AMENDMENT NO. 2

CITY OF CHICO - PROFESSIONAL SERVICES AGREEMENT

AGREEMENT DATED MARCH 11,2022

BETWEEN CITY OF CHICO

AND

NV5
Consultant

BIG CHICO CREEK RECEIVING WATER MONITORING PROGRAM - 2022
Project Title

MAJNC/11020-000-4120
Budget Account No.

THIS PROFESSIONAL SERVICES AGREEMENT AMENDMENT (Amendment) is entered into on February 08, 2024, between the City of Chico, a municipal corporation under the laws of the State of California (City), and NV5, (Consultant). On March 11, 2022, City and Consultant entered into "City of Chico - Professional Services Agreement" (Agreement). The provisions of the Agreement are hereby amended as follows:

1. Exhibit B is hereby superseded and replaced by revised Pages B1-R2 through B5-R2 attached hereto.

2. Exhibit C is hereby superseded and replaced by revised Pages C1-R2 through C4-R2 attached hereto.

3. All other provisions of the Agreement shall remain in full force and effect.

CITY:

Mark Sorensen
Mark Sorensen (Feb 8, 2024 15:01 PST)

Mark Sorensen, City Manager*

*Authorized pursuant to Section 3.08.060 of the Chico Municipal Code

CONSULTANT:

By: Shane D. Cummings

Title Director/Principal

APPROVED AS TO FORM:

John W. Lam
John W. Lam (Feb 7, 2024 12:26 PST)

John Lam, City Attorney*

APPROVED AS TO CONTENT:

Brendan Ottoboni (Feb 7, 2024 12:30 PST)

Brendan Ottoboni, Public Works Director, Engineering

*Pursuant to The Charter of the
City of Chico, Section 906(D)

REVIEWED AS TO CONTENT:

Barbara Martin

Barbara Martin, Administrative Services Director*

*Reviewed by Finance and Information Systems

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NV5
Architect/Consultant/Engineer

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AMENDED
EXHIBIT B

SCOPE OF PROFESSIONAL SERVICES - BASIC; COMPLETION SCHEDULE

Amendment No. 2 Services in bold:

Scope of Professional Services - Basic

The Consultant shall provide professional services as follows:

Task 1. Project Management – Consultant shall prepare meeting materials, facilitate, and attend ongoing bi-monthly meetings with the City via telephone, coordinate and schedule three field sampling events with Consultant's staff and the City's contractor, California State Enterprises' Aquatic Bioassessment Laboratory (ABL), and Consultant subcontracted California certified laboratories. Consultant shall prepare monthly status reports to update the City on the overall progression of data acquisition and deliverable status.

Task 2. Surface Water Monitoring and Laboratory Analyses

Surface Water Monitoring Field Work
Consultant shall provide two field sampling personnel to conduct surface water monitoring and sampling during the spring 2022 (March-May), summer 2022 (June-August), and fall 2022 (September-November) monitoring periods. Surface water monitoring shall be conducted at two locations identified in the 2020 QAPP: 1) Five-Mile Monitoring Site; and 2) Warner Street Monitoring Site. Table 1 below summarizes the monitoring activities, monitoring parameters and frequency. The tasks are divided based on those tasks performed by Consultant and those tasks to be performed by the City contractor (CSUS, ABL). Monitoring shall be conducted in accordance with the QAPP.

Consultant shall coordinate surface water monitoring events performed by CSUC ABL. Monitoring to be conducted by the CSUC ABL is summarized in Table 1 below. Reasonable efforts shall be made to conduct Consultant monitoring concurrent with the monitoring to be conducted by CSUC ABL. Sample location coordinates, photos, flow measurements, field forms, etc. shall be shared from and with the City's contractor to facilitate collection of data that meets

the data quality objectives defined in the MS4 Permit, SWAMP QAPP 2019 and the City's updated 2020 QAPP.

Collection of algal biomass samples and an estimation of the % algal cover is required during each of the three monitoring events pursuant to the MS4 permit. The SWAMP Module F Standard Operating Procedure (Ode, 2016; SOP) requires the samples to be a composite collected from eleven transects within a 300-foot reach of creek and the percent cover to be estimated based on a point count. One of these sampling events shall be performed concurrent with the bioassessment and PHAB effort performed by CSUC ABL. Consultant shall propose to have CSUC ABL perform the sample collection and estimation of percent algal biomass for the other two monitoring events.

