We May Disagree, but We Will Be Respectful of One Another
All Comments Will Be Directed to the Issue at Hand, and Addressed to the City Council
Personal Attacks are Unacceptable

I. CALL TO ORDER / FLAG SALUTE/ ROLL CALL

<table>
<thead>
<tr>
<th>Council</th>
<th>Staff</th>
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<tbody>
<tr>
<td>Council Member Tiara Brown</td>
<td>City Manager Regan Candelario</td>
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<td>Council Member Linda Gardner</td>
<td>City Clerk Linda McGill</td>
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<td>Council Member Douglas Strehl</td>
<td>City Engineer/Public Works Director Merritt Perry</td>
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<tr>
<td>Mayor Pro Tem Tami Trent</td>
<td>Deputy Director of Community Development Liz Shorey</td>
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<td>Mayor Sue Long</td>
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</tbody>
</table>

II. ORAL COMMENTS FROM THE PUBLIC
Members of the Public may be heard on any item on the Closed Session Agenda. Speakers addressing the Council will be limited to 3 minutes per speaker. Be advised, by law the City Council cannot deliberate or take action on issues presented during Oral Comments that are not shown on the Agenda.

III. ADJOURN TO CLOSED SESSION
1. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION, Significant Exposure to litigation pursuant to paragraph (2) or (3) of subdivision (d) of section 54956.9: 1 Case

IV. REPORT OUT OF CLOSED SESSION

V. ORAL COMMENTS FROM THE PUBLIC
Members of the Public may be heard on any item on the Special Meeting Agenda. Speakers addressing the Council will be limited to 3 minutes per speaker. Be advised, by law the City Council cannot deliberate or take action on issues presented during Oral Comments that are not shown on the Agenda.

VI. BUSINESS ITEMS
1. Professional Services Contract with GHD for Design Services for the 12th Street Culvert Fish Passage Improvement Project
2. Professional Services Contract with GHD for Project Management and Construction Implementation Services

VII. DISCUSSION ITEMS
1. City of Fortuna Housing Element Status Update
2. Discussion related to Potential Open Space Acquisition Strategy
3. Discussion related Potential Voting Conflicts for Elected and Appointed Officials

VIII. REPORT OUT AND ADJOURN
Pursuant to Government Code Section 54957.5, any non-confidential documents or writings that the City distributes, less than 72 hours before a regular meeting, to all or a majority of the legislative body's members must be made available to members of the public at the same time as the distribution. Documents and information related to the agenda topics are available for review at City Hall, 621 11th Street, between the hours of 8:00 AM to 5:00 PM. Members of the public are invited to come to the meeting and comment. In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Clerk at 725-7600. Notification prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

Linda McGill
City Clerk
DATE: August 4, 2016

TO: Honorable Mayor and Council Members

FROM: Merritt Perry, City Engineer

THRU: Regan M. Candelario, City Manager

SUBJECT: Professional Services Contract with GHD for Design Services for the 12th Street Culvert Fish Passage Improvement Project

STAFF RECOMMENDATION:

Receive staff presentation and recommendation of authorize City Manager to execute professional services contract with GHD for Services for the 12th Street Culvert Fish Passage Improvement Project on Rohner Creek (CIP#9988) in the amount $89,978.

EXECUTIVE SUMMARY:

The Fish Passage Improvement Project at 12th Street (Project) is a component of the larger Rohner Creek Flood Control, Seismic and Habitat Improvements Project, initiated in 2012. In February, 2013 GHD and Michael Love and Associates (MLA) assessed fish passage at the crossing and developed conceptual design alternatives to improve fish passage. The conceptual design was included in the CEQA and environmental permit application as a part of the larger project.

In March 2015, GHD assisted the City of Fortuna to develop and submit the grant application through California Department of Fish and Wildlife (CDFW) Fisheries Restoration Grant Program (FRGP) for design funding for the Project and leveraged Prop 1E grant funds from the larger project as matching funds. The Project develops design and construction documents to provide fish passage at the 12th Street culvert crossing barrier for all life stages of salmonids. The application required a detailed work plan and identification of the project team members qualified to complete the analysis and design of the Project. To meet this grant requirement, GHD, MLA and Gutierrez Land Surveying (GLS) were included as project team members. Both GHD and MLA are well known for their fish passage design experience with the regulatory agencies and within the FRGP grant program.

In June 2016, the City of Fortuna was awarded the FRGP grant for the Fish Passage Improvement Project at 12th Street in the amount of $57,233 for topographic surveying, preparation of a design plan and development of a basis of design report that specifically named GLS and GHD in the grant agreement, and this consultant contract will not be released based on competitive proposals. Staff anticipates submitting subsequent grant applications to fund the construction of this project, which has already been permitted as a part of the Rohner Creek Flood Control Project.
FINANCIAL IMPACT:

This project is included in the 2016/2017 CIP in the amount of $97,085; of this amount $57,233 is identified to come from the FRGP and $39,852 from the Prop 1E grant from DWR for the Rohner Creek Flood Control Project. The total consultant contract for GHD is $89,978 and $7,107 is included for City staff time and overhead for a total of $97,085. There is no cash match required by the City.

RECOMMENDED COUNCIL ACTION:

1. Receive staff presentation and review Council questions with staff
2. Open Public Comment
3. Close Public Comment; voice vote
4. Motion to Authorize the City Manager to execute professional services contract with GHD for 12th Street Culvert Fish Passage Improvement Project on Rohner Creek (CIP#9988) in the amount $89,978.

