While not an agency-listed facility, the former FSSD WWTP underwent soil and groundwater testing in 1991. The investigation included collecting 10 near-surface soil samples from sludge ponds, and installing two 20-foot deep groundwater monitoring wells. One well was located south of the former sludge ponds and the other well was located southwest of the plant. The soil samples were analyzed for TTLC CAM 17 metals, with soil samples from the two monitoring wells also being tested for metals, volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs). The groundwater samples were analyzed for metals, VOCs, SVOCs, and total extractable petroleum hydrocarbons. Laboratory analytical results for the groundwater samples were non-detect for the compounds tested. Engeo concluded that there were no indications from reviewing the laboratory test results that the sewer treatment facility has impacted the groundwater in the site vicinity. Results of the soil analyses found that concentrations of detected metals in the near surface soil varied across the sampled areas. Lead was reported at a concentration of 295 milligrams per kilogram (mg/kg) in the southwestern sludge pond, and nickel was reported at 226 mg/kg from the south-eastern sludge pond. Engeo noted that the results of Waste Extraction Testing (WET) on select soil samples showed that the high lead and nickel concentrations detected in the near surface soil samples were not soluble and the soil would not be classified as a hazardous waste (Engeo, 1991). Engeo recommend that following grading activities at the sludge pond areas, near surface soil samples could be collected to determine that no significant concentrations of lead or nickel remain in the near surface soil in this area.
- Area I: California Marine Sports (1240 Kellogg Steet) was listed as a hazardous waste generator due to the routine maintenance of watercraft engines, which generates small quantities of hazardous wastes (used oil and oil filters). The facility was also listed as containing two 6,000-gallon fuel ASTs located in the north-central portion of the site and

enclosed within a masonry-brick enclosure. The ASTs provide boat fuel to the adjacent marina via underground piping. Evidence of leaks or spills was not observed around the ASTs.

- Area J: Sheldon Oil Tank Farm (426 Main Street) was listed as a closed LUST site. The southern portion of the former tank farm was redeveloped into the existing northern end of Suisun Slough (e.g., it was inundated with water) as well as the commercial building to the north. The portion of Area J that was previously occupied by the tank farm consists of water.
- Based on the completion of the Vapor Encroachment Condition (VEC) screening matrix, it is presumed unlikely that a VEC currently exists beneath the majority of the site, with the possible exception of Areas B, E and J.
- An environmental lien or activity and use limitations (AULs) search was not requested for this ESA.
- An asbestos and lead survey was beyond the scope of this investigation.

## CONCLUSIONS

Ninyo & Moore has performed this ESA in conformance with the scope and limitations of ASTM E1527-13 of select areas located within the Downtown Waterfront Specific Plan update area in Suisun City, California. Based on the information compiled during the preparation of this report, this assessment has revealed no evidence of RECs in connection with the study areas with the exception of the following:

- Concentrations of petroleum-hydrocarbons above regulatory screening levels in soil remain on the former Crystal School site (Area A). A RAW was approved by the SCEMD in 2010 for the removal of the impacted soil, however, the City has not acquired the funds to complete the work.
- Residual petroleum-impacted groundwater contamination at the former Corporation yard, Area E remains. Results of the 2005 Engeo investigation indicated elevated levels of benzene (13,000 micrograms per liter [ug/l], TPHg (61,000 ug/l), TPHd (43,000 ug/l), and TPHmo (5,200 ug/l) were detected in groundwater. Results of the soil sampling indicated TPHg, BTEX, and MtBE were non-detect in each of the samples analyzed. Trace concentrations of TPHmo and TPHd were reported at depths of up to 7-1/2 feet bgs. Concentrations were all below RWQCB ESLs. Groundwater samples collected along the Kinder Morgan pipeline were all non-detect. Engeo concluded that limited groundwater impact exists in the vicinity of the former USTs, and that the detected TPH/BTEX concentrations are likely associated with the isolated groundwater within the former UST backfill material. Additional groundwater

characterization was not recommended by Engeo, however, the reported benzene concentration (13,000 ug/l) exceeded the RWQCBs Environmental Screening Level (ESL) for the groundwater to indoor air residential exposure pathway. Engeo recommended that if land use changes from commercial to residential, some remediation or engineering controls, such as vapor barriers, would be necessary (Engeo, 2005a).

- Residual groundwater contamination from TCE at the former Sheldon Oil truck wash facility (Area B, 526 School Street) remains. TCE was report in a July 15, 2015 deep groundwater sample at a concentration of 10,000 ug/l, and in a shallow groundwater sample at 87 ug/l, which are significantly higher than the State of California maximum contaminant level (MCL) of 5.0 ug/l. This facility is undergoing regulatory review and oversight and is considered an "open" case.
- Potential elevated concentrations of nickel and lead are present in shallow soils at the former FSSD WWTP (Area H). The environmental consultant working on this area, Engeo, concluded that there were no indications that the WWTP had impacted the groundwater in the site vicinity. Results of the soil analyses found that concentrations of detected metals in the near surface soil varied across the sampled areas. Lead was reported at a concentration of 295 milligrams per kilogram (mg/kg) in the southwestern sludge pond, and nickel was reported at 226 mg/kg from the south-eastern sludge pond. Engeo noted that the results of Waste Extraction Testing (WET) on select soil samples showed that the high lead and nickel concentrations detected in the near surface soil samples were not soluble and the soil would not be classified as a hazardous waste (Engeo, 1991). Engeo recommended that following future site grading activities at the sludge pond areas, near surface soil sample could be collected to determine if significant concentrations of lead or nickel remain in this area. The previously planned residential development on the WWTP area has not occurred to date.

## **RECOMMENDATIONS**

As discussed in the preceding Conclusions section, several areas within the DWSP update area have been impacted by soil and/or groundwater contamination. Four of the study areas, Area A, Area B, Area E and Area H, have existing soil and/or groundwater contamination issues that have yet to be resolved. In the case of Area A, this appears to be due to a lack of funding to complete the approved removal action. For Area B, additional mitigation and/or investigation seems likely based on information from the SWRCB. For Areas E and H, further remediation and/or mitigation measures appear to have been deferred until future site redevelopment occurs. The other impacted-areas appear to be under current regulatory oversight and do not require further investigation under this ESA.

Based on this information, Ninyo & Moore recommends that the City maintain contact with the appropriate regulatory agencies responsible for oversight of future investigations, mitigation and/or

remediation measures to evaluate the status of these areas with regards to future development. For Area A, implementation and completion of the removal action appears to be dependant upon the City obtaining the necessary funds to complete the work.

## 1. INTRODUCTION

Ninyo & Moore conducted this Phase I Environmental Site Assessment (ESA) on select properties located within the proposed Downtown Waterfront Specific Plan (DWSP) update area in Suisun City, California (Figures 1 and 2). The following sections identify the purpose, the involved parties, the scope of services, and the limitations and exceptions associated with this ESA.

### 1.1. Purpose

In accordance with ASTM E1527-13, the objective of the ESA is to identify recognized environmental conditions. The term recognized environmental conditions (RECs) means "the presence or likely presence of any hazardous substances 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. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions."

Identification of RECs will fall into three categories: existing REC (as defined above), Historical REC (HREC), or Controlled REC (CREC).

- HREC - An HREC is defined as "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 (AULs), institutional controls, or engineering controls)."
- CREC - A CREC is defined as "a recognized environmental condition 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, AULs, institutional controls, or engineering controls)."

## **1.2. Involved Parties**

Mr. Randy Wheeler, a Senior Geologist with Ninyo & Moore, was the Environmental Professional assigned to this project. Mr. Duane Blamer, Principal Geologist with Ninyo & Moore, performed project oversight and quality review. Resumes of these individuals are included in Appendix A.

## **1.3. Scope of Services**

Ninyo & Moore's scope of services for this ESA included the following:

- Performance of a site reconnaissance to visually and/or physically observe the interior and exterior of structures and other features on the site as well as visible exterior features of adjoining properties to identify areas of possibly contaminated surface soil or surface water, improperly stored hazardous materials, possible sources of polychlorinated biphenyls (PCBs), and possible risks of contamination from activities at the site and adjoining properties. Photograph relevant site features (Appendix B).
- Review of reasonably ascertainable standard environmental record sources including federal, state, and tribal regulatory agency databases for the site and for properties located within a specified radius of the site (Appendix C). The purpose of this review was to evaluate possible environmental impacts to the site and site vicinity activities. These databases list locations of known hazardous waste sites, landfills, leaking underground storage tanks (LUSTs), permitted facilities that utilize LUSTs, and facilities that use, store, or dispose of hazardous materials and/or petroleum products.
- Review of reasonably ascertainable additional environmental record sources including local records and/or additional state or tribal records for the site and for properties located within a specified radius of the site. The purpose of this review was to evaluate possible environmental impacts to the site and site vicinity activities. These databases list locations of known hazardous waste sites, solid waste landfills, registered storage tanks, emergency releases, contaminated public wells, and facilities that use, store, or dispose of hazardous materials and/or petroleum products (Appendix D).
- Review of reasonably ascertainable standard physical setting sources including a current United States Geological Survey (USGS) 7.5-minute topographic map, and possibly including USGS and/or state groundwater and geologic maps, and soil maps. The purpose of this review was to note information about the geologic, hydrologic, and/or topographic characteristics of the site and site vicinity.
- Review of reasonably ascertainable historical documents may include aerial photographs, historical fire insurance rate maps, city directories, and property tax files. The purpose of this review was to review obvious uses of the site from the present, back to the site's first developed use, or back to 1940, whichever is earlier (Appendix E).

- Performance of interviews with present owners, operators, and occupants of the site as well as other knowledgeable parties as appropriate. The purpose of these interviews is to obtain information regarding potential RECs in connection with the site.
- Perform a preliminary vapor encroachment screening assessment on the site and adjoining properties (Appendix F).
- Preparation of this ESA report documenting methodology, reporting findings, significant data gaps, and conclusions, and providing opinions of the impact on the site of conditions noted in the findings section regarding RECs at the site.

#### **1.4. Limitations and Exceptions**

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard of care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information or has questions regarding the content, interpretations presented, or completeness of this document.

The findings, opinions, and conclusions are based on an analysis of the observed site conditions and the referenced literature. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control. Ninyo & Moore cannot warrant or guarantee that not finding indicators of any particular hazardous material means that this particular hazardous material or any other hazardous materials do not exist on the site. Additional research, including invasive testing, can reduce the uncertainty, but no techniques now commonly employed can eliminate the uncertainty altogether.

