

AMENDMENT NO. 3

CITY OF CHICO - PROFESSIONAL SERVICES AGREEMENT

CAROLLO ENGINEERS, INC.
Architect/Consultant/Engineer

GROUNDWATER MONITORING AND REPORTING AT WPCP (2021-2023)
Project Title

850-670-5400
Budget Account Number

AMENDED
EXHIBIT B

SCOPE OF PROFESSIONAL SERVICES - BASIC; COMPLETION SCHEDULE

Scope of Professional Services - Basic

Carollo shall provide the following services:

Phase 1 – WDR Monitoring and Reporting 2021-2023

Carollo shall manage the efforts of hired subconsultant (Condor Earth) in the completion of groundwater monitoring and analysis. This includes semiannual field sampling efforts, semiannual laboratory analyses, and semiannual reporting. This includes the costs for semiannual groundwater monitoring for four (4) events (3rd quarter 2021, 1st quarter 2022, 3rd quarter 2022, and 1st quarter 2023).

Task 1: Semiannual Monitoring Field Work

Groundwater monitoring is required by Waste Discharge Requirements (WDR) Order R5-2016-0023 and Monitoring and Reporting Program (MRP). Subconsultant will schedule field work with the laboratory and WPCP personnel at least 2 weeks in advance. The subconsultant's trained environmental technician will conduct the groundwater monitoring in strict accordance with the Groundwater Sampling and Analysis Plan (SAP) following the US EPA guidance for groundwater monitoring.

Each groundwater monitoring event is anticipated to take 2 days to complete. Groundwater will be purged using dedicated submersible pumps. The tubing from each monitoring well will be

adapted to a flow-through chamber to measure water quality field parameters without atmospheric interference. A YSI 556 multi-meter or equivalent instrument will be used to measure the field parameters (temperature, pH, and electrical conductivity at minimum). Field parameters will be measured at the start of purging and at each casing volume purged until approximately 3 casing volumes of water are purged and field parameters have stabilized. Before sampling, depth-to-water measurements will be made to assure groundwater has recovered to 80 percent of its pre-purge water level prior to sampling. The flow-through chamber will be removed and samples will be collected directly from the dedicated pump tubing into laboratory supplied containers, immediately labeled, and placed in a large container with ice to cool the sample to the required preservation temperature. Samples for dissolved constituents will be field-filtered with disposable 0.45 micron filters directly into preserved containers.

In accordance with the SAP and EPA protocols, one quality control sample will be collected per event. Laboratory samples will be transported under chain-of-custody procedures to an ELAP-certified laboratory. Dedicated submersible pumps have malfunctioned during recent monitoring events (GW-1 and GW-5) and may be reaching the end of usable life; this task also includes costs to repair or replace four pumps during the contract term.

Task 2: Semiannual Laboratory Analyses

BC Laboratories (BC Labs), a company with ELAP certification, will perform the majority of the analytical work. BC Labs has an office in Sacramento and has offered to provide free courier services. Basic Laboratory in Chico will analyze the short hold-time bacteria samples. A list of the analytical constituents required by the permit is included below. Note that all samples for metals and minerals will be filtered and analyzed as dissolved constituents.

Elevated levels of coliform have previously been reported in samples collected from some wells; therefore, samples from two wells per event (eight samples total) will be analyzed for E. coli to evaluate for the presence of pathogens.

Table 1: Required Laboratory Analytical Constituents

Constituent	
Electrical Conductivity	Magnesium
Total Dissolved Solids	Potassium
Fixed Dissolved Solids	Sodium
Total Coliform Organisms	Chloride
Nitrate as Nitrogen	Phosphorus
Total Kjeldahl Nitrogen	Total Alkalinity
Ammonia as NH ₄	Bicarbonate
Total Nitrogen (Calculation)	Carbonate
Boron	Hydroxide
Calcium	Hardness (Calculation)
Iron	Cation/Anion Balance (Calculation)
Manganese	

Task 3: Semiannual Reporting

The Self-Monitoring Reports (SMRs) will be submitted using the State Water Board’s California Integrated Water Quality System (CIWQS) Program website. Each report will include the discharger information, project description, environmental setting, a summary of the groundwater quality, and copies of field forms and laboratory certificates. The reports will contain sufficient detail to verify compliance with the WDR, MRP, and Standard Provisions and Reporting Requirements.