ATTACHMENTS:

- Exhibit A – GHD Proposal
City of Fortuna
Proposal for
Fish Passage Improvement Project at 12th Street

27 July 2016
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1. **Background**

The Fish Passage Improvement Project at 12th Street (Project) is a component of the larger Rohner Creek Flood Control, Seismic and Habitat Improvements Project, initiated in 2012. In February, 2013 GHD and Michael Love and Associates (MLA) assessed fish passage at the crossing and developed conceptual design alternatives to improve fish passage. The conceptual design was included in the CEQA and environmental permit application as a part of the larger project.

In March 2015, GHD assisted the City of Fortuna to develop and submit the grant application through California Department of Fish and Wildlife (CDFW) Fisheries Restoration Grant Program (FRGP) for design funding for the Project and leveraged Prop 1E grant funds from the larger project as matching funds. The Project develops design and construction documents to provide fish passage at the 12th Street culvert crossing barrier for all life stages of salmonids. The application required a detailed work plan and identification of the project team members qualified to complete the analysis and design of the Project. To meet this grant requirement, GHD, MLA and Gutierrez Land Surveying (GLS) were included as project team members. Both GHD and MLA are well known for their fish passage design experience with the regulatory agencies and within the FRGP grant program.

In June 2016, the City of Fortuna was awarded the FRGP grant for the Fish Passage Improvement Project at 12th Street. The following sections provide further project detail, project team qualifications and proposed scope of work to complete this Project.

2. **Project Description**

**Client**

City of Fortuna  
Client representative: Merritt Perry  
PO Box 545  
Fortuna, CA 95540  
(707) 725-1469 Office  
(707) 725-7651 Fax  
mperry@ci.fortuna.ca.us Email

**Project**

The existing 12th Street culvert crossing fails to meet fish passage assessment criteria at most flows for the juvenile and adult resident salmonids and low flows for anadromous salmonids. Additionally, the existing baffles in the middle culvert commonly trap debris, which can result in a total barrier to fish passage, can reduce the culvert’s hydraulic capacity and requires routine maintenance by City staff.

The proposed project will evaluate up to three viable options for improving fish passage conditions at the 12th Street crossing. The Preferred Retrofit Option will be selected based on agency and stakeholder input, and design and construction documents will be developed to provide fish passage for salmonids at all life stages.

The project will include collection of additional topographic survey downstream of the crossing; schematic design development and hydraulic analyses of Retrofit Options; coordination with stakeholders to select the Preferred Retrofit Option; preparation of 30%, 65%, 90% and 100% design plans for the Preferred Retrofit Option; and preparation of a draft and final Basis of Design Report. Additionally, the project will
include several meetings with the City of Fortuna and its design team, CDFW, NMFS, and other stakeholders to identify project objectives and constraints, identify the Preferred Retrofit Option, and discuss comments on the 30%, 65%, and 90% design submittals.

### 3. Project Team Qualifications and Experience

**GHD Inc.**

Our firm is dedicated to responsiveness, which means that we leverage both GHD’s size and intimate regional identity to serve all clients. Additionally, GHD maintains strong working relationships with many regulatory agencies. In fact, our infrastructure work has always focused on efficient management of projects through the open communication amongst all stakeholders and entities involved in any project. We obtain stakeholder buy-in early in project planning and we develop the most direct path to project completion. The quality of our work has a direct bearing on our client’s satisfaction and success, our repeat business, and our recommendations to others.

Our firm includes individuals experienced in coastal ecosystem management and restoration, hydrology, river hydraulics, hydrogeology, water quality, and landscape ecology. These professionals provide services in restoration and mitigation for habitats such as forested uplands, freshwater riparian, coastal tidal/salt marsh, and working agricultural lands, performing technical studies, project development, project design, environmental compliance, and project construction management services. Additionally, we offer experts in all phases of environmental analysis pursuant to the California Environmental Quality Act (CEQA), including preparation of the initial study/environmental checklist, preparation of environmental impact reports and statements, and the development and implementation of mitigation and environmental monitoring programs. The diversity of our staff, coupled with our broad project experience, means we can support our clients with the efficient collaboration required to execute a successful project at all levels..

GHD’s Project Team will consist of the following individuals with additional support from Michael Love & Associates (MLA) and Gutierrez Land Surveying (GLS):

#### Brett Vivyan, PE

**Project Manager/Design Engineer**

Mr. Vivyan is a civil engineer and project manager with 6 years experience in civil- and environmental-related engineering projects. Mr. Vivyan has training and experience in 1- and 2-dimensional hydrodynamic modeling and analyses; hydrologic and storm water runoff analyses; fish passage design and analysis; bioengineering stream bank restoration design using 1-D and 2-D finite element modeling; fluvial geomorphology; stream function; floodplain management; and erosion and sediment control design. His professional experience involves preparation of construction plans, specifications, and cost estimates (PS&E); project permitting; CEQA documentation; property owner outreach; coordination with utility companies; and project management. Mr. Vivyan has been the lead design engineer, property owner outreach liaison, public utilities coordinator and regulatory agency liaison on the Rohner Creek Flood Control, Seismic and Habitat Improvements Project.
Jeremy Svehla, PE  
Quality Assurance/Quality Control

Mr. Svehla is a professional engineer with over eleven years experience in a variety of civil-, environmental-, and agricultural-related engineering projects. Mr. Svehla has extensive training and expertise in hydraulic analyses; hydrologic and storm water runoff analyses; fish passage design and analysis, including bridge and culvert design; bioengineering stream bank restoration design using 1-D and 2-D finite element modeling; fluvial geomorphology; stream function; floodplain management; wetland restoration; scour analysis; and erosion and sediment control design. His professional experience involves preparation of construction plans, specifications, and cost estimates (PS&E); project permitting; CEQA documentation; project management; construction management; and regulatory compliance for stream and tidal marsh restoration projects. As Project Manager for regulatory compliance and final design for the Rohner Creek Flood Control, Seismic and Habitat Improvements Project and Salt River Ecosystem Restoration Project, Mr. Svehla has substantial local knowledge of stream restoration. These projects have involved an array of project stakeholders, including municipalities, regulatory resource agencies, non-profit watershed organizations, tribes, resource conservation districts, and special/landowner associations.

