ArchaeoPaleo Resource Management, Inc.
A full-service Archaeology and Paleontology company
SBE/WBE/WOSB/DBE/UDBE/EBE/LBE/SLBE/CBE/VSBE/MicroBE Certified

Phase 1 Paleontological Resources Assessment and Paleontological Resources Monitoring and Mitigation Plan for the Al-Wafaa Single-Family Residential Tract 6 Lots TTM 36864 Project, City of Corona, Riverside County, California

Prepared for:

The City of Corona
Community Development Department
400 S. Vincent Avenue
Corona, California, California, 92882

And

Al-Wafaa Family Trust 02-23-2011
Fathi Manasarah Trustee
9319 Alta Cresta Ave.
Riverside, California, 92508

Authors:

Robin Turner, M.A.
Miguel A. Miguel, B.S.
Viridiana M. Garcia, M.A.

Edited by:

Robin Turner, M.A.

Date: December 2021

Key Word(s): CEQA, City of Corona, County of Riverside, Single Family Homes, Paleontological Resource Assessment, USGS 7.5' Topographic Quadrangle: Corona North, CA 2018

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EXECUTIVE SUMMARY

ArchaeoPaleo Resource Management, Inc. (APRMI) was contracted by Kinsinger Environmental Consulting to perform a Phase 1 Paleontological Assessment and a Paleontological Resources Monitoring and Mitigation Plan of the Al-Wafaa Single-Family Residential Tract 6 Lots TTM 36864 (Project). The Project proponents plan to subdivide 2.09 acres into six lots for the development of single family homes located in the on the south side of Corona Avenue and west side of Interstate 15 within the City of Corona, Riverside County. Township and Range address for the Project location is Township 3 South, Range 6 West, Section 19, as denoted on the 7.5' United States Geological Society Topographic Map of the North Corona Quadrangle. Currently, the Project site is undeveloped and approximately 3.5 miles south of the Santa Ana River which once had a flooding history that influenced the local geology of the region. The Project is located atop of surface geologic sediments of well inundated alluvial channel sands, gravel, and silt. These geologic sediments date back to the Pleistocene Epoch which is the time of the most recent Ice Age. Plants and fauna for this geologic epoch included those that are similar to those living today, but most notedly included their larger forms such as the mammoth, mastodons, and sabertooth cats.

The potential to uncover paleontological resources at the time of Project development was unknown and therefore APRMI requested a paleontological records check on October 26, 2021, from the Western Science Center located in the City of Hemet, California. This records check is intended to identify any subsurface paleontological deposits that have been previously recorded directly on the Project site or surrounding area. APRMI received the records check on November 10, 2021, and the Collections Manager for the Western Science Center has determined the sedimentary units in the area to have "high paleontological sensitivity". While no known fossil localities were identified within the immediate Project area or 1-mile radius from the site, highly significant and sensitive fossils have been recorded in the larger Project region in similar sediments as those found within the Project site.

A field reconnaissance survey was conducted on October 28, 2021, to identify the presence of any paleontological resources on the site of the Project. This survey assisted in determining if the proposed development would have significant adverse impacts on any identified paleontological resources present and to further determine the paleontological sensitivity of the Project area. The Project site is a privately owned parcel consisting of sparse vegetation and exposed native soil directly west of and adjacent to Interstate 15 and south of Corona Avenue. Upon conducting the field reconnaissance survey, APRMI surveyors observed that the Project site was disturbed due to recent earth disturbing activities that included several feet of imported soils. No paleontological resources were observed, but this does not preclude the possibility of uncovering such resources at the at the time of Project related earth disturbing activities, as supported by the paleontological records check. Therefore, APRMI recommends a full time qualified on-site Paleontological resources construction monitor per SVP standards.

The *Cultural Resources Survey Report for the Al-Wafaa Single-Family Residential Tract Project, City of Corona, California (TTM 36864; APM 122-180-027)* was prepared by Laguna Mountain Environmental, Inc. in November 2021, which is independent from this Phase 1 Paleontological Assessment and a Paleontological Resources Monitoring and Mitigation Plan.

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1.0 Introduction

1.1 Project Description

The Al-Wafaa Single-Family Residential Tract 6 Lots (Project) proposes to develop a vacant 2.09 acre plot into six individual lots that will be used for the construction of six new single family homes, located in the City of Corona, Riverside County. Currently, the Project is zoned as R-1-7.2 which under Chapter 17.18 of the City of Corona Municipal Code, is designated only when the intended use is for districts of single-family homes, with not more than one dwelling and customary accessory buildings upon one lot (C.C.M.P § 17.18.010.). In accordance with the 2020 Corona General Plan, paleontological sensitivity for the greater Riverside County has been determined for various locations and subdivided into 5 classifications. These classifications are based on the type of geologic formations and the history of those formations in producing significant fossils. The proposed Project area was identified to be of high paleontological sensitivity. Therefore prior to development, APRMI was contracted by Kinsinger Environmental Consulting to conduct a Phase I Paleontological Assessment and a Paleontological Resources Monitoring and Mitigation Plan of the Al-Wafaa Single-Family Residential Tract 6 Lots TTM 36864 (Project), to fully determine the paleontological sensitivity of the Project site itself. This report outlines the methods, research analysis, and recommended mitigation measures for the preservation of paleontological resources at the time of earth disturbing activities for the Project development.

1.2 Project Location

Specifically, the Project site is located on the south side of Corona Avenue and the west side of Interstate 15 within the City of Corona, Riverside County. The Township and Range address for the Project location is Township 3 South, Range 6 West, Section 19, as denoted on the 7.5' United States Geological Society Topographic Map of the Corona Quadrangle. The acreage of the Project site is currently at 2.09 acres. Notable points of interest include the Parkridge Elementary School located .13 miles to the northwest of the Project. The Gateway Town Center is located 0.56 miles north of the northern boundary for the Project site.

