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Roseville, CA 95661

Subject: Environmental Due Diligence Technical Memorandum for the Water System Rehabilitation Project No. 2, City of Folsom, Ca.

Dear Ms. Alacon:

HELIX Environmental Planning, Inc. (HELIX) prepared this environmental due diligence technical memorandum for proposed water system rehabilitation project No. 2 (project) in the City of Folsom (City). The purpose of our environmental due diligence report was to determine the potential presence of regulated/protected resources that would exclude the project from being processed under the Categorical Exemption statute of the California Environmental Quality Act (CEQA). This memorandum includes a description of the location, setting, and existing environmental conditions of the project area, a review of existing environmental information and reports relating to the proposed project area (i.e., special-status species lists and databases, cultural resources records search, 2035 Folsom General Plan and Zoning Code, Flood Insurance Rate Map, etc.), identification of potential constraints by pipeline segment and issue area, and potential requirements by regulatory agencies prior to the procurement of regulatory permits, as needed.

LOCATION AND SETTING

The project area is situated within the urbanized area of the City of Folsom, at disparate locations throughout the City. The specific projects are generally located in residential and commercial areas in the central part of the City. Please refer to **Attachment A** for figures depicting the project segments.

PROJECT DESCRIPTION

The proposed project involves replacement, realignment, and/or rehabilitation of individual segments of existing waterlines and related appurtenances throughout the City. These 13 segments are identified as follows:

1. Folsom-Auburn Boulevard & Marietta Court: Install 800 ft. of new 8-inch along Folsom-Auburn at Marietta Court and install appropriate valving; rebuild PRV at Folsom-Auburn at Marietta Court and relocate service for Parcel 7013;
2. Coloma Street & Duchow: Install 800 ft. of new 8-inch along Coloma St. from Duchow-Bidwell Alley to Dean Way and install appropriate valving;

3. Prairie City Road & Willard Drive: Provide 150 ft. of 12" at Willard Drive and Prairie City Road and install appropriate valving;
4. Evelyn Way & Talisman Drive: Extend 300 ft. of 8" along Evelyn Way to Talisman Drive and install appropriate valving;
5. Natoma Street & Stafford Street: Abandon blow-off and stub at Natoma Street and Stafford Street;
6. E Bidwell Street & Oak Avenue: Raise and add valves along East Bidwell St. between Oak Avenue and Woodsmoke Way;
7. Eveland Court & Darrington Drive: Install valves at Eveland Court and Darrington Drive;
8. Econome Court & Rawlings Court: Install valves between Rawlings Court and Econome Court;
9. Orange Blossom Circle & Fantages Way: Install valves between Fantages Way and Orange Blossom Circle;
10. Landrum Circle & Briggs Ranch Drive: Install (2) butterfly valves and (1) gate valve at Briggs Ranch Drive and Landrum Circle;
11. Natoma Street & Coloma Street: Install valves on at hydrant on Coloma Street at Natoma Street;
12. Toney Court: Install valve and reroute service of Parcel 402 at Toney Court; and,
13. Mercy Hospital: Install second connection at Mercy Folsom Hospital.

PROPOSED FACILITIES

According to information provided by WWE, below is a list of the waterline replacement and/or rehabilitation actions proposed as part of the project for each of the segments:

1. Folsom-Auburn & Marietta: A new water main would be installed as part of this facility in order to improve system reliability. 800 ft. of new 8-inch PVC pipe, along with appropriate valving, would be installed along Folsom-Auburn Road beginning at its intersection with Marietta Court and extending along Folsom-Auburn towards Berry Creek. This new 8-inch water main would be installed along Folsom-Auburn prior to the pressure-reducing valve (PRV) improvements described in segment 1B Folsom-Auburn & Marietta below. Existing pipe would be removed up to and including the existing valve at the intersection of Foslom-Auburn Road and Marietta Court. The 90-degree elbow would be replaced with a new tee and 3 new valves. An additional hydrant would be installed on the property located at 7071 Folsom-Auburn Road. Two redwood trees in front of 1449 Marietta Court would need to be removed in order to complete work for this segment. A new water meter would be installed in accordance with City of Folsom standards and connected to the new 8-inch PVC pipe.

A new above-ground PRV would be constructed next to the existing below-grade PRV. The existing PRV does not work. All shutdowns related to this project would be temporary, and the City will provide sequencing plans to ensure continued service. The existing 7013 service connection will be abandoned and the line will be re-connected elsewhere. Existing irrigation will be modified as necessary. An existing redwood tree will be removed and replaced in order to allow the PRV to be built at the appropriate location above ground. A new meter will be installed upon completion of the new PRV. A new PRV will be built along Folsom-Auburn Road to the southwest of its intersection with Marietta Court.

2. Coloma & Duchow: Install 800 ft. of new 8-inch along Coloma St. from Duchow-Bidwell to Dean Way and install appropriate valving; Install 800 ft of new 8-inch water main along Coloma Street from Duchow-Bidwell Alley to Dean Way. The existing blow off at the intersection of Coloma Street and Dean Way would be removed and the water main would be connected to the existing butterfly valve. A new

tee and 3 valves would be installed at the intersection of Coloma Street and Duchow Way Bidwell Street Alley to connect the new pipe to the existing water main. The existing valve at the intersection of Duchow Way and Rumsey Way Coloma Street Alley.

3. Prairie City & Willard: Provide 150 ft of 12-inch waterline to serve as secondary connection at the intersection of Willard Drive and Prairie City. Currently, there is only one 16-inch connection that serves approximately 500 residents in the area. As this is a major intersection, work will be conducted at night to minimize any potential impact to traffic. Work will be conducted in such a way to avoid existing traffic loops used to detect vehicle traffic at this intersection. For redundancy. The new waterline will be installed across the width of Prairie City Road at its intersection with Willard Drive. On the northeastern side of the intersection, the existing tee will be replaced with a cross and 4 new valves. On the southwestern side of the intersection, a cut-in tee will be installed with 3 new valves.

4. Evelyn & Talisman: A new water line will be installed from the blow off point on Evelyn Way and extending to existing water main running along Talisman Drive. The existing blowoff at the end of the line on Evelyn Way will be removed. It is not known whether the point of connection identified along Talisman Drive is a valve, but if it is the valve will be removed and replaced.

5. Natoma Street & Stafford: Service will be transferred from the 4-inch water main to the 8-inch Zone 2 water main across the street. The existing 4-inch main runs underneath the sidewalk on this portion of Natoma Street between Mill Street and Stafford Street. The blowoff on the southeast end of the 4-inch main will be abandoned. The 4-inch main will be capped at the tee at the northwest end of the 4-inch main in order to transfer service to the 8-inch water main. The stub coming off the 24-inch line at Natoma and Stafford will be abandoned.

6. E Bidwell & Oak: Work on this segment would include raising adding valves and raising existing valves to grade along East Bidwell Street between Creekside Drive and Oak Avenue Parkway. Night work would be necessary, as work would take place in the existing lanes of traffic on East Bidwell Street. East Bidwell Street runs east-west between Creekside Drive and Oak Avenue Parkway. The westernmost valve that would be replaced is buried below ground on the southern side of East Bidwell Street in the bike lane. The contractor would raise the valve to grade. Traveling east, the next valve is located in the right-hand turn lane on East Bidwell turning onto Woodsmoke Way. The contractor would raise the valve to grade. An existing in-line valve located in the roadway at the intersection of Woodsmoke Way and East Bidwell would be replaced. An existing valve located in the left-hand eastbound lane on East Bidwell would be raised to grade. Another existing valve located below the center median on East Bidwell Street just east of its intersection with Bluestone Circle would be replaced and raised to grade. A new valve would be added in front of 2340 East Bidwell street. An existing valve may be located below ground at this location but was not detected during survey work. A new valve will be installed in front 2370 East Bidwell Street. An existing valve may be located here below ground but was not detected during survey work. There is a normally closed valve located in front of 2370 East Bidwell Street. When this valve is open, water comes out of the ground near the edge of pavement and the sidewalk along East Bidwell. The Contractor will dig up and remove the valve and cap the stub at the 12” water main on East Bidwell. There are two normally closed sideline valves located on East Bidwell near the border of 2380 and 2390 East Bidwell Street. The Contractor will excavate and verify that these are sideline valves that do not provide water service. If so, the Contractor will remove valves and blind flange at 12” water main. If these are in-line valves, leave as-is.

7. Eveland & Darrington: New valves will be installed at the intersection of Eveland Court and Darrington Drive. The existing pipeline is AC and the existing tee is likely a push on. The thrust block will be chipped out and replaced and three valves and a cut-in tee will be installed.