Susan O’Gorman, PE  
Structural Engineer

Ms. O’Gorman is a registered civil engineer and has over 10 years experience in civil and structural engineering, performing structural calculations for several fish passage projects, residential and commercial projects using steel, concrete, and wood, as well as working on various civil projects, including bridge designs, water, sewer, and site development. She is well experienced in AutoCAD and has completed the drafting on many of the structural projects for which she has worked. Ms. O’Gorman has also assisted on many construction projects within the last three years, which include the Arcata/Eureka Airport Bluff Stabilization Project and the Willits Railroad Avenue Bridge Replacement Project.

Penny Rogers, EIT  
Project Engineer

Ms. Rogers is a staff engineer with over 5 years experience in civil- and environmental-related engineering projects. Ms. Rogers has training and experience in 1- dimensional hydrological and hydraulic modeling and analyses; hydrologic and storm water runoff analyses; fish passage design and analysis; stream bank restoration design; fluvial geomorphology; stream function; floodplain management; and erosion and sediment control design. Her professional experience involves preparation of construction plans, specifications, and cost estimates (PS&E); project permitting; CEQA documentation; and project management. Ms Rogers was a design engineer for the Salt River Project and was the main author of the Jameson Creek Storm Damage Repair Alternatives Analysis.
4. **Scope of Services**

**Project Tasks**

**Task 1 – Meetings and Project Management**

**Meetings**
Up to four (4) meetings will be held with stakeholders to discuss comments on the design submittals. The City of Fortuna will coordinate all meetings. GHD will record and distribute meeting notes from each meeting, with support from MLA.

**Project Kickoff Meeting**
The Project Team will meet at the site with the City and representatives from CDFW, NMFS, and other stakeholders. The purpose of the meeting is to identify project objectives and constraints, discuss initial project findings and recommendations presented in Fish Passage Conditions for Rohner Creek at 12th Street and Main Street Crossings (MLA, 2013), and identify additional retrofit options for consideration during the Options Analysis phase of the project (Task 3).

**Preferred Option Selection Meeting**
The Project Team will meet with the City and representatives from CDFW, NMFS and other stakeholders to present the results of the Options Analysis (Task 3). The purpose of the meeting is to arrive at a consensus of the Preferred Option to be further developed into final design.

**30% Design Review Meeting**
The Project Team will attend a design review meeting to review the 30% design submittal. The objective of the meeting is to confirm that stakeholder concerns are addressed before commencement of 65% design drawings and specifications. It is assumed that representatives from CDFW and NMFS will attend the meeting to ensure that agency comments are addressed early in the design process.

**Additional Meeting**
One (1) additional meeting is budgeted to allow additional coordination time with agencies or other stakeholders to confirm design intent.

**Project Management**
This project will require routine communication and close coordination with the Project Team members, the City, CDFW and NMFS. GHD will provide Project Management services which will include providing progress updates, invoicing, managing project budgets and schedules, and assisting the Team in coordinating with the various agencies involved.

*Deliverables: Meeting agenda and notes*

**Task 2 – Topographic Survey and Preparation of Base Mapping**
Existing topographic survey information for the 12th Street culvert was collected as part of the overall Rohner Creek Flood Reduction and Riparian Habitat Improvement Project, which ends at the 12th Street crossing. To supplement the existing survey, additional full topographic survey will be
collected by GLS and MLA. The additional topography will extend approximately 200 feet downstream of the culvert outlet, and to the tops of the streambanks. The survey will include a channel thalweg, active channel width, depositional features, channel banks, fence lines, and building corners within the limit of survey. The additional survey will be combined with the survey from the Rohner Creek Flood Reduction and Riparian Habitat Improvement Project and also a photogrammetric survey of the adjacent floodplain to create a base map with one-foot contours in the channel and two-foot contours on the floodplain. The basemap shall be suitable for design development and preparation of design plans.

The survey will show approximate property lines, rights-of-way and utilities. The survey will include existing utilities adjoining the crossing that are visually observed during the time of the survey.

**Deliverables:** Topographic Survey

**Task 3 – Options Analysis**

The project team will develop the design level necessary to evaluate three Retrofit Options. Design development will include development of design-condition channel profiles and cross sections, preliminary boulder and streambed material sizing, and weir and baffle dimensions and spacing. Designs will be developed to a schematic level sufficient to evaluate how well each retrofit option meets hydraulic design criteria (flow depth, velocity, EDF, and drop heights) for all lifestages of salmonids, as presented in CDFG (2002). The designs will be based on recommendations presented in Part XII Fish Passage Design Implementation of the DFG California Salmonid Stream Habitat Restoration Manual. Several hydraulic models may be used to compute the hydraulic conditions of each retrofit option; these models include custom spreadsheets, WinXSPro, HEC-RAS, FishXing, and HY-8.

The project team will prepare a preliminary assessment of the effect of each Retrofit Option on 100-year flood elevations upstream and downstream of the crossing. These assessments will be performed using HEC-RAS.

Fish passage and peak flows developed as part of the Rohner Creek Flood Reduction and Riparian Habitat Improvement Project will be used for assessing each retrofit option. Fish passage flows for the project were developed in accordance with CDFG (2002) and NMFS (2001) protocols and are presented in MLA (2013). Peak flows for the 10, 50, and 100-year events were computed and calibrated by GHD (March 2012).