#### **1.5. Special Terms and Conditions**

Ninyo & Moore was not made aware of any special terms and conditions associated with the site.

#### **1.6. User Reliance**

This report may be relied upon by, and is intended exclusively for, AECOM and the City of Suisun City (City). Any use or reuse of the findings, opinions, and/or conclusions of this report by parties other than the client is undertaken at said parties' sole risk.

### **1.7. Physical Limitations**

Physical limitations were not encountered during the site reconnaissance. Note that access agreements onto individual businesses was not provided by AECOM, and therefore, observations were generally made from public right-of-ways or City-owned properties.

### **1.8. Data Gaps**

A data gap is a "lack of or inability to obtain data required by this practice despite good faith efforts to gather such data." In completing this ESA, Ninyo & Moore encountered the following data gaps:

- Previous site owners were not readily available or interviewed for this ESA. Based on the overall findings of this ESA, Ninyo & Moore concluded interviews with these previous site owner(s) would be unlikely to provide additional information material to identifying RECs for the site.
- The interior of the businesses located within the study areas were not visually inspected since a right-of-entry agreement was not provided to Ninyo & Moore to access individual properties. This is considered a data gap. Based on review of available regulatory file information for agency-listed properties, or observations of the general type of activities conducted on certain properties, the lack of an on-site visual inspection is considered a significant data gap in terms of identifying RECs associated with certain areas. Several of the businesses with the study area use, store or handle hazardous materials and several generate and dispose of hazardous wastes.

## **2. SUBJECT SITE**

The following sections provide a general description of the site and adjacent properties. Photographs taken during the site reconnaissance are provided in Appendix B.

### **2.1. Site Description**

The DWSP update areas consist of developed and undeveloped areas within the City (Figures 1 and 2). The DWSP update areas encompass roughly 76 parcels and approximately 120-acres of land. The DWSP update area was broken into nine "sub-areas." The nine sub-areas include Area A, Area B, Area C, Area E, Area F, Area G, Area H, Area I, and Area J (Figures 3 through 11).

### **2.2. Site Reconnaissance**

On October 8, 2015, Mr. Randy Wheeler, Senior Geologist with Ninyo & Moore conducted a site reconnaissance of the property. The reconnaissance involved a visual inspection of the site, and observations of adjoining properties. The site reconnaissance involved a visual inspection of the exterior of the developed parcels, as well as a visual inspection of the undeveloped parcels.

### 2.2.1. Site Improvements

Specific details about each study area are discussed below:

- **Area A** encompasses two vacant parcels totaling approximately 9.6 acres of land. The area was the location of the prior Crystal School. Cordelia Street bisects the northern portion from the southern portion. Several gravel and asphalt piles were noted on the area.
- **Area B** encompasses 16 parcels totaling approximately 6.27 acres of land. Area B is generally triangular in shape, and is located south of Railroad Avenue and Spring Street, east of the railroad tracks, west of Main Street, and north of Sacramento Street. Development within this area includes a variety of retail and commercial development. The majority of the businesses within this area are located on Benton Court and Travis Court, with some located along Railroad Avenue and Spring Street. Commercial development along Benton Court includes several automotive repair/supply facilities (T.O.E Performance Products, Kyron's Body Shop, Extreme Cyclez, and Hi-Tech Auto), a small brewery (Right-Eye Brwwery), a sign company (Clear Image Signs), a pest control company (Hitman Pest Control), a small construction company (Konni Construction), an electrical contractor (Golden West Electric), and a roofing supply company (Suisun Roofing Company). The area includes two undeveloped parcels utilized for roofing materials storage, and one vacant parcel (526 School Street) that was the location of the former Sheldon Oil truck washing facility. Commercial development also includes a party rental business (Platinum Party Rentals), pet grooming (Tidy Tails), and a candy/cookie store (Family Cookie Company). Two multi-tenant commercial buildings are located along Travis Court (233-247 Travis Court and 228-303 Travis Court). Tenants in these units include a spa (Tokyo Spa), SH Mechanical, a church, an education center (Learning without Limits), and a roofing contractor (RoofMasters).
- **Area C** encompasses eight parcels totaling approximately 7.38 acres of land. Area C is generally rectangular in shape, and is located east of the railroad tracks, and north of Lotz Way. State Route Highway 12 bisects the central portion of Area C. The southern portion of Area C is utilized for car parking, and the northern portion is vacant.
- **Area E** encompasses five parcels totaling approximately 34.9 acres of land. Area E is generally triangular in shape, and is located north of Highway 12, southeast of the railroad tracks, and west of Marina Boulevard. A portion of Area E, identified as APN 32-230-31, was previously utilized by the City as a corporation yard until 1994. The remainder of the area is vacant, undeveloped land. A large water tank and a small brick building are the only remaining structures on the property. An underground Kinder Morgan petroleum

pipeline crosses the western portion of the area from Railroad Avenue southwest to Main Street.

- **Area F** encompasses five parcels totaling approximately 9.07 acres of land. Area F is generally rectangular in shape, and is located south of Highway 12, west of Marina Boulevard, and north of Lotz Way. The area is currently vacant, undeveloped land. A large stand-mounted, triangular-shaped sign is located in the northeastern corner of the area.
- **Area G** encompasses three parcels totaling approximately 7.06 acres of land. Area G is generally rectangular in shape, and is located south of Highway 12, east of Marina Boulevard, and north of Driftwood Court. The area is currently vacant land bordered on the east by a waterway, to the west by Marina Boulevard, and to the south by Driftwood Court.
- **Area H** encompasses 14 parcels totaling approximately 29.32 acres of land. Area H is generally located in the southeastern portion of the study area and is bordered by the Suisun Slough along the south portions of the area, and by residential development to the north. The area is currently comprised of developed and undeveloped land. The primary development in this area includes the Suisun Pacific Marina and Storage facility (RV, boat and trailer storage) located in the northeastern portion of the area. The storage facility includes open areas for outdoor storage of boats, RVs, automobiles and trailers, along with enclosed storage units in the northeastern portion of the facility. The central portion of the study area consists of vacant land and undeveloped marshland. The vacant portion of land in the center of the area was originally developed to be part of a planned 1960s development referred to as Suisun Pacific, the name of a big custom-home-and-marina project planned for the city. Suisun Pacific was to include a marina located at the southern end of Marina Boulevard. This marina was to have 400 berths, lagoon-view homes, a gas station, a snack bar, a boat shop and dry storage. The uncompleted marina opened in October 1964. The Suisun Pacific project petered out in subsequent years and the marina closed. The homes slated for construction were never completed, with only the circular Marina Circle constructed. A lift pump, which is operated by the Fairfield-Suisun Sewer District (FSSD), is located in the southern portion of the study area, and is used to pump water from an adjacent drainage canal to Suisun Slough to the south. The western, vacant portion of the area was the location of the former FSSD wastewater treatment plant (WWTP).
- **Area I** encompasses four parcels totaling approximately 6.96 acres of land. Area I is generally located east of Kellogg Street, south of Walnut Street, and west of the Suisun

Slough. Area I is currently developed with a commercial development (California Marine Sports), a boat launch parking lot, and a boat launch ramp. The northeastern corner of Area I is mostly vacant land with an enclosed pad-mounted transformer, and a small portable office used by the Suisun Marina. Two 6,000-gallon fuel ASTs are located in the north-central portion of the site and are enclosed within a masonry-brick enclosure. The ASTs provide boat fuel to the adjacent marina via underground piping. Evidence of leaks or spills was not observed around the ASTs. The remainder of the area includes the boat launch parking, the boat launch, and restrooms in the southwestern corner of the area. Suisun Slough borders the eastern area boundary and Kellogg Street borders the western area boundary.

- **Area J** encompasses 19 parcels totaling approximately 9.29 acres of land. Area J is generally located west of Civic Center Boulevard, south of Lotz Avenue, east of the Suisun Slough. Area J consists of mostly undeveloped land with a small public parking lot located in the central portion of the area. The western portion of the area includes part of the redeveloped Suisun Slough, which was historically utilized as the Sheldon Oil Tank Farm from the 1930s until the late 1980s/early 1990s. The northern and southern portions of the area were historically developed with residential houses and apartments from the 1930s until the mid- to late-1980s when the homes were demolished. Since then, these areas have been undeveloped.

The following summarizes key on-site observations for indications of the following potential environmental concerns:

<b>On-Site Observations</b>			
<b>Conditions</b>	<b>Not Observed or Noted</b>	<b>Observed or Noted</b>	<b>Comments</b>
Hazardous Substances/Petroleum Products		X	Areas B and I. Regulatory records document the use and storage of hazardous materials at several commercial businesses within Area B, as well as two 6,000-gallon fuel ASTs associated with the Suisun Marina at 1200/1240 Kellogg Street (Area I).
Waste Generation/Storage/Disposal		X	Regulatory records document the generation and storage of hazardous wastes at several Area B businesses. Review of regulatory records did not reveal significant impacts to the environment associated with these businesses.
Unidentified Substance Containers	X		
Storage Tanks (ASTs and/or USTs)		X	Two 6,000-gallon fuel ASTs are located on Area I.

Potential PCB-Containing Equipment	X		
Chemical/Petroleum Odors	X		
Concrete Patches/Pads	X		
Pools of Liquid	X		
Sewage Discharge Pipes	X		
Floor Drains/Sumps	X		
Elevator	X		
Wells		X	Groundwater monitoring wells associated with the former Sheldon Oil truck washing facility at 526 School Street (Area B).
Drums	X		
Unidentified Substance Containers	X		
Indications of Staining	X		
Stressed Vegetation	X		
Pits, Ponds, or Lagoons	X		Former sludge ponds associated with the FSSD WWTP in Area H. The ponds have subsequently been removed.
Waste Water Discharges/Disposal Systems	X		
Storm Water Systems	X		
Septic Systems/Cesspools	X		
Municipal Solid Waste Disposal Areas	X		
Other Environmental Concerns or Conditions	X		

**2.2.2. Roads**

As shown on Figure 2, the site is accessible from numerous roadways throughout the study area.

**2.2.3. Site Occupants**

At the time of our site reconnaissance, the developed properties were occupied by a variety of tenants and users.