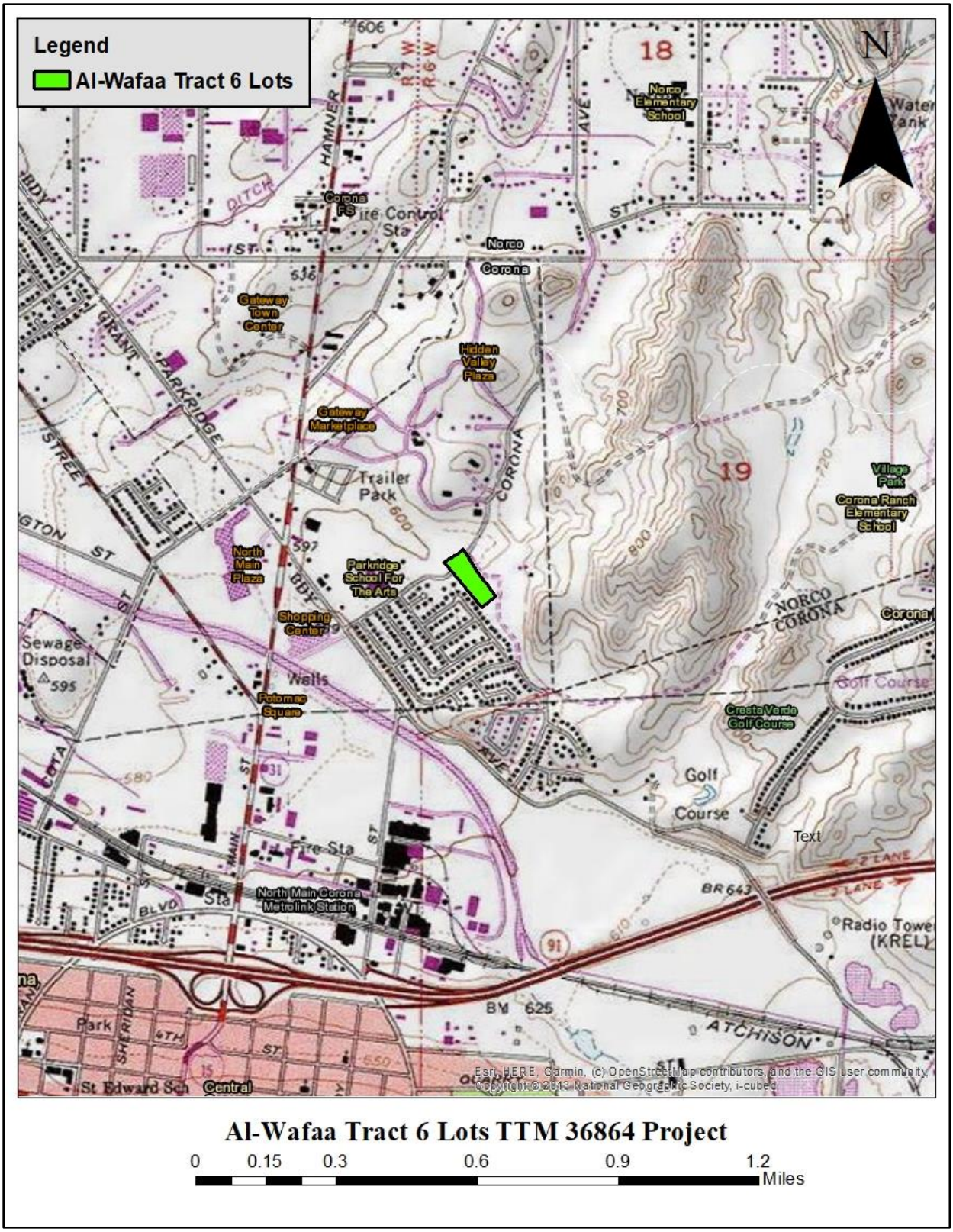

Figure 1. Topographic regional overview of the Project area that is highlighted in green. *Source: Esri, 2013 United States Geological Survey, National Geographic*

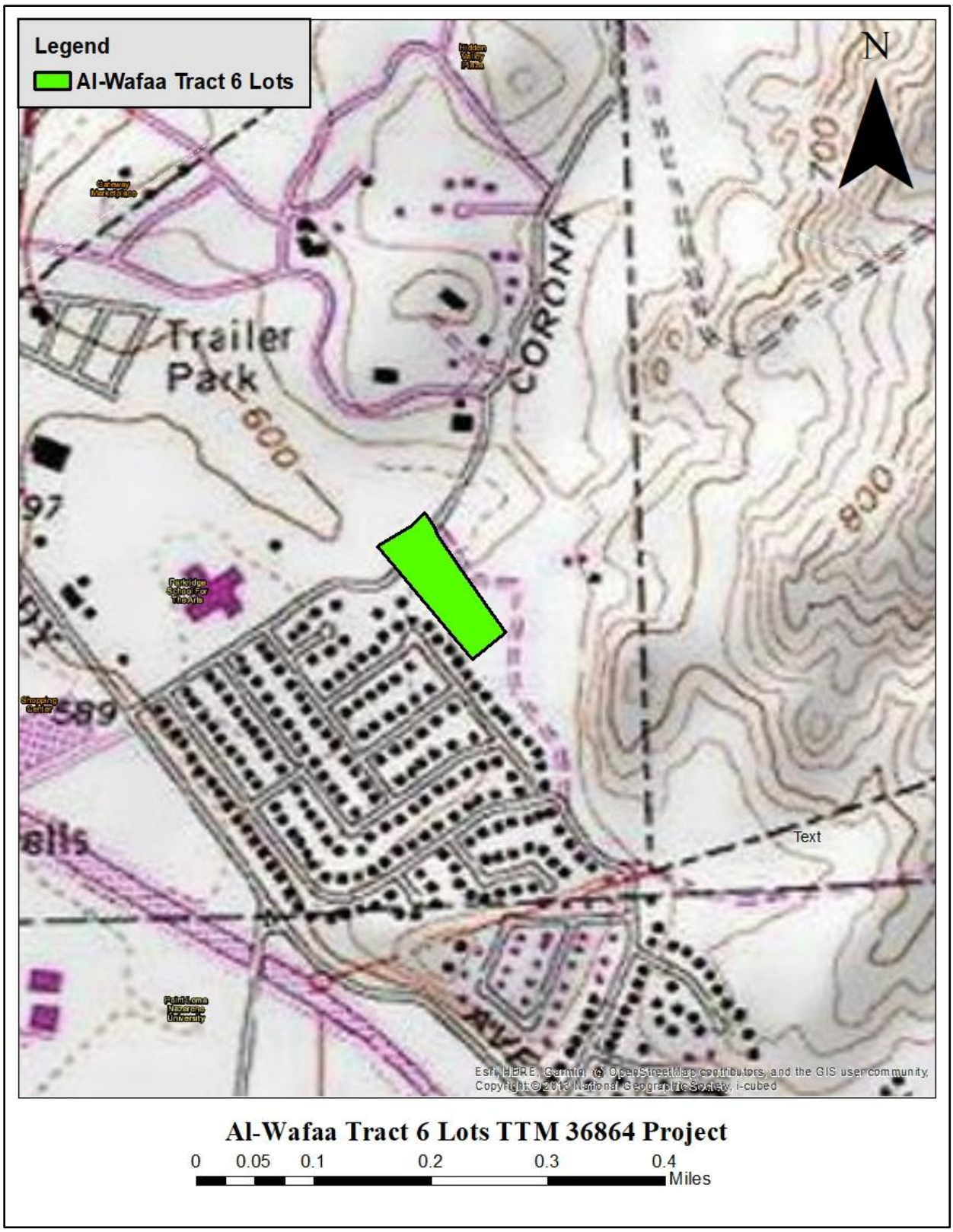

Figure 2. Topographic overview of the Project area that is highlighted in green. *Source: Esri, 2013 United States Geological Survey, National Geographic*

Figure 3. Satellite overview of Project area that is highlighted in green. *Source: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community*

2.0 REGULATORY SETTING

Cultural resources are an irreplaceable and limited resource with potential public and scientific significance. Management of such resources is determined by federal, state, and local regulations. Listed below are the federal and state laws, regulations, and standard and guidelines in place to support the protection and preservation of cultural heritage in the Nation and those specific to the state of California. See Appendix A to read the Federal and State Laws in further detail.

2.1 Federal Laws

- ***Antiquities Act of 1906***
- ***National Environmental Policy Act of 1969***
- ***Section 106 of the National Historic Preservation Act***
- ***Native American Graves Protection and Repatriation Act (25 USC Section 3001 et seq.)***

2.2 State Laws

- ***California Register of Historical Resources (PRC §5024.1)***
- ***California Environmental Quality Act***
- ***California Administrative Code***
- ***Public Resources Code***
- ***Native American Heritage Act***
- ***Senate Bill 18***
- ***Assembly Bill 52***
- ***California Health and Safety Code***

2.3 Local Laws

The Riverside County General Plan 2025 includes the preservation of paleontological resources in its Historic Preservation Element under Objective HP-1:3. Additionally, the General Plan includes paleontological resources under the Multipurpose Open Space Element under policies OS 19.6 - OS 19.9. Furthermore, the City of Corona has undertaken a broader range of programs and actions to support paleontological, cultural, and historical preservation. Historical and cultural resources are considered important for their scientific, historic, or religious reasons to communities, descendants, and people. Under the City of Corona General Plan, this includes objects, buildings, structures, sites, areas, places, records, or manuscripts associated with history. Corona's rich history is evidenced in a wide variety of historic and cultural resources. The policies outlined in the Corona General Plan 2020-2040 in place to recognize the importance of archeological and paleontological resources and ensure the identification and protection of those resources within the City of Corona are Policies HR-3.1- HR-3.8. See Appendix A to read the County of Riverside and City of Corona local regulations.

3.0 CULTURAL SETTING

3.1 City of Corona Local History

In 1886, developer Robert Taylor and his partners, Adolph Rimpau, George L. Joy, A.S. Garretson, and Samuel Merrill formed the South Riverside Land and Water Company and purchased 12,000 acres of agricultural land, naming the town South Riverside, after the successful citrus community of Riverside. Shortly after, Taylor hired Anaheim engineer H.C. Kellogg to design a circular 3-mile Grand Boulevard that included the main functions of the community: schools, churches, residences, and stores. The north end of the town long the railroad tracks was the industrial area that included the manufacturing plants and packing houses. The southern limits of the town were reserved to the citrus and mining companies. By 1912 the area had 5,000 acres of established lemon and orange groves (City of Corona 2020).