A geomorphic analysis of existing conditions in Rohner Creek was also performed by MLA as part of the Rohner Creek Flood Control, Seismic and Habitat Improvements Project. The analysis included assessments of channel dimensions and bank materials, profile analysis, pebble counts, and sediment transport capacity analyses. The information from the geomorphic analyses will be used to evaluate each retrofit option within the geomorphic context of the stream to assess the likely channel response to the retrofit.

The project team will prepare a Technical Memorandum (TM) and summarize the components of each Retrofit Option, discussions concerning ability to meet hydraulic design criteria, effects on 100-year flood elevations, a discussion of benefits and shortcomings, expected geomorphic response within the stream channel and develop opinion of probable construction costs. The TM will include conceptual sketches of each retrofit option, including overall channel profile and plan view showing weir and baffle spacing. The TM will provide sufficient information such that a preferred retrofit option can be selected by stakeholders.

**Deliverables:** Technical Memorandum
**Task 4 – Develop 30% Design Plans**

After a preferred retrofit option is agreed upon, the project team will prepare design drawings completed to a 30% stage for the proposed design. The design drawings will include standard plans, profiles, and typical cross-sections developed with adequate detail to convey the design intent. The project team will prepare design drawings with design profiles, cross sections, boulder sizing, and typical details for any baffles, weirs, and rock profile-control features associated with the retrofit.

An Opinion of Probable Construction costs will be submitted based on the 30% design plans.

**Deliverables:** 30% Complete Concept Design Drawings and Opinion of Probable Construction Cost.

**Task 5 – Develop 65% Design Documents**

After comments are received from the 30% design submittal, the project team will prepare the design drawings completed to a 65% stage. The intent of the 65% design drawings will be to provide detailed information on construction methods and materials and to allow for a detailed opinion of probable construction cost to be developed. The 65% design plans will incorporate comments from stakeholders and will also include draft technical specifications, detailed profiles and cross sections, limit of disturbance, construction access and stockpile areas, construction details and notes, water management details and notes, erosion and sediment control notes.

An Opinion of Probable Construction costs will be submitted based on the 65% design plans.

**Deliverables:** 65% Complete Design Drawings and Opinion of Probable Construction Cost.

**Task 6 – Develop 90% Design Documents**

After comments are received from the 65% design submittal, the project team will prepare 90% design plans. The intent of the 90% plans is to address comments from the 65% submittal and provide a complete set of design plans suitable for any outstanding permitting and environmental documentation.

An Opinion of Probable Construction costs will be submitted based on the 65% design plans.

**Deliverables:** 90% Complete Design Drawings and Opinion of Probable Construction Cost.

**Task 7 – Develop 100% Design Documents**

The project team will prepare design drawings completed to a 100% stage for the proposed design. The drawings will be updated based on the feedback from the stakeholders on the 90% drawings. Technical specifications will be included as notes on the 100% design plans.

GHD will also prepare an Opinion of Probable Construction costs to be submitted with the 100% design plans.

**Deliverables:** 100% Complete Design Drawings stamped by a California Registered Professional Engineer and Opinion of Probable Construction Cost.
**Task 8 – Draft and Final Basis of Design Report**

The project team will prepare a draft and final Basis of Design Report summarizing the above tasks and a description of the basis of design. A Draft and Final Basis of Design Report will be prepared. The report will provide the following:

- **Description of project goals, objectives and constraints**
- **Summary of the basis of design related to the following:**
  - Summary of hydrologic analyses for peak flows and fish passage flows
  - Options Analyses and results
  - Design development methods and results for the Selected Retrofit Alternative
  - Summary of hydraulic analyses including fish passage flows and flood flow conveyance for existing and proposed conditions
  - Characterization of geomorphic channel response to the proposed project

**Deliverables:** The Draft Basis of Design Report will be submitted with the 30% Design Documents (Task 4) and the Final Design Memorandum will be submitted with the 100% Design Documents (Task 7).

**Task 9 – Project Final Progress Report**

If the project is funded, a Final Progress Report containing the following information will be included:

- Number of restoration projects proposed as a result of this project;
- Name(s) of restoration project(s) proposed as a result of this project;
- Description(s) of restoration project(s) proposed as a result of this project;
- Type(s) of treatments applied, indicate the FRGP Proposal Project Type(s);
- Acres of salmonid habitat protected/restored;
- Number of watersheds protected/restored; and
- Dollar value of habitat treatments applied.

**Deliverables:** Project Final Progress Report

**General Assumptions**

The following are assumptions for the tasks listed above:

- The project team will develop the design level necessary to evaluate Retrofit Options 2 and 3 as described in the Fish Passage Memorandum as a part of the Rohner Creek Flood Control, Seismic and Habitat Improvements Project, and up to one other retrofit option identified by the Project Team and stakeholders
- The City will provide GHD staff hours and rates for use in progress reports and reimbursement requests
5. **Estimated Project Schedule**

If selected, the scope of services presented above can be completed within five (5) months of receiving the notice to proceed from the City.

6. **Compensation**

The above scope will be completed on a not-to-exceed time and materials basis for a fee of **$89,978** based on the task allocations presented in the table below. GHD reserves the right to move funds between tasks without exceeding the total budget.

<table>
<thead>
<tr>
<th>Task Description</th>
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<tbody>
<tr>
<td>Task 1 Meetings and Project Management</td>
<td>$9,349</td>
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<tr>
<td>Task 2 Topographic Survey and Preparation of Base Mapping</td>
<td>$9,000</td>
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<td>Task 3 Options Analysis</td>
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<td>Task 4 Develop 30% Design Plans for Preferred Option</td>
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<tr>
<td>Task 5 Develop 65% Design Documents</td>
<td>$16,130</td>
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<td>Task 6 Develop 90% Design Documents</td>
<td>$15,233</td>
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<tr>
<td>Task 7 Develop 100% Design Documents</td>
<td>$9,350</td>
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<tr>
<td>Task 8 Draft and Final Basis of Design Report</td>
<td>$5,684</td>
</tr>
<tr>
<td>Task 9 Project Final Progress Report</td>
<td>$1,310</td>
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| TOTAL FEE ALL TASKS                          | $89,978 |

The City was awarded $57,233 for the tasks and fees described above as a part of the CDFW FRGP award. The balance of $32,745 was allocated to these project components through the Department of Water Resource Proposition 1E grant, as a part of the larger Rohner Creek Flood Control, Seismic and Habitat Improvements Project.

