

Our ref: 11223481

October 13, 2023

Brendan E. Byrd, PE
City of Fortuna
Public Works Director/City Engineer
180 Dinsmore Drive
Fortuna, CA 95540

RE: Scope of Services for Mill Creek Restoration Design and Permitting

Dear Mr. Byrd:

The following is our proposed scope of services for the Mill Creek Restoration Project (Project), funded by the Wildlife Conservation Board (WCB). This scope of services includes completion of topographic surveys, geotechnical, hydraulic, biological and cultural resources studies, development of 30%, 65% and final (100%) design plans and completion of CEQA and permit applications for replacement of four culvert crossings on Mill Creek at Weber Street, Rohnerville Road, Mill Street and Mountain View Road. Replacement of the crossings will increase access to upstream salmonid habitat and increase resiliency of the aging culvert crossings. GHD will contract directly with sub-consultants to complete the scope of services, collectively referred to as the Project Team, and includes Ontiveros & Associates (Topographic Survey), Crawford & Associates (Geotechnical Investigations), Michael Love & Associates (Fish Passage Analyses) and Jamie Roscoe & Associates (Cultural Resources).

Scope of Services

The tasks below define GHD's scope of services.

Task 1 - Project Grant Management (City of Fortuna)

GHD is not providing any services under this task. This task has been included to align with the WCB Grant Agreement.

Task 2 - Supporting Technical Studies

Sub-Task 2.1 - Topographic Survey

GHD sub-consultant Ontiveros & Associates (O&A) will conduct a topographic survey of the Weber Street, Rohnerville Road, Mill Street and Mountain View Road crossings including:

1. Locating topographic features in the vicinity of the proposed project improvements, including all trees over 12" diameter at breast height (DBH), approximately 150 feet downstream and 100 feet upstream of the current culvert crossings.

2. The Topographic Survey will be performed using the current CCS83 Zone 1 Epoch 2010.00 horizontal datum and NAVD88 vertical datum. All dimensions will be grid in terms of the U.S. Survey Foot. Sufficient control will be established for both this project and future monitoring.
3. Approximate property boundaries and ownership will be provided based on a records search.

Deliverable:

- An electronic AutoCAD drawing in Civil 3D topographic survey base map

Assumptions:

- The City will obtain permissions from property owners to conduct topo survey
- The City will provide current and accurate utility mapping within the project area
- The City will conduct vegetation thinning within City ROW in advance of the topographic survey

Sub-Task 2.2 - Geotechnical Investigation

GHD sub-consultant Crawford & Associates (CRA) will provide engineering geologic and geotechnical services to support design and permitting of the project improvements. This will include subsurface exploration; up to two borings at each crossing (total of eight) to characterize the subsurface soils. Soils encountered during boring installation will be recorded using American Society for Testing and Materials (ASTM) procedures for field classification. Crawford & Associates will prepare a geotechnical report with site specific design recommendations for crossing design, cut/fill slopes, foundation requirements and will include all data collected during field work, standards for compaction and other technical details.

Deliverables:

- Draft and final geotechnical report, electronic PDF

Assumptions:

- The City will provide traffic control during the drilling and issue or waive the encroachment permit

Sub-Task 2.3 - Wetland Delineation and Biological Resources Inventory

GHD will complete a wetland delineation and map waters of the US/State in the project area where ground disturbing activities are proposed based on the 65% design. The wetland delineation will use the 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual and Supplements as outlined in State Wetland Definition and Procedures for Discharges of Dredged Fill Material to Waters of the State. The Project is located outside the coastal zone entirely; thus only three parameter wetlands will be mapped. GHD will map the boundary of riparian habitat within the ground disturbance area to determine the amount (if any) of trees greater than 6-inch DBH to be removed. A reconnaissance-level habitat assessment will be made to determine whether special-status plants or wildlife species could utilize existing habitat.

Deliverable:

- Draft and final technical memo with results of delineation and biological resources inventory; figures of mapped resources to be included in the tech memo, electronic PDF

Assumptions:

- The City will obtain permissions from property owners to conduct field surveys

Sub-Task 2.4 – Cultural Resources Investigation

GHD sub-consultant Jamie Roscoe & Associates (JRA) will prepare a cultural resources investigation to facilitate compliance documentation including CEQA and permitting including USACE's Section 106 review in accordance with the National Historic Preservation Act.

Deliverables:

- Draft and final cultural resources memo, electronic PDF

Assumptions:

- The City will obtain permissions from property owners to conduct field surveys

Sub-Task 2.5 – Geomorphic Characterization and Pre-Design

GHD sub-consultant Michael Love & Associates (MLA) will perform a geomorphic characterization of Mill Creek from 150-feet downstream of Webber Street crossing to 100-feet above the Mountainview Road crossing. The characterization will supplement the topographic survey completed in the previous task and include:

1. Recon/Geomorphic Mapping of bed and bank forms
2. Post-processing Survey Geomorphic Data
3. Geomorphic Interpretation
4. Geomorphic Sketch Maps and Profiles

Deliverables:

- Draft and final geomorphic analysis documentation: maps and survey data compiled in a design report.