Figure 4. Grand Boulevard beltway in Corona, California (Corona Historic Preservation Society)

On July 13, 1896, residents voted to incorporate and change the name of the community. In honor of the City's circular Grand Boulevard beltway the community was named Corona, which is the Spanish word for "crown". Today, Grand Boulevard and the surrounding area still proudly exhibits

many of the homes built in the early days of Corona. Grand Boulevard hosted many road races from 1913-1916, which brought many spectators to the community (Corona Historic Preservation. 2020).

The citrus industry was the largest source of revenue and the foundation of Corona's economy so much so that the city gained the nickname "Lemon Capital of the world". By 1913 Corona shipped more fruit than any other town in Southern California. By 1961 the citrus industry covered 7500 acres of the city. The production of lemons exceeded the national demand, so in 1915, local businessmen formed the first Lemon Exchange By-Products Company in the United States. The co-operative was located on near Joy Street and the railroad tracks, it employed over 700 people, produced a variety of lemon products such as citric acid, lemon oil, lemon juice and pectin for worldwide disbursement. The co-operative was bought out by Sunkist Growers, and housing developments began to take over the citrus orchards which caused a decrease in citrus supply. The plant was eventually closed in 1982 (Falero 2004).

The decrease of citrus production gave way to urban development, and the population of Corona significantly increased in the 1980s- bringing an influx of diverse people to the City. By 1989, Interstate 15 connected to the east of the town. Today, Corona continues to be one of the fastest growing cities in California.

4.0 METHODOLOGY

4.1 Archival Research

Archival research was conducted through different inventory databases and/or historic societies to acquire more information or knowledge of the history of the City of Corona. The Corona Historic Preservation Society (CHPS) is a nonprofit organization dedicated to the preservation, protection, and perpetuation of Corona's cultural resources. Archival records near the Project site found within the CHPS data base were reviewed for additional background information of cultural resources.

4.2 Paleontological Resources Records Check

On October 26, 2021, APRMI requested a paleontological resources records check for the proposed Project from the Western Science Center (WSC) in Hemet, California, to determine the paleontological sensitivity of the Project area. This records check consisted of a thorough review of the center's paleontology collection records of recorded fossil sites in and/or near the Project area. A review of the geologic units and sediments with the Project site and surrounding regions was also conducted. The record check was conducted on November 10, 2021, by Collections Manager Darla Radford.

4.3 Field Reconnaissance

On October 28, 2021, Ms. Robin Turner and Ms. Viridiana Garcia, conducted a field reconnaissance of the Project area to evaluate the presence of any surficial paleontological resources to determine if the development of the Project would have any significant direct or indirect adverse impacts on such resources. The survey began near the northwestern most

boundary of the Project area near Corona Avenue and towards the south/southwestern boundary of the project area for further evaluation. Pedestrian survey methods were conducted in undeveloped areas with clear brush access and high ground visibility. The Project area was surveyed in transects approximately 10 feet (3 m) apart towards an east direction. Vegetation, topography, and fauna observations were photographed and noted for any potential significant adverse impacts that may be caused by the development of the Project. All photos, and field notes are stored in the APRMI office.

5.0 RESULTS OF RECORDS SEARCHES

5.1 Paleontological Resources Records Check

The results of the paleontological resources records check identified no known vertebrate fossil localities within the direct boundaries of the Project. Fossil localities have been found in similar sedimentary deposits that are also known to be present in Project location. Collections Manager Darla Radford states that the geologic unit underlying the Project area consists of very old alluvial channel deposits dating to the early Pleistocene epoch. She continues by stating such sedimentary units are of "high paleontological sensitivity". Such Pleistocene deposits have produced fossil specimen that includes mammoth (*Mammuthus columbi*), mastodon (*Mammut pacificus*) sabertooth cats (*Smilodon fatalis*), and many other Pleistocene megafauna and microfauna. A nearby development known as the SR-91 Expansion, located 3 miles southwest of the Project area, produced four separate fossil localities. These localities include specimens of bison, horse, and rodent.

Since the sediments identified within the immediate Project site have produced significant fossils in surrounding locations, there is a potential that additional paleontological specimens or localities could be uncovered at the time of ground disturbing activities related to Project development. The Western Science Center recommends that a paleontological resource mitigation plan be put in place to monitor, salvage, and curate any recovered fossils associated with the current study area. Letter report results can be seen in Appendix B.

6.0 RESULTS OF FIELD RECONNAISSANCE

Results of the field reconnaissance survey has determined the area to be an undeveloped slopped terrain with sparse vegetation and trees. The Project area was fully accessible and observable, but there is evidence of recently imported fill that now covers much of the surface of the Project area. Therefore, native soils were not fully observed since they are buried under the imported non-native soil. Upon conclusion of the field data collection, APRMI did not identify or observe any surficial paleontological sites within the Project area. These negative results do not preclude the possibility to uncover such resources in depth within old alluvial Pleistocene channel deposits. Ground disturbing activities related to Project development can extend to these sediments have been known to produce significant fossil specimens.

7.0 RECOMMENDATIONS

The paleontological records check states the Project site may be potentially sensitive for paleontological resources based on the Pleistocene alluvial sediments identified within the immediate boundaries of the Project. These sediments have been known to produce significant fossil specimens that can be found at various depths. If ground disturbing activities related to Project development extend into these sediments, there is a potential to uncover additional fossil specimens like those found in the surrounding region. Additionally, data collected from the field reconnaissance also proves that imported soil overlays most native sediments in the Project area. This could cause any paleontological resources yet to be discovered to underlie beneath the non-native soils and be exposed upon ground disturbing activities related to Project development. Under the evidence provided, the Project has been determined to be potentially sensitive for paleontological resources.

Based on the potential sensitivity of the area, APRMI recommends the following monitoring mitigation measures (MM-1 thru MM-6) to reduce the potential affects to any paleontological resource to a less than significant impact. Mitigation Measures 2, 3, and 4 have been pre-determined by the City of Corona General Plan or standard paleontological practices designed by the State of California and the Society of Vertebrate Paleontology (SVP). Mitigation Measures 1, 5, 6, and 7 have been added as a precaution to the potential sensitivity of the Project area and is also recommended by the State of California and the SVP.

A corresponding Paleontological Resources Monitoring and Mitigation Plan (PRMMP) is in section 8.0 in this document, that fully outlines the procedures and actions that fully satisfies the recommended actions of the mitigation measures.

7.1 Recommended Mitigation Measures

MM-1: A qualified paleontologist shall create a separate Worker's Environmental Awareness Program (WEAP) pamphlet that will be provided as training to construction personnel to understand regulatory requirements for the protection of paleontological resources.

MM-2: A Qualified Paleontologist meeting the standards of SVP (2010) will be designated to conduct all paleontological mitigation measures associated with construction activities, including the preparation of a paleontological resources monitoring and mitigation plan (PRMMP), tailored to each specific development project. This plan will address specifics of monitoring and mitigation to that project area and construction plan, and will take into account updated geologic mapping, geotechnical data, updated paleontological records searches, and any changes to the regulatory framework. This measure was acquired from the 2018 City of Corona General Plan Update: Paleontological Resources Technical Report (Appendix G) written by SWCA Environmental Consultants pg.6.3

MM-3: All projects involving ground disturbances in previously undisturbed areas mapped as having high paleontological sensitivity will be monitored by a qualified paleontological monitor (SVP 2010 with updates) on a full-time basis, under the supervision of the Qualified Paleontologist. This monitoring will include inspection of exposed sedimentary units during active

excavations within sensitive geologic sediments. The monitor will have authority to temporarily divert activity away from exposed fossils to evaluate the significance of the find and, should the fossils be determined to be significant, professionally, and efficiently recover the fossil specimens and collect associated data. Paleontological monitors will use field data forms to record pertinent location and geologic data, will measure stratigraphic sections (if applicable), and collect appropriate sediment samples from any fossil localities. This measure was acquired from the 2018 City of Corona General Plan Update: Paleontological Resources Technical Report (Appendix G) written by SWCA Environmental Consultants pg.6.3

MM-4: In the event of any fossil discovery, regardless of depth or geologic formation, construction work will halt within a 50-ft. radius of the find until its significance can be determined by a Qualified Paleontologist. Significant fossils will be recovered, prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility, in accordance with the standards of the SVP (2010). The most likely repository is the Western Science Center (WSC) in Hemet, California. A repository will be identified and curatorial arrangement will be signed prior to collection of the fossils. This measure was acquired from the 2018 City of Corona General Plan Update: Paleontological Resources Technical Report (Appendix G) written by SWCA Environmental Consultants pg.6.3

MM-5: If a paleontological discovery requires an excavation team or requires additional time to collect specimens, a Discovery and Treatment Plan (DTP) will be developed and the area will be cordoned off and secured so that a paleontological resources excavation crew, led by the Principal Investigator and Lead Paleontologist, may retrieve the remains out of that localized area of in situ deposits while excavation, monitored by a paleontological resource monitor, can continue in other areas. Once the Principal Investigator and Lead Paleontologist has determined that the collection process is complete for a given area or locality, construction activity will resume in that localized area.

