



Arcata WWTF Environmental Compliance and Monitoring Consulting Services

Proposal

City of Arcata

16 February 2023

4. Scope of Work, Schedule of Work, and Project Understanding

A. Detailed Scope of Work

Task 1 – Project Management and Coordination

Task 1.1. Project Management, Coordination, and Submittal of Invoices

GHD Project Manager Andrea Hilton will attend periodic check-in meetings with City staff and will attend ten to twelve weekly coordination meetings per year with City staff, the Construction Manager, and Contractor as requested by City staff during the spring and summer construction periods. Andrea will communicate directly with the City staff lead and with Carollo's Construction Manager to coordinate tasks and ensure environmental compliance. GHD will submit monthly invoices and reports of construction progress, monitoring activities and survey results. See Task 3 for more information about report submittals.

Andrea Hilton will provide clear communication and pro-active coordination with the City staff leads and other AWTF Phase 1 project stakeholders. Andrea will provide clear requests to the City to schedule biologists for specific tasks involving coordination with the Contractor and Construction Management team. Andrea and the GHD team will track the two-week schedule look-ahead schedules to ensure field work is scheduled to support on-the-ground construction activities without delay.

Deliverables: Attendance at coordination meetings, verbal progress reports during coordination meetings, and monthly invoicing.

Assumptions: Weekly meetings will number between 10 and 12 annually and will occur during the spring and summer construction periods. Up to two GHD staff members will attend these meetings to ensure clear communication with GHD field biologists regarding ground-level project activities and needs.

Task 2 – Perform Pre-Construction Surveys and Environmental Compliance and Monitoring Activities

Pre-construction surveys and environmental compliance monitoring have been scoped to support regulatory obligations in the City's permits and CEQA ISMND and summarized in Table A-1 Mitigation and Monitoring and Reporting Program Requirements provided by the City.

Task 2.1. Pre-Construction Nesting Bird Surveys

GHD biologists will conduct pre-construction nesting bird surveys in areas where vegetation removal or disturbance will occur during nesting bird season. From our work on other City projects, we understand the City's established nesting bird season is currently February 1 through August 31. The construction buffer area will range by bird species, in coordination with CDFW. Buffers often range from 50 feet native birds, up to 500 feet for raptors and special-status bird species. The biologist will conduct a minimum one day pre-construction survey within the 7-day period prior to vegetation removal and ground-disturbing activities. If work lapses for seven days or longer, the qualified biologist will conduct a supplemental survey before project work is reinitiated. If active nests are detected within the construction footprint or within the construction buffer, the biologist will flag a buffer around each nest and regularly monitor the nest until nesting activity has ceased. GHD biologists will work with the construction manager to identified strategies for construction activities to continue while avoiding nest sites until the biologist determines that the young have fledged, nesting activity has ceased, and the buffer flags have been removed. If nests are documented outside of the

construction (disturbance) footprint, but within the construction buffer, nest buffers would be implemented as needed and determined by the qualified biologist to the degree required by CDFW, permits, and the ISMND.

It is anticipated that surveys at Outfall 003, the Hauser Marsh pump station, improvements at Allen Marsh and Gearheart Marsh, and oxidation pond levees will commence in 2023, electrical trenching areas in 2024, and at the headwork and other uncompleted areas in 2025. GHD anticipates the level of effort required in 2024 and 2025 will be less than the initial effort in 2023 as a result of the removal of vegetation during the initial disturbance in 2023.

Deliverables: Completion of up to six days of pre-construction nesting bird surveys and up to three follow-up visits per survey to monitor active nests. Please see Task 3 for associated reporting and documentation.

Assumptions: Nesting bird surveys are anticipated to begin prior to construction. It is anticipated that this task will consist of one survey day for each of the following six construction areas: (1) Outfall 003, (2) Hauser Marsh pump station (3) improvements at Allen Marsh and Gearheart Marsh, (4) oxidation pond levees (5) headwork area, (6) electrical trenching areas.

It is in the City's best interest not let work lapse for seven days or longer once initiated in a given area, otherwise additional surveys will be required.