**2.2.4. Source of Potable Water**

The Solano Irrigation District provides potable water to the developed parcels.

**2.2.5. Sewage Disposal System**

The Fairfield-Suisun Sewer District provided sewage disposal services to the developed parcels.

**2.2.6. Source of Fuel for Heating and Cooling**

The fuel source for the on-site heating and cooling systems for the developed parcels is electricity.

### **2.3. Adjoining Properties**

Based on the nature of the adjoining properties and observations made during our site reconnaissance, it is unlikely that the adjoining properties have impacted the environmental integrity of the site at this time.

## **3. USER PROVIDED INFORMATION**

The following sections summarize information provided by the user to assist the environmental professional in identifying the possibility of RECs in connection with the site and to fulfill the user's responsibilities in accordance with Section 6 of ASTM E1527-13. A copy of the User Questionnaire was sent to AECOM for completion. A copy of the completed User Questionnaire was not returned to Ninyo & Moore.

### **3.1. Title Records**

Preliminary Title Reports for each parcel were not provided to Ninyo & Moore.

### **3.2. Environmental Liens or AULs**

AECOM has not informed Ninyo & Moore of the existence of environmental liens or AULs associated with the site.

### **3.3. Specialized Knowledge**

AECOM provided no specialized knowledge regarding the site.

### **3.4. Commonly Known or Reasonably Ascertainable Information**

Commonly known or reasonably ascertainable information pertaining to the site that is material to RECs in connection with the site was not identified by AECOM.

### **3.5. Valuation Reduction for Environmental Issues**

Information pertaining to valuation reduction was not communicated to Ninyo & Moore by AECOM for the purpose of this assessment.

### **3.6. Owner, Property Manager, and Occupant Information**

Property owner, manager or occupant information was not provided to Ninyo & Moore.

### **3.7. Reason for Performing Phase I**

This ESA has been completed for the exclusive use of AECOM in support of updating the City of Suisun's Downtown Waterfront Specific Plan.

## **4. PHYSICAL SETTING**

The following sections include discussions of topographic, geologic, and hydrologic conditions.

### **4.1. Topographic Conditions**

Based on a review of the USGS 7.5-Minute Topographic Quadrangle Map Series of the Fairfield Souht Quadrangle, 1980, the study areas are generally situated at elevations of approximately 5 to 6 feet above mean sea level (msl) elevation.

### **4.2. Geology and Soil Conditions**

The site is located in the Coast Range geomorphic province of California. The Coast Ranges are northwest-trending mountain ranges (2,000 to 4,000, occasionally 6,000 feet elevation above sea level), and valleys. The ranges and valleys trend northwest, sub-parallel to the San Andreas Fault. Strata dip beneath alluvium of the Great Valley. To the west is the Pacific Ocean. The coastline is uplifted, terraced and wave-cut. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern and southern ranges are separated by a depression containing the San Francisco Bay. The northern Coast Ranges are dominated by irregular, knobby, landslide-topography of the Franciscan Complex. The eastern border is characterized by strike-ridges and valleys in Upper Mesozoic strata. In several areas, Franciscan rocks are overlain by volcanic cones and flows of the Quien Sabe, Sonoma and Clear Lake volcanic fields. The Coast Ranges are subparallel to the active San Andreas Fault. The San Andreas is more than 600 miles long, extending from Pt. Arena to the Gulf of California. West of the San Andreas is the Salinian Block, a granitic core extending from the southern extremity of the Coast Ranges to the north of the Farallon Islands (CGS, 2002).

The 1982 California Division of Mines and Geology, Geologic Map of Santa Rosa, California Quadrangle (Wagner et al, 1982), shows the site to be primarily underlain by alluvium deposits. Based on our review of the United States Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS), online soil survey, the primary soil types beneath the study areas are mapped as the Capay silty clay loam, Capay clay, and Made Land (NRCS, 2010).

### 4.3. Site Hydrology

The following sections discuss the site hydrology in terms of surface water and groundwater.

#### 4.3.1. Surface Waters

Surface waters include ponds, streams, creeks, lagoons and other naturally-occurring bodies of water. At the time of our reconnaissance, surface waters were observed on and adjacent to the site and included the Suisun Slough.

#### 4.3.2. Groundwater

Site-specific groundwater depth and flow direction information is not available. Groundwater flow direction in the site vicinity was assumed to be towards Suisun Slough. Depth to groundwater is anticipated to be shallow (less than 10 feet below ground surface) based on the located of the study areas in relation to the adjacent Suisun Slough.

## 5. RECORDS REVIEW

The following sections summarize records reviewed for the site.

### 5.1. Environmental Record Sources

Environmental Data Resources, Inc. (EDR) performed a computerized environmental information database search for the site and site vicinity. The EDR report included federal, state, and local databases. The review was conducted to evaluate whether or not the site or properties within the vicinity of the site have been listed as having experienced significant unauthorized releases of hazardous substances or other events with potentially adverse environmental effects for the site. A summary of the environmental databases searched, their corresponding search distance, and the number of listed off-site properties of potential environmental concern to the site are presented in the following table. A copy of the EDR Radius Map Report is presented in Appendix C.

Map Findings Summary								
Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
National Priority List		TP	NR	NR	NR	NR	NR	0
Comprehensive Environmental Response, Compensation, and Liability Information System		TP	NR	NR	NR	NR	NR	0
CERCLIS No Further Remedial Action Planned		TP	NR	NR	NR	NR	NR	0
Corrective Action Report		TP	NR	NR	NR	NR	NR	0
RCRA - Treatment, Storage and Disposal		TP	NR	NR	NR	NR	NR	0

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RCRA - Large Quantity Generators		TP	NR	NR	NR	NR	NR	0
RCRA - Small Quantity Generators		TP	NR	NR	NR	NR	NR	0
Engineering Controls Sites List		TP	NR	NR	NR	NR	NR	0
Sites with Institutional Controls		TP	NR	NR	NR	NR	NR	0
Emergency Response Notification System		TP	NR	NR	NR	NR	NR	0
A Listing of Brownfields Sites		TP	NR	NR	NR	NR	NR	0
Geotracker's Leaking Underground Fuel Tank Report		TP	4	NR	NR	NR	NR	4
Active UST Facilities		0.25	19	11	NR	NR	NR	30
Aboveground Petroleum Storage Tank Facilities		TP	NR	NR	NR	NR	NR	0
Voluntary Cleanup Program Properties		TP	NR	NR	NR	NR	NR	0
SWEEPS UST Listing		TP	5	NR	NR	NR	NR	5
EnviroStor Database		TP	NR	NR	NR	NR	NR	0
Hazardous Waste & Substance Site List		TP	1	NR	NR	NR	NR	1

**5.1.1. Regulatory Database Listings for the Site**

The following table summarizes the database listings related to the site:

On-Site Database Listings			
Facility Name	Facility Address	Database	Comments:
SUISUN ROOFING SUPPLY INC	260 BENTON CT	UST	This listing relates to the removal of a 10,000-gallon diesel UST in 1987. No further action was required by the SCEMD.
WILLIAM BOWMAN ARCHITECTURAL	263 BENTON CT	UST	This listing relates to the removal of a 2,000-gallon gasoline UST in 1987. No further action was required by the SCEMD.
SHELDON OIL COMPANY	426 MAIN ST	LUST, UST	This listing relates to the former Sheldon Oil tank farm facility. Review of the Geotracker database indicates that this is a "closed" LUST facility (closed in 1995).

**5.1.2. Regulatory Database Listings for Off-Site Properties**

Off-site properties/facilities listed in the **Map Findings Summary** table above were evaluated as to their potential to impact soil, soil vapor, and/or groundwater at the site. The following table presents the properties/facilities that were interpreted to represent a potential environmental concern to the site, based on their proximity to the site, the nature of the database on which they are listed, and/or the assumed direction of groundwater flow in the site vicinity.

Facilities of Potential Concern					
Facility Name	Facility Address	Distance from Site	Direction from Site	Database	Notes/Comments
PAULS BOAT HARBOR	1010 KELLOGG ST	0	WSW	LUST, HIST CORTESE, HIST UST, UST	This is a "soil only" closed LUST site. based on this information, this facility is not considered a REC to the site at this time.
LONEY PROPERTY CITY OF SUISUN	1112 KELLOGG ST	0	WSW	LUST, UST	This is a "soil only" closed LUST site. based on this information, this facility is not considered a REC to the site at this time.

**5.2. Additional Environmental Record Sources**

Based on the environmental database review, information regarding the site and adjoining properties of potential environmental concern was requested from appropriate state and/or local government regulatory agencies. The purpose of a file review is to "obtain sufficient information" to assist the EP in determining if a REC, HREC, CREC or de minimis condition exists at the site in connection with the listed facilities identified in the above tables.

**5.2.1. County Environmental Records Sources**

The Solano County Environmental Management Department (SCEMD) was contacted regarding hazardous materials or hazardous wastes records associated with parcels that had physical site addresses. Files and/or records were available for select site address and are discussed below. Based on the reviewed files, the facilities identified below are not considered to be RECs. **Copies of relevant file review information are included in Appendix D.**

**Area B:**

- Extreme Cyclez, 213 Benton Ct. This facility stores and uses hazardous materials such as motor oil, lubricating fluids, anti-freez and transmission fluid. Hazardous wastes include used motor oil, used oil filters, waste anti-freeze.
- Right-Eye Bewing, 221 Benton Ct. This facility is permitted for a CO2 tank for their brewing operations.
- Hi-Tech Auto, 237 Benton Ct. This facility is a permitted hazardous materials/hazardous waste facility. Hazardous materials include typical automotive products such as motor oil, transmission fluid, anti-freeze, etc., and hazardous wastes include used motor oil, used oil filters, waste anti-freeze.
- Suisun Roofing Supply, 260 Benton Ct. This facility is a permitted hazardous materials/hazardous waste facility. Hazardous materials include liquid petroleum gas (LPG), hydraulic oil, small quantities of diesel and gasoline, and roofing products.

Hazardous wastes include used oil filters and use lubricating oils. SCEMD files also reference the removal and closure of a 10,000-gallon diesel UST in 1987.