MM-6 All significant fossils collected will be prepared in a properly equipped paleontology laboratory to a point acceptable for curation at a legal repository. Preparation will include the careful removal of excess matrix from fossil material and stabilizing and repairing specimens, as necessary. Any fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are donated to their final repository. Following laboratory work, all fossil specimens will be identified to the lowest taxonomic level, catalogued, photographed, analyzed, prepared for and delivered to an accredited museum repository for permanent curation and storage. Any fossils collected shall be donated to a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County. Accompanying notes, maps, and photographs shall also be filed at the repository. The cost of curation is assessed by the repository and is the responsibility of the Project proponent.

MM-7: At the conclusion of laboratory work and museum curation, a final report (either Negative or Positive Findings) will be prepared describing the results of the paleontological mitigation monitoring efforts associated with the project. The report will include a summary of the field and laboratory methods, an overview of the geology and paleontology in the project vicinity, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance,

and recommendations. If the monitoring efforts produced fossils, then a copy of the report with fossil catalogue and appendices will also be submitted to the designated museum repository.

8.0 Paleontological Resources Monitoring and Mitigation Plan (PRMMP)

The purpose of the PRMMP is to achieve compliance with the California Environmental Quality Act (CEQA), and local governmental agencies concerning the treatment of unexpected paleontological finds which are significant at the federal, state, and/or local level. The following PRMMP outlines the protocols and methods that will satisfy the requirements set forth by MM-1 thru MM-7 and be employed during paleontological resource construction monitoring.

8.1 Pre-Construction Training

Prior to the commencement of construction, a qualified archaeologist/paleontologist shall create a separate Worker's Environmental Awareness Program (WEAP) pamphlet that will be provided as training to construction personnel to understand regulatory requirements for the protection of paleontological resources. This training shall include examples of paleontological resources to look for and protocols to follow if discoveries are made. The paleontologist shall develop the training and any supplemental materials necessary to execute said training. (MM-1)

8.2 Paleontological Resources Monitoring

Paleontological resources monitoring shall be conducted during excavation for the Project by a qualified paleontological resource monitor, per Society for Vertebrate Paleontology (2010) standards, under the supervision of a qualified Lead Paleontologist. Monitoring will entail the visual inspection of all grubbing, grading, excavation, and utility trenching during earth moving activities. The qualified paleontological resources monitor will periodically assess monitoring results in consultation with the Lead Paleontologist. If no (or few) significant fossils have been exposed, the Lead Paleontologist may determine that full time monitoring is no longer required, and periodic spot checks, or no further monitoring, may be recommended. During construction monitoring, the monitor should process soil samples for micro-fauna per SVP guidelines (MM-2 and MM-3).

8.3 Fossil Discovery Notification Process

If a construction team member observes, or suspects the presence of, fossil remains when the paleontologist or paleontological resources monitor IS NOT on site, he or she must notify his or her immediate supervisor in order to halt excavation in the area until the paleontologist can come out to the Project site to assess the find. Members of the construction team will cordon off the initial discovery area with lathe and caution tape at least 50 feet from the fossil remains in order to protect the fossils and any other paleontological resources that may be in association with the initial discovery. No construction excavation should take place in the cordoned-off area until the discovery is assessed by the SVP-qualified Lead Paleontologist and the appropriate data collection has been accomplished (see below). Immediately, the construction supervisor must notify Debbie Kinsinger, Principal Scientist, at (760) 846-2649 when the initial discovery is made. Ms. Kinsinger will immediately contact Robin Turner at the APRMI office at (424) 248-3316. The designated

qualified paleontologist will come to the site within four work hours to assess the discovery and to determine what course of action must be taken: whether the find can be excavated and collected quickly or whether it will require an excavation team. If the discovery requires a team excavation, Robin Turner will meet with Kinsinger Environmental Consulting, Project Engineer Fathi Manasarah, and managers and personnel to discuss how to proceed and if additional Project tasks are required.

If a construction team member observes an object that they believe may be a fossil when the paleontologist or paleontological resources monitor IS on site, the team member should inform the paleontologist or paleontological resources monitor immediately, and the procedures described below will apply. If the paleontologist or paleontological resources monitor observes paleontological resources, the following procedures will also apply. The paleontologist or paleontological resources monitor will alert the Project Foreman to halt excavation in the area of the discovery and will cordon off the find with lathe and caution tape, at a distance from the resource that will be determined appropriate by the paleontologist or paleontological resources monitor. No construction excavation should take place in the cordoned-off area until the discovery is assessed by an SVP-qualified paleontologist and until appropriate data collection has been accomplished (see below). The paleontologist or paleontological resources monitor will immediately call the APRMI office and notify Robin Turner of the discovery. Robin Turner will then notify a designated qualified paleontologist and will come to the site within four work hours to assess the find and to determine what course of action must be taken: whether the discovery can be excavated and collected quickly, or whether it will require an excavation team. If the find requires a team excavation, Robin Turner will meet with Kinsinger Environmental Consulting, Project Engineer Fathi Manasarah, and managers and personnel to discuss how to proceed and if additional Project tasks are required. (MM-4)

8.4 Paleontological Resources Salvage

If a paleontological discovery requires an excavation team or requires additional time to collect specimens, a Discovery and Treatment Plan (DTP) will be developed by the Project Lead Paleontologist. The area will be cordoned off and no entry will be allowed until the DTP is approved by the City of Corona and the Lead Paleontologist and paleontology excavation crew will be allowed to remove the fossils in situ. Specimen collection and removal will be evaluated by, and under the supervision of Principal Investigator and the Project's Lead Paleontologist. Contextual stratigraphic data, photographs, maps and graphics, and field notes will be taken at the time of collection, following guidelines. Each locality will be geologically and geographically plotted prior to specimen removal. Once the Principal Investigator and Project Lead Paleontologist has determined that the collection process is complete for a given area or locality, construction activity will resume in that localized area. If excavation should be required, the collection process will be as expedient as possible.(MM-4 and MM-5). While the fossil bearing locality is being excavated by the paleontology team, the other areas on the Project site will be allowed to continue construction earth work and the initial paleontology monitor will continue to monitor the construction crew.

8.5 Microverterbrate Paleontological Resources Sampling and Data Recovery

If fossiliferous rock units/sediments are shown to contain microvertebrate fossils (generally small enough that magnification, microscope or hand lens, is necessary for identification), the paleontological resources monitor will take a representational sample of the sediment, according to SVP (2010, 2013) guidelines, per fossil locality. A test sample of about 100 pounds is typically processed first in order to determine the concentration of microvertebrates present in the soil. If warranted by the results of the test sample, a much larger sample size of in situ deposits may then be collected for microvertebrate processing. The SVP guidelines (2010 with updates) suggest that an adequate sample is 12 cubic meters (6,000 lbs. or 2,500 kg) of matrix for each site horizon or paleosol or an amount determined by the supervising paleontologist. The material will be submitted to the Lead Paleontologist or another SVP-qualified paleontologist in order to collect micro-faunal and small fossil specimens, if the separation between fossil remains and matrix cannot be accomplished on site. The collection process will also include the identification of stratigraphic and geologic units and members and the mapping of fossil localities and corresponding geologic data.