7. **Closing**

Please contact Brett Vivyan in the GHD Eureka Office at 707.443.8326 if you have any questions or concerns regarding this proposal. We are available to answer any questions regarding our proposed services during the business week.

Thank you for the opportunity to provide GHD’s engineering expertise and services to you in association with this project. We look forward to discussing the project with you further.
DATE: August 4, 2016

TO: Honorable Mayor and Council Members

FROM: Merritt Perry, City Engineer

THRU: Regan M. Candelario, City Manager

SUBJECT: Professional Services Contract with GHD for Project Management and Construction Implementation Services

STAFF RECOMMENDATION:

Receive staff presentation and recommendation of authorize City Manager to execute professional services contract with GHD for Project Management and Construction Implementation Services for the Fish Passage Improvement Project at South Fortuna Boulevard at Strongs Creek (CIP #0196) in the amount $121,587.

EXECUTIVE SUMMARY:

In April 2014, GHD and the City of Fortuna (City) completed design of the Fortuna Boulevard’s Strongs Creek Culvert Replacement Project through the California Department of Fish and Wildlife (CDFW) Fisheries Restoration Grant Program (FRGP). The project design involves constructing a 40-foot long roughened rock chute downstream of the crossing, cutting and reforming a culvert bottom to construct a concrete notch through the culvert, and implementation of roughness elements to reduce velocities for juvenile fish passage.

In March 2015, GHD assisted the City in the development of an implementation grant for the Fish Passage Improvements at South Fortuna Boulevard Project (Project) through the FRGP to fund grant administration, bidding, implementation, construction management and post-project monitoring. The application required a detailed work plan and identification of the project team members qualified to complete the implementation and post project monitoring. To meet this grant requirement GHD and Michael Love and Associates were included as project team members on the grant application.

In June 2016, the City of Fortuna was awarded $735,987 in FRGP grant funding to implement the Project. Therefore the project must be completed by GHD as specified in the grant agreement with the CDFW and this consultant contract will not be released based on competitive proposals.

FINANCIAL IMPACT:

This project is included in the 2016/2017 CIP in the amount of $735,217; however the total project cost is $743,439 with a grant award of $735,987. It is anticipated that the difference in the grant award and total project cost will be made up by staff time in the amount of $7,452. There is no cash match required by the City.
RECOMMENDED COUNCIL ACTION:

1. Receive staff presentation and review Council questions with staff
2. Open Public Comment
3. Close Public Comment; voice vote
4. Motion to Authorize the City Manager to execute professional services contract with GHD for Project Management and Construction Implementation Services for the Fish Passage Improvement Project at South Fortuna Boulevard at Strongs Creek (CIP#0196) in the amount $121,587

ATTACHMENTS:

• Exhibit A – GHD Proposal
City of Fortuna
Proposal for
Fish Passage Improvements at South Fortuna Boulevard
27 July 2016
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1. Background

In April 2014, GHD and the City of Fortuna (City) completed design of the Fortuna Boulevard’s Strong Creek Culvert Replacement Project through the California Department of Fish and Wildlife (CDFW) Fisheries Restoration Grant Program (FRGP). The project design involves constructing a 40-foot long roughened rock chute downstream of the crossing, cutting and reforming a the culvert bottom to construct a concrete notch through the culvert, and implementation of roughness elements to reduce velocities for juvenile fish passage.

In March 2015, GHD assisted the City in the development of an implementation grant for the Fish Passage Improvements at South Fortuna Boulevard Project (Project) through the FRGP to fund grant administration, bidding, implementation, construction management and post-project monitoring. The application required a detailed work plan and identification of the project team members qualified to complete the implementation and post project monitoring. To meet this grant requirement GHD and Michael Love and Associates were included as project team members. Both GHD and MLA are well known for their fish passage design experience with the regulatory agencies and within the FRGP grant program.

In June 2016, the City of Fortuna was awarded $735,987 in FRGP grant funding to implement the Project. The following sections provide further project detail, project team qualifications and proposed scope of work to complete this Project.

2. Project Description

Client

City of Fortuna
Client representative: Merritt Perry
PO Box 545
Fortuna, CA 95540
(707) 725-1469 Office
(707) 725-7651 Fax
mperry@ci.fortuna.ca.us Email

Project

The existing South Fortuna Boulevard culvert crossing is a complete barrier to adult anadromous and juvenile salmonids at both low and high fish passage flows due to the drop at the downstream end of the crossing and shallow, high velocity flows within the crossing.

The proposed project involves constructing a 40-foot long roughened rock chute downstream of the crossing that raises the channel bed 2.0 feet, and cutting and reforming a 2.5-foot deep, 185-foot long concrete notch through the culvert, which would include roughness elements to reduce velocities for juvenile fish passage. The raised crest of the propose rock chute will create a 2-foot deep pool at the downstream end of the crossing and will backwater the full length of the notch. The proposed project is self-sustaining and improves fish passage at the South Fortuna Boulevard crossing of Strong Creek for all lifestages of salmonids, including resident trout, while maintaining the geomorphic function and flood conveyance capacity of the channel and crossing. Specific design objectives are to increase flow depths and decrease flow...
velocities within the crossing at fish passage flows, and address the water surface drop at the crossing outlet while not reducing the channel or crossing flood capacity. A detailed analysis and description of project components is presented in the Design Memorandum in Attachment 4.