- Dewey Pest Control/William Bownman Architect, 263 Benton Ct. SCEMD files reference the removal and closure of a 2,000-gallon gasoline UST in 1987.
- Family Cookie Company, 302 Spring Street. This facility is permitted for a 6,000-gallon liquid nitrogen AST.
- T.O.E Performance Products, 211 Driftwood Drive. This facility uses and stores hazardous materials such as compresses gases, small quantities of gasoline, and generates small quantities of waste oil.

**Area I:**

- California Marine Supply, 1240 Kellogg Street. This facility is listed as having two 6,000-gallon fuel ASTs located on the property. The ASTs are used to provide fuel to the adjacent Suisun Marina via underground piping. California Marine Supply also performs routine engine servicing and repair of marine engines and uses and stores hazardous materials (motor oil, lubricating oils, etc.) and generates small quantities of hazardous wastes (used motor oil, filters, waste fuel, etc.).

**5.2.2. State Environmental Records Sources**

The California Regional Water Quality Control Board (RWQCB) was contacted regarding hazardous materials or hazardous wastes records associated with the site. The RWQCB had no records on file for the study area site addresses with the exception of the former Sheldon Oil truck washing facility located at 526 School Street. This facility is discussed in detail in Section 5.3.7.

**5.2.3. Local Environmental Records Sources**

Ninyo & Moore requested public records through the local regulatory agencies regarding hazardous materials or hazardous wastes records associated with the site address. The SCEMD had records on file for select site addresses as discussed in Section 5.2.1 above.

**5.2.4. Building/Planning Department Records**

Review of building/planning department records for the 76-parcels that comprise the study area was determined by the EP not to be *practically reviewable* according to the ASTM standard.

**5.2.5. Gas & Oil Maps**

According to the State of California, Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) Online Mapping System, the site does not lie within the administrative boundaries of an oil field and no oil or gas wells are located on the site.

**5.3. Historical Use Information**

Ninyo & Moore conducted a historical record search for the site. This included a review of one or more of the following resources that were found to be both reasonably ascertainable and useful for the purposes of this ESA: historical aerial photographs, historical fire insurance maps, historical topographic maps, land use records, and interviews with property representatives. The following sections summarize information obtained from the historical sources utilized for this assessment. The following table provides a list of historical sources reviewed for this ESA. Copies of historical research documentation, such as fire insurance maps, historical aerial photographs, and topographic maps, are provided in Appendix E.

<b>Historical Use Information</b>			
<b>Data Type</b>	<b>Source</b>	<b>Source Dates</b>	<b>Data Limitations</b>
EDR Sanborn Map Search/Print (Inquiry Number 4389976.3S)	EDR		Map coverage not available.
EDR Aerial Photo Decade Package (Inquiry Number 4389976.9S)	EDR	1937, 1947, 1957, 1968, 1974, 1982, 1993, 1998, 2005, 2006, 2009, 2010, 2012	None.
EDR Historical Topo Map (Inquiry Number 4389976.4S)	EDR	1898, 1901, 1902, 1918, 1940, 1947, 1950, 1968, 1980	None
EDR Radius Map Report (Inquiry Number 4389976.2S)	EDR		None

**5.3.1. Sanborn Fire Insurance Maps**

Ninyo & Moore requested historic fire insurance rate maps (Sanborn Maps) of the site through EDR. Sanborn Map coverage was not available for the site and surrounding areas. A copy of the Sanborn Map Report is included in Appendix E.

**5.3.2. Historical Aerial Photographs**

Ninyo & Moore reviewed historical aerial photographs of the site provided by EDR. A listing of the photographs reviewed is presented in the following table. Copies of the historical aerial photographs are provided in Appendix E.

<b>Summary of Aerial Photographs</b>		
<b>Date</b>	<b>Source</b>	<b>Site</b>
1937	EDR	In general, much of the DWSP update area, including Areas B, E, F, G, H, and I are undeveloped land. The southern portion of Area C appears developed with a large warehouse building. Area J appears developed with the Sheldon Oil tank farm. Area A appears to be developed with numerous structures on the eastern side of the area, and undeveloped land on the remainder.
1947	EDR	No significant changes noted. Some early development within portions of Area B are visible. Additional development noted on the northern end of Area C.
1957	EDR	Area A has been developed to include numerous structures, which is consistent with the use as a school. Area B has been developed to include numerous buildings along Benton Court, as well as along the adjacent streets. The truck washing facility at 526 School Street is

Date	Source	Site
		visible as well. Many of the homes noted within Area J have been removed.
1968	EDR	By 1968, continued development is noted. Row housing is noted in Area J, just west of Civic Center Drive. Area I has been developed to include a boat launch ramp and parking, and Area E has been developed with a large water storage tank and associated buildings (consistent with the historical use of the area as a corporation yard). Area H has been developed with paved streets (Marina Avenue and Marina Circle), several storage buildings, and boat docks. The former FSSD WWTP is visible in the western portion of Area H.
1974	EDR	The row housing along Benton Court in Area B have been removed and some of the present-day commercial businesses are visible. No other significant changes noted.
1982	EDR	Continued commercial infill development in Area B. Many of the current buildings in this area have been constructed by this time. The large rectangular structure noted on the south side of Area C has been demolished and grading activities are noted for the construction of Highway 12. No other significant changes noted.
1993	EDR	By 1993, Highway 12 had been constructed across Area C and bordering Areas E and F. The row housing within Area J have been removed. The Sheldon Oil tank farm has also been completely demolished and removed. The northern structure previously identified on the northern end of Area C has also been removed and is vacant. The southern end of Area C appears to be used as a parking lot. No other significant changes noted.
1998	EDR	Notable changes include the expansion of Suisun Slough to the north, which inundated the former Sheldon Oil Tank farm area, and the removal of the FSSD WWTP in Area H.
2005/2006	EDR	By 2005, the California Marine & Sports building at the north end of Area I had been constructed along with the two fuel ASTs for the adjacent marina, and the boat launch parking lot. The Suisun Marina & Storage area in Area H has been expanded to include outdoor boat and RV parking in the southern portion of the area. The majority of the structures associated with the corporation yard in Area E have been removed, and remnant building foundations are visible. The water storage tank remains. Areas F and G remain undeveloped.
2009	EDR	The school in Area A has been demolished and removed. The southern portion of Area C is a parking lot.
2010/2012	EDR	No significant changes noted.

**5.3.3. City Directories**

Based on the extent of properties located throughout the study area, research of historical city directory listings for the site addresses was not conducted.

**5.3.4. Historical Topographic Maps**

Ninyo & Moore reviewed historical topographic maps of the site provided by EDR. A listing of the maps reviewed is presented in the following table. Copies of the historical topographic maps are provided in Appendix E.

Summary of Topographic Maps		
Date	Quadrangle	Uses
1898	KARQUINES	No notable features are identifiable on this map. Suisun is mapped as a small developed city. Due to the scale of the map, specific features are not discernible.
1901	CARQUINEZ	No notable features are identifiable on this map. Suisun is mapped as a small developed city. Due to the scale of the map, specific features are not discernible.
1902	NAPA	No notable features are identifiable on this map. Suisun is mapped as a small developed city. Due to the scale of the map, specific features are not discernible.
1918	SUISUN	No notable features are identifiable on this map. Suisun is mapped as a small developed city. Due to the scale of the map, specific features are not discernible.
1940	CARQUINEZ STRAIT	No notable features are identifiable on this map. Suisun is mapped as a small developed city. Due to the scale of the map, specific features are not discernible.
1947	PORT CHICAGO	No notable features are identifiable on this map. Suisun is mapped as a small developed city. Due to the scale of the map, specific features are not discernible.
1950	FAIRFIELD SOUTH	Key features identified on the 1950 topographic map include the Sheldon Oil tank farm at the north end of Suisun Slough (Area J). Area E is labelled as "Fairfield Suisun Air Park." The large building on Area C is mapped as well.
1968	FAIRFIELD SOUTH	By 1968, the Suisun Marina & Storage facility and the "sewage disposal" plant (FFSD WWTP) are mapped in Area H. Several buildings are mapped in Area A (school), and several buildings are mapped in Area E (corporation yard buildings).
1980	FAIRFIELD SOUTH	No significant changes noted.

**5.3.5. Title Records**

A historical chain-of-title report was not requested by AECOM for review by Ninyo & Moore during the completion of this ESA.

**5.3.6. Recorded Environmental Liens and AULs**

An environmental lien search report was not requested by AECOM for review by Ninyo & Moore during the completion of this ESA.

**5.3.7. Previous Investigations**

Ninyo & Moore reviewed copies of prior reports completed for Areas A, B, E, and H. These reports are summarized below.

**Area A:** Area A encompasses two vacant parcels totaling approximately 9.6 acres of land. The area was the location of the prior Crystal School. Historically, the area has been developed from the late 1880s until around 2005. A schoolhouse, a residence, and sheds were reportedly located on the northeastern portion of the area from 1888 to 1907. The original schoolhouse was removed from the area by 1920, and a new building, identified as Crystal Grammar School, was

constructed. The Crystal School was subsequently built on the former grammar school site and operated until around 2005. The school buildings were subsequently demolished, leaving the area vacant (KC Engineering, 2006).

A fuel oil bunker was discovered in May 2007 during demolition work just south of the Morgan Street sidewalk. Petroleum-impacted subsurface soil was at the north end of the Crystal School play yards. Fuel oil had apparently been used to heat the former grammar school. The concrete bottom of the bunker was briefly exposed during excavation (at a depth of about 7 or 8 feet), and was subsequently left in place. Fuel oil had apparently leaked into the subsurface (Raven, 2010).

In June 2007, Raven Research (Raven) advanced 17 test pits to evaluate the extent of soil impact in the vicinity of the fuel oil bunker. Soil samples were collected from the test pits at three relative depths: upper, middle and lower, roughly corresponding to 2, 5 and 7 feet below ground surface (ft. bgs). The samples were analyzed for diesel and motor oil range petroleum hydrocarbons (TPH) and were found to contain up to 3,800 parts per million (ppm) TPH as diesel (TPHd) and 1,800 ppm TPH as motor oil (TPHmo) (Raven, 2010).