Table 1 Summary of City of Chico Ambient Water Quality Monitoring – Big Chico Creek

Monitoring Parameter	Protocol	Frequency
Performed by NV5		
Pyrethroids (Sediment)	QAPP	Yearly in spring. Submit to subcontract laboratory.
Temperature, pH, Conductivity, Turbidity	Field Measurement, QAPP	Daytime measurement between noon - 5 pm, at the same time of day, for 2 weeks (10 days) in spring, summer, and fall. Field Measurements. Concurrent Flow Measurement.
Dissolved oxygen (DO)	Field Measurement, QAPP	One week (5 days) of evening grab samples (a minimum of 2 hours after dusk or 2 hours before sunrise) in spring, summer, and fall. Field Measurement. Concurrent Flow Measurement.
Dissolved Organic Carbon	QAPP	Once during the spring, summer and fall. Collect 1 sample concurrent with DO, Temperature, pH, Conductivity, Turbidity measurements. Submit to subcontract laboratory. Concurrent Flow Measurement.
Total Organic Carbon	QAPP	Once during the spring, summer and fall. Collect 1 sample concurrent with DO, Temperature, pH, Conductivity, Turbidity measurements. Submit to subcontract laboratory. Concurrent Flow Measurement.
Total Suspended Solids Suspended Sediment Concentration	QAPP	Once during the spring, summer and fall. Collect 1 sample concurrent with DO, Temperature, pH, Conductivity, Turbidity measurements. Submit to subcontract laboratory. Concurrent Flow Measurement.
Bacteria (E. coli)	QAPP	Once yearly in later summer or fall. Collect 1 sample weekly x 4 weeks. Calculate geometric mean. Measure e. coli. Submit to subcontract laboratory. Concurrent Flow Measurement.
Water Quality Analytes (Chloride, Hardness, Alkalinity, Organic Carbon, Silica, Sulfate), Nutrients (Ammonia-N, Nitrate + Nitrite-N, Total N, Orthophosphate-P, Total P)	QAPP	Once during the spring, summer and fall. Collect 1 sample concurrent with DO, Temperature, pH, Conductivity, Turbidity, Salinity measurements. Submit to subcontract laboratory. Concurrent Flow Measurement.
Flow	QAPP	Evaluate spring, summer, and fall for 2 weeks. (Concurrent with DO, Temperature, pH, Conductivity, Turbidity measurements).

Performed by California State University Bioassessment and Subcontract Laboratory		
Algae Sample	QAPP	3 times per year in the spring, summer, and fall. (Use 2017 SWAMP Protocol, Module F, concurrent bioassessment/PHAB assessment required 1x) Concurrent Flow Measurement. Algae sample collected on point count. Algal samples submitted to NV5 subcontract lab for Chlorophyll a/Ash Free Dry Mass analyses
PHAB assessment	SWAMP Guidelines, QAPP	Concurrent with flow measurement and nutrient sampling per 2017 SWAMP protocol.
Photo Documentation	QAPP	Concurrent with flow measurement and nutrient sampling per 2017 SWAMP protocol.
Bioassessment	SWAMP Guidelines, QAPP	Once yearly in spring or as soon as it is safe to enter the water (tentatively scheduled in summer). Concurrent PHAB/Flow assessment.

Laboratory Analysis

Consultant shall subcontract with Basic Laboratory, Inc. (A Pace Analytical Laboratory) of Chico, California and CalTest Analytical Laboratory of Napa, California to provide analytical services for surface water samples. The laboratories are each certified by the California Environmental Laboratory Accreditation Program (ELAP).

Consultant shall collect three surface water samples (two primary and one replicate) and shall submit the samples to the subcontract laboratories. Samples shall be analyzed in accordance with Table 3 Summary of Monitoring Design of the QAPP. Samples shall be collected in laboratory supplied containers listed in Table 7 of the QAPP or as specified by the analytical laboratory in accordance with the method procedures. Consultant personnel shall have received training on sample collection, field measurement procedures and documentation. Consultant is familiar with the SWAMP Standard Operating Procedures referenced in the QAPP.