8. Econome-Rawlings: Two new valves will be installed between Rawlings Court and Econome Court. The first valve will be installed along the water main at the edge of the cul de sac of Econome Court. Another valve will be installed at the intersection of the two water mains on Rawlings Court. The two valves will be installed on both ends of the water main for emergency use in case the main leaks between the two courts. Existing water lines are PVC. New valves will be restrained. If the existing tee is found to be a push-on tee, it will be replaced.

9. Orange Blossom-Fantages: Install two new valves on either end of the water line that connects the water mains on Orange Blossom Circle and Fantages Way. One valve would be installed just before the intersection of the water line with the line on Orange Blossom Circle and one valve at the other end of the water line just before its intersection with the line on Fantages Way.

10. Landrum & Briggs Ranch: Replace the 12-inch valve on the water line along Briggs Ranch Drive just east of its intersection with Landrum Circle.

11. Natoma & Coloma: Install two new valves on either side of the blow off on 24-inch hydrant located on Coloma Street just southeast of its intersection with Natoma Street. After this work is completed, two valves that are normally closed at this intersection will be opened.

12. Toney: An in-line gate valve will be installed along the water main on Toney Court. The valve will connect to the existing water meter and a service saddle will be installed that meets City of Folsom standards. The line running to the parcel at 402 Toney Court will be capped at its northern terminus and the line extending from that point eastward will be abandoned.

13. Mercy Hospital: A new water main "cut-in" connection would be installed along Creekside Drive near the entrance to Mercy Hospital. This would serve as a second connection for emergencies. A 12-inch gate valve would be added to the 12-inch PVC pipe water main and a 12-inch by 4-inch tee would be installed, with a 4-inch pipe leading to a 4-inch meter installed per City of Folsom standards. After the meter, a 4-inch 90-degree elbow would lead to a 4-inch pipe and a 4-inch dip tee connecting to 4-inch water service pipe.

2035 GENERAL PLAN

The proposed project would be consistent with the goals established in the public facilities and services element of the 2035 General Plan. Specifically, Goal PFS 3.1 aims to maintain the City's water system to meet the needs of existing and future development while improving water system efficiency. Policy PFS 3.1.6, Water Quality, further aims to ensure the provision of healthy, safe water for all users in Folsom through facilities, policies, programs, and regulations. The proposed project would include a variety of waterline replacement and rehabilitation projects that would help ensure consistency with these goals and policies in the 2035 General Plan.

METHODS

Biological Resources

Biological resource evaluation conducted in support of this document included a desktop special-status species evaluation and a windshield biological and wetland reconnaissance survey. For the purposes of this evaluation, special-status species are those that fall into one or more of the following categories:

- Listed as endangered or threatened under the Federal Endangered Species Act of 1973 (FESA), including candidate species and species proposed for listing;
- Listed as endangered or threatened under the California Endangered Species Act (CESA), including candidate species and species proposed for listing;
- Designated as a Species of Special Concern (SSC) or watch-list (WL) species by the California Department of Fish and Wildlife (CDFW), or "Fully Protected" under the California Fish and Game Code (FP), or a sensitive natural community;
- Designated by the California Native Plant Society (CNPS) as California Rare Plant Rank 1A, 1B, 2A, 2B, or 3.

The most current available lists of special-status species known to occur and/or having the potential to occur in the project area were reviewed to determine those species' potential to occur on the project site or otherwise be affected by project activities. The following databases were queried:

- The Sacramento Fish and Wildlife Office list of threatened and endangered species that may occur in the project site and/or may be affected by the project;
- The California Native Plant Society list of special-status plants documented in the "Folsom and Clarksville, CA" U.S. Geological Survey (USGS) 7.5-minute topographic quads; and,
- The California Natural Diversity Database (CNDDB) list of special-status species documented in the "Folsom and Clarksville, CA" USGS 7.5-minute topographic quads.
- Biological Reconnaissance Survey

A biological resources reconnaissance windshield survey was conducted by HELIX Principal Planner, Robert Edgerton, M.S. on October 20, 2020. The project segments were visually assessed for plant communities, habitat types, aquatic resources, and wildlife present at the time of the survey, and assessed for potential to support special-status species or sensitive natural communities.

RESULTS

Biological Resources

Most project segments are located within urban environs surrounded by residential/commercial land uses and ornamental vegetation. Portions of the proposed segments are bordered by native trees, primarily valley oak (*Quercus lobata*) and interior live oak (*Quercus wislizeni*), along with a remnant olive orchard. These are remnant natural stands of trees growing along existing roads and in adjacent undeveloped properties. Native trees are protected by City ordinance, and potentially provide habitat for nesting birds/raptors and other wildlife.

Nesting birds are protected by state and federal laws. California Fish and Game Code (§3503, 3503.5, and 3800) prohibits the possession, incidental take, or needless destruction of any bird nests or eggs; Fish and Game Code §3511 designates certain bird species "fully protected" (including all raptors), making it unlawful to take, possess, or destroy these species except under issuance of a specific permit. The Attorney General of California has released an opinion that the Fish and Game Code prohibits incidental take. Under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USF §703-711), migratory bird species and their nests and eggs that are on the federal list (50 CFR §10.13) are protected from injury or death, and project-related disturbance must be reduced or eliminated during the nesting cycle. The U.S. Court of Appeals for the 9th Circuit (with jurisdiction over California) has ruled that the MBTA does not prohibit incidental take (952 F 2d 297 – Court of Appeals, 9th Circuit, 1991).

Requirements related to biological resources also include protection of existing trees and specifies measures necessary to protect both ornamental and native oak trees. Chapter 12.16 of the Folsom Municipal Code, the Tree Preservation Ordinance, further regulates the cutting or modification of trees, including oaks and specified other trees; requires a Tree Permit prior to cutting or modification; and establishes mitigation requirements for cut or damaged trees. The Tree Preservation Ordinance establishes policies, regulations, and standards necessary to ensure that the City will continue to preserve and maintain its "urban forests". Anyone who wishes to perform "Regulated Activities" on "Protected Trees" must apply for a permit with the City. Regulated activities include:

- Removal of a protected tree;
- Pruning/trimming of a protected tree; and/or,
- Grading or trenching within the protected zone.
- Protected trees include:
- Native oak trees with a diameter of 6 inches or larger for single trunk trees 20 inches or larger combined diameter of native oak multi-trunk trees;
- Heritage oak trees - native oaks with a trunk diameter of 19 inches or greater and native oaks with a multi-trunk diameter of 38 inches or greater;
- Landmark trees identified individually by the City Council through resolution as being a significant community benefit; and/or,
- Street trees within the tree maintenance strip.

Any person, firm, or agency planning to alter or work in "waters of the U.S.," including the discharge of dredged or fill material, must first obtain authorization from the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). Section 401 requires an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the U.S. must obtain a state certification that the discharge complies with other provisions of the CWA. The Regional Water Quality Control Board (RWQCB) administers the certification program in California. The RWQCB also regulates discharges of pollutants or dredged or fill material to waters of the State which is a broader definition than waters of the U.S.

METHODS

Cultural Resources

Cultural resources records searches that examined the project sites, as well as a 0.25-mile radius around the project sites (hereafter referred to as the Study Area), were completed by the North Central Information Center (NCIC) on July 1, 2020; August 10, 2020; October 22, 2020.

The purposes of the record search were to: (1) identify prehistoric and historic resources previously documented in the vicinity of the Study Area; (2) determine which portions of the Study Area may have been previously studied, and when those studies took place; and (3) ascertain the potential for undocumented archaeological and/or built-environment resources to be found in the Study Area. This search also included a review of the appropriate USGS topographic maps on which cultural resources are plotted, archaeological site records, building/structure/object records, and data from previous surveys and research reports. The California Register of Historical Resources (CRHR), the National Register of Historic Places (NRHP), the Built Environment Resources Directory, the CA Inventory of Historic Resources (1976), local inventories, historical topographic maps, and General Land Office (GLO) plat maps were reviewed to ascertain the presence of designated, evaluated, and / or historic-era resources in the vicinity of the Study Area.

RESULTS

Cultural Resources

The cultural resources records search identified forty-three studies that have previously been conducted within the Study Area (**Table 1**). Of these, three (000252, 003273, and 007926) included the current project segments in their study areas.