In April 2009 Raven prepared a Work Plan to conduct a subsurface investigation. To address the impacts north of the former UST, in December 2009, Raven advanced nine soil borings using a Sonic rig. Soil and groundwater samples were collected for quantitative chemical analysis. Soil and groundwater samples were analyzed for total petroleum hydrocarbons (TPH) as midrange compounds and heavy range compounds, including Total Petroleum Hydrocarbons quantified as gasoline (TPHg), and TPHd and TPHmo), by Modified EPA Method 8015. The laboratory performed a silica gel clean up on all of the samples so that only petroleum-based hydrocarbons were analyzed. Based on the findings of the subsurface investigation, as well as consideration of historic data, Raven concluded the following:

- Total petroleum hydrocarbons were detected above San Francisco Bay Regional Water Quality Control Boards Environmental Screening Levels (ESLs) in soil and groundwater onsite and north of the former fuel bunker area into Morgan Street.
- TPH in soil are limited in extent to a depth of approximately 5 to 7 ft. bgs and concentrations decrease with depth to non-detect between 7.0 and 8.0 ft. bgs in all borings with detected TPH.
- Groundwater surrounding the former fuel bunker is likely to be impacted with TPH above ESLs because the bunker is the source of the TPH release.
- The groundwater impact extends north into the middle of Morris Street (boring B2).
- Based on non-detect analytical results in groundwater sampled from borings B1, B3 and B7, groundwater impact on the north side of the site appears to be limited in lateral extent to within 35-feet of the former fuel oil tank.

- The distribution and spread of soil and groundwater impacts does not appear to be controlled by subsurface utilities.

In August 2010, Raven prepared a Removal Action Workplan (RAW) for the removal of the petroleum-impacted soil. The results of previous site investigations indicate that an area of just over 3,000 square feet around the former fuel bunker contained petroleum hydrocarbons at concentrations exceeding the Cleanup Goals. The proposed remediation area (approximately 2,100 square feet) included the former fuel oil bunker. The vertical extent of petroleum hydrocarbons was reported to be the greatest in the area immediately adjacent to the fuel oil bunker. In this area, concentrations exceeding Cleanup Goals extended to a depth of about 8 ft. bgs. In the remainder of the remediation area, petroleum concentrations attenuate to less than the Cleanup Goals by 6 ft. bgs. Raven submitted the RAW to the Solano County Environmental Management Department for review and approval, and was subsequently approved on August 18, 2010. Since that time, the City has not been able to secure funding to move forward with the approved RAW. No additional investigations have been completed (Raven, 2010).

**Area B:** Area B encompasses 16 parcels totaling approximately 6.27 acres of land. Area B is generally triangular in shape, and is located south of Railroad Avenue and Spring Street, east of the railroad tracks, west of Main Street, and north of Sacramento Street. Within Area B is the former Sheldon Oil truck washing facility at 526 School Street. This facility was a former truck-washing facility operated by Sheldon Oil Company from the mid-1940s until 1993 (WKA, 2005). Site operations included cleaning the outside trucks with detergent and water, and cleaning the inside of the truck tanks using a combination of hot water and trichloroethylene (TCE). The TCE was reportedly reused and contained in a closed-loop system. Disposal of depleted TCE was carried out through an independent contractor. Soil, soil vapor, and groundwater investigations dating back to 1995 through 2014 have indicated the subsurface beneath and off-site have been impacted with TCE. Since 1995, numerous subsurface investigations have been conducted to define the vertical and lateral extent of TCE contamination, and has included the advancement of several on-site and offsite borings, construction and sampling of 12 groundwater monitoring wells, two soil vapor surveys, one offsite indoor air assessment, and the removal of 620 tons of soil and 5,300 gallons of groundwater from the source area (beneath and surrounding the vehicle wash rack), and most recently, in-situ chemical injection remediation of secondary source impacts beneath and surrounding the former vehicle wash rack (WKA, 2008).

According to Geocon (Geocon 2015), pre- and post-remediation groundwater sampling of wash rack wells indicate that in-situ chemical injection remediation conducted in July 2014 effectively reduced TCE and other VOC concentrations in shallow groundwater below applicable environmental screening levels (ESLs). Groundwater samples collected since 1999

in the other 12 groundwater monitoring wells indicated that TCE impacts to groundwater have not extended much farther east than MW-2, and began decreasing precipitously after soil excavation and groundwater remediation efforts were conducted around the wash rack area in 2006. Geocon noted that TCE is primarily limited to onsite wells, the concentrations are decreasing with time, and it does not currently pose a threat to human health or other sensitive receptors. Geocon summarized that the vertical and lateral extent of solvent impacts associated with the Sheldon Oil site have been adequately defined and monitored during the last 20 years, the primary and secondary sources of impacts have been remediated to the extent feasible, and the site should be closed as a low-threat solvent case. Residual soil and groundwater impacts still exist; however, the existing concentrations do not pose an unacceptable threat to human health or other sensitive receptors, and are expected to continue decreasing with time (Geocon, 2015). According to Mr. Martin Musonge with the State Water Resources Control Board (SWRCB), he did not believe that the facility would be considered for closure at this time because detected concentrations of TCE at the wash rack area wells are still very high. The SWRCB is considering the closure request, but also noted that it is possible they would be recommending additional monitoring and/or additional remedial actions.

**Area E:** Area E encompasses five parcels totaling approximately 34.9 acres of land. Area E is generally triangular in shape, and is located north of Highway 12, southeast of the railroad tracks, and west of Marina Boulevard. A portion of Area E, identified as APN 32-230-31, was previously utilized by the City as a corporation yard until 1994. The remainder of the area is vacant, undeveloped land. A large water storage tank and a small brick building are the only remaining structures on the property. An underground Kinder Morgan petroleum pipeline crosses the western portion of the area from Railroad Avenue southwest to Main Street.

In 2005, Engeo Environmental (Engeo) conducted an ESA on the Area E parcels (Engeo, 2005). According to Engeo, the corporation yard was comprised of three buildings, equipment and supply storage, along with an aboveground water storage tank. The water storage tank and a small, cinder-block building remain. The Solano Irrigation District (SID) uses a small portion of the yard to store equipment and supplies, including rock and dirt. The remaining portions of the site consist of undeveloped land with no former or existing structures or improvements, other than a Kinder-Morgan underground petroleum pipeline in the northwestern portion of the property (Engeo, 2005).

In 1987, the County requested that the City conduct an environmental assessment related to the discovery of obvious soil contamination from apparent improper handling of hazardous materials and wastes. Soil testing revealed detected concentrations of Bis (2-ethylexyl) phthalate, along with total petroleum hydrocarbons (TPH) (Engeo, 2005).

In 1989, a leaking diesel UST of unknown capacity was removed from the northwest corner of the Corporation yard parcel. Soil and groundwater were discovered by TerraTech to have been impacted by the leaking diesel UST. Elevated concentrations of diesel remained beneath the removed UST (Engeo, 2005). In 1990, two 1,000-gallon gasoline USTs were removed from the Corporation yard parcel. Site investigations determined that soil and groundwater beneath the removed tanks had been impacted. Three groundwater monitoring wells were installed to monitor groundwater. The wells were sampled quarterly until 1997 (Engeo, 2005).

A workplan for soil characterization and remediation was submitted by Certified Environmental Consulting (CEC) to, and approved by, the County in May/June 1994. The workplan was to address concerns at the following:

- Indications of petroleum spillage on a concrete slab at the vehicle storage area,
- A pesticide/herbicide storage locker
- An above-ground diesel tank and solvent storage area
- Indications of petroleum spillage at an abandoned vehicle storage area
- Area containing open 5-gallon paint drums
- A drum storage area
- Areas in the vicinity of the former gasoline and diesel USTs, and
- Kinder Morgan pipelines located along the northwestern portion of the area.

Information was not available as to whether the workplan scope of work was ever completed.

In May/June 2005, Engeo conducted a Phase II ESA of the Corporation yard parcel (Engeo, 2005a). The assessment included the following:

- A groundwater assessment that included advancing seven Geoprobe borings to between 16 and 20 feet in depth and collection and analysis of groundwater samples for TPH as diesel (TPHd), TPH as gasoline (TPHg), BTEX, and MtBE.
- A soil investigation that included advancing 10 Geoprobe borings to between 12 and 20 feet deep, and the collection and analysis of seven soil samples for TPHd, TPHg, TPHmo, BTEX, and MtBE.
- A groundwater investigation along the Kinder Morgan pipeline and the analysis of four groundwater samples for TPHd, TPHg, BTEX, and fuel oxygenates, including MtBE.

Results of the Geoprobe groundwater sampling indicated elevated levels of benzene (13,000 micrograms per liter [ug/l], TPHg (61,000 ug/l), TPHd (43,000 ug/l), and TPHmo (5,200 ug/l) were detected. Results of the soil sampling indicated TPHg, BTEX, and MtBE were non-detect in each of the samples analyzed. Trace concentrations of TPHmo and TPHd were reported at

depths of up to 7-1/2 feet bgs. Concentrations were all below RWQCB ESLs. Groundwater samples collected along the Kinder Morgan pipeline were all non-detect.

Engeo concluded that limited groundwater impact exists in the vicinity of the former USTs, and that the detected TPH/BTEX concentrations are likely associated with the isolated groundwater within the former UST backfill material. Additional groundwater characterization was not recommended by Engeo, however, reported benzene at 13,000 ug/l exceeded the RWQCBs Environmental Screening Level (ESL) for the groundwater to indoor air residential exposure pathway. Engeo recommended that if land use changes from commercial to residential, some remediation or engineering controls, such as vapor barriers, would be necessary (Engeo, 2005a).

**Area H:** Area H encompasses 14 parcels totaling approximately 29.32 acres of land. Area H is generally located in the southeastern portion of the study area and is bordered by the Suisun Slough along the south portions of the area, and by residential development to the north. The area is currently comprised of developed and undeveloped land. The primary development in this area includes the Suisun Pacific Marina and Storage facility (RV, boat and trailer storage) located in the northeastern portion of the area. The western portion of the area was the location of the former FSSD WWTP. The abandoned WWTP was used by the FSSD from the mid-1950s to about 1976. The plant included a concrete-lined digester, a clarifier and chlorination tanks, administrative buildings, a maintenance garage, and storage sheds (Engeo, 1991). The ground surface of the plant was covered with either asphalt or concrete. The plant also included four sludge ponds located in the eastern portion of the plant. Sludge from the ponds was periodically hauled off site and used on agricultural lands.