Task 2.2. Rare Plant Surveys and Salvage

In any construction area where vegetation will be removed, a qualified GHD botanist will conduct surveys for sensitive plant species (alpine marsh violet, coast checkerbloom, Lyngbye's sedge, western lily, Humboldt Bay owl's-clover, Point Reyes salty bird's-beak, sea watch, and western sand spurry) in the appropriate months when all species are blooming (June through August) prior to construction. Per the City's CEQA requirements, if any sensitive plants are present in the disturbance footprint, they will be flagged for avoidance. If avoidance is infeasible, perennial plants will be transplanted or replaced using locally sourced nursery stock. If avoidance of annual plants is infeasible, GHD will work with the Construction Manager and the contractor to determine if construction can occur after seeds have been set, or identify other suitable strategies sufficient for regulatory compliance. Seeds from the affected individuals will be collected and planted in appropriate locations the following year during the phenologically appropriate time.

GHD understands initial ground disturbance may occur in advance of the early and/or late blooming period for target species. In such instances, GHD will coordinate with the City and construction manager to identify suitable strategies to avoid impacts to special status plants consistent with permitting and CEQA requirements.

The majority of rare plant surveys and salvage will occur in the first year of construction (2023). The general level of effort in 2024 and 2025 will be reduced because the majority of the disturbance will already have occurred and further disturbance will be limited.

Deliverables: Completion of pre-construction surveys and coordination with the construction manager for any needed salvage or seed collection. Please see Task 3 for associated reporting and documentation.

Assumptions: Ground disturbance in suitable habitats will be minimal and impacts are likely to be avoided. As discussed in the City's CEQA document, in the event that annual plant species will be impacted, construction will occur after seeds have developed. GHD staff will salvage plants or collect seeds and work with the City to plan seed dispersal and planting. City staff will lead the monitoring of affected species or will negotiate for additional services to fulfill the 5-year monitoring requirements established in the City's CEQA document. No formal planting or monitoring plan will be required.

Task 2.3 Pre-Construction Fish Survey and Cofferdam Installation

GHD has secured Ross Taylor and Associates (RTS) to conduct pre-construction fish survey and relocation efforts. The primary fisheries tasks are related to the construction to upgrade Outfall 003 that allows an exchange of water between the Brackish Marsh and Butcher Slough. Throughout this task, RTA will communicate and coordinate with the prime consulting firm, the construction contractor, the City of Arcata staff, and/or pertinent regulatory agencies. Time may also be used for a pre-construction site visit with all parties, after a contract is awarded.

RTA will obtain required permits to conduct fish relocation. RTA currently holds a USFWS permit for sampling and handling tidewater gobies. This relocation will likely require obtaining a project-specific SCP and an MOU from CDFW for capturing and relocating salmonid species. RTA currently holds a SCP and two MOUs for monitoring of tidal enhancement projects in Martin Slough and the lower Elk River. These existing permits will be used as templates for the City of Arcata's AWTF project.

RTA will conduct a pre-construction fish survey. This survey would occur approximately one to two weeks prior to the start of construction during a low tide. The purpose of this survey would be to determine potential species present and relative abundance of fish within the Outfall 003 construction footprint. This survey would also assist in fine-tuning procedures for an efficient fish relocation. Site specific aspects such as water depths, bottom firmness (or depth of mud) and/or potential obstructions to seine netting could all be assessed during this pre-project fish survey. This pre-project sampling will require the RTA consultant and one employee. The RTA consultant will also draft a brief findings memo regarding this pre-construction survey.

RTA will conduct the pre-construction fish relocation. This task assumes that the construction contractor is responsible for the project's water management. RTA consultant will coordinate with the construction contractor regarding placement of fish exclusion screens and location of temporary coffer dams for site dewatering. The fish relocation would occur during a low tide. This task will require the RTA consultant and two employees. This task is budgeted for one full-day (10.0 hours) and one partial day (6.0 hours). The purpose of the partial day would be to return to the site the day after the initial relocation effort to potentially capture and relocate aquatic organisms missed on day 1. Depending on the construction contractor's dewatering strategy, a partial drawdown of water within the isolated work area may occur to allow more effective capture and relocation on day 2.