Table 1
PREVIOUS STUDIES CONDUCTED WITHIN THE STUDY AREA

Report	Year	Author(s)	Title	Affiliation
000155	1977	Greenway, G.	An Archeological Survey of the Oak Avenue Parkway, Ashland Water Transmission Main and Storage, Blue Ravine Water Transmission Main, and the Lew Howard Memorial Park for the City of Folsom, Sacramento County, California	Archaeological Study Center, CSU Sacramento
000179	1978	Peak & Associates, Inc.	Cultural Resource Assessment of the Rancho Circle Development, Folsom, Sacramento County, California.	Peak & Associates, Inc.
000252	1979	Peak & Associates, Inc.	Cultural Resource Assessment of the Proposed Natomas Development, Sacramento County, CA.	Peak & Associates, Inc.
000264	1984	Peak & Associates, Inc.	Cultural Resource Assessment of the Lake Substations, Sites 1A and 1B, Sacramento County, California	Peak & Associates, Inc.

Report	Year	Author(s)	Title	Affiliation
000332	1986	Peak & Associates, Inc.	Cultural Resource Assessment of the Prairie City Technical Center, City of Folsom, California.	Peak & Associates, Inc.
000356	1981	Peak & Associates, Inc.	Cultural Resource Assessment for a Feasibility Study of Three 200 acre sites in Sacramento County, California.	Peak & Associates, Inc.
000571	1980	Motz, L.	A Cultural Resource Assessment of the Current and Proposed Right-of-Way of the Nimbus/Folsom Transmission Line.	Archeological Study Center, Dept. of Anthropology, CSU Sacramento
001825	1998	Derr, Eleanor	Pacific Bell Mobile Services: Black Diamond and Iron Point Road, Sacramento County: Site # SA-064-05	None listed
003036	1995	Maniery, M. L., K. Syda, and K. Boice	Cultural Resources Investigations of the Bradshaw, Sunrise, and Folsom East Interceptors Project Sacramento County, California	PAR Environmental Services, Inc
003723	1988	Lindström, S.	Natoma Station Development	Archaeological Consultant
003762	1993	Sugnet & Associates	Section 404 Reg. Compliance Pre-Discharge Notification Reg. #199101232 Willow Creek Estates South, Unit 10	Sugnet & Associates
003770	1993	Lindström, S.	Prairie City Center Project	None listed
003886	1988	Lindström, S.	A Cultural Resource Evaluation of the Intel Expansion Project Folsom, California Sacramento County	None listed
003959	1987	Jones & Stokes Associates, Inc.	Draft Environmental Impact Report for Blue Ravine Oaks East.	Jones & Stokes Associates,Inc.
004489	1986	Archeo-Tec	An Archaeological Surface Reconnaissance of the Proposed Willow Creek Estates South Development Project Folsom, California	Archeo-Tec
004491	1986	Peak & Associates, Inc.	Field Reinspection for the Blue Ravine Oaks East Project	Peak & Associates, Inc.
004508	1993	Maniery, M. L.	Determination of Effect American River Bridge Crossing Project, City of Folsom, Sacramento County, California	PAR Environmental Services, Inc.
004509	1991	Maniery, M. L., and K. Syda	Cultural Resources investigation for the American River Bridge Crossing Project, City of Folsom, Sacramento County, California	PAR Environmental Services, Inc.
004518	1988	Lindström, S.	A Cultural Resource Evaluation of the Cerros-Morrison Homes Project at Willow Springs Hill Near Folsom, California Sacramento County	None listed
004521	1994	Novle, D. G.	Historic Property Survey Report for a Proposed Interchange and Auxiliary Lanes on Highway 50 in Eastern Sacramento County, California 03-SAC-50 P.M. 17.1/20.1 03101-394500	State of California, Department of Transportation District 3
004522	1989	Jensen & Associates	An Archaeological Inventory Survey of the Proposed Broadstone Unit # 1 Subdivision	Jensen & Associates

Report	Year	Author(s)	Title	Affiliation
			Parcel, Folsom, Sacramento County, California	
004523	1989	Jensen & Associates	Addendum to an Archaeological Inventory Survey of the Proposed Broadstone Unit # 1 Subdivision Parcel, Folsom, Sacramento County, California	Jensen & Associates
005396	2004	Devine Tarbell & Associates; EDAW	Archaeological Resources Inventory Sacramento Municipal Utility District Upper American River Project	Devine Tarbell & Associates; EDAW
006098	2004	Welch, P., A. Leigh, and J. West	Archaeological Inventory of Geologic Testing for the Folsom Dam Safety of Dams Project	Bureau of Reclamation
006548	2005	Pacific Legacy, Inc.	Cultural Resources Survey and Effect Assessment for the Proposed Highway 50/Folsom Outlets Cingular Wireless Cell Site	Pacific Legacy, Inc.
006703	2004	Jensen, P.	Archaeological Inventory Survey Creekview Corporate Center Development Project, c. 7 acres Adjacent to Humbug Creek and Creekside Drive, Folsom, Sacramento County, California	Jensen & Associates
006933	2005	Maniery, Mary L. and Cindy Baker	Cultural Resources Investigation for the Folsom Sanitary Sewer Rehabilitation Project-Phase 1 Folsom, CA	None listed
007130	2002	Hatoff, B., and R. Egherman	Roseville Energy Facility Cultural Resources	URS
007924	1989	Jensen & Associates	Archaeological Evaluation of a Portion of the Natomas Ditch and Replacement Pipeline Route, Near Folsom, Sacramento County, California	Jensen & Associates
007926	1987	McKenna, J. A., and K. J. Peter	An Archaeological Reconnaissance Survey of a Five Hundred Acre Parcel within the City of Folsom, Sacramento County, California	Hathaway & McKenna
008714	2007	Furry, J.	Archaeological Reconnaissance Survey of the Oak Parkway Trail Phase II Recreational Trail Project, Located in the City of Folsom, California	Cultural Resource Specialties
009142	2007	Billat, Scott	Sutter Middle School Cell Antenna	EarthTouch Inc.
009183	2000	McGowan, D.	Cultural Resources Investigation for the Nextlink Fiber Optic Project, Sacramento and Placer Counties	Jones & Stokes
009192	2007	Furry, J.	Archaeological/Historical Survey of the Morrison Homes Bike Trail Project	Cultural Resource Specialties
009555	2007	Bartoy, K., K. Jones, J. Holson, and E. Reese	Cultural Resources Literature Search, Inventory, and National Register Evaluations for the Folsom Dam Safety and Flood Damage Reduction EIS/EIR, El Dorado, Placer, and Sacramento Counties, California	Pacific Legacy, Inc.
009703	2006	Lewis, D.	Site Visit Results for Cingular Project SCRMCAS212: 1900 Prairie City Road, Sacramento CA	Archaeological Resources Technology

Report	Year	Author(s)	Title	Affiliation
009890	2007	Jensen, S. M.	Creekview Professional Center Development Project	Genesis Society
010318	2009	Losee, C.	Cultural Resources Investigation for AT&T Mobility, LLC CN1613-A "Dam Road" 828 Willow Creek Drive, Folsom, Sacramento County, California 95630	Archaeological Resources Technology
010476	2010	Billat, Lorna	Sutter Middle School/CA-SAC0673A, Collocation ("CO") Submission Packet	EarthTouch, Inc.
011533	2014	Wills, C. D., and K. A. Crawford	Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate SC14633A (East Natoma & Randall), 235 Marchant Drive, Folsom, Sacramento County, California	Environmental Assessment Specialists, Inc.
012349	2004	Tardoff, J. D.	The Evolution of California's Placer Mining Landscape: A View from Prairie City	California Department of Transportation
012457	2009	Osborn, S., and R. Perry	Archeology Survey of Approximately 60 acres for Proposed Rossmoor Mitigation Site for the American River, Folsom Bridge Project, in the American River Parkway, Sacramento County	U.S. Army Corps of Engineers, Sacramento District
012944	2017	None listed	Section 106 Consultation for the Issuance of a Right-of-Entry (ROE) Permit to U.S. Army Corps of Engineers (USACE) for the Folsom Dam Raise Project (FDRP), El Dorado and Placer Counties, California (Project #15-CCAO-056.004)	U.S. Army Corps of Engineers

The cultural resources records search determined that sixteen previously recorded cultural resources are located within the Study Area (**Table 2**). They are described briefly below. Of these, two (P-34-000335 and P-34-002284) have been previously documented within the project sites. P-34-000335 is the Folsom Mining District, which extends across the entirety of the city of Folsom, has largely been destroyed in the vicinity of the segments and is thus not of significant concern to this analysis.