The subconsultant will maintain a groundwater quality database to track the data and perform quality checks on the data. In addition, the groundwater gradient will be calculated, and contour maps created. The monitoring reports will describe the monitoring event, sampling protocols, any deviations from the standard procedures, and include a brief summary of the water quality.

The subconsultant will provide the groundwater monitoring reports to Carollo and the City for review and final submittal with the SMRs.

Phase 1 Deliverables: Groundwater Monitoring Reports

- 3rd Quarter 2021 Reporting (second semiannual 2021): Due November 1, 2021.
- 1st Quarter 2022 Reporting (first semiannual 2022): Due May 1, 2022.
- 3rd Quarter 2022 Reporting (second semiannual 2022): Due November 1, 2022.
- 1st Quarter 2023 Reporting (first semiannual 2023): Due May 1, 2023.

Phase 1 Assumption: The current permit Order R5-2016-0023 expired on May 31, 2021. This phase assumes semiannual monitoring frequency. If the renewed permit order adjusts this monitoring frequency, a scope amendment will be prepared as necessary.

Phase 2 (Optional) –Well Disinfections

As an optional task, Carollo shall manage the efforts of hired subconsultant (Condor Earth) in the completion of monitoring well disinfection of up to two (2) wells during the contract period if proposed confirmation pathogen sampling for E. coli indicates that it is warranted.

The procedure consists of treating each monitoring well casing and filter pack with a measured dose of typical household chlorine bleach based on the volume of groundwater contained in the well casing and filter pack. The chlorine solution is introduced and circulated within the well casing and filter pack to thoroughly mix and allowed to rest in the monitoring well for a minimum of four to twenty-four hours. Following the rest period, the well is recirculated and pumped until the residual chlorine levels are non-detect. It is anticipated that disinfection of two wells can be completed in two consecutive field days.

Phase 3 (Optional) – Groundwater Quality Characterization Support

This optional task includes budget for hired subconsultant's (Condor Earth) Senior Hydrogeologist to provide technical support for evaluation of the groundwater data at the end of the Permit term, if requested by the City.

AMENDMENT NO. 1 – Below:

Phase 4 – WDR Monitoring and Reporting 2023

Carollo shall manage the efforts of hired subconsultant (Condor Earth) in the completion of an additional one (1) year of groundwater monitoring and analysis beginning first quarter 2023. This will include quarterly field sampling efforts, quarterly and annual laboratory analyses, and quarterly reporting in accordance with the requirements of the Order.

Task 1: Quarterly Monitoring Fieldwork

Groundwater monitoring is required by Waste Discharge Requirements (WDR) Order R5-2022-0033 and Monitoring and Reporting Program (MRP). This includes four (4) quarterly groundwater monitoring events in 2023. Field work will be scheduled with the laboratory and WPCP personnel at least 2 weeks in advance. Condor's trained environmental technician will conduct the groundwater monitoring in accordance with the Groundwater Sampling and Analysis Plan (SAP) following the US EPA guidance for groundwater monitoring.

Each groundwater monitoring event is anticipated to take 2 days to complete. Groundwater will be purged using dedicated submersible pumps. The tubing from each monitoring well will be adapted to a flow-through chamber to measure water quality field parameters without atmospheric interference. A YSI 556 multi-meter or equivalent instrument will be used to measure the field parameters (temperature, pH, and electrical conductivity at minimum). Field parameters will be measured at the start of purging and at each casing volume purged until approximately 3 casing volumes of water are purged and field parameters have stabilized.

Before sampling, depth-to-water measurements will be made to assure groundwater has recovered to 80 percent of its pre-purge water level prior to sampling. The flow-through chamber

will be removed and samples will be collected directly from the dedicated pump tubing into laboratory supplied containers, immediately labeled, and placed in a large container with ice to cool the sample to the required preservation temperature. Samples for dissolved constituents will be field-filtered with disposable 0.45 micron filters directly into preserved containers.