Task 2A. Support for CSUC ABL

Consultant shall continue to coordinate with the CSUC ABL to schedule the field work for the collection of algal biomass samples, estimating percent cover and performance of the bioassessment and the physical habitat assessment (PHab). Bioassessment is tentatively scheduled in the summer of 2022 (refer to Section 2) but may be performed earlier depending on flow conditions. The MS4 permit requires bioassessment to be performed in the spring or as soon as it is safe to enter the water. PHab shall be performed during each of the monitoring events.

Task 3. Reporting

Following each monitoring event, Consultant shall prepare a technical memorandum summarizing the fall, spring, and summer monitoring activities, field measurements and laboratory results. The technical memorandum shall describe the monitoring and sampling procedures, provide tabulated summaries of the laboratory data, copies of field data sheets, laboratory reports, photographs, sampling coordinates and City contractor reports (as available), describe deviations from the QAPP, and shall provide other information deemed appropriate by Consultant's geologists and stormwater professionals. The technical memoranda shall be provided electronically four weeks following receipt of the analytical results.

An annual report shall be prepared following the fall monitoring event and shall include data

from the prior monitoring events, an annual summary of the water quality results with comparisons to prior year data, a summary of the 2019, 2020 and 2021 CSUC ABL results, and an evaluation of whether conditions within BCC are improving, declining or static. The annual report shall be submitted by January 25, 2023.

Laboratory and field data from each monitoring event shall provided to the City in a format that is compatible with the California Environmental Data Exchange Network (CEDEN). Consultant shall upload the data to CEDEN and provide confirmation of receipt from the State Water Resources Control Board.

Monthly status reports shall be submitted to the City via email. The status reports shall provide information regarding scheduling and coordination activities, copies of recently collected data and observations, budget updates, and other information deemed appropriate at the time.

Completion Schedule

The Consultant shall complete all services outlined herein in compliance with the City's overall project end date of January 31, ~~2023~~ ~~2024~~ **2025**. The following deliverable schedule shall be adhered to:

2022 Submittals	*Due Dates*
Monitoring Results – Spring	July 25, 2022
Summary of Spring Sampling	July 25, 2022
Photos of Monitoring Sites	July 25, 2022
Monitoring Results - Summer	November 11, 2022
Summary of Summer Sampling	November 11, 2022
Monitoring Results - Fall	December 22, 2022
Summary of Fall Sampling	December 22. 2022
Data Uploaded to CEDEN	October 28, 2022
Annual Monitoring Report	January 25, 2023

Amendment No. 1

2023 Submittals	*Due Dates*
Monitoring Results – Spring	July 25, 2023
Summary of Spring Sampling	July 25, 2023
Photos of Monitoring Sites	July 25, 2023
Monitoring Results - Summer	November 11, 2023
Summary of Summer Sampling	November 11, 2023
Monitoring Results - Fall	December 22, 2023
Summary of Fall Sampling	December 22. 2023
Data Uploaded to CEDEN	October 28, 2023
Annual Monitoring Report	January 25, 2024

Amendment No. 2

2024 Submittals	*Due Dates*
Monitoring Results – Spring	**July 25, 2024**
Summary of Spring Sampling	**July 25, 2024**
Photos of Monitoring Sites	**July 25, 2024**
Monitoring Results - Summer	**November 11, 2024**
Summary of Summer Sampling	**November 11, 2024**
Monitoring Results - Fall	**December 22, 2024**
Summary of Fall Sampling	**December 22. 2024**
Data Uploaded to CEDEN	**October 28, 2024**
Annual Monitoring Report	**January 25, 2025**

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EXHIBIT C

COMPENSATION

Amended No. 2 services in bold:

Compensation for the services shall be in accordance with the following schedule of hourly rates attached on page C-2. Total maximum compensation for the services outlined herein shall not exceed ~~$82,522.72~~ ~~$170,366.50~~ **$265,061.62.**

Compensation shall be based upon actual invoices received.