Sediment matrix will be reduced or removed from the fossil remains by dry or wet screening, or other recovery methods on site to expedite the initial fossil preparation process. Whether this work is conducted on site or later in the APRMI laboratory, it is required to analyze, classify, date, identify photograph, and catalog, to curate the fossils properly so that they can be accessioned to a legal repository. All procedures will adhere to SVP guidelines. (MM-4 and MM-5)

8.6 Paleontological Resources Laboratory Analysis and Identification

The collected fossils will be transported to the APRMI paleontological laboratory for processing, will be cleaned and prepared for identification, will be identified to the lowest taxonomic level possible by qualified paleontologists, will be analyzed, and will be catalogued. (MM-6)

8.7 Fossil Locality Records and Repository Acceptance

Once the paleontological specimens have been prepared and laboratory identification, analysis, and cataloging has been completed, recordation of the localities where the specimens were found will be submitted to the designated accredited repository, where they will be stored, maintained, and made available for future study by qualified paleontologists and for educational purposes. (MM-6)

8.8 Fossil Curation and Repository Acceptance

Once the paleontological specimens have been prepared and laboratory identification/analysis has been completed, they will be submitted to designated accredited repository. The specimens will be stored, maintained, and made available for future study by qualified paleontologists and for educational purposes. (MM-6)

8.9 Final Paleontological Resources Report

A Qualified Paleontologist will prepare the Final Paleontological Resources Report, which will be filed with The City of Corona, the State of California, and the designated accredited repository. The final report will include, but not be limited to, an existing conditions background; the regulatory framework for the Project; a discussion of the results of the paleontological resources monitoring; an evaluation and analysis of the fossils collected (including an assessment of their significance, age, and geologic context); an itemized inventory of fossils collected; a confidential appendix of fossil site records and locality and specimen data with locality maps and photographs; an appendix of curation agreements and other appropriate communications; and a copy of this Project-specific paleontological resources monitoring and mitigation plan. (MM-7)

Appendix A

Federal, State, and Local Laws

2.0 REGULATORY SETTING

2.1 Federal Laws

2.1.1 Antiquities Act of 1906

The Antiquities Act of 1906 (16 USC § 431 *et seq*.) provides for the establishment and preservation of national monuments, historic landmarks, and historic or prehistoric structures, or other items of interest on federally owned lands. Additionally, Section 433 of this act prohibits the purposeful taking, excavation, damage, and destruction of historic or prehistoric ruins, monuments, or other objects of antiquity on federally owned lands. Other "objects of antiquity" are interpreted to include paleontological remains.

2.1.2 National Environmental Policy Act of 1969

The National Environmental Policy Act (NEPA) of 1969, specifically P.L. 91-190, 83 Stat. 852, 42 USC §§ 4321-4327, mandates the preservation of "important historic, cultural, and natural aspects of our national heritage" (§101.b4). In addition, NEPA is interpreted as providing for the protection and preservation of paleontological remains.

2.1.3 Section 106 of the National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) mandates the following:

> The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure or object that is included in or eligible for inclusion in the National Register [of Historic Places (NRHP)]. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation [The Council], established under Title II of this Act, reasonable opportunity to comment with regard to such an undertaking. [16 U.S.C. § 470f]

An effect, or "adverse effect," as defined by 36 CFR § 800.5 (a)(1), occurs

> when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

To further clarify the meaning of what constitutes an adverse effect, 36 CFR § 800.5 (a)(2) identifies the following: physical destruction, alteration that is not in keeping with the *Secretary of the Interiors Standards for the Treatment of Historic Properties* per 36 CFR §68, removal, change of use, alteration of property setting, relocation, application of intrusive elements, neglect, and change of ownership (federal to non-federal).

The NHPA (16 U.S.C. § *et seq.*) defines a historic resource as significant if eligible for inclusion in the NRHP as defined by one of four eligibility criteria set forth in 36 CFR § 60.4A. Determination of historic resource significance is carried out via implementation of the Section 106 process of the NHPA, as set forth by the Council per 36 CFR § 800 "Protection of Historic Properties." Such significant historic resources can include archaeological sites of pre-historic or historic context, historic buildings, structures, or objects of state, local, or federal importance that retain integrity of location, design, setting, feeling, association, material, and/or workmanship and

(A) Are associated with events which have made a significant contribution to the broad patterns of our history, or
(B) Are associated with the lives of persons significant in our past, or
(C) Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic value, or are representative of significant and distinguishable entity of which the component may lack individual distinction, or
(D) Yield, or are likely to yield, data important to our understanding of prehistory and/or history.

2.1.4 Native American Graves Protection and Repatriation Act (25 USC Section 3001 et seq.)

The discovery of human remains is always a possibility during construction-related disturbances. The Native American Graves Protection and Repatriation Act, or NAGPRA, was enacted November 16, 1990. It states that the "ownership or control of Native American cultural items," which include human remains, funerary objects, sacred objects, and objects of cultural patrimony, that are "excavated or discovered on Federal or tribal lands" after the law went into effect is held by the lineal descendants of the Native American (or Hawaiian) to whom the objects originally belonged. If the lineal descendants cannot be found, then their ownership is conferred to the "Indian" tribe or Native Hawaiian organization on whose land the objects or remains were discovered or that has the closest cultural affiliation.

2.2 State Laws

2.2.1 California Register of Historical Resources (PRC §5024.1)

The California State Historical Resources Commission enacted Public Resources Code §5024.1, which established the California Register of Historical Resources (CRHR). The statute encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance. The register itself is a listing of all properties considered to be significant historical resources in the state. Resources are considered significant (and thus eligible for the register) if they retain integrity and meet one of the following criteria:

1) Associated with events which have made a significant contribution to the broad patterns of California's history and historical heritage
2) Associated with the lives of persons significant in California's past
3) Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic value, or
4) Yield, or are likely to yield, information important in prehistory or history.

The California Register specifically provides that historical resources listed, determined eligible

for listing on the California Register by the State Historical Resources Commission, or resources that meet the California Register criteria are resources, which must be given consideration under CEQA (see below). Other resources, such as resources listed on local registers or in local surveys, may be listed if they are determined by the State Historic Resources Commission to be significant in accordance with criteria and procedures to be adopted by the Commission and are nominated; their listing in the California Register is not automatic.

According to the federal laws to which the State of California defers when its own laws do not apply to a situation, historical resources are evaluated if they are 50 years or older, unless they are exceptional according to a set of criteria considerations. The Instructions for Recording Historical Resources (California Office of Historic Preservation [OHP] 1995:2) states that "[a]ny physical evidence of human activities over 45 years old may be recorded for purposes of inclusion in the OHP's filing system." This five-year difference is to compensate for the amount of time that usually occurs between a resource's discovery and its official documentation as well as the implementation of any mitigation procedures.

2.2.2 California Environmental Quality Act

The California Environmental Quality Act (CEQA) is a statute that requires state and local agencies to identify significant environmental impacts of their actions, including damages to cultural or historical resources, in order to avoid or mitigate those adverse impacts or changes. §5020.1 of CEQA establishes "substantial adverse change" as the "demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired" (see below for the definition of *historical resource*). The "threshold of significance" is the level at which a lead agency finds the effects of a Project to be significant.

The destruction of unique, non-renewable cultural resources is a significant impact on the environment that requires mitigation of the impact. Construction excavation in archaeologically sensitive deposits that underlie a Project Area is a significant impact that could be prevented, minimized, or mitigated through the development of project alternatives (e.g., avoidance of the cultural resource) or mitigation measures for the purpose of recovering data that might otherwise be destroyed (e.g. archaeological excavation prior to construction excavation and archaeological monitoring of construction excavation of a known site; or archaeological monitoring of construction excavation of an archaeologically sensitive area). Even if a historical resource, an archaeological site, or human remains cannot be identified within a project area before project implementation (i.e., if the resources are not visible on the surface during a Phase I survey, or if Extended Phase II testing does not reveal subsurface archaeological material), the area may still be archaeologically sensitive, based on the characteristics of the environmental background of the area or its current environmental setting, and that said resources are predicted to exist within the project area/remains could be present within the project area. Mitigation measures to avoid project impacts to as-yet undiscovered historical resources or human remains may be employed by the Lead Agency, even if these resources have not been identified within or adjacent to the project area. A study must consider a project's current baseline environmental setting and physical conditions so that the lead agency can determine whether project impacts would cause a significant change to that environment.