In accordance with the SAP and EPA protocols, one quality control sample will be collected per event. Laboratory samples will be transported under chain-of-custody procedures to an ELAP-certified laboratory.

Task 2: Quarterly and Annual Laboratory Analyses

BSK Associates (BSK), an ELAP certified laboratory, will perform the analytical work. BSK has an office in Rancho Cordova. Pace Analytical (formerly Basic Labs) in Chico will analyze the short hold-time bacteria samples. A list of the analytical constituents required by the permit is included below. Note that samples for metals and minerals will be filtered and will be analyzed as dissolved constituents.

Table 1: Required Laboratory Analytical Constituents

Constituent	
Electrical Conductivity	Alkalinity as CaCO ₃ (including Alkalinity Series)
Total Dissolved Solids	Chloroform
Fixed Dissolved Solids	Bromoform
Total Coliform Organisms	Chlorodibromomethane
Total Nitrogen	Dichlorobromomethane
Nitrate as Nitrogen	Boron*
Total Kjeldahl Nitrogen	Calcium*
Ammonia as NH ₄	Magnesium*
Total Organic Carbon	Potassium*
Iron (Dissolved)	Sodium*
Manganese (Dissolved)	Chloride*
Arsenic (Dissolved)	Phosphorus*
Hardness as CaCO ₃	Anion/Cation Balance*

*Constituent included for annual analysis only.

Task 3: Quarterly Reporting

The quarterly reports are due May 1, August 1, November 1, and February 1 of the following year. The Self-Monitoring Reports (SMRs) shall be submitted using the State Water Board's California Integrated Water Quality System (CIWQS) Program website. Each report will include the discharger information, project description, environmental setting, a summary of the groundwater quality, and copies of field forms and laboratory certificates. The reports will contain sufficient detail to verify compliance with the WDR, MRP, and Standard Provisions and Reporting Requirements. Condor will maintain a groundwater quality database to track the data and perform quality checks on the data. In addition, the groundwater gradient will be calculated and contour maps created. The monitoring reports will describe the monitoring event, sampling

protocols, any deviations from the standard procedures, and include a brief summary of the water quality. Condor will provide the groundwater monitoring reports to Carollo and the City for review and final submittal with the SMRs.

Phase 4 Deliverables:

Groundwater Monitoring Reports | Due Date – as identified in Table E-12 of the MRP

AMENDMENT NO. 2 - Below

Phase 5- Well Disinfections

Carollo will manage the efforts of hired subconsultant (Condor Earth) in the completion of monitoring well disinfection of up to three (3) wells.

The procedure consists of treating each monitoring well casing and filter pack with a measured dose of typical household chlorine bleach based on the volume of groundwater contained in the well casing and filter pack. The chlorine solution is introduced and circulated within the well casing and filter pack to thoroughly mix and allowed to rest in the monitoring well for a minimum of four to twenty-four hours. Following the rest period, the well is recirculated and pumped until the residual chlorine levels are non-detect. Condor will also disinfect or replace the existing dedicated purging/sampling equipment.

It is anticipated that disinfection of the three (3) additional wells can be completed in two consecutive field days.

Scheduling of additional well disinfection will be coordinated between the City and Carollo.

Phase 5 Assumptions:

- *Well disinfection of new wells to be designed and installed under separate contract are excluded from this scope of services.*
- *CONSULTANT shall be entitled to use and reasonably rely upon all such information and services provided by City or others in performing CONSULTANT'S services hereunder.*
- *The services to be performed by CONSULTANT are intended solely for the benefit of the City. No person or entity not a signatory to the Agreement shall be entitled to rely on CONSULTANT'S performance of its services hereunder, and no right to assert a claim against CONSULTANT by assignment of indemnity rights or otherwise shall accrue to a third party as a result of the Agreement or the performance of CONSULTANT'S services hereunder.*

AMENDMENT NO. 3 IN BOLD BELOW:

Phase 6 - WDR Monitoring and Reporting 2024

Carollo shall manage the efforts of hired subconsultant (Condor Earth) in the completion of an additional one (1) year of groundwater monitoring and analysis beginning first quarter 2024. This will include quarterly field sampling efforts, quarterly and annual laboratory analyses, and quarterly reporting in accordance with the requirements of the Order.