Excavation, fill and construction of the rock chute, outlet pool, culvert notch and upstream transition is assumed to be achieved by constructing an access ramp along the south-west bank downstream of the culvert and by utilizing portions of the existing Fortuna Boulevard shoulder while implementing traffic control measures. The access location is located on City property and will require laying back the bank. Equipment and material staging will be necessary in the clearing adjacent to the access location and may be available on private property, south of the adjacent pump station.

Site access and staging areas will need to be identified and secured with the City and private land owners (APN 202-021-016 and 202-021-004). The final construction plans delineate the limits of temporary disturbance, staging areas and trees necessary from removal to accommodate construction and the placement of the temporary stream bypass.

The temporary stream bypass will likely include the placement of temporary cofferdams and fishscreens upstream of the existing inlet apron and downstream of the proposed chute with a gravity diversion pipe that will convey flow through the construction area, discharging downstream of the project area. Fish removal will be required as part of the stream bypass implementation and isolation of the work area.

Vegetation will be cleared as needed to accommodate construction components. Native trees including pacific willow, red alder and cottonwood will be planted to replace removed trees and provide long-term canopy. Native shrubs including twinberry and salmonberry will be planted for understory replacement. All disturbed areas will be treated with biodegradable coir fabric and native grass and straw mulch for erosion control.

Existing riprap at the outlet of the culvert may be re-purposed for incorporation into the engineered streambed material gradation or bankline rock. Native streambed material may be re-used for placement in the pool. Native soils salvaged from the project can be used for backfill where the construction access ramp will be excavated or hauled off site. Removed concrete and excess excavated native material will be hauled off-site. Concrete required for the proposed culvert notch and angled baffles would be pumped from the roadway shoulder or staging area and would require multiple pours.

Traffic control may be required for the eastern-most (north-bound) and western-most (south-bound) travel lanes and bike lanes. Two travel lanes are to be maintained without traffic delays. Traffic control will be on an interim and as-needed basis, not continuously required for the full duration of construction. Traffic control efforts are to include notification of adjacent property owners, temporary signage and traffic control devices installed in accordance to the Caltrans Manual on Uniform Traffic Control Devices (MUTCD). The overall construction duration for this project is anticipated to be 60-90 days.

The existing topographic survey map developed by Gutierrez Land Surveying (GLS) identifies existing utilities. These utilities are not anticipated to interfere with project implementation nor require relocation. All known utilities are either overhead or above the culvert soffit elevation.

In an effort to avoid vectors for invasive species, personal field gear and heavy equipment working in the stream is to be inspected by a qualified biologist prior to entry to the project site. In the event that a potential vector is present, field gear and
heavy equipment is to be properly decontaminated in accordance with CDFW protocols before entering the project site. CDFW approved protocols for decontamination are presented in Attachment 7 of the supplemental information.

3. **Project Team Qualifications and Experience**

GHD Inc.

Our firm is dedicated to responsiveness, which means that we leverage both GHD’s size and intimate regional identity to serve all clients. Additionally, GHD maintains strong working relationships with many regulatory agencies. In fact, our infrastructure work has always focused on efficient management of projects through the open communication amongst all stakeholders and entities involved in any project. We obtain stakeholder buy-in early in project planning and we develop the most direct path to project completion. The quality of our work has a direct bearing on our client’s satisfaction and success, our repeat business, and our recommendations to others.

Our firm includes individuals experienced in coastal ecosystem management and restoration, hydrology, river hydraulics, hydrogeology, water quality, and landscape ecology. These professionals provide services in restoration and mitigation for habitats such as forested uplands, freshwater riparian, coastal tidal/salt marsh, and working agricultural lands, performing technical studies, project development, project design, environmental compliance, and project construction management services. Additionally, we offer experts in all phases of environmental analysis pursuant to the California Environmental Quality Act (CEQA), including preparation of the initial study/environmental checklist, preparation of environmental impact reports and statements, and the development and implementation of mitigation and environmental monitoring programs. The diversity of our staff, coupled with our broad project experience, means we can support our clients with the efficient collaboration required to execute a successful project at all levels.

GHD’s Project Team will consist of the following individuals with additional support from Michael Love & Associates (MLA):

**Brett Vivyan, PE**  
**Civil Engineer/Construction Inspector**  
Mr. Vivyan is a civil engineer and project manager with 6 years experience in civil- and environmental-related engineering projects. Mr. Vivyan has training and experience in 1- and 2-dimensional hydrodynamic modeling and analyses; hydrologic and storm water runoff analyses; fish passage design and analysis; bioengineering stream bank restoration design using 1-D and 2-D finite element modeling; fluvial geomorphology; stream function; floodplain management; and erosion and sediment control design. His professional experience involves preparation of construction plans, specifications, and cost estimates (PS&E); project permitting; CEQA documentation; property owner outreach; coordination with utility companies; and project management. Mr. Vivyan was been the lead design engineer and hydraulic modeller for the Fortuna Boulevard’s Strongs Creek Culvert Replacement Project.
Jeremy Svehla, PE  
**Construction Manager**

Mr. Svehla is a professional engineer with over eleven years experience in a variety of civil-, environmental-, and agricultural-related engineering projects. Mr. Svehla has extensive training and expertise in hydraulic analyses; hydrologic and storm water runoff analyses; fish passage design and analysis, including bridge and culvert design; bioengineering stream bank restoration; fluvial geomorphology; stream function; floodplain management; wetland restoration; scour analysis; and erosion and sediment control design. His professional experience involves preparation of construction plans, specifications, and cost estimates (PS&E); project permitting; CEQA documentation; project management; construction management; and regulatory compliance for stream and tidal marsh restoration projects. As Project Manager for final design for the Fortuna Boulevard’s Strong’s Creek Culvert Replacement Project. Mr. Svehla has substantial local knowledge of stream restoration. These projects have involved an array of project stakeholders, including municipalities, regulatory resource agencies, non-profit watershed organizations, tribes, resource conservation districts, and special/landowner associations.