Table 2
PREVIOUSLY RECORDED CULTURAL RESOURCES WITHIN THE STUDY AREA

Primary	Trinomial	Description	Year	Author(s)	Affiliation
P-34-000335	CA-SAC-000308H	Historic foundations, water conveyance systems and mines.	1969	K.G.S.	None listed
P-34-000374	CA-SAC-000347	Prehistoric bedrock milling feature	1977	Carvey, Greenway, and Keesling	None listed
P-34-000461	CA-SAC-000434H	Historic water conveyance system	1986	Russo, M. L.	NCIC
P-34-000479	CA-SAC-000452H	Historic farm/ranch	1990	Peak, M., and R. Gerry	Peak & Associates, Inc.
P-34-000594	CA-SAC-000501H	Historic foundations/structure pads	1987	Lortie, F., and J. Tordoff	CA Dept. of Parks and Recreation, Inland Region

Primary	Trinomial	Description	Year	Author(s)	Affiliation
P-34-000818	CA-SAC-000625	Prehistoric bedrock milling feature	1986	Botkin,S., M. Brown, and R. Sheets	Archeo-Tec
P-34-000821	CA-SAC-000628	Prehistoric bedrock milling feature and pestle	1987	Walsh, M. R., and D. McDougall	Archeo-Tec, Inc.
P-34-000920	CA-SAC-000673H	Historic dairy	1988	Lindström, S.	None listed
P-34-002178	CA-SAC-001103H	Historic dams	2007	Jones, K., L. McDonald, and B. Dailey	Pacific Legacy, Inc
P-34-002237	N.A.	Historic water conveyance system, roads, mines and reservoir	1992	Lindström, S., L. Lundemo, M. Panelli, J. Wells, and N. Wilson	None listed
P-34-002276	N.A.	Historic mines and ethnic minority property	1988	Lindström, S., P. Sutton, J. Wells, and N. Wilson	None listed
P-34-002284	N.A.	Historic mine/quarries/tailings	1988	Lindström, S.	None listed
P-34-005017	N.A.	Historic engineering structure	2014	Crawford, K. A.	Crawford Historic Services
P-34-005120	N.A.	Historic train	1991	Syda, K., and W. Shapiro	PAR Environmental Services, Inc
P-34-005211	N.A.	Prehistoric bedrock milling feature	2007	Furry, J.	Cultural Resource Specialties
P-34-005348	CA-SAC-001271	Prehistoric bedrock milling feature	1988	None listed	None listed

P-34-000335: This site is the Folsom Mining District. It extends across the whole of the city of Folsom.

P-34-000374: This site consists of a bedrock milling feature, approximately 650 feet southwest of the southwest boundary of the Folsom-Auburn & Marietta segment. It was recorded in 1977.

P-34-000461: This site is a historic ditch system, Natomas Ditch, some segments of which come within 350 meters of the eastern boundary of the E Bidwell & Oak segment.

P-34-000479: This site consists of the remains of a historic ranch. Site records indicate that Natomas Ditch (P-34-000461) is adjacent to this site; however, P-34-000461 does not appear adjacent to P-34-000479 on maps provided by the NCIC. P-34-000479 is located on private property, approximately 250 feet southeast of the Econome-Rawlings segment and 800 feet northwest of the Toney segment.

P-34-000594: This site consists of a granite block building foundation and the remains of walls. It is located immediately east of the Auburn Folsom Road segment and the Folsom-Auburn & Marietta segment.

P-34-000818: This site consists of seven bedrock milling features, containing in total twenty mortar cups, as well as several milling slicks. The site record for 34-000818 notes that additional bedrock mortar features likely exist and were buried by soils derived from the cutting of a railroad right-of-way upslope

of the site. The site is approximately 975 feet northwest of the northwestern boundary of the E Bidwell & Oak segment and 0.25-mile southwest of the Mercy Hospital segment.

P-34-000821 and P-34-005211: Both of these sites consists of bedrock milling features. P-34-000821 consists of three separate outcrops of bedrock milling features, in two clusters, along Willow Creek. The site record also references a possible hearth feature, represented by fire-affected rock and ash in a rodent hole. P-34-005211 consists of a single boulder with a single mortar cup. Both sites are approximately 975 feet west of the northwestern boundary of the E Bidwell & Oak segment.

P-34-000920: This site consists of four structures, which constitute the remains of a historic dairy. The structures occupy an approximately five-acre area, on private property, approximately 750 feet west of the northwestern boundary of the E Bidwell and Oak segment.

P-34-002178: This site consists of eight earthen dikes and the Mormon Island Auxiliary Dam. One dike is located approximately 0.25-mile north of the Eveland & Darrington segment.

P-34-002237: This site consists of a historic water conveyance system, roads, mines, and a reservoir (the Willow Hill Reservoir). It is located along the northeast side of Prairie City Road. It surrounds the Prairie City & Willard segment on three sides at an average distance of approximately 800 feet.

P-34-002276: This site consists of a series of mining tunnels, water transport features, and mining debris (chiefly, tailing piles). Its easternmost boundary lies approximately 0.25-mile west of the Orange Blossom-Fantages segment.

P-34-002284: This site is a dredging area, consisting of mountains of rock, prospect pits and shafts, and the remnants of dredging cable and power pole pits and shafts. It intersects with the southwest edge of the Prairie City & Willard segment and extends across much of the western and southwestern half of a .25-mile radius surrounding the segment.

P-34-005017: This site consists of a historic transmission tower, part of a line of transmission towers extending east and west. The site is east of the end of Marchant Drive, in Folsom, CA and approximately 1000 feet northwest of the northern boundary of the Evelyn & Talisman segment.

P-34-005120: This site is a historic railroad grade. It crosses Placerville Road approximately .25 miles west-northwest of the western boundary of the E Bidwell & Oak segment and runs north and roughly parallel to Placerville Road; it passes just outside the easternmost boundary of the E Bidwell & Oak segment and south of the Mercy Hospital segment.

P-34-005348: This site consists of a cluster of bedrock with mortar cups and slicks, as well as associated pestles. It is located approximately 650 feet east of the Eveland & Darrington segment.

A review of the CRHR, the NRHP, the Built Environment Resources Directory, the CA Inventory of Historic Resources (1976) determined that two listed cultural resources are located in the Study Area, P-34-000335 and P-34-000461. P-34-000335 is the Folsom Mining District, which extends across the whole of the City of Folsom. P-34-000461 is the Natomas Ditch, a historic ditch system.

Historic topographic maps, historic aerial photographs, and GLO plat maps were also examined as part of this analysis, although these sources provide only limited information about previous use or occupation of the Study Area. The Natomas Ditch (P-34-000461) and Willow Hill Reservoir (P-34-002237) appear on historical topographic maps from 1941, 1944, 1954, and 1967. Historic aerial photographs extend back only to 1975, and therefore provide no useful information. GLO plat maps compiled in 1856, 1857, 1865, and 1866 provide information about local topography but do not show structures or buildings within the Study Area.

CONSTRAINTS ANALYSIS BY PROPOSED SEGMENT

This constraints analysis addresses the potential for the proposed facilities to cause significant effects on the environment. The discussion below addresses each segment of the proposed project and potential impacts to key environmental resources included in Appendix G of the 2021 CEQA Guidelines. The following environmental resources are not discussed in detail because they were determined to have minimal to no impact and/or the potential impacts are anticipated to be less than significant and are similar for each proposed segment: Aesthetics; Agriculture and Forestry Resources; Air Quality; Energy; Geology and Soils; Greenhouse Gas Emissions; Hazards and Hazardous Materials; Mineral Resources; Noise; Population and Housing; Recreation; Public Services; and Utilities and Service Systems.

1: Folsom-Auburn & Marietta

Biological Resources

The Folsom Boulevard segment runs along the east shoulder of Folsom Boulevard roughly between Marietta Court and Berry Creek Drive and contains mostly ruderal vegetation growing on fill. North of the intersection of Marietta Court, the segment is bordered on the east by a dense woodland of mixed ornamental trees and shrubs; the remnants of what appears to be a former olive tree plantation is reverting to native oaks. The understory is predominated by nonnative grasses and ornamental shrubs. This segment of the project site harbors potential habitat for migratory birds and raptors; no other sensitive species are noted.

Implementation of the rehabilitation project may potentially impact nesting birds. This may trigger the need for pre-construction nesting bird surveys if project activities, including tree trimming or felling, are scheduled during the avian breeding season. Positive survey results would likely trigger work restrictions in the form of required buffer zones from occupied nests.

Project implementation may also potentially impact trees protected by the City of Folsom Tree Preservation Ordinance. This may trigger the need for a Tree Permit for trees permanently affected by project activities, including trenching through the root zone that may cause irreversible decline of the affected tree. The type, number, and size of potential trees to be removed shall be determined in advance of project implementation by the City's Department of Environmental and Water Resources.