§15091(a) and (d) of the CEQA Guidelines require the Lead Agency to adopt a program for

reporting on or monitoring the changes—that it has either required for the project or has made a condition of approval—in order to avoid or substantially lessen significant environmental effects. A Mitigation Monitoring and Reporting Program (MMRP) provides for the monitoring of mitigation measures that may be required by a project's Environmental Impact Report (EIR), if the EIR identifies potentially significant adverse impacts and mitigation measures to reduce those impacts to a less-than-significant level. An archaeological resources/built environment data recovery or monitoring plan may be part of an MMRP if archaeological resources/built environment will be affected.

A significant historical resource, as defined by CEQA, is referred to as a "Historical Resource." Such Historical Resources have been determined eligible for inclusion in the CRHR per Title 14, California Code of Regulations (CCR), §15064.5(a)(3), and include historic properties eligible for inclusion on the National Register of Historic Places (NRHP) per PRC §5024.1, or are historically significant at a local level, such as a city, town, community, or county.

Paleontological resources are protected by Appendix G (Part V) of CEQA, which indicates that the destruction of unique, non-renewable paleontological resources is a significant impact on the environment that requires mitigation of the impact. It specifically asks whether a project would "directly or indirectly destroy a unique paleontological resource or site or unique geological feature." Excavations in paleontologically sensitive deposits that underlie a project area is a significant impact that can be mitigated via the salvage and identification of excavated fossils from the deposit.

2.2.3 California Administrative Code

Title 14, Section 4307 of the California Administrative Code states that "no person shall remove, injure, deface, or destroy any object of paleontological, archaeological, or historical interest or value."

2.2.4 Public Resources Code

Section 5097.5 and Section 30244. of the California Public Resources Code (PRC) protects both cultural and paleontological resources. Section 5097.5 states that

> "a person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands."

Section 5097.5 also states that "a violation of this section is a misdemeanor, punishable by a fine not exceeding ten thousand dollars ($10,000), or by imprisonment in a county jail not to exceed one year, or by both that fine and imprisonment." This section defines public lands as "lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof."

Section 30244 states that "where development would adversely impact archaeological or

paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required."

2.2.5 Native American Heritage Act

The Native American Heritage Act, passed by California in 1976, established the Native American Heritage Commission (NAHC) for the purpose of protecting Native American religious values on state property (PRC §5097.9). The NAHC not only protects the heritage of California Native Americans, but also ensures their participation in matters concerning heritage sites. The commission's duty is to assist both federal and state agencies in protecting Native American sacred places and provide recommendations concerning Native American heritage in accordance with environmental law and policy. As required by Government Codes §65352.3 and §65562.5, for purposes of consultation with California Native American Tribes, the NAHC maintains a list of California Native American Tribes with whom local governments and public agencies must consult.

The act also protects burials from disturbance, vandalism, and accidental destruction. It stipulates what specific procedures, laid out in the California Health and Safety Code (HSC), must be implemented if a Native American burial is uncovered during project construction or archaeological data recovery.

2.2.6 Senate Bill 18

The California Senate Bill 18, passed in 2004, establishes a procedure to help California indigenous tribes and jurisdictions define tribal cultural resources and sacred areas more clearly as well as incorporate their protection into a General or Specific Plan prior to its adoption or amendment. The law also requires that California cities and counties contact and consult with California Native American tribes prior to designating land as open space. By involving tribes in local land use decisions, impacts to sites of cultural significance can be mitigated.

2.2.7 Assembly Bill 52

Assembly Bill (AB) 52, was approved and passed on September 25, 2014 by California State Governor Gerry "Jerry" Brown, Jr. The act has amended California PRC Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3, relating to California's Native American populations. Assembly Bill 52 applies to projects in which a Notice of Preparation (NOP) or a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration (MND) would be filed on or after July 1, 2015. This bill recognizes California Native American tribes' expertise regarding cultural resources and provides a method for agencies to incorporate tribal knowledge into their CEQA environmental review and decision-making processes. California Native American tribes can now establish a standing request to consult with a lead agency regarding any proposed project subject to CEQA in the geographic area with which the tribe is traditionally and culturally affiliated. The definition of tribal cultural resources, as per PRC Section 21074(a)(1) and (2), are considered as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" that are included or determined to be eligible for inclusion in the California Register or included in a local register of historical resources. A tribal cultural resource may also

be determined by a lead agency, in its discretion and supported by substantial evidence. PRC section 21080.3.1(a-e) outlines and defines the initial consultation process required from the lead agency as follows:

21080.3.1(a): The Legislature finds and declares that California Native American tribes traditionally and culturally affiliated with a geographic area have expertise concerning their tribal cultural resources.

21080.3.1(b): Prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, the lead agency shall begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if:

(1) The California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and

(2) The California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation. When responding to the lead agency, the California Native American tribe shall designate a lead contact person. If the California Native American tribe does not designate a lead contact person, or designates multiple lead contact people, the lead agency shall defer to the individual listed on the contact list maintained by the Native American Heritage Commission for the purposes of Chapter 905 of the Statutes of 2004. For purposes of this section and Section 21080.3.2, "consultation" shall have the same meaning as provided in Section 65352.4 of the Government Code.

21080.3.1(c): To expedite the requirements of this section, the Native American Heritage Commission shall assist the lead agency in identifying the California Native American tribes that are traditionally and culturally affiliated with the project area.

21080.3.1(d): Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

21080.3.1(e): The lead agency shall begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation.

Under PRC section 21080.3.2 (a) the following topics are potential consultation discussions:

- The type of environmental review necessary
- The significance of tribal cultural resources
- The significance of the project's impacts on the tribal cultural resources
- Project alternatives
- Appropriate measures for preservation
- Mitigation measures

Consultation is considered complete if the parties agree to measure(s) to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource, or if a party acting in good faith and after reasonable effort, concludes that a mutual agreement cannot be reached (PRC 2108.3.2(b) (1-2)). This section does not limit the ability of a California Native American tribe or the public to submit information to the lead agency regarding the significance of the tribal cultural resources, the significance of the project's impact on tribal cultural resources, or any appropriate measures to mitigate the impact. This section also does not limit the ability of the lead agency or project proponent to incorporate changes and additions to the project as a result of the consultation, even if not legally required. If the project proponent or its consultants participate in the consultation, those parties shall respect the principles set forth in this section.

PRC section 21082.3(a)(b) requires any mitigation measures agreed upon in the consultation conducted pursuant to PRC section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact of tribal cultural resources. If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following: (1) Whether the proposed project has a significant impact on an identified tribal cultural resource. (2) Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource.

Any information including, but not limited to, the location, description, and the use of the tribal cultural resources, that is submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public (PRC section 21082.3(c). If a California Native American tribe has requested consultation pursuant to PRC section 21080.3.1 and has failed to provide comments to the lead agency, failed to engage in the consultation process, or if the lead agency has complied with PRC section 21080.3.1(d) and the California Native American tribe has failed to request consultation within 30 days, the lead agency may certify an Environmental Impact Report or adopt a Mitigated Negative Declaration.

Suggested mitigation measures after lead agencies determine that a project may cause a substantial adverse change to tribal cultural resources are outlined under PRC section 21084.3 as follows:

- Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

- Protecting the cultural character and integrity of the resource.
- Protecting the traditional use of the resource.
- Protecting the confidentiality of the resource.
- Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- Protecting the resource.

2.2.8 California Health and Safety Code

Section 7050.5 of the HSC states that if human remains are found, construction and/or excavation must cease within the general vicinity, and the remains must be inspected by the county coroner. If the coroner determines that they are Native American in origin, then the coroner must contact the NAHC. The NAHC will then determine and notify a Most Likely Descendant (MLD). The MLD must complete inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Sections 8010-8011 of the HSC establish a state repatriation policy that is consistent with and facilitates implementation of NAGPRA. NAGPRA was passed in 1990 and required that museums and federal agencies document all Native American human remains within their collections, or uncovered on projects, as well as their cultural ties. These agencies must then notify any tribe that may be affiliated with the remains and provide the opportunity for their repatriation along with any associated cultural items (grave goods). The California state version (Cal NAGPRA) mandates publicly funded agencies (state and local government agencies) and museums to repatriate human remains and associated cultural items to California Native American Tribes, not just federally recognized tribes within California, and establishes penalties for noncompliance.