In 1991, Engeo conducted a soil and groundwater investigation of the former FSSD WWTP and adjacent neighborhood areas related to planned future development of the area with residential housing and a park (Todd Park to the north) (Engeo, 1991). The investigation included collecting 10 near-surface soil samples from sludge ponds, and installing two 20-foot deep groundwater monitoring wells. One well was located south of the former sludge ponds and the other well was located southwest of the plant. The soil samples were analyzed for TTLC CAM 17 metals, with soil samples from the two monitoring wells also being tested for metals, volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs). The groundwater samples were analyzed for metals, VOCs, SVOCs, and total extractable petroleum hydrocarbons. Laboratory analytical results for the groundwater samples were non-detect for the compounds tested.

Engeo concluded that there were no indications from reviewing the laboratory test results that the sewer treatment facility has impacted the groundwater in the site vicinity. Results of the soil

analyses found that concentrations of detected metals in the near surface soil varied across the sampled areas. Lead was reported at a concentration of 295 milligrams per kilogram (mg/kg) in the southwestern sludge pond, and nickel was reported at 226 mg/kg from the south-eastern sludge pond. Engeo noted that the results of Waste Extraction Testing (WET) on select soil samples showed that the high lead and nickel concentrations detected in the near surface soil samples were not soluble and the soil would not be classified as a hazardous waste (Engeo, 1991). Engeo concluded that based on the results of the sampling, the proposed residential development could proceed as planned. Engeo did recommend that following grading activities at the sludge pond areas, near surface soil sample could be collected to determine if significant concentrations of lead or nickel remain in the near surface soil in this area. The previously planned residential development on the WWTP area has not occurred to date. A copy of the 1991 Engeo report is included in Appendix H.

#### **5.4. Adjoining Property Use Information**

Adjoining properties were described in Section 2.3. Based on the adjoining property types, none of the adjoining properties are considered a REC to the site at this time.

### **6. PRELIMINARY VAPOR ENCROACHMENT SCREENING**

Ninyo & Moore conducted a preliminary vapor encroachment screen (pVES) for potential chemicals of concern (COC). The pVES was based on the guidelines presented in the ASTM E2600-10 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions. The purpose of the pVES is to identify a vapor encroachment condition (VEC), which is the presence or likely presence of COC vapors in sub-surface soils at the site as a result of a release of vapors from contaminated soil or groundwater either on or near the site. The potential for VECs beneath the site were evaluated using a Vapor Encroachment Screening Matrix (VESM). The VESM included performing a Search Distance Test to identify if there are any known or suspect contaminated sites surrounding or upgradient of the site within specific search radii, a COC Test (for those known or suspect contaminated sites identified within the Search Distance Test) to evaluate whether or not COC are likely to be present, and a Critical Distance Test to evaluate whether or not COC in a contaminated plume may be within the critical distance of the site (100 feet for non-petroleum hydrocarbon contaminants, and 30 feet for petroleum hydrocarbon contaminants).

Based on the completion of the Vapor Encroachment Condition (VEC) screening matrix, it is presumed unlikely that a VEC currently exists beneath the majority of the site, with the possible exception of Areas B, E and J. A copy of the VESM is included in Appendix F.

## **7. INTERVIEWS**

Interviews were conducted by Ninyo & Moore with the objective of obtaining information regarding potential RECs in connection with the site. Interviews with present owners, operators, and/or occupants of the site, as well as other knowledgeable parties as appropriate, is mandated by ASTM E1527-13.

### **7.1. Owner or Key Site Manager**

Owner information or key site manager information was not provided to Ninyo & Moore for the 76 parcels that comprise the study area. Therefore, interviews with individual property owners was not performed.

### **7.2. Past Owners**

Past ownership entities were not made available to Ninyo & Moore during the preparation of this ESA. Therefore, interviews with past site owners was not conducted.

### **7.3. Environmental Regulatory Agency Inquiries**

Ninyo & Moore submitted Public Records Requests for the site address to County, State and Local environmental regulatory agencies. The following sections describe the agencies contacted and whether or not representatives from the agencies were interviewed.

#### **7.3.1. County Environmental Agencies**

The SCEMD was contacted regarding hazardous materials or hazardous wastes records associated with parcels that had physical site addresses. Refer to Section 5.3.1 for a discussion of available files.

#### **7.3.2. State Environmental Agencies**

Ninyo & Moore submitted a Public Records Request to the California Department of Toxic Substances Control (DTSC) for the site address. The DTSC indicated via telephone that they had no records for the site addresses. Based on this information, interviews were not conducted with DTSC representatives.

#### **7.3.3. Local Regulatory Agencies**

The SCEMD is the local regulatory agency for Solano County/Suisun City. Information regarding the SCEMD file information was presented in Section 5.2.1.

Additionally, the City of Suisun City was contacted regarding potential USTs associated with the Suisun Pacific Marina & Storage facility, 950 Marina Circle (Area H). According to Jason

Garben, Development Services Director for the City of Suisun City, the City has no records or files related to potential USTs associated with the facility.

**8. ASTM NON-SCOPE CONSIDERATIONS**

Non-Scope considerations such as mold, radon, wetlands, asbestos, or flood zones were not addressed as part of this ESA.

## 9. FINDINGS, OPINIONS, CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this ESA, the following findings, opinions, conclusions and recommendations are provided.

### 9.1. Findings and Opinions

The results of this ESA are summarized below:

- The Downtown Waterfront Specific Plan (DWSP) was created in 1983 and was comprehensively amended in 1999. The creation of this specific plan was included as an implementation measure of the 1979 General Plan as the General Plan, recognized the need for special treatment of the Historic Downtown and Waterfront. The Priority Development Area (PDA) program was jointly developed by the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) in order to facilitate infill development near existing and planned transportation facilities. Suisun City has one PDA; the Downtown Waterfront. The regional agencies have currently made available Federal funding to Solano Transportation Authority (STA) for planning studies associated with PDAs. The Suisun City Council in March of 2013 approved the update and expansion of the current DWSP, and to complete the necessary Environmental Impact Report (EIR), through this funding opportunity. This ESA is being prepared to supplement the CEQA environmental Initial Study supporting a Mitigated Negative Declaration (MND), which is being prepared by AECOM.
- As part of this ESA, the DWSP update area was broken into nine "sub-areas" where land use changes would be expected. The entire Downtown Specific Plan Area includes 400 acres, with the sub-areas accounting for approximately 120 acres. The nine sub-areas include Area A, Area B, Area C, Area E, Area F, Area G, Area H, Area I, and Area J (Figures 3 through 11).
- Historical research dating back to the 1930s revealed that much of the DWPA update area consisted of undeveloped marsh land with some rural residential and commercial/industrial development. A tank farm was located on the north end of Suisun Slough (Area J) dating back to the 1930s. This tank farm was operated by Sheldon Oil Company until the late 1980s/early 1990s. The Suisun Slough was subsequently expanded in the 1990s across a portion of the former Sheldon Oil Company tank farm, which resulted in the southern area of the former tank farm to be inundated by the expansion of the Suisun Slough. In the 1930s and 1940s, development within Suisun City was primarily focused on areas to the west and north of Suisun Slough. Suisun City continued to grow and expand during the 1940s and 1950s, and the DWSP update areas were developed to include a school (Area A), commercial development (Areas B and C), residential and industrial/commercial development (Area J), and a boat launch facility (Area I), while the remainder of the DWSP update areas remained

mostly undeveloped. By the 1960s and 1970s, further development of the DWSP update areas included a corporation yard (Area E), a wastewater treatment plant and a marina (Area H). By the early 1990s, the residential development within Area J had been removed and replaced with open space. The former Sheldon Oil Company tank farm was demolished in the early 1990s, and the wastewater treatment plant was demolished sometime between 1993 and 1998.

- On October 8, 2015, Mr. Randy Wheeler of Ninyo & Moore conducted a site reconnaissance of the property. The reconnaissance involved a visual inspection of the site, and observations of adjoining properties. Specific details about each study area are discussed below:
  - Area A encompasses two vacant parcels totaling approximately 9.6 acres of land. The area was the location of the prior Crystal School. Cordelia Street bisects the northern portion from the southern portion. Several gravel and asphalt piles were noted on the area.
  - Area B encompasses 16 parcels totaling approximately 6.27 acres of land. Area B is generally triangular in shape, and is located south of Railroad Avenue and Spring Street, east of the railroad tracks, west of Main Street, and north of Sacramento Street. Development within this area includes a variety of retail and commercial development. The majority of the businesses within this area are located on Benton Court and Travis Court, with some located along Railroad Avenue and Spring Street. Commercial development along Benton Court includes several automotive repair/supply facilities (T.O.E Performance Products (211 Driftwood Drive), Kyron's Body Shop (201-205 Benton Court), Extreme Cyclez (213 Benton Court), and Hi-Tech Auto - 237 Benton Court), a small brewery (Right-Eye Brewery - 221 Benton Court), a sign company (Clear Image Signs - 227 Benton Court), a pest control company (Hitman Pest and Termite Control - 229 Benton Court), a small construction company (Konni Construction - 247 Benton Court), an electrical contractor (Golden West Electric - 241 Benton Court), and a roofing supply company (Suisun Roofing Company - 260 Benton Court). The area includes two undeveloped parcels utilized for roofing materials storage, and one vacant parcel (526 School Street) that was the location of the former Sheldon Oil truck washing facility. Commercial development also includes a party rental business (Platinum Party Rentals), pet grooming (Tidy Tails), and a candy/cookie store (Family Cookie Company - 302 Spring Street). Two multi-tenant commercial buildings are located along Travis Court (233-247 Travis Court and 228-303 Travis Court). Tenants in these units include a spa (Tokyo Spa), SH Mechanical, a church, an education center (Learning without Limits), and a roofing contractor (RoofMasters).
  - Area C encompasses eight parcels totaling approximately 7.38 acres of land. Area C is generally rectangular in shape, and is located east of the railroad tracks, and north of

Lotz Way. State Route Highway 12 bisects the central portion of Area C. The southern portion of Area C is utilized for car parking, and the northern portion is vacant.