Deliverables: Pre-construction survey, fish relocation at Outfall 003 in 2023 only, and detailed log.

Assumptions: The contractor is responsible for establishing the water bypass and dewatering.

Task 2.4. Biological Monitoring and Northern Red-legged Frog (NRLF) / Western Pond Turtle (WPT) Relocation

A GHD biologist will maintain presence at and familiarity with all construction occurring in sensitive habitats of the Project Area. The GHD biologist will monitor each work area on a daily basis to ensure compliance with permit requirements. The monitoring visits may coincide with other surveys as appropriate. More monitoring effort is anticipated for 2023 when the initial disturbance and vegetation removal scheduled to occur. Less monitoring effort is anticipated in 2024 and 2025.

If NRLF or WPT are encountered during construction activities, the Contractor staff will be asked to stop work activities in the vicinity of the occurrence until appropriate corrective measures have been implemented or it has been identified by the GHD biologist that the species will not be harmed. Corrective measures may include relocating these species to an appropriate habitat adjacent to the work area. Any listed reptile or amphibian species that are trapped, injured, or killed, will be reported immediately to Carollo's Construction Manager, appropriate City staff, and CDFW.

Up to five NRLF/WPT relocation efforts are anticipated during construction related activities in 2023, and one effort for each consecutive year in 2024 and 2025.

In the event that GHD observes the Contractor's work not in compliance with permit requirements, GHD will take the following actions:

- Verbally request Contractor staff to stop work immediately;
- Immediately notify Carollo's Construction Manager and appropriate City staff to request a formal stop work order;
- Contractor will be responsible to rectify any adverse condition, and GHD will assist City staff in analyzing the potential impact.

Deliverables: GHD biologists will keep a detailed log of monitoring events documenting the date and time of monitoring efforts, species encountered, any environmental compliance issues identified, and actions taken to address issues. The monitoring log will be made available to the City as needed or requested. If NRLF or WPT are

relocated, trapped, injured, or killed during construction, the GHD biologist will draft a technical memo detailing the number and life stage of individuals impacted, and relocation area if applicable.

Assumptions: Biological monitoring visits are anticipated to take place daily (up to three hours) or as otherwise needed while construction related activities occur. Up to five NRLF/WPT relocation efforts are anticipated during construction related activities in 2023, and one effort for each consecutive year in 2024 and 2025. NRLF/WPT relocation efforts may require a team of two biologists to ensure individuals are transported to a relocation area in a safe and timely manner.

Task 3 – Report Preparation and Review

Task 3.1. Preparation of Non-Fisheries Related Draft Reports and Maps

GHD will submit results of pre-construction surveys for rare plants and birds prior to commencement of construction, including maps that identify locations of any sensitive species habitat identified by the survey(s), delineation of any required no disturbance buffer zones, and a narrative description of avoidance and minimization measures. Reports will detail biological survey results and buffer zones as required in several permits and outlined in Table A-1, provided by the City.

GHD will keep a record of survey results, monitoring and relocation efforts, and environmental compliance reporting and will prepare written reports and technical memoranda as necessary to fulfill permit requirements, protect biological resources, and document adverse impacts to biological resources and any actions taken minimize or mitigate adverse impacts to the extent required by permitting agencies and/or CEQA mitigation measures.

GHD will prepare a draft technical memorandum including a map that identifies sensitive species habitat and required no disturbance buffer zones (i.e. nest buffer zones) after the completion of each survey. The draft technical memo will be made available for the City staff to conduct one round of review and submit to permitting agencies. GHD will keep a detailed log of monitoring events documenting the date and time of monitoring efforts, any environmental compliance issues identified, and actions taken to address issues. The monitoring log will be made available to the City on a weekly basis or as otherwise requested.

Deliverables: The GHD biologist will provide a technical memorandum and associated figures after the completion of each pre-construction survey. The monitoring log will be maintained daily in accordance with Task 2.4 and shared with the City on a weekly basis or as otherwise requested.