Cultural/Tribal Cultural Resources

The NCIC records search determined that the Folsom-Auburn & Marietta segment has not previously been surveyed for cultural resources, although three surveys have been conducted within 0.25-mile of the segment. Documented cultural resources within 0.25-mile of the segment include P-34-000374, a prehistoric bedrock milling feature located approximately 650 feet southwest of the segment, and P-34-

000594, a granite block building foundation located immediately east of the segment. It is unclear whether either of these resources are extant. No cultural resources have been documented within the segment's boundaries.

It should also be noted that the Folsom-Auburn & Marietta segment is adjacent to P-34-000355, an assortment of historic foundations, water conveyance systems, tailings piles, and other mining features that represent the historic Folsom Mining District. The majority of the City of Folsom falls within the District's boundaries and no segments are in close proximity to any extant mining features, therefore the District will not be considered further in this analysis.

The Folsom-Auburn & Marietta segment can be assumed to have a low sensitivity for buried historic-era resources because of the extensive development that has occurred on either side of Auburn-Folsom Road. The close proximity of both a bedrock milling site and the American River suggests that the area is moderately sensitive for prehistoric resources if excavations extend to native soil.

As amended in 2014, Assembly Bill (AB 52), requires that the City provide notice to any California Native American tribes that have requested notice of projects subject to CEQA review and consult with tribes that responded to the notice within 30 days of receipt with a request for consultation. For the City, the following tribes have previously submitted general request letters, requesting such noticing:

- Wilton Rancheria;
- Ione Band of Miwok Indians; and,
- United Auburn Indian Community (UAIC) of the Auburn Rancheria.

The purpose of consultation is to identify Tribal Cultural Resources (TCR) that may be significantly impacted by the proposed project and to allow the City to avoid or mitigate significant impacts prior to project approval and implementation. Project activities in the Folsom-Auburn & Marietta segment, along with all other proposed project segments, would have the potential to impact currently unknown TCRs and may be subject to AB 52 consultation.

Hydrology and Water Quality

Federal Emergency Management Agency (FEMA) flood insurance rate maps were reviewed for the proposed segment's proximity to a 100-year floodplain. The proposed segment is on FEMA panel 06067C108H, effective August 16, 2012. The segment is located in Zone X, which is an Area of Minimal Flood Hazard.

Transportation

This segment is located on Folsom-Auburn Road beginning just south of its intersection with Marietta Court and extending to its intersection with Berry Creek Drive. Folsom-Auburn Road is categorized by the City of Folsom as a major arterial road, which connects neighborhoods within the city and connects the city to surrounding areas. Marietta Court is a local road that facilitates the movement of neighborhood traffic. Improvements for this segment would take place on the sidewalk of Coloma Street, in Coloma Street at its intersection with Duchow Way, and in Duchow Way near its intersection with Rumsey Way/Coloma Street alley. Work on this segment may require temporary lane closures and rerouting of intersection traffic. Transportation impacts related to the proposed segment would be short-term, temporary, and take place on low-traffic roadways; no mitigation is warranted.

2: Coloma & Duchow

Biological Resources

The Coloma & Duchow segment is entirely developed. Both Coloma Street and Duchow Way are bordered by sidewalks and ornamental plantings. There are no potential biological resources constraints for the Coloma & Duchow segment.

Cultural/Tribal Cultural Resources

The NCIC records search determined that the Coloma & Duchow segment has not previously been surveyed for cultural resources, although five small areas within 0.25-mile of the segment were investigated in support of a sewer rehabilitation project in 2005 and a cellular tower in 2007 and 2010. No cultural resources have been documented within the segment's boundaries or within 0.25-mile of the segment.

The Coloma & Duchow segment can be assumed to have a low sensitivity for buried prehistoric and historic-era resources. There are no potential cultural resources constraints associated with this segment.

As discussed above, project activities in the Coloma & Duchow segment, along with all other proposed project segments, would have the potential to impact currently unknown TCRs and be subject to AB 52 consultation.

Hydrology and Water Quality

Federal Emergency Management Agency flood insurance rate maps were reviewed for the proposed segment's proximity to a 100-year floodplain. The proposed segment is on FEMA panel 06067C0116H, effective August 16, 2012. The Coloma & Duchow segment is located in an Area of Minimal Flood Hazard (Zone X).

Transportation

This segment is located at the intersection of Coloma Street and Duchow Way. Coloma Street is categorized by the City of Folsom as a minor collector road, which connects local roads to arterial roads. Willard Drive is a minor collector road, which route traffic from local streets to an arterial road. Duchow Way is a local road that facilitates the movement of neighborhood traffic. Improvements for this segment would take place on the sidewalk of Coloma Street, in Coloma Street at its intersection with Duchow Way, and in Duchow Way near its intersection with Rumsey Way/Coloma Street Alley. Work on this segment would require temporary lane closures and rerouting of intersection traffic. Transportation impacts related to the proposed segment would be short-term, temporary, and take place on low-traffic roadways.

3: Prairie City & Willard

Biological Resources

The Prairie City & Willard segment is entirely developed. Both Prairie City Road and Willard Drive are bordered by sidewalks and ornamental plantings. There are no potential biological resources constraints for the Prairie City & Willard segment.

Cultural/Tribal Cultural Resources

The NCIC records search determined that the portion of the Prairie City & Willard segment west of Prairie City Road was surveyed in 1979 for a cultural resources assessment for the proposed Natomas Development, and the portion east of Prairie City Road was surveyed in 1987 to support the development of a 500-acre parcel. Nine other surveys have been conducted within 0.25-mile of the segment. Documented cultural resources in the area include P-34-002237, located approximately 800 feet east of the segment, and P-34-002284, located adjacent to the segment's western boundary. Both sites consisted of dredge piles, ditches, and other mining features dating to the early part of the twentieth century, but both have been destroyed by development in the area.

Since few historic-era artifacts and no prehistoric sites have been documented in the vicinity the Prairie City & Willard segment can be assumed to have a low sensitivity for buried prehistoric and historic-era resources. There are no potential cultural resources constraints associated with this segment.

As discussed above, project activities in the Prairie City & Willard segment, along with all other proposed project segments, would have the potential to impact currently unknown TCRs and be subject to AB 52 consultation.

Hydrology and Water Quality

Federal Emergency Management Agency flood insurance rate maps were reviewed for the proposed segment's proximity to a 100-year floodplain. The proposed segment is on FEMA panel 06067C0118H, effective August 16, 2012. The Prairie City & Willard segment is located in an Area of Minimal Flood Hazard (Zone X).

Transportation

This segment is located at the intersection of Prairie City Road and Willard Drive. Prairie City Road is categorized by the City of Folsom as a major arterial road, which connects neighborhoods within the city and connects the city to surrounding areas. Willard Drive is a minor collector road, which route traffic from local streets to an arterial road. Improvements for this segment would take place on the existing water line located underground within the intersection right-of-way. Work on this segment would require temporary closure and rerouting of intersection traffic. If this segment is selected, a traffic management plan is recommended. Transportation impacts related to the proposed segment would be short-term and temporary.

4: Evelyn & Talisman

Biological Resources

The Evelyn & Talisman segment is entirely developed. Both Evelyn Way and Talisman Drive are bordered by sidewalks and ornamental plantings. There are no potential biological resources constraints for the Evelyn & Talisman segment.

Cultural/Tribal Cultural Resources

The NCIC records search determined that the Evelyn & Talisman segment has not previously been surveyed for cultural resources, although three surveys have been conducted within 0.25-mile of the segment. Documented cultural resources within 0.25-mile of the segment include P-34-005017, a steel lattice-type electrical transmission tower located approximately 1000 feet northwest of the segment. The tower was recommended ineligible for the National Register of Historic Places (NRHP) in 2014. No cultural resources have been documented within the segment's boundaries.

Since few historic-era sites and no prehistoric sites have been documented in the vicinity the Evelyn & Talisman segment can be assumed to have a low sensitivity for buried prehistoric and historic-era resources. There are no potential cultural resources constraints associated with this segment.

As discussed above, project activities in the Evelyn & Talisman segment, along with all other proposed project segments, would have the potential to impact currently unknown TCRs and be subject to AB 52 consultation.

Hydrology and Water Quality

Federal Emergency Management Agency flood insurance rate maps were reviewed for the proposed segment's proximity to a 100-year floodplain. The proposed segment is on FEMA panel 06067C0117H, effective August 16, 2012. The Evelyn & Talisman segment is located in an Area of Minimal Flood Hazard (Zone X).

Transportation

Work on this segment would be located within the roadway at the intersection of Evelyn Way and Talisman Drive. Both Evelyn Way and Talisman Drive are local roadways that support a low level of local residential traffic. Work would take place in the roadway at the intersection of the two streets and may require temporary lane closures. Transportation impacts related to the proposed segment would be short-term, temporary, and take place on low-traffic roadways.