2.3 Local Laws

2.3.1 Riverside County

The Riverside County General Plan 2025 (2012) includes paleontological resources as targets of conservation in its Historic Preservation Element under Objective HP-1, "To use historic preservation principles as an equal component in the planning and development process" (p. HP-25). The following policy under this objective is directed toward paleontological resources:

> Policy HP-1:3—The City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable State and Federal cultural resources protection and management laws in its planning and project review process.

The General Plan also lines out policies intended to appropriately consider paleontological resources in the Chapter 5: Multipurpose Open Space Element (Riverside County General Plan 2025 [2012:55]):

> **OS 19.6** – Whenever existing information indicates that a site proposed for development has high paleontological sensitivity, a paleontological resource impact mitigation program (PRIMP) shall be filed with the County Geologist prior to site grading. The PRIMP shall specify the steps to be taken to mitigate impacts to paleontological resources.

OS 19.7 – Whenever existing information indicates that a site proposed for development has low paleontological sensitivity, no direct mitigation is required unless a fossil is encountered during site development. Should a fossil be encountered, the County Geologist shall be notified and a paleontologist shall be retained by the project proponent. The paleontologist shall document the extent and potential significance of the paleontological resources on the site and establish appropriate mitigation measures for further site development.

OS 19.8 – Whenever existing information indicates that a site proposed for development has undetermined paleontological sensitivity, a report shall be filed with the County Geologist documenting the extent and potential significance of the paleontological resources on site and identifying the extent and potential significance of the paleontological resources on site and identifying mitigation measures for the fossil and for impacts to significant paleontological resources prior to approval of that department.

OS 19.9 – Whenever paleontological resources are found, the County Geologist shall direct them to a facility within Riverside County for their curation, including the Western Science Center in the City of Hemet.

2.3.2 City Of Corona General Plan

GOAL HR-3 Recognize the importance of archeological and paleontological resources and ensure the identification and protection of those resources within the City of Corona.

Policies

HR-3.1 Require appropriate treatment/preservation of archaeological collections in a culturally appropriate manner, in accordance with state and federal standards, and in consultation with interested Native American tribes that have traditional cultural affiliation with the project area and/or the resources affected by the project.

HR-3.2 Require that development proposals incorporate specific measures to identify, protect, and preserve cultural resources in the planning, environmental review, and development process.

HR-3.3 Archaeological resources found prior to or during construction shall be evaluated by a qualified archaeologist and appropriate mitigation measures applied, pursuant to § 21083.2 of CEQA, before the resumption of development activities. Any measures applied shall include the preparation of a report meeting professional standards, which shall be submitted to the appropriate CHRIS information center.

HR-3.4 Any project that involves earth-disturbing activities in an area determined to be archaeologically or culturally sensitive shall require evaluation of the site by a qualified archaeologist. The applicant shall implement the recommendations of the archaeologist, subject to the approval of the City. Planning Department.

HR-3.5 Any project that involves earth-disturbing activities in an area determined to be archaeologically or culturally sensitive shall require consultation by the applicant with interested federally recognized American Indian Tribe(s) that have a traditional cultural affiliation with the project area and/or the resources affected by the project, for the purposes of determining resources impacts and appropriate mitigation to address such impacts. Applicant shall also arrange for monitoring of earth-disturbing activities by interested federally recognized American Indian Tribe(s) that have a traditional cultural affiliation with the project area and/or the resources affected by the project, if requested.

HR-3.6 Any project that involves earth-disturbing activities in soil or rock units known or reasonably suspected to be fossil-bearing shall require monitoring by a qualified paleontologist retained by the project applicant for the duration of excavation or trenching.

HR-3.7 Paleontological resources found prior to or during construction shall be evaluated by a qualified paleontologist, and appropriate mitigation measures applied, pursuant to § 21083.2 of CEQA, before the resumption of development activities. Any measures applied shall include the preparation of a report meeting professional standards, which shall be submitted to the Riverside County Museum of Natural History

HR-3.8 In the event of the discovery of a burial, human bone, or suspected human bone, all excavation or grading in the vicinity of the find shall halt immediately and the area shall be protected and the project applicant immediately shall notify the Riverside County Coroner and comply with provisions of the Health and Safety Code § 7050.5, including PRC § 5097.98, if applicable. If the find is determined to be Native American human remains, the applicant shall consult with the Most Likely Descendent to determine appropriate treatment for such remains.

9.0 REFERENCES

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APPENDIX B

Western Science Center Record Check Results

WESTERN SCIENCE CENTER

Paleontology Record Search Request

The Western Science Center requires the following information in order to perform a paleontological record search for upcoming mitigation projects. Please provide the following as well as a .kml file, .kmz file, or detailed map of the project location. Western Science Center record searches will be returned within two weeks of the date this form is received, and will contain a map and letter indicating paleontological sensitivity and any known Western Science Center fossil localities within the proposed project area. The fee for standard paleontological record searches is $150 and the Western Science Center reserves the right to increase fees for large or extensive requests.

Date: 10/26/2021

Contact Information:

Name: Robin Turner Email: rturner@archaeopaleo.com

Company & address: ArchaeoPaleo Resource Management, Inc.

1531 Pontius Ave., Suite 200 Los Angeles, CA 90025

Phone: 424-248-3316

Invoice should be sent to: Robin Turner, MA-Principal Investigator, President/CEO

Project Information:

Project name and number: Project #2021-10: AlWafaa Single-Family Residential Tract 6 Lots TTM 36864

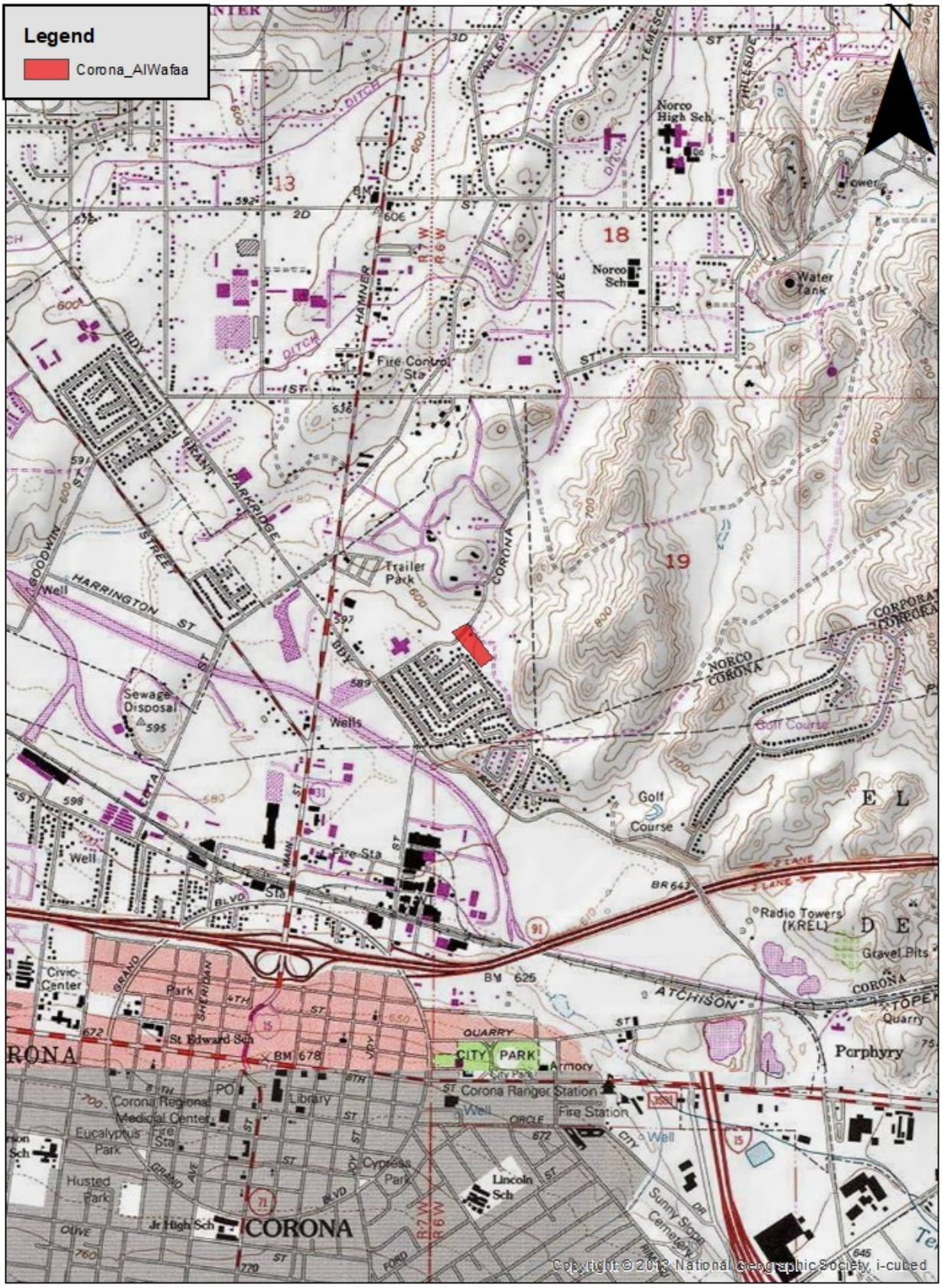
Project location (include City, County, Township, Range, and Sections to the level known):