The GHD botanist will provide a technical memorandum and maps of botanical survey results. If transplanting, outplanting, seed collection and/or seed dispersal occur, the GHD botanist will provide documentation and will work with the City to develop an informal planting plan with recommendations for City staff to continue monitoring.

Assumptions: None

Task 3.2. Preparation of Fisheries Related Draft Reports and Maps

RTA will draft a report of the fish relocation activities and complete any agency-required fish relocation forms. These reports/forms will be completed within five business days, after completion of the fish relocation.

Deliverables: RTA will provide draft and final fish relocation reports for one round of City review.

Assumptions: None

Task 3.3. Dewatering Plan Review

GHD will review the Contractor's draft dewatering and discharge work plan to ensure compliance with North Coast Regional Water Quality Control Board (NCRWQCB)'s requirements.

Deliverables: GHD will provide an email to the City in regard to the draft dewatering and discharge work plan noting the outcome of the review and provide recommendations if necessary.

Assumptions: The draft dewatering and work plan will be made available to GHD in a timely manner to allow for review without delay to the project.

Task 4 – Biological Resources and Protocol Training

Task 4.1. Biological Resources and Protocol Training

A GHD biologist will develop a biological resources identification and protection protocol contractor training and Environmental Awareness materials for key Project staff, including the City's Project Manager, the Construction Manager, and the Contractor's project management and foreman staff, to ensure compliance with biological resources protection during construction when GHD staff is not present on-site. The training and materials will 1) inform about key species and conditions that could potentially be encountered during construction, and 2) outline protocols for how to address biological resources, if species/conditions of concern are encountered. The Cultural Resource Specialist will contribute to the Environmental Awareness materials and/or video to train construction staff in the identification of potential cultural resources. The training will occur virtually via MS Teams to support video recording. If helpful, GHD recommends the construction crew gather in a City or GHD conference room to view the virtual training.

The training will be recorded to allow access to construction staff that join the project later, as well as during pre-construction training scheduled to reoccur in 2024 and 2025. The recorded training will also be available for the City's use on other future projects that require similar environmental compliance.

Deliverables: GHD will draft an identification guide and provide a video recording of the virtual environmental training.

Assumptions: None

Task 5 – On-Call Cultural Resource Consultation

Task 5.1. On-Call Cultural Resource Consultation

An on-call Cultural Resource Specialist will be available to be on-site in the event of cultural resource discovery. In the event of an inadvertent discovery, the on-call Cultural Resource Specialist will work with City staff to consult with Tribal Historic Preservation Officers (THPO) to determine the significance of the finding and prepare a supplementary archaeological plan per permit requirements. DZC has confirmed the firm can provide back-up archaeological staff to cover for Dimitra Zalarvis-Chase if she is out of town or otherwise unavailable at the time of inadvertent discovery.

Deliverables

Deliverables for this on-call tasks will be provided on an as-needed basis.

Assumptions

Cost of on-call cultural resource support will be billed on a time and materials basis, based on the rate schedule provided by DZC in **Attachment 4**.

Task 6 – Tidewater Goby Monitoring

Task 6.1. Tidewater Goby Monitoring

The USFWS Biological Opinion for the City of Arcata Wastewater Treatment Facility Upgrades Project (File No. SPN-2020-00425) details the following monitoring requirement to monitor the impact of incidental take of Tidewater Goby (p.30): *"You and/or the City of Arcata will monitor the Brackish Marsh for a period of 5 years to ensure that the influx of freshwater to the system is successfully managed to improve habitat quality for the goby and the gobies continue to use the project area."*