5: Natoma Street & Stafford

Biological Resources

The Natoma Street & Stafford segment is entirely developed. Natoma Street is bordered by sidewalks , and ornamental plantings. There are no potential biological resources constraints for the Natoma Street & Stafford segment.

Cultural/Tribal Cultural Resources

The NCIC records search determined that the Natoma Street & Stafford segment has not previously been surveyed for cultural resources, although two small areas within 0.25-mile of the segment were investigated in support of a sewer rehabilitation project in 2005. No cultural resources have been documented within the segment's boundaries or within 0.25-mile of the segment.

The Natoma Street & Stafford segment can be assumed to have a low sensitivity for buried prehistoric and historic-era resources. There are no potential cultural resources constraints associated with this segment.

As discussed above, project activities in the Natoma Street & Stafford segment, along with all other proposed project segments, would have the potential to impact currently unknown TCRs and be subject to AB 52 consultation.

Hydrology and Water Quality

Federal Emergency Management Agency flood insurance rate maps were reviewed for the proposed segment's proximity to a 100-year floodplain. The proposed segment is on FEMA panel 06067C0116H, effective August 16, 2012. The Natoma Street & Stafford segment is located in an Area of Minimal Flood Hazard (Zone X).

Transportation

Work on this segment would take place on Natoma Street, beginning just east of its intersection with Mill Street and continuing through its intersection with Stafford Street. This portion of Natoma Street is identified as a minor arterial roadway, connecting neighborhoods within the City and connecting the City to surrounding areas. Both Mill Street and Stafford Street are local roadways with lower traffic volume than Natoma Street. Work associated with this segment would take place in the left-hand turn lane leading from eastbound Natoma Street to northbound Stafford Street and may require temporary closure of this lane. Transportation impacts related to this segment would be short-term and temporary.

6: E Bidwell & Oak

Biological Resources

The E Bidwell & Oak segment is entirely developed. East Bidwell Street is bordered by sidewalks and ornamental plantings. There are no potential biological resources constraints for the E Bidwell & Oak segment.

Cultural/Tribal Cultural Resources

The NCIC records search determined that the portion of the E Bidwell & Oak segment south of East Bidwell Street was surveyed in 1989 for a cultural resources assessment for the proposed Broadstone Unit #1 Subdivision Parcel. Nine other surveys have been conducted within 0.25-mile of the segment. Documented cultural resources in the area include P-34-000818, P-34-000821, and P-34-005211, which represent a complex of prehistoric bedrock milling stations located along Willow Creek approximately 975 feet west and northwest of the segment; P-34-000920, the remains of a historic ranch and dairy,

was located approximately 750 feet west of the segment but has been destroyed by development; and P-34-005120, a section of the Southern Pacific Railroad located north of the segment.

The E Bidwell & Oak segment can be assumed to have a low sensitivity for buried historic-era resources because of the extensive development that has occurred on either side of East Bidwell Street. The close proximity of several bedrock milling stations along Willow Creek suggests that the area was used intensively by Native American groups, and the segment can be assumed to be sensitive for prehistoric resources if excavations extend to native soil.

As discussed above, project activities in the E Bidwell & Oak segment, along with all other proposed project segments, would have the potential to impact currently unknown TCRs and be subject to AB 52 consultation.

Hydrology and Water Quality

Federal Emergency Management Agency flood insurance rate maps were reviewed for the proposed segment's proximity to a 100-year floodplain. The proposed segment is on FEMA panel 06067C0117H, effective August 16, 2012. The E Bidwell & Oak segment is located in an Area of Minimal Flood Hazard (Zone X).

Transportation

Work on this segment would be located within the roadway on East Bidwell Street, beginning just west of its intersection with Bluestone Circle and ending just west of its intersection with Oak Avenue Parkway. East Bidwell Street is categorized by the City of Folsom as a major arterial roadway, which connects neighborhoods within the city and connects the city to surrounding areas. Oak Avenue Parkway is also a major arterial, while Bluestone Circle is a local road with lower traffic volume. Work on this segment would take place in the roadway and in the roadway medians, which would require short-term, temporary lane closures and could affect the flow of traffic. Work on this segment would be performed at night in order to minimize any potential impacts to traffic and circulation patterns. If this segment is selected, a traffic management plan is recommended.

7: Eveland & Darrington

Biological Resources

The Eveland & Darrington segment is entirely developed. Both Eveland Court and Darrington Drive are bordered by sidewalks and ornamental plantings. There are no potential biological resources constraints for the Eveland & Darrington segment.

Cultural/Tribal Cultural Resources

The NCIC records search determined that the Eveland & Darrington segment has not been previously surveyed for cultural resources, although two surveys have been conducted approximately 0.25-mile north of the segment. Documented cultural resources in the area include P-34-002178, the Folsom Lake Dikes located approximately 0.25-mile north of the segment; and P-34-005348, a prehistoric bedrock mortar feature located approximately 650 feet east of the segment. The latter site has likely been destroyed by development in the area.

Although a prehistoric site has been documented in the vicinity, the Eveland & Darrington segment can be assumed to have a low sensitivity for buried prehistoric and historic-era resources because of the recent, intensive development of the area. There are no potential cultural resources constraints associated with this segment.

As discussed above, project activities in the Eveland & Darrington segment, along with all other proposed project segments, would have the potential to impact currently unknown TCRs and be subject to AB 52 consultation.

Hydrology and Water Quality

Federal Emergency Management Agency flood insurance rate maps were reviewed for the proposed segment's proximity to a 100-year floodplain. The proposed segment is on FEMA panel 06067C0109H, effective August 16, 2012. The Eveland & Darrington segment is located in an Area of Minimal Flood Hazard (Zone X).

Transportation

Work on this segment would be located within the roadway at the intersection of Eveland Court and Darrington Drive. Both Eveland Court and Darrington Drive are local roadways that support a low level of local residential traffic. Work would take place in the roadway and may require temporary lane closures. Transportation impacts related to the proposed segment would be short-term, temporary, and take place on low-traffic roadways.

8: Econome-Rawlings

Biological Resources

The Econome-Rawlings segment is entirely developed. The segment is located in a residential neighborhood where streets are bordered by sidewalks, driveways, and ornamental plantings. Work on this segment would take place entirely within the existing roadways and sidewalks. There are no potential biological resources constraints for the Econome-Rawlings segment.

Cultural/Tribal Cultural Resources

The NCIC records search determined that the Econome-Rawlings segment has not been previously surveyed for cultural resources, although seven surveys have been conducted immediately north and east of the segment. The records search results indicate that site P-34-000479, the remains of a historic residence and winery, is located approximately 250 feet southeast of the segment. However, this site appears to have been misplotted by the NCIC and is actually located over a mile east of the segment. No other prehistoric or historic-era resources have been documented within 0.25-mile of the segment.

The Econome-Rawlings segment can be assumed to have a low sensitivity for buried prehistoric and historic-era resources. There are no potential cultural resources constraints associated with this segment.

As discussed above, project activities in the Econome-Rawlings segment, along with all other proposed project segments, would have the potential to impact currently unknown TCRs and be subject to AB 52 consultation.

Hydrology and Water Quality

Federal Emergency Management Agency flood insurance rate maps were reviewed for the proposed segment's proximity to a 100-year floodplain. The proposed segment is on FEMA panel 06067C0117H, effective August 16, 2012. The Econome-Rawlings segment is located in an Area of Minimal Flood Hazard (Zone X).

Transportation

Work on this segment would take place at the western terminus of the cul de sac of Econome Court and at the northern terminus of the cul de sac at Rawlings Court. Work would take place at the edges of the existing roadways and sidewalks. Work on this segment would be located within the roadway on the western side of Orange Blossom Circle and within the roadway and sidewalk on the western edge of Fantages Way. Both Orange Blossom Circle and Fantages Way are local roadways that support a low level of local residential traffic. Work would take place in the roadways may temporary lane closures. Transportation impacts related to the proposed segment would be short-term, temporary, and take place on low-traffic roadways.

9: Orange Blossom-Fantages

Biological Resources

The Orange Blossom-Fantages segment is entirely developed. The segment is located in a residential neighborhood where streets are bordered by sidewalks, driveways, and ornamental plantings. Work on this segment would take place entirely within the existing roadways and sidewalks. There are no potential biological resources constraints for the Orange Blossom-Fantages segment.