Task 1 – Quarterly Monitoring Fieldwork

Groundwater monitoring is required by Waste Discharge Requirements (WDR) Order R5-2022-0033 and Monitoring and Reporting Program (MRP). This includes four (4) quarterly groundwater monitoring events in 2024. Field work will be scheduled with the laboratory and WPCP personnel at least 2 weeks in advance. Condor's trained environmental technician will conduct groundwater monitoring in accordance with the Groundwater Sampling and Analysis Plan (SAP) following the US EPA guidance for groundwater monitoring.

Each groundwater monitoring event is anticipated to take 2 days to complete. Groundwater will be purged using dedicated submersible pumps or Waterra systems with dedicated foot valves and tubing. A YSI 556 multi-meter or equivalent instrument will be used to measure the field parameters (temperature, pH, and electrical conductivity at minimum). Field parameters will be measured at the start of purging and at each casing volume purged until approximately 3 casing volumes of water are purged and field parameters have stabilized. Before sampling, depth-to-water measurements will be made to confirm groundwater has recovered to 80 percent of its pre-purge water level prior to sampling. Samples will be collected directly from the pump tubing into laboratory supplied containers, immediately labeled, and placed in a large container with ice to cool the sample to the required preservation temperature. Samples for dissolved constituents will be field-filtered with disposable 0.45 micron filters directly into preserved containers. In accordance with the SAP and EPA protocols, one quality control sample will be collected per event. Laboratory samples will be transported under chain-of-custody procedures to an ELAP-certified laboratory.

This task also includes replacement of dedicated purging equipment (Waterra foot valves and tubing) at select wells if warranted.

Task 2: Quarterly and Annual Laboratory Analyses

BSK Associates (BSK), an ELAP certified laboratory, will perform the analytical work. BSK has an office in Rancho Cordova. Pace Analytical (formerly Basic Labs) in Redding

will analyze the short hold-time bacteria samples. A list of the analytical constituents required by the permit is included below. Note that samples for metals and minerals will be filtered and will be analyzed as dissolved constituents.

Table 1: Required Laboratory Analytical Constituents

Constituent	
Electrical Conductivity	Alkalinity as CaCO ₃ (including Alkalinity Series)
Total Dissolved Solids	Chloroform
Fixed Dissolved Solids	Bromoform
Total Coliform Organisms**	Chlorodibromomethane
Total Nitrogen	Dichlorobromomethane
Nitrate as Nitrogen	Boron*
Total Kjeldahl Nitrogen	Calcium*
Ammonia as NH ₄	Magnesium*
Total Organic Carbon	Potassium*
Iron (Dissolved)	Sodium*
Manganese (Dissolved)	Chloride*
Arsenic (Dissolved)	Phosphorus*
Hardness as CaCO ₃	Anion/Cation Balance*

*Constituent included for annual analysis only.

**Analyzed by Pace Analytical, paid directly by Chico; not included in overall cost.

Task 3: Quarterly Reporting

The quarterly reports are due May 1, August 1, November 1, and February 1 of the following year. The Self-Monitoring Reports (SMRs) shall be submitted using the State Water Board’s California Integrated Water Quality System (CIWQS) Program website. Each report will include the discharger information, project description, environmental setting, a summary of the groundwater quality, and copies of field forms and laboratory certificates. The reports will contain sufficient detail to verify compliance with the WDR, MRP, and Standard Provisions and Reporting Requirements. Condor will maintain a groundwater quality database to track the data and perform quality checks on the data. In addition, the groundwater gradient will be calculated and contour maps created. The monitoring reports will describe the monitoring event, sampling protocols, any deviations from the standard procedures, and include a brief summary of the water quality. Analyzed constituents will be plotted graphically and evaluated for trends. Condor will provide the groundwater monitoring reports to Carollo and the City for review and final submittal with the SMRs.