To demonstrate improved habitat quality for Tidewater Goby, GHD will document pre-project baseline conditions at the time of dewatering, followed by post-project monitoring in Year 5. This pre/post assessment will be limited to the portion of Brackish Pond that will be dewatered to construct Outfall 003. The entirety of Brackish Pond will not be assessed. To document pre-project conditions, GHD will use the pre-construction fish survey and relocation data collected at Outfall 003 by Ross Taylor, water quality measurements including salinity at up to five locations at varying depths in and near the dewatered area using a YSI meter, and a qualitative assessment of physical habitat suitability (e.g., shoreline condition, depth, water quality, aquatic vegetation, substrate, tidal conditions). Water quality measurements will be instantaneous (not continuous). The same metrics will be collected in Year 5, in the same month as pre-project monitoring (e.g., July) to maximize comparability. GHD would collaborate with Ross Taylor to complete one (1) Tidewater Goby sampling event, repeat water quality measurements at the same locations, and re-assessed habitat quality. GHD will draft a brief Year 1 technical memorandum summarizing methods and results. GHD will also draft a Year 5 technical memorandum, comparing pre- and post-project conditions and results. The technical memorandums will include captioned pre- and post-project photographs of the monitoring area.

Deliverables

Draft and final Year 1 and Year 5 technical memorandums.

Assumptions

GHD assumes this approach will be sufficient to USFWS. GHD cannot guarantee Tidewater Goby will be observed during Year 1 pre-construction surveys or Year 5 post-construction surveys. GHD cannot guarantee an increase in Tidewater Goby observations over time, or an improvement in habitat conditions for Tidewater Goby.

Task 7 – Contingency at 20%

Task 7.1. Contingency at 20%

A contingency plan at 20% of the total budget will be reserved to allow for flexibility in the case of unforeseen events or circumstances.

Attachment

Budget by Year



City of Arcata
Arcata Wastewater Environmental Compliance
Fixed 2023 Rates

Description	Charles Smith	Misha Schwarz	Andrea Hilton	Patrick Sullivan	Jane Cipra	Kolby Lundgren	Christian Hernandez	Miles Harnett	Sara M. Graves	Jesse Lopez	Jenni Simpson	Total Hours	Labor Total	DZC	Ross Taylor	Subs Markup	Total Subs	Mileage	Total Disb.	Estimated Project Total	
	Signatory	Project Director	Project Manager	Water Quality	Botany	Botany	Botany	Biology	Biology	GIS	Admin										
	\$272	\$211	\$190	\$190	\$148	\$148	\$110	\$148	\$110	\$127	\$123										
Subtask 1.1	Project Management & Coordination Meetings	2	4	24	0	12	0	12	0	0	5	59	\$10,115	\$0	\$0	\$0	\$0	\$0	\$0	\$10,115	
Subtask 2.1	Pre-Construction Nesting Bird Surveys	0	0	3	0	0	0	62	42	0	0	107	\$14,366	\$0	\$0	\$0	\$0	\$112	\$112	\$14,478	
Subtask 2.2	Rare Plant Surveys and Salvage	0	0	3	0	32	32	24	0	0	0	91	\$12,682	\$0	\$0	\$0	\$0	\$56	\$56	\$12,738	
Subtask 2.3	Pre-Construction Fish Survey and Relocation	0	0	2	0	0	0	2	0	0	2	6	\$922	\$0	\$8,913	\$891	\$9,804	\$0	\$0	\$10,726	
Subtask 3.1	Biological Monitoring and NRLE/WPT Relocation	0	0	0	0	0	0	200	120	0	0	320	\$42,800	\$0	\$0	\$0	\$0	\$167	\$167	\$42,967	
Subtask 3.1	Preparation of Non-Fisheries Related Reports and Maps	0	4	2	0	16	16	76	46	20	0	180	\$24,808	\$0	\$0	\$0	\$0	\$0	\$0	\$24,808	
Subtask 3.2	Preparation of Fisheries Related Reports and Maps	0	1	2	0	0	0	0	0	0	0	3	\$591	\$0	\$1,000	\$100	\$1,100	\$0	\$0	\$1,691	
Subtask 3.3	Review Dewatering Plan	0	0	1	6	0	0	0	0	0	0	7	\$1,330	\$0	\$0	\$0	\$0	\$0	\$0	\$1,330	
Subtask 4.1	Bio Resources and Protocol Training	0	0	4	0	10	0	0	10	0	0	24	\$3,720	\$500	\$0	\$50	\$550	\$0	\$0	\$4,270	
Subtask 5.1	On-Call Cultural Resource Consultation	0	0	4	0	0	0	0	0	0	2	6	\$1,006	\$0	\$0	\$0	\$0	\$0	\$0	\$1,006	
Subtask 6.1	Tidewater Goby Monitoring	0	0	2	0	0	0	24	0	8	0	34	\$4,948	\$0	\$2,500	\$250	\$2,750	\$0	\$0	\$7,698	
Subtask 7.1	Contingency at 20%	0	1.8	9.4	1.2	14	9.6	4.8	77.2	41.6	5.6	167	\$23,349	\$100	\$2,483	\$258	\$2,841	\$67	\$67	\$26,257	
Total Labor Hours		2	11	56	7	84	58	29	463	249.6	33.6	10.8									
Estimated Project Total		\$544	\$2,279	\$10,716	\$1,368	\$12,432	\$8,525	\$3,168	\$68,554	\$27,456	\$4,267	\$1,328	1004	\$140,637	\$600	\$14,895	\$1,550	\$17,045	\$402	\$402	\$158,083