Cultural/Tribal Cultural Resources

The NCIC records search determined that the entire Orange Blossom-Fantages segment was surveyed in 1979 and 1988 for a cultural resources assessment for the proposed Natomas Development. In addition, two surveys for proposed cell phone towers have been conducted within 0.25-mile of the segment. Documented cultural resources in the area include P-34-002276, located approximately 0.25-mile west of the segment, and P-34-002284, located approximately 0.25-mile southeast of the segment. Both sites consisted of dredge piles, ditches, and other mining features dating to the early part of the twentieth century, but both have been destroyed by development in the area.

Since few historic-era artifacts and no prehistoric sites have been documented in the vicinity the Orange Blossom-Fantages segment can be assumed to have a low sensitivity for buried prehistoric and historic-era resources. There are no potential cultural resources constraints associated with this segment.

As discussed above, project activities in the Orange Blossom-Fantages segment, along with all other proposed project segments, would have the potential to impact currently unknown TCRs and be subject to AB 52 consultation.

Hydrology and Water Quality

Federal Emergency Management Agency flood insurance rate maps were reviewed for the proposed segment's proximity to a 100-year floodplain. The proposed segment is on FEMA panel 06067C0118H, effective August 16, 2012. The Orange Blossom-Fantages segment is located in an Area of Minimal Flood Hazard (Zone X).

Transportation

Work on this segment would be located within the roadway on the western side of Orange Blossom Circle and within the roadway and sidewalk on the western edge of Fantages Way. Both Orange Blossom Circle and Fantages Way are local roadways that support a low level of local residential traffic. Work would take place in the roadways may require temporary lane closures. Transportation impacts related to the proposed segment would be short-term, temporary, and take place on low-traffic roadways.

10: Landrum & Briggs Ranch

Biological Resources

The Landrum & Briggs Ranch segment is entirely developed. The segment is located in a residential neighborhood where streets are bordered by sidewalks, driveways, and ornamental plantings. Work on this segment would take place entirely within the existing roadway. There are no potential biological resources constraints for the Landrum & Briggs Ranch segment.

Cultural/Tribal Cultural Resources

The NCIC records search determined that the Landrum & Briggs Ranch segment has not previously been surveyed for cultural resources, although a survey was conducted approximately 1000 feet south of the segment in support of the Sacramento Municipal Utilities District's Upper American River Project in 2004. No cultural resources have been documented within the segment's boundaries or within 0.25-mile of the segment.

The Landrum & Briggs Ranch segment can be assumed to have a low sensitivity for buried prehistoric and historic-era resources. There are no potential cultural resources constraints associated with this segment.

As discussed above, project activities in the Landrum & Briggs Ranch segment, along with all other proposed project segments, would have the potential to impact currently unknown TCRs and be subject to AB 52 consultation.

Hydrology and Water Quality

Federal Emergency Management Agency flood insurance rate maps were reviewed for the proposed segment's proximity to a 100-year floodplain. The proposed segment is on FEMA panel 06067C0117H, effective August 16, 2012. The Landrum & Briggs Ranch segment is located in an Area of Minimal Flood Hazard (Zone X).

Transportation

This segment is located at the intersection of Briggs Ranch Drive and Landrum Circle. Briggs Ranch Drive is categorized by the City of Folsom as a minor collector, which routes traffic from local streets to arterial roads. Landrum Circle is a local road, which are generally low-traffic and provide access to residential neighborhoods. Improvements for this segment would take place on the existing water line located underground within the intersection right-of-way. Work on this segment would require temporary closure and rerouting of intersection traffic. Transportation impacts related to the proposed segment would be short-term, temporary, and take place on low-traffic roadways.

11: Natoma & Coloma

Biological Resources

The Natoma & Coloma segment is entirely developed. Both Natoma Street and Coloma Street are bordered by sidewalks and ornamental plantings. There are no potential biological resources constraints for the Natoma & Coloma segment.

Cultural/Tribal Cultural Resources

The NCIC records search determined that the Natoma & Coloma segment has not previously been surveyed for cultural resources, although five small areas within 0.25-mile of the segment were investigated in support of a sewer rehabilitation project in 2005 and a cellular tower in 2007 and 2010. No cultural resources have been documented within the segment's boundaries or within 0.25-mile of the segment.

The Natoma & Coloma segment can be assumed to have a low sensitivity for buried prehistoric and historic-era resources. There are no potential cultural resources constraints associated with this segment.

As discussed above, project activities in the Natoma & Coloma segment, along with all other proposed project segments, would have the potential to impact currently unknown TCRs and be subject to AB 52 consultation.

Hydrology and Water Quality

Federal Emergency Management Agency flood insurance rate maps were reviewed for the proposed segment's proximity to a 100-year floodplain. The proposed segment is on FEMA panel 06067C0116H, effective August 16, 2012. The Natoma & Coloma segment is located in an Area of Minimal Flood Hazard (Zone X).

Transportation

This segment is located at the intersection of Natoma Street and Coloma Street. Natoma Street is categorized by the City of Folsom as a minor arterial roadway, which serves to connect neighborhoods within the City and focuses on mobility rather than connection to adjacent land uses. Coloma Street is categorized as a minor collector, which route traffic from local streets to an arterial road. Improvements for this segment would take place at the northwestern corner of the intersection on Coloma Street.

Work would take place in the bike lane on Coloma Street and would require temporary closure of the bike lane and the southbound lane of Coloma Street. Transportation impacts related to the proposed segment would be short-term and temporary.

12: Toney

Biological Resources

The Toney segment is entirely developed. Toney Road is a residential cul-de-sac bordered by sidewalks and ornamental plantings. There are no potential biological resources constraints for the Toney segment.

Cultural/Tribal Cultural Resources

The NCIC records search determined that the Toney segment has not been previously surveyed for cultural resources, although seven surveys have been conducted immediately north and west of the segment. The records search results indicate that site P-34-000479, the remains of a historic residence and winery, is located approximately 800 feet northwest of the segment. However, this site appears to have been erroneously plotted by the NCIC and is actually located over a mile east of the segment. No other prehistoric or historic-era resources have been documented within 0.25-mile of the segment.

The Toney segment can be assumed to have a low sensitivity for buried prehistoric and historic-era resources. There are no potential cultural resources constraints associated with this segment.

As discussed above, project activities in the Toney segment, along with all other proposed project segments, would have the potential to impact currently unknown TCRs and be subject to AB 52 consultation.

Hydrology and Water Quality

Federal Emergency Management Agency flood insurance rate maps were reviewed for the proposed segment's proximity to a 100-year floodplain. The proposed segment is on FEMA panel 06067C0117H, effective August 16, 2012. The Toney segment is located in an Area of Minimal Flood Hazard (Zone X).

Transportation

The Toney segment is located at the northern terminus of Toney Court, a residential cul-de-sac. Transportation impacts related to the proposed segment would be short-term, temporary, and would take place on a low-traffic roadway.

13: Mercy Hospital

Biological Resources

The Mercy Hospital segment is entirely developed. Creekside Drive is bordered by sidewalks and ornamental plantings. Work on this segment would take place near three 32-inch redwood trees located on the south side of Creekside Drive and the activities on this proposed segment would not disturb the existing trees. There are no potential biological resources constraints for the Parkshore segment.

Cultural/Tribal Cultural Resources

The NCIC records search determined that the Mercy Hospital segment was fully surveyed in 1993 in support of Section 404 compliance for Willow Creek Estates South, Unit 10. Two other surveys have been conducted within 0.25-mile of the segment. Documented cultural resources in the area include P-34-000818, P-34-000821, and P-34-005211, which represent a complex of prehistoric bedrock milling stations located along Willow Creek approximately 0.25-mile southwest of the segment, and P-34-005120, a section of the Southern Pacific Railroad located south of the segment.

The Mercy Hospital segment can be assumed to have a low sensitivity for buried historic-era resources because of the extensive development that has occurred along Creekside Drive. The close proximity of several bedrock milling stations along Willow Creek suggests that the area was used intensively by Native American groups, and the segment can be assumed to be sensitive for prehistoric resources if excavations extend to native soil.

As discussed above, project activities in the Mercy Hospital segment, along with all other proposed project segments, would have the potential to impact currently unknown TCRs and be subject to AB 52 consultation.

Hydrology and Water Quality

Federal Emergency Management Agency flood insurance rate maps were reviewed for the proposed segment's proximity to a 100-year floodplain. The proposed segment is on FEMA panel 06067C0117H, effective August 16, 2012. The Mercy Hospital segment is located in an Area of Minimal Flood Hazard (Zone X).

Transportation

The Mercy Hospital segment is located along Creekside Drive, which serves as a minor collector for the City of Folsom. Construction of this segment would require temporary closure of the northbound lane and the adjacent bike lane. Transportation impacts related to the proposed segment would be short-term and temporary.