Phase 6 Deliverable:

Groundwater Monitoring Reports | Due Date – as identified in Table E-12 of the MRP.

Phase 6 Assumptions:

- **Groundwater monitoring of new wells to be designed and installed under separate contract are excluded from this scope of services.**
- **Carollo shall be entitled to use and reasonably rely upon all such information and services provided by City or others in performing Carollo's services hereunder.**
- **The services to be performed by Carollo are intended solely for the benefit of City. No person or entity not a signatory to the Agreement shall be entitled to rely on Carollo's performance of its services hereunder, and no right to assert a claim against Carollo by assignment of indemnity rights or otherwise shall accrue to a third party as a result of the Agreement or the performance of Carollo's services hereunder.**

Services to be Provided by City

Access to the Water Pollution Control Plant and staff from 7:00 a.m. to 3:30 p.m. Monday through Friday, excluding City holidays.

Completion Schedule

The Consultant shall complete all services outlined herein by ~~May 31, 2023~~ ~~February 28, 2024~~
February 28, 2025.

AMENDMENT NO. 3

CITY OF CHICO - PROFESSIONAL SERVICES AGREEMENT

CAROLLO ENGINEERS, INC.
Architect/Consultant/Engineer

GROUNDWATER MONITORING AND REPORTING AT WPCP (2021-2023)
Project Title

850-670-5400
Budget Account Number

AMENDED
EXHIBIT C

COMPENSATION

Compensation for services outlined in Phase 1, Tasks 1 through 3, shall not exceed \$42,000. Compensation shall be based upon actual invoices received and shall be paid according to the completion of each event within the task as follows:

PHASE 1	TOTAL
Task 1 – Semiannual Monitoring Field Work	\$14,900
Task 2 – Semiannual Laboratory Analyses	\$9,400
Task 3 – Semiannual Reporting	\$17,900
TOTAL	\$42,200

Phase 2 and Phase 3 are optional. Compensation shall not exceed amounts listed below.

PHASE 2 – Well Disinfections	\$3,900
PHASE 3 – Groundwater Quality Characterization Report	\$2,500

AMENDMENT NO. 1:

Compensation for services outlined in Phase 4 – WDR Monitoring and Reporting 2023 shall not exceed \$57,800. Compensation shall be based upon actual invoices received and shall be paid according to the completion of each event within Tasks 1, 2 and 3 as specified in Exhibit B.

AMENDMENT NO. 2

Compensation for services outlined in Phase 5 – WDR Monitoring and Reporting 2023 shall not exceed \$7,000. Compensation shall be based upon actual invoices received and shall be paid according to the completion of each event within Task 5 ~~Tasks 1, 2 and 3~~ as specified in Exhibit B.

AMENDMENT NO. 3 IN BOLD BELOW:

Compensation for services outlined in Phase 6 - WDR Monitoring and Reporting 2024 shall not exceed \$66,200. Compensation shall be based upon actual invoices received and shall be paid according to the completion of each event within Phase 6 and as specified in Exhibit B.

AMENDMENT NO. 3

CITY OF CHICO - PROFESSIONAL SERVICES AGREEMENT

AGREEMENT DATED OCTOBER 20, 2021

BETWEEN CITY OF CHICO

AND

CAROLLO ENGINEERS, INC.
Architect/Consultant/Engineer

GROUNDWATER MONITORING AND REPORTING AT WPCP (2021-2023)
Project Title

850-670-5400
Budget Account Number

THIS PROFESSIONAL SERVICES AGREEMENT AMENDMENT (Amendment) is entered into on February 1, 2024, between the City of Chico, a municipal corporation under the laws of the State of California (City), and Carollo Engineers, Inc., a Delaware corporation, (Consultant). On October 20, 2021, City and Consultant entered into City of Chico - Professional Services Agreement” (Agreement). On January 1, 2023, The City and Consultant entered into Amendment No. 1 to the Agreement. On August 28, 2023, The City and Consultant entered into Amendment No. 2 to the Agreement. The provisions of the Agreement are hereby amended as follows:

1. Exhibit B is hereby superseded and replaced by revised Pages B1-R3 through B9-R3 attached hereto.
2. Exhibit C is hereby superseded and replaced by revised Page C1-R3 through C2-R3 attached hereto.
3. All other provisions of the Agreement shall remain in full force and effect.