Personnel	Rate/Hour	Task 1		Task 2		Task 2A (Optional)		Task 3		Totals
		Project Management		Monitoring		Taxonomic Identification		Reporting		
		# of Hrs.	Cost	# of Hrs.	Cost	# of Hrs.	Cost	# of Hrs.	Cost	
PCI/Associate Eng/Geo	$185.00	2.0	$370.00	0	0.00	0	0.00	6.0	$1,110.00	$1,480.00
Senior Eng/Geo	$175.00	24.0	4,200.00	8.0	$1,400.00	4.0	$700.00	16.0	2,800.00	9,100.00
Project Eng/Geo-II	$170.00	8.0	1,360.00	20.0	3,400.00	0	0.00	40.0	6,800.00	11,560.00
Staff Eng/Geo-II	$148.00	0	0.00	20.0	2,960.00	8.0	1,184.00	30.0	4,440.00	8,584.00
Assistant Eng/Geo	$120.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
Eng Tech III	$110.00	0	0.00	280.0	30,800.00	0	0.00	0	0.00	30,800.00
Tech Editor	$90.00	0	0.00	1.0	90.00	0	0.00	8.0	720.00	810.00
Auto CAD	$105.00	0	0.00	0	0.00	0	0.00	6.0	630.00	630.00
Proj Assistant	$85.00	1.0	85.00	8.0	680.00	1.0	85.00	0	0.00	840.00
Totals		35.0	$6,015.00	337.0	$39,330.00	13.0	$1,969.00	106.0	$16,500.00	$63,814.00

Reimbursables	Mark UP	Unit	Rate	No.	Totals
Mileage	1.00	Mile	0.65	960	$624.00
Scoops	1.00	Each	12.00	6.0	72.00
Field Supplies	1.00	Day	20.00	30.0	600.00
Report Prep & Postage	1.00	Each	5.00	0.0	0.00
Multiparameter Water Quality Meter	1.00	Week	130.00	6.0	780.00
Turbidity Meter	1.00	Week	55.00	6.0	330.00
40-micron water filters	1.00	Each	15.00	3.0	45.00
Pressure bailer	1.00	Each	12.00	3.0	36.00
HACH (OH) MF Pro Flo Meter w/4' Wading Rod	1.20	Event	632.00	3.0	2,275.20
Shipping Equipment	1.20	Each	180.00	3.0	648.00
Lab Sample Shipping	1.20	Each	100	7.0	840.00
Reimburseables Subtotal					$6,250.00
Outside Subcontractors					
Lab Testing -CalTest & Basic Labs	1.20	Is	10,382.10	1.0	$12,458.52
Outside Subcontractor Subtotal					12,458.52
Grand Total					$82,522.72

Amendment No. 1 Rates and Costs

Personnel	Rate/Hour	Task 1		Task 2		Task 2A (Optional)		Task 3		Totals
		Project Management		Monitoring		Taxonomic Identification		Reporting		
		# of Hrs.	Cost	# of Hrs.	Cost	# of Hrs.	Cost	# of Hrs.	Cost	
PCI/Associate Eng/Geo	$203.00	2.0	$406.00	0	0.00	0	0.00	6.0	$1,218.00	$1,624.00
Senior Eng/Geo-I	$187.00	24.0	4,488.00	8.0	$1,496.00	4.0	$748.00	16.0	2,992.00	9,724.00
Project Eng/Geo-II	$182.00	8.0	1,456.00	20.0	3,640.00	0	0.00	40.0	7,280.00	12,376.00
Staff Eng/Geo-II	$159.00	0	0.00	20.0	3,180.00	8.0	1,272.00	30.0	4,770.00	9,222.00
Assistant Eng/Geo	$129.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
Eng Tech III	$110.00	0	0.00	280.0	30,800.00	0	0.00	0	0.00	30,800.00
Tech Editor	$96.00	0	0.00	1.0	96.00	0	0.00	8.0	768.00	864.00
Auto CAD	$112.00	0	0.00	0	0.00	0	0.00	6.0	672.00	672.00
Proj Assistant	$91.00	1.0	91.00	8.0	728.00	1.0	91.00	0	0.00	910.00
Totals		35.0	$6,441.00	337.0	$39,940.00	13.0	$2,111.00	106.0	$17,700.00	$66,192.00