- Area E encompasses five parcels totaling approximately 34.9 acres of land. Area E is generally triangular in shape, and is located north of Highway 12, southeast of the railroad tracks, and west of Marina Boulevard. A portion of Area E, identified as APN 32-230-31, was previously utilized by the City as a corporation yard until 1994. The remainder of the area is vacant, undeveloped land. A large water tank and a small brick building are the only remaining structures on the property. An underground Kinder Morgan petroleum pipeline crosses the western portion of the area from Railroad Avenue southwest to Main Street.
- Area F encompasses five parcels totaling approximately 9.07 acres of land. Area F is generally rectangular in shape, and is located south of Highway 12, west of Marina Boulevard, and north of Lotz Way. The area is currently vacant, undeveloped land. A large stand-mounted, triangular-shaped sign is located in the northeastern corner of the area.
- Area G encompasses three parcels totaling approximately 7.06 acres of land. Area G is generally rectangular in shape, and is located south of Highway 12, east of Marina Boulevard, and north of Driftwood Court. The area is currently vacant land bordered on the east by a waterway, to the west by Marina Boulevard, and to the south by Driftwood Court.
- Area H encompasses 14 parcels totaling approximately 29.32 acres of land. Area H is generally located in the southeastern portion of the study area and is bordered by the Suisun Slough along the south portions of the area, and by residential development to the north. The area is currently comprised of developed and undeveloped land. The primary development in this area includes the Suisun Pacific Marina and Storage facility (RV, boat and trailer storage) located in the northeastern portion of the area. The storage facility includes open areas for outdoor storage of boats, RVs, automobiles and trailers, along with enclosed storage units in the northeastern portion of the facility. The central portion of the study area consists of vacant land and undeveloped marshland. The vacant portion of land in the center of the area was originally developed to be part of a planned 1960s development referred to as Suisun Pacific, the name of a big custom-home-and-marina project planned for the city. Suisun Pacific was to include a marina located at the southern end of Marina Boulevard. This marina was to have 400 berths, lagoon-view homes, a gas station, a snack bar, a boat shop and dry storage. The uncompleted marina opened in October 1964. The Suisun Pacific project petered out in

subsequent years and the marina closed. The homes slated for construction were never completed, with only the circular Marina Circle constructed. A lift pump, which is operated by the Fairfield-Suisun Sewer District (FSSD) is located in the southern portion of the study area, and is used to pump water from an adjacent drainage canal to Suisun Slough to the south. The western, vacant portion of the area was the location of the former FSSD wastewater treatment plant (WWTP).

- Area I encompasses four parcels totaling approximately 6.96 acres of land. Area I is generally located east of Kellogg Street, south of Walnut Street, and west of the Suisun Slough. Area I is currently developed with a commercial development (California Marine Sports), a boat launch parking lot, and a boat launch ramp. The northeastern corner of Area I is mostly vacant land with an enclosed pad-mounted transformer, and a small portable office used by the Suisun Marina. Two 6,000-gallon fuel ASTs are located in the north-central portion of the site and are enclosed within a masonry-brick enclosure. The ASTs provide boat fuel to the adjacent marina via underground piping. Evidence of leaks or spills was not observed around the ASTs. The remainder of the area include the boat launch parking, the boat launch, and restrooms in the southwestern corner of the area. Suisun Slough borders the eastern area boundary and Kellogg Street borders the western area boundary.
- Area J encompasses 19 parcels totaling approximately 9.29 acres of land. Area J is generally located west of Civic Center Boulevard, south of Lotz Avenue, east of the Suisun Slough. Area J consists of mostly undeveloped land with a small public parking lot located in the central portion of the area. The western portion of the area includes part of the redeveloped Suisun Slough, which was historically utilized as the Sheldon Oil Tank Farm (426 Main Street) from the 1930s until the late 1980s/early 1990s. The northern and southern portions of the area were historically developed with residential houses and apartments from the 1930s until the mid- to late-1980s when the homes were demolished. Since then, these areas have been undeveloped.
- Ninyo & Moore did not observe quantities of hazardous substances or petroleum products used or stored on site during our site reconnaissance with the exception of materials used, stored and handled by the various repair/service shops, or other agency-permitted facilities. Other facilities or properties not identified through agency file review or from the site visit, may use, store or handle hazardous materials and may generate hazardous wastes in quantities that are not above agency-listing thresholds.
- Indications of aboveground storage tanks (ASTs), underground storage tanks (USTs), or hazardous material spills or leaks, were not observed from public right-of-ways during the site reconnaissance, with the exception of the two fuel ASTs at 1240 Kellogg Street (Area I).

- Review of an environmental database report obtained for this project indicated that many of the properties within the study areas were listing on various regulatory databases researched by Environmental Data Resources Inc. (EDR). These properties include Suisun Roofing Supply (Area B, 260 Benton Court, UST database), William Bowman (Area B, 263 Benton Court - UST database), and Sheldon Oil Company (Area J, 426 Main Street, LUST and UST databases). Suisun Roofing Supply was referenced as having a 10,000-gallon diesel UST removed in 1987, and the William Bowman property had a 2,000-gallon gasoline UST removed in 1987. Both of these properties received no further action determinations from the Solano County Environmental Management Department (SCEMD). As stated previously, Sheldon Oil company operated a tank farm facility at 426 Main Street from the 1930s until the late 1980s/early 1990s. As part of the downtown redevelopment, the Suisun Slough was subsequently expanded in the 1990s across a portion of the former Sheldon Oil Company tank farm, which resulted in the southern area of the former Sheldon Oil tank farm to be inundated by the expansion of the Suisun Slough. This facility received case closure from the Regional Water Quality Control Board (RWQCB) in 1995.
- Additionally, Ninyo & Moore requested regulatory files from the SCEMD for the non agency-listed properties within the study area. A discussion of the findings per area are presented below. Details of each are further discussed in Section 5.3.7.
  - Area A: The former Crysal school was located on Cordelia Street. A 2010 report indicated that a fuel oil bunker was discovered in May 2007 during demolition work just south of the Morgan Street sidewalk. Petroleum-impacted subsurface soil was at the north end of the Crystal School play yards. Fuel oil had apparently been used to heat the former grammar school. The concrete bottom of the bunker was briefly exposed during excavation (at a depth of about 7 or 8 feet), and was subsequently left in place. Fuel oil had apparently leaked into the subsurface (Raven, 2010). In June 2007 and December 2009, soil samples indicated hydrocarbon-impacted soil around the bunker. Concentrations exceeded state regulatory levels. In August 2010, a removal action workplan (RAW) was prepared, and subsequently approved, by the SCEDM, for the excavation and removal of approximately 3,000 square feet of hydrocarbon-impacted soil to a depth of around 8 feet bgs. To date, the City has not acquired the funds to complete the RAW, and as such, concentrations of petroleum-hydrocarbons above regulatory screening levels in soil remain.
  - Area B: Several agency-listed properties were located within this study area, including the following: T.O.E Performance Products (211 Driftwood Drive), Kyron's Body Shop (201-205 Benton Court), Extreme Cyclez (213 Benton Court), Hi-Tech Auto (237 Benton Court), Right-Eye Brewery (221 Benton Court), Hitman Pest and Termite Control (229 Benton Court), Suisun Roofing Company (260 Benton Court), Dewey

Pest Control (263 Benton Court), Former Sheldon Oil truck washing facility (526 School Street), and Family Cookie Company (302 Spring Street). The majority of these properties were on various regulatory databases for their use and storage of hazardous materials (such as, but not limited to, motor oil, transmission fluid, gasoline, diesel, anti-freeze, lubricating oils, and compressed gases), and generate hazardous wastes (such as, but not limited to, used motor oil, used oil filters, used transmissison fluid and anti-freeze, etc.). Several of the properties (260 an 263 Benton Court), had USTs removed in 1987, and one property is a former truck washing facility (526 School Street). Both the 260 and 263 Benton Court properties subsequently received a "no further action" required determination from the SCEHD. The 526 School Street property has undergone significant soil, soil vapor, and groundwater investigations, as well as some soil excavation, over the past 20-plus years. Concentrations of chlorinated solvents remain in soil at this property. The site has been recommended for closure as a low risk solvent case. According to Mr. Martin Musonge with the State Water Resources Control Board (SWRCB), he did not believe that the facility would be granted closure at this time because detected concentrations of trichloroethylene (TCE) at the wash rack area wells are still very high. The SWRCB is reviewing the closure request, but noted that it is possible they would be recommending additional monitoring and/or additional remedial actions. Based on this information, the 526 School Street property is considered a REC. Since the property is under regulatory oversight and the facility is considered an "open case," no further investigation is required in the regard to this ESA.

- Area C: No agency-listed properties were located within this study area.
- Area E: The former City Corporation yard was located within Area E. In 1989, a leaking diesel UST of unknown capacity was removed from the northwest corner of the Corporation yard parcel. Soil and groundwater were discovered to have been impacted by the leaking diesel UST. Elevated concentrations of diesel remained beneath the removed UST. In 1990, two 1,000-gallon gasoline USTs were removed from the Corporation yard parcel. Site investigations determined that soil and groundwater beneath the removed tanks had been impacted. Three groundwater monitoring wells were installed to monitor groundwater. The wells were sampled quarterly until 1997. A workplan for soil characterization and remediation was submitted to the County in May/June 1994. Information was not available as to whether the workplan scope of work was ever completed. In May/June 2005, Engeo Environmental (Engeo) conducted a Phase II ESA of the Corporation yard parcel. The assessment included a groundwater assessment that included collection and analysis of groundwater samples for TPH as diesel (TPHd), TPH as gasoline (TPHg), benzene, toluene, ethylbenzene and xylenes

(BTEX), and Methyl tert-butyl ether (MtBE); a soil investigation that included collecting and analyzing seven soil samples for TPHd, TPHg, BTEX, and MtBE; and a groundwater investigation along the Kinder Morgan pipeline and the analysis of four groundwater samples for TPHd, TPHg, BTEX, and fuel oxygenates, including MtBE. Engeo concluded that limited groundwater impact exists in the vicinity of the former USTs, and that the detected TPH/BTEX concentrations are likely associated with the isolated groundwater within the former UST backfill material. Additional groundwater characterization was not recommended by Engeo, however, reported benzene at 13,000 micrograms per liter (ug/l) exceeded the RWQCBs Environmental Screening Level (ESL) for the groundwater to indoor air residential exposure pathway. Engeo recommended that if land use changes from commercial to residential, some remediation or engineering controls, such as vapor barriers, would be necessary.