CITY:

Mark Sorensen
Mark Sorensen (Feb 12, 2024 13:06 PST)

Mark Sorensen, City Manager*

CONSULTANT:

Chris T. Cleveland

By: Chris Cleveland, Senior President

Beverly Hann

Beverly Hann, Vice President

* Authorized pursuant to Section 3.08.060
of the Chico Municipal Code

APPROVED AS TO FORM:

John W. Lam

John W. Lam (Feb 2, 2024 09:40 PST)

John W. Lam, City Attorney*

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

APPROVED AS TO CONTENT:

Erik Gustafson

Erik Gustafson, Public Works Director
Operations & Maintenance

REVIEWED AS TO CONTENT:

Barbara Martin

Barbara Martin, Administrative Services Director*

*Reviewed by Finance and Information Systems



January 16, 2024

Mr. James Carr
Wastewater Treatment Manager
Water Pollution Control Plant
4827 Chico River Road
Chico, CA 95928

Subject: Amendment No. 3 to Professional Engineering Services for Groundwater Monitoring and Reporting Contract

Dear James:

Carollo Engineers, Inc. (herein after referred to as Carollo or CONSULTANT) is pleased to provide the City of Chico (City) with this amendment for additional groundwater monitoring and reporting activities.

Scope of Work

Carollo will provide the following services.

Phase 6 – WDR Monitoring and Reporting 2024

Carollo will manage the efforts of hired subconsultant (Condor Earth) in the completion of an additional one (1) year of groundwater monitoring and analysis beginning first quarter 2024. This will include quarterly field sampling efforts, quarterly and annual laboratory analyses, and quarterly reporting in accordance with the requirements of the Order. Refer to the attached scope of work (Exhibit A) for additional details.

Phase 6 Deliverables:

- Groundwater Monitoring Reports | Due Date – as identified in Table E-12 of the MRP

Schedule

Completion within the schedules identified assumes receipt of Notice to Proceed by January 31, 2024.

Compensation

Carollo's compensation for the proposed services will not exceed sixty-six thousand two hundred dollars (\$66,200), as summarized below, without prior authorization from the City. These costs are developed in the attached Exhibit B, utilizing Carollo's current Fee Schedule.

Table 1 Basic Services Tasks

Description	Fee
Phase 6 – WDR Monitoring and Reporting 2024	\$66,200

Assumptions

The following assumptions were made in the preparation of this Scope of Services:

Mr. James Carr
City of Chico
January 16, 2024

Page 2

- Groundwater monitoring of new wells to be designed and installed under separate contract are excluded from this scope of services.
- CONSULTANT shall be entitled to use and reasonably rely upon all such information and services provided by City or others in performing CONSULTANT's services hereunder.
- The services to be performed by CONSULTANT are intended solely for the benefit of City. No person or entity not a signatory to the Agreement shall be entitled to rely on CONSULTANT's performance of its services hereunder, and no right to assert a claim against CONSULTANT by assignment of indemnity rights or otherwise shall accrue to a third party as a result of the Agreement or the performance of CONSULTANT's services hereunder.

Our team appreciates the opportunity to continue to serve the City with NDPES permit groundwater monitoring and reporting requirements. Please do not hesitate to contact us with any questions or concerns you may have regarding this proposal to assist your team.

Sincerely,

CAROLLO ENGINEERS, INC.