Reimbursables	Mark UP	Unit	Rate	No.	Totals
Mileage	1.00	Mile	0.71	960	$681.60
Scoops	1.00	Each	12.00	6.0	72.00
Field Supplies	1.00	Day	20.00	30.0	600.00
Report Prep & Postage	1.00	Each	15.00	0.0	0.00
Multiparameter Water Quality Meter	1.00	Week	130.00	6.0	780.00
Turbidity Meter	1.00	Week	55.00	6.0	330.00
40-micron water filters	1.00	Each	15.00	3.0	45.00
Pressure bailer	1.00	Each	12.00	3.0	36.00
HACH (OH) MF Pro Flo Meter w/4' Wading Rod (Pinet Env)	1.20	Event	632.00	3.0	2,275.20
Shipping Equipment	1.20	Each	300.00	3.0	1,080.00
Lab Sample Shipping	1.20	Each	300.00	6.0	2,160.00
Reimburseables Subtotal					$8,059.80
Outside Subcontractors					
Lab Testing -CalTest & Basic Labs	1.20	Is	11,326.65	1.0	$13,591.98
Outside Subcontractor Subtotal					13,591.98
Grand Total					$87,843.78

Amendment No. 2 Rates and Costs

Personnel	**Rate/Hour**	**Task 1**		**Task 2**		**Task 2A (Optional)**		**Task 3**		**Totals**
		Project Management		**Monitoring**		**Taxonomic Identification**		**Reporting**		
		# of Hrs.	**Cost**	**# of Hrs.**	**Cost**	**# of Hrs.**	**Cost**	**# of Hrs.**	**Cost**	
Associate Eng/Geo	**$211.00**	**2.0**	**$422.00**	**0**	**0.00**	**0**	**0.00**	**6.0**	**$1,266.00**	**$1,688.00**
Senior Eng/Geo-I	**$194.00**	**24.0**	**$4,656.00**	**8.0**	**$1,552.00**	**4.0**	**$776.00**	**16.0**	**$3,104.00**	**$10,088.00**
Project Eng/Geo-I	**$184.00**	**8.0**	**$1,472.00**	**20.0**	**$2,980.00**	**0**	**0.00**	**40.0**	**$7,360.00**	**$12,512.00**
Staff Eng/Geo-I	**$149.00**	**0**	**0.00**	**20.0**	**3,180.00**	**8.0**	**1,192.00**	**30.0**	**4,470.00**	**$8,642.00**
Assistant Eng/Geo	**$134.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0.00**
Eng Tech II	**$120.00**	**0**	**0.00**	**280.0**	**33,600.00**	**0**	**0.00**	**0**	**0.00**	**33,600.00**
Tech Editor	**$96.00**	**0**	**0.00**	**1.0**	**96.00**	**0**	**0.00**	**8.0**	**768.00**	**864.00**
Auto CAD	**$116.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**6.0**	**696.00**	**696.00**
Proj Assistant	**$91.00**	**1.0**	**91.00**	**8.0**	**728.00**	**1.0**	**91.00**	**0**	**0.00**	**910.00**
Totals		**35.0**	**$6,641.00**	**337.0**	**$42,636.00**	**13.0**	**$2,059.00**	**106.0**	**$17,664.00**	**$69,000.00**

Reimbursables	**Mark UP**	**Unit**	**Rate**	**No.**	**Totals**
Mileage	**1.00**	**Mile**	**0.80**	**960**	**$768.00**
Scoops	**1.00**	**Each**	**15.00**	**6.0**	**$90.00**
Field Supplies	**1.00**	**Day**	**20.00**	**30.0**	**$600.00**
Report Prep & Postage	**1.00**	**Each**	**15.00**	**0.0**	**0.00**
Multiparameter Water Quality Meter	**1.00**	**Week**	**130.00**	**6.0**	**$780.00**

Reimbursables	Mark UP	Unit	Rate	No.	Totals
Turbidity Meter	1.00	Week	75.00	6.0	$450.00
40-micron water filters	1.00	Each	20.00	3.0	$60.00
Pressure bailer	1.00	Each	15.00	3.0	$45.00
HACH (OH) MF Pro Flo Meter w/4' Wading Rod	1.20	Event	1150.00	3.0	$4,140.00
Shipping Equipment	1.20	Each	350.00	3.0	$1,260.00
Lab Sample Shipping	1.20	Each	250.00	6.0	$1,800.00
Reimburseables Subtotal					$9,993.00
Outside Subcontractors					
Lab Testing -CalTest & Basic Labs	1.20	Is	13085.10	1.0	$15,702.12
Outside Subcontractor Subtotal					$15,702.12
Amendment No. 2 Grand Total					$94,695.12