The Project area is located within the City of Corona, Riverside County, California. Specifically, the lot is located on the south boundary of Corona Avenue, and west of the Interstate 15, and .05 miles north of Newhall Drive. APN: 122-180-027; Township: 3S Range: 6W Section: 19

Map type included:

☐ .KML File ☒ .KMZ File ☐ Detailed Map

Please send this form and project map to Western Science Center Collections Manager Darla Radford at dradford@westerncentermuseum.org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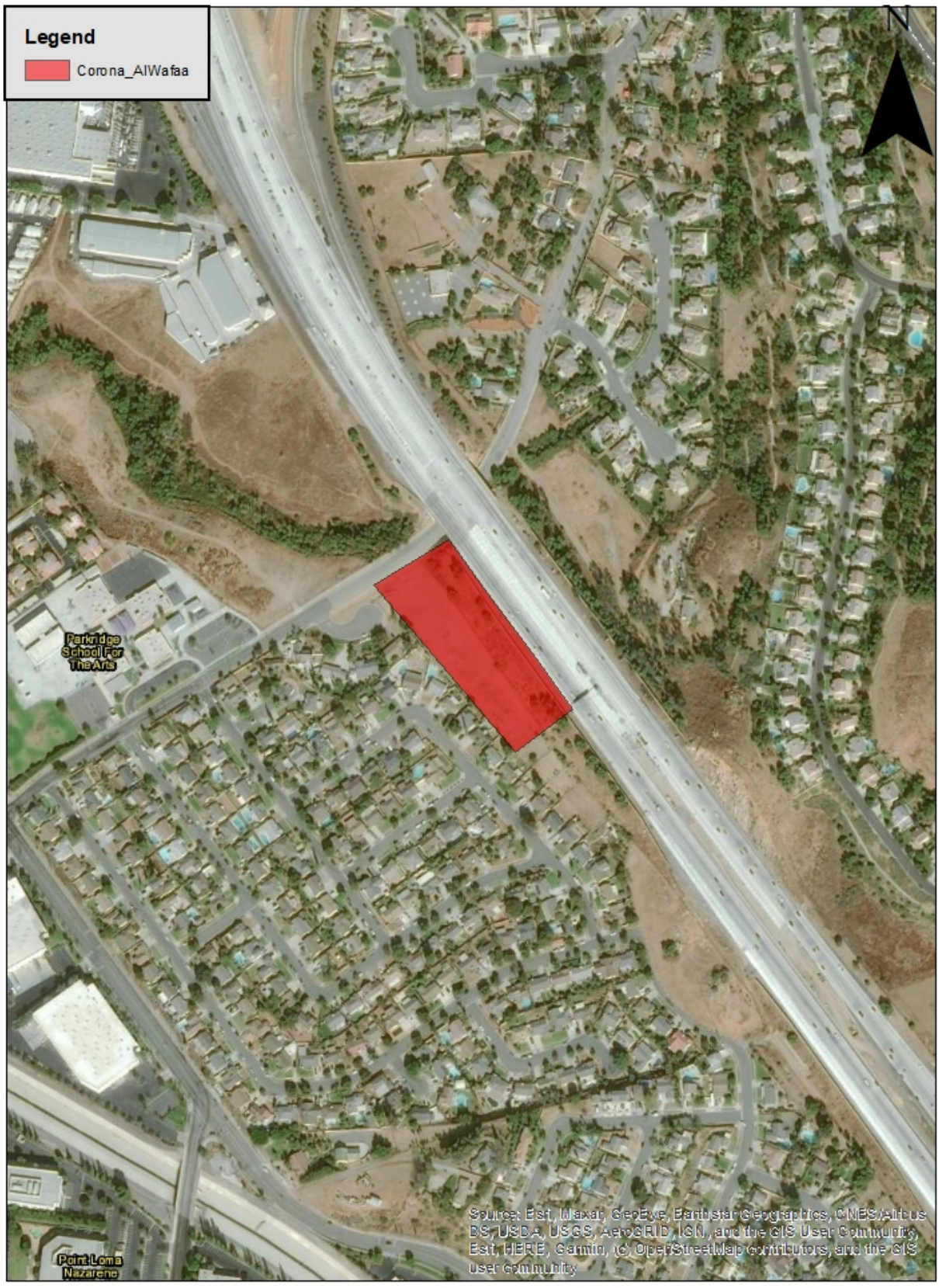
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WESTERN SCIENCE CENTER

ArchaeoPaleo Resource Management Inc.
Robin Turner
1531 Pontius Avenue, Suite 200
Los Angeles, CA 90025

November 10, 2021

Dear Ms. Turner,

This letter presents the results of a record search conducted for the AlWafaa Single-Family Residential Tract 6 Lots TTM 36864 Project (#2021-10) in the city of Corona, Riverside County, California. The project site is located south of Corona Avenue, west of Interstate 15, and east of Gilmore Drive in Section 19 of Township 3 South and Range 6 West on the *Corona North* USGS 7.5 minute topographic quadrangles.

The geologic unit underlying the project area is mapped entirely as very old alluvial channel deposits dating to the early Pleistocene epoch (Morton, Bovard & Alvarez, 2003). Pleistocene sedimentary units are considered to be of high paleontological sensitivity. The Western Science Center does not have localities within the project area or a one mile radius, but does have numerous localities throughout the region in similarly mapped sediments including those associated with the SR-91 Expansion Project just over 3 miles to the southwest. The SR-91 Expansion Project consists of four fossil localities that produced specimens associated with bison (*Bison sp*.), horse (*Equus sp*.), and rodent (Rodentia). Southern California Pleistocene units are well known to produce fossil localities and specimen including those associated with mammoth (*Mammuthus columbi*), mastodon (*Mammut pacificus*) sabertooth cats (*Smilodon fatalis*), and many other Pleistocene megafauna and microfauna.

Any fossils recovered from the AlWafaa Single-Family Residential Tract 6 Lots TTM 36864 Project area would be scientifically significant. Excavation activity associated with development of the area has the potential to impact the paleontologically sensitive Pleistocene units and it is the recommendation of the Western Science Center that a paleontological resource mitigation plan be put in place to monitor, salvage, and curate any recovered fossils associated with the current study area.

If you have any questions, or would like further information about the SR-91 Expansion Project, please feel free to contact me at dradford@westerncentermuseum.org

Sincerely,

Darla Radford
Collections Manager

APPENDIX C

Pedestrian Survey Photographs

Figure 1. View of the site from the northwest boundary of the Project area near Corona Avenue

Figure 2. View of the eastern boundary of the Project area near Interstate 15.

Figure 3. View of the western boundary of the Project area near Corona Ave.

Figure 4. Shell found on the northwestern boundary near the fence of the Project area near Corona Circle.

Figure 5. Boulders located outside of the Project area on the eastern boundary.

Figure 6. View towards the north of the Project area.

Figure 7. View towards the south of the Project area boundary.

Figure 8. Leftover fill located near the southern boundary of the Project area.

Figure 9. View of the filled area near the northwestern boundary of the Project area.