Brianna Barton

Brianna Barton, PE

Project Manager

Beverly Hann

Beverly J. Hann, PE, PMP

Principal-in-Charge

Enclosure: Exhibit A (Condor Earth Scope of Work)
Exhibit B (Labor Hour and Cost Proposal)



Exhibit A

CONDOR EARTH TECHNOLOGIES, INC.
21663 Brian Lane, P.O. Box 3905
Sonora, CA 95370
Phone 209.532.0361
Fax 209.532.0773
www.condorearth.com

Condor Project No. 7333C2

November 20, 2023

Brianna Barton, P.E.
Senior Engineer
Carollo Engineers, Inc.
2880 Gateway Oaks Drive, Suite 300
Sacramento, CA 95833

Subject: Proposal to Conduct Groundwater Monitoring and Reporting Services for the Chico Water Pollution Control Plant

Dear Ms. Barton:

Condor Earth (Condor) appreciates the opportunity to provide this Proposal to Carollo Engineers, Inc. (Carollo) to conduct groundwater monitoring and reporting services for the Chico Water Pollution Control Plant (WPCP or Site) located in Chico, California. This Proposal includes a Scope of Work, Schedule, and Estimated Costs. All work performed by Condor will be performed by or under the direction of a registered professional. The work scope and the estimated costs are provided below.

SCOPE OF WORK

PHASE 1: WDR MONITORING AND REPORTING 2024

This phase of work includes the work to monitor the groundwater, compile and review that data for quality, and report that data in accordance with the WPCP's monitoring and reporting program. This Proposal includes costs for one year of quarterly monitoring and reporting (four events).

Task 1: Quarterly Monitoring Fieldwork

Groundwater monitoring is required by Waste Discharge Requirements (WDR) Order R5-2022-0033 and Monitoring and Reporting Program (MRP). This Proposal includes costs for four quarterly groundwater monitoring events in 2023. Field work will be scheduled with the laboratory and WPCP personnel at least 2 weeks in advance. Condor's trained environmental technician will conduct the groundwater monitoring in accordance with the Groundwater Sampling and Analysis Plan (SAP) following the US EPA guidance for groundwater monitoring. Each groundwater monitoring event is anticipated to take 2 days to complete. Groundwater will be purged using dedicated submersible pumps or Waterra systems with dedicated foot valves and tubing. A YSI 556 multi-meter or equivalent instrument will be used to measure the field parameters (temperature, pH, and electrical conductivity at minimum). Field parameters will be measured at the start of purging and at each casing volume purged until approximately 3 casing volumes of water are purged and field parameters have stabilized. Before sampling, depth-to-water measurements will be made to confirm groundwater has recovered to 80 percent of its pre-purge water level prior to

sampling. Samples will be collected directly from the pump tubing into laboratory supplied containers, immediately labeled, and placed in a large container with ice to cool the sample to the required preservation temperature. Samples for dissolved constituents will be field-filtered with disposable 0.45 micron filters directly into preserved containers. In accordance with the SAP and EPA protocols, one quality control sample will be collected per event. Laboratory samples will be transported under chain-of-custody procedures to an ELAP-certified laboratory.

This task also includes replacement of dedicated purging equipment (Waterra foot valves and tubing) at select wells if warranted.

Task 1 Total (one quarter): \$5,192

Task 2: Quarterly and Annual Laboratory Analyses

BSK Associates (BSK), an ELAP certified laboratory, will perform the analytical work. BSK has an office in Rancho Cordova. Pace Analytical (formerly Basic Labs) in Redding will analyze the short hold-time bacteria samples. A list of the analytical constituents required by the permit is included below. Note that samples for metals and minerals will be filtered and will be analyzed as dissolved constituents.

Table 1: Required Laboratory Analytical Constituents

Constituent	
Electrical Conductivity	Alkalinity as CaCO ₃ (including Alkalinity Series)
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Total Coliform Organisms**	Chlorodibromomethane
Total Nitrogen	Dichlorobromomethane
Nitrate as Nitrogen	Boron*
Total Kjeldahl Nitrogen	Calcium*
Ammonia as NH ₄	Magnesium*
Total Organic Carbon	Potassium*
Iron (Dissolved)	Sodium*
Manganese (Dissolved)	Chloride*
Arsenic (Dissolved)	Phosphorus*
Hardness as CaCO ₃	Anion/Cation Balance*

*Constituent included for annual analysis only.