Susan O’Gorman, PE  
**Structural Engineer/Construction Inspector**

Ms. O’Gorman is a registered civil engineer and has over 10 years experience in civil and structural engineering, performing structural calculations for several fish passage projects, residential and commercial projects using steel, concrete, and wood, as well as working on various civil projects, including bridge designs, water, sewer, and site development. She is well experienced in AutoCAD and has completed the drafting on many of the structural projects for which she has worked. Ms. O’Gorman has also assisted on many construction projects within the last three years, which include the Arcata/Eureka Airport Bluff Stabilization Project and the Willits Railroad Avenue Bridge Replacement Project.

Genevieve Rozhon  
**Biologist**

Ms. Rozhon has nearly six years of extensive experience surveying for western avian species, entering and analyzing data in ArcGIS and other GIS software packages, and navigating with GPS, map, and compass in rugged terrain. This experience involves a thorough knowledge concerning the appropriate field techniques for sampling avian populations, an understanding of animal behavior and its application to wildlife management plans, and the skills to identify western U.S. birds to the species level by morphology, plumage, and certain calls. Ms. Rozhon has almost a decade of field experience on bird sanctuaries, bird observatories, and on private land surveying birds with binoculars and spotting scopes, entering data, orienteering, mist-netting, and interacting with private landowners and stakeholders, especially in the context of public outreach meetings.
Steve Allen, PE  
**Senior Construction Advisor**

Mr. Allen has extensive training and experience in restoration and fish passage projects; hydrology; hydraulics; fluvial geomorphology; floodplain design and restoration of stream function; fish passage assessment and design of various types of passage facilities; channel and tidal estuary restoration; bio-engineering; stream crossings; stormwater management; grading plans; erosion and sediment control design and plans; culvert and bridge design; site design; roadway design; parking lot design; trail location and design; preparation of construction plans and bid documents; project permitting; project management; construction observation; construction management; and regulatory compliance in sensitive environments in California, Oregon, Nevada, and the Commonwealth of the Northern Mariana Islands. Mr. Allen has been a guest lecturer in various engineering courses at Humboldt State University and College of the Redwoods; he’s presented different aspects of successfully completed fish passage projects at multiple annual conferences of the SRF and at For The Sake Of Salmon (FSOS) design workshops; and he has also given trainings concerning construction techniques and erosion and sediment control practices at various locations with the Regional Water Quality Control Board. He has conducted many public meetings for various project types, including project planning meetings and design charrettes. He often helps clients from project inception through completion, assisting with writing grants and obtaining project funding, as well as with design, permitting, construction, post-project monitoring, and long term maintenance.
4. **Scope of Services**

**Project Tasks**

**Task 1- Pre-Bid and Bid Period Assistance**

In this Task GHD will provide the following services:

- Compile bid package including FRGP programmatic CEQA/permit conditions and front-end contract provided by the City of Fortuna
- Print and distribute plans to contractors (copies to Builder’s exchange and the City of Fortuna)
- Issue Addenda during bidding to answer contractor questions
- Organize and conduct a pre-bid site meeting
- Organize and participate in bid opening
- Review contractor bids, summarize bid results and provide recommendation to City for award
- Work with the selected contractor on obtaining and verifying bonds and insurance
- Work with the City of Fortuna on preparing the contract documents for Fortuna City Council approval
  - Notice of Award
  - Contract
  - Notice to Proceed

**Assumptions:**

The City of Fortuna will provide the Advertisement of Bid and pay any associated fees for the placement of the bid in any newspapers or other publications.

**Task 2- Construction Management**

GHD will provide construction management assistance throughout the construction of the project. GHD’s construction manager will coordinate communication between the Contractor, the City of Fortuna and other parties throughout the course of the project. GHD will assist the City of Fortuna to respond to landowner questions/comments. Many of the items listed below under construction management will involve the input and feedback of the City of Fortuna and others.

**Pre-Construction Review of Contractor Documents**

- Review contractor’s initial construction schedule for completeness, adherence to project requirements and ease of monitoring progress
- Review contractor’s submittals
- Review cost breakdowns requested for lump sum items to establish the basis for payment calculation for those items

**Pre-Construction Meeting**

- Conduct pre-construction meeting.
- As a part of this effort, GHD will prepare and distribute the agenda, meeting minutes and a task list to project staff.
- Summarize work and expectations of City of Fortuna including contract requirements and coordination required for the completion of the work including, roles and responsibilities, schedule of work, submittals, work hours, notifications, safety, coordination with utilities, materials testing, etc.
- Attend additional meetings and coordinate as necessary with the City of Fortuna and the Contractor prior to the start of construction.