CONCLUSIONS AND RECOMMENDATIONS

Biological Resources Constraints

Native birds are protected by the California Fish and Game Code, which prohibits direct take of adults, nests, eggs, and chicks. Disturbance that leads to nest abandonment can be considered take of eggs and chicks. Common bird species found on and adjacent to the project site include species that nest on all types of substrata, including bare ground, herbaceous and woody vegetation, culverts, poles, and structures.

Potential nesting habitat is located primarily within the Folsom-Auburn Boulevard segment of the project site and rehabilitation actions may result in removal of vegetation that provides potential nesting habitat for nesting birds. Shrubs, small trees, and herbaceous vegetation in and adjacent to this segment may provide nesting locations for a wide variety of common bird species. Rehabilitation activities would potentially result in impacts to nesting birds if construction of the proposed project

commences during the typical avian breeding season (February – September). Construction activities and construction-related disturbance (noise, vibration and increased human activity) could adversely affect these species if they were to nest in or adjacent to the project area. Potential effects include physical destruction of nests by construction equipment and/or nest abandonment. The City shall undertake pre-construction clearance surveys for nesting birds within this segment if rehabilitation actions would occur during the nest season (February – September). Rehabilitation actions undertaken between October – January shall not require pre-construction clearance surveys.

Project implementation may also potentially impact trees protected by the City of Folsom Tree Preservation Ordinance. This may trigger the need for a Tree Permit for trees permanently affected by project activities, including trenching through the root zone that may cause irreversible decline of the affected tree. The type, number, and size of potential trees to be removed shall be determined in advance of project implementation by the City's Department of Environmental and Water Resources. No other biological resource constraints were noted within the project area.

Cultural Resources Constraints

HELIX's analysis of the NCIC records search results indicates that excavations in the Folsom-Auburn & Marietta, E Bidwell & Oak, and Mercy Hospital segments have a moderate potential to encounter buried prehistoric resources if those excavations extend to native soil. This conclusion is based on the presence of bedrock milling features and perennial streams in close proximity to these three segments. Concentrations of multiple mortars and/or modified bedrock outcrops such as those documented near these segments typically indicate intensive use of the area by Native American groups, and may be associated with residential sites that are shallowly buried or were capped by fill soil and pavement during development. Native American consultation, further research, implementation of undiscovered resources protocols, and monitoring during construction are all measures that could be considered to reduce impacts to potentially significant prehistoric resources.

In contrast there appears to be no potential constraints associated with historic-era resources. The majority of these resources are dredge piles, ditches, and other mining features dating to the early part of the twentieth century, and most of these have been obliterated by recent development of the area. As stated above, all of the segments fall within or adjacent to the boundaries of the Folsom Mining District, a broadly defined historic district that includes much of the City of Folsom but has been significantly disturbed over the years. Potential impacts to the District were not a factor in this analysis because no segments are in close proximity to any extant mining features.

Hydrology and Water Quality Resources Constraints

There are no significant hydrologic and/or water quality constraints within the project area. No project segment was found to contain regulated hydrologic features during the windshield reconnaissance survey for biological resources. Implementation of industry accepted best management practices (BMP) during project construction would affectively negate potential impact to nearby water resources (i.e., Lake Natoma and its ephemeral tributaries).

Transportation

Aside from the temporary/intermittent closure of disparate street segments during project segment construction, the most significant transportation constraints are located along Folsom-Auburn

Boulevard, as rehabilitation actions within this segment may require temporary closure of Class I and/or Class II bike paths. Bike path closure would be temporary/intermittent during project implementation, and appropriate signage and detouring would be made available to riders.

Regulatory Permitting

No aquatic features were noted in the project area that are potentially jurisdictional waters of the U.S. and/or State as regulated by the U.S. Army Corps of Engineers, Central Valley Regional Water Resources Control Board, and/or California Department of Fish and Wildlife. Consequently, no regulatory permitting is required in advance of project construction.

If you have any questions regarding this due diligence technical memorandum, please contact me at (916) 365-8713.

Sincerely,

Robert Edgerton, AICP CEP
Principal

Attachments:

Attachment A – Figures

S:\PROJECTS\W\WWE-ALL\WWE-03_Folsom Misc Water Projects\GIS\MXD\Fig1_Location.mxd

0 1,200 Feet

Source: Base Map Layers (Vivid 2019)

HELIX Environmental Planning

Project Location Map

Figure 1

S:\PROJECTS\W\WWE-ALL\WWE-03_Folsom Misc Water Projects\GIS\WXD\Fig2_Project Location 2.mxd

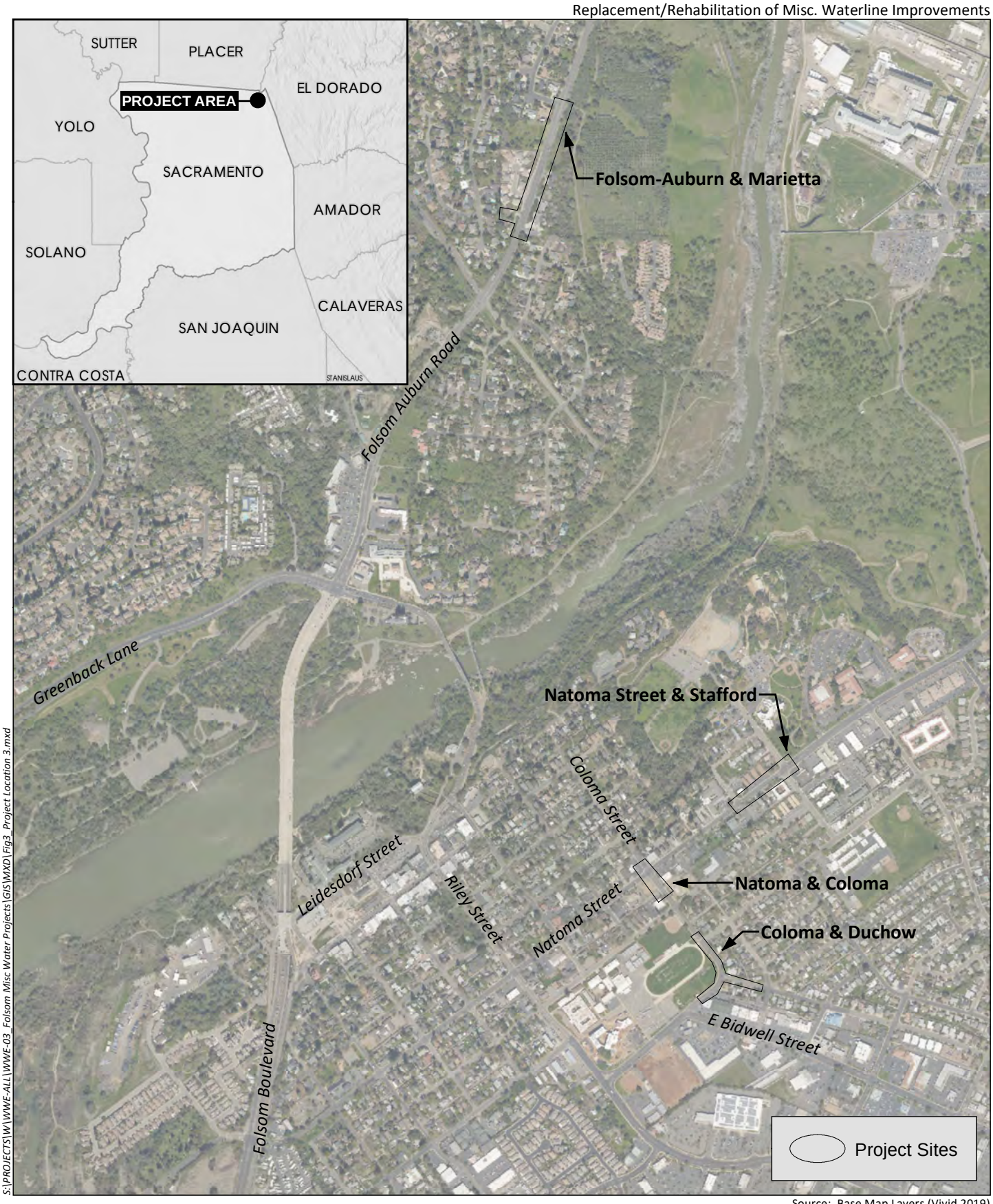
0 1,000 Feet

Source: Base Map Layers (Vivid 2019)

HELIX Environmental Planning

Project Location Map

Figure 2



S:\PROJECTS\W\WWE-ALL\WWE-03_Folsom Misc Water Projects\GIS\MXD\Fig3_Project Location 3.mxd

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Source: Base Map Layers (Vivid 2019)

HELIX Environmental Planning

Project Location Map

Figure 3