City of Arcata
Arcata Wastewater Environmental Compliance
Approx. 2024 Rates

Description		Charles Smith	Misha Schwarz	Andrea Hilton	Jane Cipra	Kolby Lundgren	Christian Hernandez	Miles Hamnett	Sara M. Graves	Jesse Lopez	Jenni Simpson	Total Hours	Labor Total	Mileage	Total Disb.	Estimated Project Total
		Signatory	Project Director	Project Manager	Botany	Botany	Botany	Biology	Biology	GIS	Admin					
		\$282	\$221	\$200	\$158	\$158	\$120	\$158	\$120	\$137	\$133					
Task1	Project Management & Coordination	2	4	24	6	0	0	6	0	0	5	47	\$8,809	\$0	\$0	\$8,809
Subtask 1.1	Project Management & Coordination Meetings	2	4	24	6	0	0	6	0	0	5	47	\$8,809	\$0	\$0	\$8,809
Task2	Pre-Construction Surveys and Monitoring Activities	0	4	8	16	16	12	100	100	0	0	256	\$36,780	\$335	\$335	\$37,115
Subtask 2.1	Pre-Construction Nesting Bird Surveys	0	0	3	0	0	0	25	25	0	0	53	\$7,550	\$112	\$112	\$7,662
Subtask 2.2	Rare Plant Surveys and Salvage	0	0	3	16	16	12	0	0	0	0	47	\$7,096	\$56	\$56	\$7,152
Subtask 2.4	Biological Monitoring and NRLF/WPT Relocation	0	4	2	0	0	0	75	75	0	0	156	\$22,134	\$167	\$167	\$22,301
Task3	Report Preparation and Review	0	1	2	8	8	0	25	25	15	0	84	\$12,154	\$0	\$0	\$12,154
Subtask 3.1	Preparation of Non-Fisheries Related Reports and Maps	0	1	2	8	8	0	25	25	15	0	84	\$12,154	\$0	\$0	\$12,154
Task5	Bid Documents & Services	0	0	4	0	0	0	0	0	0	0	4	\$800	\$0	\$0	\$800
Subtask 5.1	On-Call Cultural Resource Consultation	0	0	4	0	0	0	0	0	0	0	4	\$800	\$0	\$0	\$800
Task7	Permitting (Provisional)	0.4	1.8	7.6	6	4.8	2.4	26.2	25	3	1	78.2	\$11,709	\$67	\$67	\$11,776
Subtask 7.1	Contingency at 20%	0.4	1.8	7.6	6	4.8	2.4	26.2	25	3	1	78.2	\$11,709	\$67	\$67	\$11,776
Total Labor Hours		2	11	46	36	29	14	157	150	18	6					
Estimated Project Total		\$677	\$2,387	\$9,120	\$5,688	\$4,550	\$1,728	\$24,838	\$18,000	\$2,466	\$798	469.2	\$70,252	\$402	\$402	\$70,653