**Environmental Compliance Coordination**
- Compile permit and regulatory documents and distribute to Contractor(s)
- Respond to environmental compliance and permitting related questions during the construction period.
- Oversee permit compliance requirements and assist Contractor interpret permit conditions and construction windows.
- Conduct environmental awareness training to contractor.
- Schedule and coordinate biological clearance surveys

**Construction Period Tasks**
- Record working days, non-working days and whether related days and issue weekly statement of working days.
- Review Contractor monthly payment requests, resolve differences in payment quantities, and prepare and submit monthly payment recommendations to City of Fortuna.
- Maintain project records and files.
- Attend project meetings and prepare agenda, attend, and document meeting minutes.
- Coordinate and manage Submittal and Shop Drawings reviews – include maintaining submittal log.
- Review and respond to contractor submittals, based upon the plans and specifications.
- Monitor the Contractor’s construction schedule and progress for adherence to project schedule, coordinate with the Contractor on maintaining activities, notify Contractor and City of Fortuna of any schedule concerns, review any schedule revisions and negotiate time extensions if necessary.
- Coordinate with the Contractor so Contractor can provide City of Fortuna staff with sufficient advance notice for any construction activities which may affect or require City of Fortuna resources or coordination.
- Request For Information (RFI) & Contract Change Orders (CCO)
  - Manage Contractor correspondence including RFIs, Potential Change Orders (PCOs) and CCOs – include technical / engineering assistance and review, maintain logs, prepare and transmit responses and coordinate with other parties to develop responses.
  - Submit copy of CCO memorandum and CCOs to City of Fortuna.
- Attend on-site meetings to address construction issues, prepare agenda and meeting minutes.
- Coordinate and schedule Biologist, Construction Observer, and supporting City of Fortuna staff.

**Task 3- On-site Observation**
In this Task GHD will provide the following onsite construction observation services as described below.
- Provide on-site construction observation to document Contractor general conformance with the project plans and specifications.
- Prepare observation reports including digital photo logs of progress.
- Maintain routine communication with Construction Manager and City of Fortuna staff.
- Maintain a set of red line plans depicting changes noted by the construction observer.
- Conduct regulatory permitting monitoring and reporting
- Collect and maintain material tags and testing tags/reports as required for contract compliance.
- Review traffic control, water management and monitor Contractor activities.
- Reject or Recommend deductions for materials not meeting the project requirements.
- Conduct spot elevation checks of grading and rock installation for conformance with plans and specifications.
- Observe seed/mulch application
- Observe plant installation

Assumptions:
An assumed 24-hours per week of onsite observation for an assumed 90-calendar day construction period has been assumed as an initial allowance.

Task 4 - Biological Clearance Surveys
GHD will conduct biological clearance surveys for presence/absence of nesting birds prior to construction disturbance and provide as-needed avian surveys and biological monitoring during construction activities. An initial allowance of 40-hours has been allocated to this task.

CDFW will conduct all aquatic species relocation prior to construction.

Task 5 - Project Closeout and Post-Construction Fish Passage Monitoring
In this Task GHD will assist the City of Fortuna with the project closeout including final documentation, notice of completion and record drawings:

Final Documentation
Prepare final project closeout documents including the following:
- Complete project photo log in CD format
- Approved submittals
- Inspection/observation logs
- Notice of Termination
- Meeting notes
- Prepare Notice of Completion and other documents for approval by City of Fortuna and submit to County for Recording.
- Prepare and transmit Record Drawings (As-builts) to City of Fortuna, incorporating any noted changes, change orders or other changes deemed necessary and provide hard copies as requested and electronic CAD files in AutoCAD format.

Final FRGP Progress Report
If the project is funded through FRGP, a Final Report containing the following information will be included:
- Number of restoration projects proposed as a result of this project;
- Name(s) of restoration project(s) proposed as a result of this project;
- Description(s) of restoration project(s) proposed as a result of this project;
- Type(s) of treatments applied, indicate the FRGP Proposal Project Type(s);
- Acres of salmonid habitat protected/restored;
- Number of watersheds protected/restored; and
- Dollar value of habitat treatments applied.
Post-Construction Fish Passage Monitoring
GHD will conduct post-construction monitoring at two different flows during the fall/winter following construction to evaluate fish passage in the rock chute and modified culvert. The monitoring will occur within the design flow ranges for two lifestages of coho salmonids. Thalweg elevation, water depths, velocities, and flow will be surveyed within the rock chute and baffled sections of the culvert using standard USGS field methods. Measured flow depth and velocity values within the rock chute and baffled culvert will be compared with design values, and with CDFW and NMFS fish passage criteria for the appropriate lifestage of salmonid.

GHD will prepare a brief memorandum summarizing the methods and results of the post-construction fish passage monitoring.

5. Estimated Project Schedule

If selected, the scope of services presented above can be completed within 18 months of receiving the notice to proceed from the City. Bidding of the project would likely be completed in winter 2016/2017, construction will be completed during the in-stream work window June 15 to October 15 2017, and project closeout would be completed following the winter.

6. Compensation

The above scope will be completed on a not-to-exceed time and materials basis for a fee of $121,587 based on the task allocations presented in the table below. GHD reserves the right to move funds between tasks without exceeding the total budget.

<table>
<thead>
<tr>
<th>Task Description</th>
<th>FEE</th>
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<tbody>
<tr>
<td>Task 1 Pre Bid/Bid Period Services</td>
<td>$ 20,478</td>
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<tr>
<td>Task 2 Construction Management</td>
<td>$ 24,068</td>
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<tr>
<td>Task 3 On-Site Observation</td>
<td>$ 57,696</td>
</tr>
<tr>
<td>Task 4 Biological Clearance Surveys</td>
<td>$ 3,640</td>
</tr>
<tr>
<td>Task 5 Project Closeout</td>
<td>$ 15,705</td>
</tr>
<tr>
<td><strong>TOTAL FEE ALL TASKS</strong></td>
<td><strong>$ 121,587</strong></td>
</tr>
</tbody>
</table>

The City was awarded $121,587 for the tasks and fees described above as a part of the CDFW FRGP award relating to construction management.

7. Closing

Please contact Brett Vivyan in the GHD Eureka Office at 707.443.8326 if you have any questions or concerns regarding this proposal. We are available to answer any questions regarding our proposed services during the business week.

Thank you for the opportunity to provide GHD’s engineering expertise and services to you in association with this project. We look forward to discussing the project with you further.