- Area F: No agency-listed properties were located within this study area.
- Area G: No agency-listed properties were located within this study area.
- Area H: While not an agency-listed facility, the former FSSD WWTP underwent soil and groundwater testing in 1991. The investigation included collecting 10 near-surface soil samples from sludge ponds, and installing two 20-foot deep groundwater monitoring wells. One well was located south of the former sludge ponds and the other well was located southwest of the plant. The soil samples were analyzed for TTLC CAM 17 metals, with soil samples from the two monitoring wells also being tested for metals, volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs). The groundwater samples were analyzed for metals, VOCs, SVOCs, and total extractable petroleum hydrocarbons. Laboratory analytical results for the groundwater samples were non-detect for the compounds tested. Engeo concluded that there were no indications from reviewing the laboratory test results that the sewer treatment facility has impacted the groundwater in the site vicinity. Results of the soil analyses found that concentrations of detected metals in the near surface soil varied across the sampled areas. Lead was reported at a concentration of 295 milligrams per kilogram (mg/kg) in the southwestern sludge pond, and nickel was reported at 226 mg/kg from the south-eastern sludge pond. Engeo noted that the results of Waste Extraction Testing (WET) on select soil samples showed that the high lead and nickel concentrations detected in the near surface soil samples were not soluble and the soil would not be classified as a hazardous waste (Engeo, 1991). Engeo recommend that following grading activities at the sludge pond areas, near surface soil samples could be collected to determine that no significant concentrations of lead or nickel remain in the near surface soil in this area.

- Area I: California Marine Sports (1240 Kellogg Steet) was listed as a hazardous waste generator due to the routine maintenance of watercraft engines, which generates small quantities of hazardous wastes (used oil and oil filters). The facility was also listed as containing two 6,000-gallon fuel ASTs located in the north-central portion of the site and enclosed within a masonry-brick enclosure. The ASTs provide boat fuel to the adjacent marina via underground piping. Evidence of leaks or spills was not observed around the ASTs.
- Area J: Sheldon Oil Tank Farm (426 Main Street) was listed as a closed LUST site. The southern portion of the former tank farm was redeveloped into the existing northern end of Suisun Slough (e.g., it was inundated with water) as well as the commercial building to the north. The portion of Area J that was previously occupied by the tank farm consists of water.
- Based on the completion of the Vapor Encroachment Condition (VEC) screening matrix, it is presumed unlikely that a VEC currently exists beneath the majority of the site, with the possible exception of Areas B, E and J.
- An environmental lien or activity and use limitations (AULs) search was not requested for this ESA.
- An asbestos and lead survey was beyond the scope of this investigation.

## 9.2. Conclusions

Ninyo & Moore has performed this ESA in conformance with the scope and limitations of ASTM E1527-13 of select areas located within the Downtown Waterfront Specific Plan update area in Suisun City, California. Based on the information compiled during the preparation of this report, this assessment has revealed no evidence of RECs in connection with the study areas with the exception of the following:

- Concentrations of petroleum-hydrocarbons above regulatory screening levels in soil remain on the former Crystal School site (Area A). A RAW was approved by the SCEMD in 2010 for the removal of the impacted soil, however, the City has not acquired the funds to complete the work.
- Residual petroleum-impacted groundwater contamination at the former Corporation yard, Area E remains. Results of the 2005 Engeo investigation indicated elevated levels of benzene (13,000 micrograms per liter [ug/l], TPHg (61,000 ug/l), TPHd (43,000 ug/l), and TPHmo (5,200 ug/l) were detected in groundwater. Results of the soil sampling indicated TPHg, BTEX, and MtBE were non-detect in each of the samples analyzed. Trace concentrations of TPHmo and TPHd were reported at depths of up to 7-1/2 feet bgs. Concentrations were all

below RWQCB ESLs. Groundwater samples collected along the Kinder Morgan pipeline were all non-detect. Engeo concluded that limited groundwater impact exists in the vicinity of the former USTs, and that the detected TPH/BTEX concentrations are likely associated with the isolated groundwater within the former UST backfill material. Additional groundwater characterization was not recommended by Engeo, however, the reported benzene concentration (13,000 ug/l) exceeded the RWQCBs Environmental Screening Level (ESL) for the groundwater to indoor air residential exposure pathway. Engeo recommended that if land use changes from commercial to residential, some remediation or engineering controls, such as vapor barriers, would be necessary (Engeo, 2005a).

- Residual groundwater contamination from TCE at the former Sheldon Oil truck wash facility (Area B, 526 School Street) remains. TCE was report in a July 15, 2015 deep groundwater sample at a concentration of 10,000 ug/l, and in a shallow groundwater sample at 87 ug/l, which are significantly higher than the State of California maximum contaminant level (MCL) of 5.0 ug/l. This facility is undergoing regulatory review and oversight and is considered an "open" case.
- Potential elevated concentrations of nickel and lead are present in shallow soils at the former FSSD WWTP (Area H). The environmental consultant working on this area, Engeo, concluded that there were no indications that the WWTP had impacted the groundwater in the site vicinity. Results of the soil analyses found that concentrations of detected metals in the near surface soil varied across the sampled areas. Lead was reported at a concentration of 295 milligrams per kilogram (mg/kg) in the southwestern sludge pond, and nickel was reported at 226 mg/kg from the south-eastern sludge pond. Engeo noted that the results of Waste Extraction Testing (WET) on select soil samples showed that the high lead and nickel concentrations detected in the near surface soil samples were not soluble and the soil would not be classified as a hazardous waste (Engeo, 1991). Engeo recommended that following future site grading activities at the sludge pond areas, near surface soil sample could be collected to determine if significant concentrations of lead or nickel remain in this area. The previously planned residential development on the WWTP area has not occurred to date.

### 9.2.1. RECs

RECs in connection with the study areas were not identified, with the exception of the following:

- Concentrations of petroleum-hydrocarbons above regulatory screening levels in soil remain on the former Crystal School site (Area A). A RAW was approved by the SCEMD in 2010 for the removal of the impacted soil, however, the City has not acquired the funds to complete the work.
- Residual petroleum-impacted groundwater contamination at the former Corporation yard, Area E remains. Results of the 2005 Engeo investigation indicated elevated levels of

benzene (13,000 micrograms per liter [ug/l], TPHg (61,000 ug/l), TPHd (43,000 ug/l), and TPHmo (5,200 ug/l) were detected in groundwater. Results of the soil sampling indicated TPHg, BTEX, and MtBE were non-detect in each of the samples analyzed. Trace concentrations of TPHmo and TPHd were reported at depths of up to 7-1/2 feet bgs. Concentrations were all below RWQCB ESLs. Groundwater samples collected along the Kinder Morgan pipeline were all non-detect. Engeo concluded that limited groundwater impact exists in the vicinity of the former USTs, and that the detected TPH/BTEX concentrations are likely associated with the isolated groundwater within the former UST backfill material. Additional groundwater characterization was not recommended by Engeo, however, the reported benzene concentration (13,000 ug/l) exceeded the RWQCBs Environmental Screening Level (ESL) for the groundwater to indoor air residential exposure pathway. Engeo recommended that if land use changes from commercial to residential, some remediation or engineering controls, such as vapor barriers, would be necessary (Engeo, 2005a).

- Residual groundwater contamination from TCE at the former Sheldon Oil truck wash facility (Area B, 526 School Street) remains. TCE was report in a July 15, 2015 deep groundwater sample at a concentration of 10,000 ug/l, and in a shallow groundwater sample at 87 ug/l, which are significantly higher than the State of California maximum contaminant level (MCL) of 5.0 ug/l. This facility is undergoing regulatory review and oversight and is considered an "open" case.
- Potential elevated concentrations of nickel and lead are present in shallow soils at the former FSSD WWTP (Area H). The environmental consultant working on this area, Engeo, concluded that there were no indications that the WWTP had impacted the groundwater in the site vicinity. Results of the soil analyses found that concentrations of detected metals in the near surface soil varied across the sampled areas. Lead was reported at a concentration of 295 milligrams per kilogram (mg/kg) in the southwestern sludge pond, and nickel was reported at 226 mg/kg from the south-eastern sludge pond. Engeo noted that the results of Waste Extraction Testing (WET) on select soil samples showed that the high lead and nickel concentrations detected in the near surface soil samples were not soluble and the soil would not be classified as a hazardous waste (Engeo, 1991). Engeo recommended that following future site grading activities at the sludge pond areas, near surface soil sample could be collected to determine if significant concentrations of lead or nickel remain in this area. The previously planned residential development on the WWTP area has not occurred to date.

### 9.2.2. CRECs

CRECs were not identified during the preparation of this report.

### **9.2.3. HRECs**

HRECs were identified during the preparation of this report. The HRECs included the two removed USTs from the Area B properties at 260 and 263 Benton Court in 1987.

### **9.2.4. De Minimis Conditions**

De minimis conditions were not identified during the preparation of this report.

## **9.3. Recommendations**

As discussed in the preceding Conclusions section, several areas within the DWSP update area have been impacted by soil and/or groundwater contamination. Four of the study areas, Area A, Area B, Area E and Area H, have existing soil and/or groundwater contamination issues that have yet to be resolved. In the case of Area A, this appears to be due to a lack of funding to complete the approved removal action. For Area B, additional mitigation and/or investigation seems likely based on information from the SWRCB. For Areas E and H, further remediation and/or mitigation measures appear to have been deferred until future site redevelopment occurs. The other impacted-areas appear to be under current regulatory oversight and do not require further investigation under this ESA.

Based on this information, Ninyo & Moore recommends that the City maintain contact with the appropriate regulatory agencies responsible for oversight of future investigations, mitigation and/or remediation measures to evaluate the status of these areas with regards to future development. For Area A, implementation and completion of the removal action appears to be dependant upon the City obtaining the necessary funds to complete the work.

## **9.4. Limiting Conditions/Deviations**

This report was prepared in accordance with ASTM E1527-13. No deviations from the standard occurred in this ESA. Based on the information gathered by Ninyo & Moore for the purposes of this ESA, it is Ninyo & Moore's opinion the data obtained from the site reconnaissance, records reviewed, and interviews conducted, is adequate to make a conclusion on the environmental condition of the site with respect to the existence or lack of RECs associated with the site.

**10. ENVIRONMENTAL PROFESSIONAL STATEMENT**

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined by 312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

**Site Assessor**



Randy L. Wheeler  
Senior Geologist

**Senior Reviewer**



Duane W. Blamer  
Principal Geologist, P.G. No. 6913

**Certification:**

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR Part 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Randy L. Wheeler - Senior Geologist

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