**Analyzed by Pace Analytical, paid directly by Chico; not included in overall cost.

Task 2 Total (one year, four events): \$15,300



Task 3: Quarterly Reporting

The quarterly reports are due May 1, August 1, November 1, and February 1 of the following year. The Self-Monitoring Reports (SMRs) shall be submitted using the State Water Board's California Integrated Water Quality System (CIWQS) Program website. Each report will include the discharger information, project description, environmental setting, a summary of the groundwater quality, and copies of field forms and laboratory certificates. The reports will contain sufficient detail to verify compliance with the WDR, MRP, and Standard Provisions and Reporting Requirements. Condor will maintain a groundwater quality database to track the data and perform quality checks on the data. In addition, the groundwater gradient will be calculated and contour maps created. The monitoring reports will describe the monitoring event, sampling protocols, any deviations from the standard procedures, and include a brief summary of the water quality. Analyzed constituents will be plotted graphically and evaluated for trends. Condor will provide the groundwater monitoring reports to Carollo and the City for review and final submittal with the SMRs.

Task 3 Total (one quarter): \$5,052

PHASE 1 TOTAL (ONE YEAR, FOUR EVENTS): \$56,276

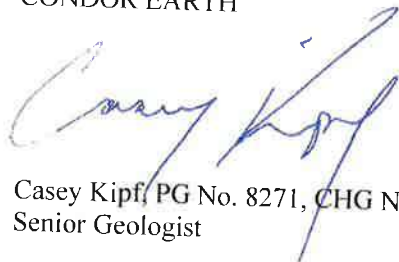
A detailed cost estimate is available upon request.

SCHEDULE AND AUTHORIZATION

Condor can initiate work upon authorization to proceed. Upon acceptance, please provide a PO according to our current agreement. If you have any questions, please contact Casey Kipf directly at (209) 938-1045.

Sincerely,

CONDOR EARTH



Casey Kipf, PG No. 8271, CHG No. 1011
Senior Geologist



EXHIBIT B
 City of Chicago
 Professional Engineering Services for Groundwater Monitoring and Reporting Project Amendment 3
 LABOR HOUR AND COST PROPOSAL

Task	CAROLLO LABOR										SUBCONSULTANTS				EXPENSES				TOTAL
	VP (SP)	PM (PP)	P	CAD	WF (C)	TOTAL CAROLLO HOURS	TOTAL CAROLLO LABOR COSTS	Condor Earth	Miles	Printing	PECE	Mileage	ODCs	TOTAL	TASK COSTS				
	\$360.00	\$324.00	\$274.00	\$200.50	\$149.00				\$0.670	\$ 15.00									
	Labor Cost (\$/hr)																		
Phase 6 – WDR Monitoring and Reporting 2024																			
Task 1 – Quarterly Monitoring Fieldwork	0	0	0	0	0	0	\$ -	22,845	0	\$ -	\$ -		22,845	\$ 22,800					
Task 2 – Quarterly and Annual Laboratory Analyses	0	0	0	0	0	0	\$ -	16,830	0	\$ -	\$ -		16,830	\$ 16,800					
Task 3 – Quarterly Reporting	0	6	8	0	0	14	\$ 4,136	22,229	0	\$ -	\$ -		22,439	\$ 26,600					
TOTALS	0	6	8	0	0	14	\$ 4,136	61,904	0	\$ -	\$ -		62,114	\$ 66,200					

**CAROLLO ENGINEERS, INC.
FEE SCHEDULE**

**As of January 1, 2024
California**

	<u>Hourly Rate</u>
Engineers/Scientists	
Assistant Professional	\$223.00
Professional	274.00
Project Professional	324.00
Lead Project Professional	340.00
Senior Professional	360.00
Technicians	
Technicians	168.00
Senior Technicians	233.00
Support Staff	
Document Processing / Clerical	149.00
Project Equipment Communication Expense (PECE) Per DL Hour	15.00
Other Direct Expenses	
Travel and Subsistence	at cost
Mileage at IRS Reimbursement Rate Effective January 1, 2024	\$0.67 per mile
Subconsultant	cost + 10%
Other Direct Cost	cost + 10%
Expert Witness	Rate x 2.0

This fee schedule is subject to annual revisions due to labor adjustments.