City of Arcata
Arcata Wastewater Environmental Compliance
Approx. 2025 Rates

Description	Charles Smith	Misha Schwarz	Andrea Hilton	Jane Cipra	Kolby Lundgren	Christian Herndandez	Miles Harnett	Sara M. Graves	Jesse Lopez	Jenni Simpson	Total Hours	Labor Total	Mileage	Total Disb.	Estimated Project Total
	Signatory	Project Director	Project Manager	Botany	Botany	Botany	Biology	Biology	GIS	Admin					
	\$292	\$231	\$210	\$168	\$168	\$130	\$168	\$130	\$147	\$143					
Task1 Project Management & Coordination	2	4	24	6	0	0	6	0	0	5	47	\$9,279	\$0	\$0	\$9,279
Subtask 1.1 Project Management & Coordination Meetings	2	4	24	6	0	0	6	0	0	5	47	\$9,279	\$0	\$0	\$9,279
Task2 Pr-Construction Surveys and Monitoring Activities	0	4	8	8	8	6	47	47	0	0	128	\$20,078	\$335	\$335	\$20,413
Subtask 2.1 Pre-Construction Nesting Bird Surveys	0	0	3	0	0	0	15	15	0	0	33	\$5,100	\$112	\$112	\$5,212
Subtask 2.2 Rare Plant Surveys and Salvage	0	0	3	8	8	6	0	0	0	0	25	\$4,098	\$56	\$56	\$4,154
Subtask 2.4 Biological Monitoring and NRLF/WPT Relocation	0	4	2	0	0	0	32	32	0	0	70	\$10,880	\$167	\$167	\$11,047
Task3 Report Preparation and Review	0	1	2	4	4	0	12	12	10	0	45	\$7,041	\$0	\$0	\$7,041
Subtask 3.1 Preparation of Non-Fisheries Related Reports and Maps	0	1	2	4	4	0	12	12	10	0	45	\$7,041	\$0	\$0	\$7,041
Task5 On-Call Cultural Resource Consultation	0	0	4	0	0	0	0	0	0	0	4	\$840	\$0	\$0	\$840
Subtask 5.1 On-Call Cultural Resource Consultation	0	0	4	0	0	0	0	0	0	0	4	\$840	\$0	\$0	\$840
Task7 Contingency at 20%	0.4	1.8	7.6	3.6	2.4	1.2	13	11.8	2	1	44.8	\$7,448	\$67	\$67	\$7,515
Subtask 7.1 Contingency at 20%	0.4	1.8	7.6	3.6	2.4	1.2	13	11.8	2	1	44.8	\$7,448	\$67	\$67	\$7,515
Total Labor Hours	2	11	46	22	14	7	78	70.8	12	6					
Estimated Project Total	\$701	\$2,495	\$9,576	\$3,629	\$2,419	\$936	\$13,104	\$9,204	\$1,764	\$858	268.8	\$44,686	\$402	\$402	\$45,087



City of Arcata
 Arcata Wastewater Environmental Compliance
 Approx. 2027 Rates

Description		Andrea Hilton	Miles Harnett	Jesse Lopez	Total Hours	Labor Total	Ross Taylor	Subs Markup	Total Subs	Estimated Project Total
		<i>Project Manager</i>	<i>Biology</i>	<i>GIS</i>						
		\$230	\$188	\$167						
Task6	Tidewater Goby Monitoring	4	35	8	47	\$8,836	\$7,000	\$1,050	\$8,050	\$16,886
Subtask 6.1	Tidewater Goby Monitoring	4	35	8	47	\$8,836	\$7,000	\$1,050	\$8,050	\$16,886
Task7	Contingency at 20%	0.8	7	1.6	9.4	\$1,767	\$0	\$0	\$0	\$1,767
Subtask 7.1	Contingency at 20%	0.8	7	1.6	9.4	\$1,767	\$0	\$0	\$0	\$1,767
Total Labor Hours		5	42	9.6						
Estimated Project Total		\$1,104	\$7,896	\$1,603	56.4	\$10,603	\$7,000	\$1,050	\$8,050	\$18,653