Assumptions:

- The City will obtain permissions from property owners to conduct field surveys

Sub-Task 2.6 – Limited Asbestos Survey

GHD will perform a limited sampling survey of suspect asbestos containing materials (ACM) that may be impacted during the planned demolition of the existing concrete culverts. GHD will conduct bulk sampling of suspect ACM at each of the four culverts for polarized light microscopy (PLM) analysis. The asbestos sampling survey will be conducted for the purpose of compliance with the United States Environmental Protection Agency (USEPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements for demolition work and California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) regulations.

GHD will conduct sampling of the soils at each of the four culvert locations according to the CARB 435 protocol, requiring a Professional Geologist certification. GHD will then prepare a memo of the findings and provide the contractors with guidance documents for best practices if naturally occurring asbestos is found within the Project Area.

Deliverables:

- Draft and Final Asbestos Assessment Memo, electronic PDF

Assumptions:

- Sampling to be performed over up to two (2) days for all four culverts locations, a single site visit at each culvert.
- Any required access logistics to be secured by the City prior to GHD's arrival.

- Lab fees to be paid as a component of this task.

Task 3 – Design

Sub-Task 3.1 – 30% Conceptual Design, Hydraulic Assessment and Draft Basis of Design Report

The Project Team will develop a hydraulic model to assess fish passage hydraulics and design storm flows through the four proposed crossings. Crossing designs will meet application CDFW/NOAA fish passage guidelines (CDFG 2002, CDFG 2009 and NMFS 2022). The Project Team will utilize the model results and develop drawings to 30% to convey the design intent and anticipated construction quantities for determining order of magnitude opinion of probable construction costs (OPC) for the Weber Street, Rohnerville Road, Mill Street and Mountain View Road crossings. Drawings will include a detailed location and site maps that indicate the general location or proposed activities and project elements. The project team will develop a draft basis of design report to provide the technical foundation and justification and basis for design. This report provides the project components and discloses the project constraints and key assumptions behind the design. The 30% design plans will be consistent with CDFW/NOAA fish passage guidelines (CDFG 2002, CDFG 2009 and NMFS 2022).

Deliverables:

- 30% conceptual design plans, OPC, and Draft Basis of Design Report with hydraulic model results provided as an electronic PDF.

Sub-Task 3.2 – 65% Intermediate Design Plans and Basis of Design Report

Using the 30% design and CDFW/WCB feedback, GHD will develop intermediate (65%) design plans and supporting hydraulic modeling. The design plans will include civil, structural and revegetation plan and detail sheets with notes intended for project permitting. The 65% design plans will be consistent with CDFW/NOAA fish passage guidelines (CDFG 2002, CDFG 2009 and NMFS 2022). Project extents and impacts will be included. Where relevant, the plans will include cross-sections and longitudinal profiles. An opinion of probable construction cost will be developed based on the 65% design plans. The design methods and results will be documented in a project basis of design report.

Deliverables:

- 65% design plans, OPC and Draft Basis of Design Report provided as an electronic PDF

Assumptions:

- The design will not change substantially from the 30% design

Sub-Task 3.3 – Final 100% Design Plans and Basis of Design Report

Using the 65% design and CDFW/WCB feedback, GHD will develop final (100%) design plans. The design plans will include civil, structural and revegetation plan and detail sheets with notes and technical specifications. The final design plans will be consistent with CDFW/NOAA fish passage guidelines (CDFG 2002, CDFG 2009 and NMFS 2022). An opinion of probable construction cost will be developed based on the 100% design plans. The design methods and results will be documented in the final project basis of design report.

Deliverables:

- Draft and final 100% design plans, technical specifications, OPC and Final Basis of Design Report provided as an electronic PDF and stamped by a professional engineer registered in the State of California.

Assumptions:

- The design will not change substantially from the 65% design

Task 4 – CEQA and Permitting

Sub-Task 4.1 – Prepare Regulatory Project Description

GHD will prepare a draft project description per CEQA Guidelines Section 15124 to describe all project elements and activities. The project description will be an attachment to all permit submissions to clearly describe the project to agency regulators.

Deliverables:

- Draft and final regulatory project description, electronic PDF

Sub-Task 4.2 – Prepare a CEQA Class 33 Categorical Exemption

The City of Fortuna and GHD will prepare a CEQA Class 33 Categorical Exemption. The project qualifies for Section 15333 (Small Habitat Restoration Projects) exemption because it is under five acres in total size and includes culvert replacements in accordance with the Guidelines of CDFW and NOAA Fisheries, the goal of which is to improve habitat. In addition, GHD does not anticipate significant adverse impacts on endangered, rare, or threatened species or their habitat pursuant to CEQA Guidelines Section 15065.

Deliverables:

- Draft and final Categorical Exemption, provided as an electronic PDF

Assumptions:

- A Class 33 Categorical Exemption will be an allowable CEQA pathway for the project
- The City will process the Categorical Exemption, including filing with OPR

Sub-Task 4.3 – Prepare and Submit Environmental Permit Applications

Environmental permit applications will be prepared and submitted, including: (1) USACE 404 Nationwide Permit for Clean Water Act 404 coverage, (2) a Regional Water Board Small Habitat Restoration Certification, for Clean Water Act 401 coverage, (3) a CDFW Habitat Restoration and Enhancement Permit application, (4), an application for NOAA Restoration Center’s Programmatic Biological Opinion coverage. The project is expected to have a disturbance footprint within the allowable threshold for eligibility for streamlined Regional Water Board and CDFW permitting for restoration projects (under five acres and 500 lineal feet). If those thresholds are exceeded by developed designs, standard coverages for the Regional Board and CDFW will be sought.

Deliverables:

- Draft and Final USACE 404 Nationwide Permit application package
- Draft and Final Regional Water Board Small Habitat Restoration Projects application package for Section 401 coverage
- Draft and Final CDFW Habitat Restoration and Enhancement (HREA) Permit application package
- Draft and Final application package for Section 7 Endangered Species Act coverage under the NOAA Restoration Center’s Programmatic Biological Opinion

Assumptions:

- CESA coverage is provided through the HREA

Schedule

The schedule below depicts the target completion dates for each task with a contract completion date of August 31, 2025 per the WCB grant. Some tasks may be accelerated where needed. Should delays outside of GHD’s control occur, the schedule may need to be extended accordingly.

Task	Task Name	Target Completion Date
1	Project Grant Management	City Task
2.1	Topographic Survey	February 28, 2024
2.2	Geotechnical Investigation	March 31, 2024
2.3	Wetland Delineation and Biological Resources Inventory	August 31, 2025
2.4	Cultural Resources Investigation	June 30, 2024
2.5	Geomorphic Characterization & Pre-Design	August 31, 2024
2.6	Limited Asbestos Survey	August 31, 2025
3.1	30% Design, Hydraulic Analysis and Basis of Design Report	August 31, 2024
3.2	65% Design and Basis of Design Report	February 28, 2025
3.3	100% Design and Basis of Design Report	August 31, 2025
4.1	Prepare Regulatory Project Description	August 31, 2025
4.2	Prepare CEQA Categorical Exemption	August 31, 2025
4.3	Environmental Permit Application Preparation ²	August 31, 2025

Budget

GHD agrees to proceed with the above scope of services on a time and materials basis, up to a maximum fee provided in the table below. GHD reserves the right to move budget amongst tasks however will not exceed the contract total without City authorization. Invoices will be submitted monthly and are due payable within 30 days.

Task	Task Name	Task Budget
1	Project Grant Management	\$0 ¹
2.1	Topographic Survey	\$66,084
2.2	Geotechnical Investigation	\$118,331
2.3	Wetland Delineation and Biological Resources Inventory	\$42,696
2.4	Cultural Resources Investigation	\$14,148
2.5	Geomorphic Characterization & Pre-Design	\$66,184
2.6	Limited Asbestos Survey	\$12,080
3.1	30% Design, Hydraulic Analysis and Basis of Design Report	\$189,400
3.2	65% Design and Basis of Design Report	\$221,890
3.3	100% Design and Basis of Design Report	\$176,668
4.1	Prepare Regulatory Project Description	\$9,690
4.2	Prepare CEQA Categorical Exemption	\$3,428
4.3	Environmental Permit Application Preparation	\$29,256
TOTAL		\$949,855
¹ City will lead this task		

General Assumptions & Exclusions

This scope of services is based on the tasks described above which are anticipated for the project. The City may need additional services during the process of the project due to increased regulatory issues, unusual public interest, and additional issues identified during the project. This scope is based on the following assumptions:

- This scope does not include anything not specifically described above, although additional services can be provided through a contract amendment.
- The City shall be responsible for directly paying all deposits and fees required for the project, such as permitting or CEQA related fees.
- The City will obtain and/or provide access agreements (including encroachment permits) needed for technical studies, permits and construction.
- City shall exercise due care in relaying project requirements to consultant and shall responsively participate in the project development process.
- City to provide traffic control during drilling operations
- Utility coordination is limited to obtaining utility mapping and drafting of utility information provided by the City.
- Right-of-way support services and preparing a right-of-way exhibit is excluded. The scope of services does not include property acquisition assistance or the preparation of legal descriptions or plats for acquisition.
- The scope of services does not include any design changes following the completion of the final (100%) design.
- A DSA access compliance review is not required.
- City will submit one set of combined comments on draft work products.

Regards,



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