



M E M O R A N D U M
COMMUNITY DEVELOPMENT/RESOURCE AGENCY
PLANNING SERVICES DIVISION
County of Placer

TO: Board of Supervisors DATE: April 19, 2016

FROM: Michael J. Johnson, AICP
Agency Director

BY: Gerry Haas, Senior Planner

SUBJECT: Contract Amendment for the Coon Creek Watershed Assessment

ACTION REQUESTED

1. Authorize the County Executive Officer to sign a contract amendment with cbec eco engineering in the amount of \$52,286, bringing the total contract amount up to \$451,998 for the development of a comprehensive watershed assessment of the Coon Creek Watershed.

BACKGROUND

In 2013, Placer County was awarded \$911,500 from the Cooperative Endangered Species Conservation Fund through its Non-Traditional Habitat Conservation Planning Assistance Program. The grant was awarded through Section 6 of the Endangered Species Act, and was approved for use in the development of the Placer County Conservation Program (PCCP). One component of the PCCP specifically identified in this grant is the Coon Creek Watershed Assessment. Of the original grant amount, \$400,000 is allocated to the completion of this assessment, identified as Task 2.

The Coon Creek watershed encompasses approximately 112 square miles (Attachment 1), originating east of Auburn near Meadow Vista and flowing westward. It is intercepted by the East Side Canal downstream of Highway 65 and outside of the Plan area in Sutter County. The East Side Canal then flows into the Cross Canal, which joins the Sacramento River immediately downstream of the confluence of the Feather and Sacramento Rivers near Verona.

This watershed assessment is an important component of the PCCP, which is currently being developed. The Coon Creek watershed contains the largest and least fragmented aquatic resources in the PCCP coverage area and presents Placer County with the best aquatic resource restoration potential. A GIS evaluation of roads and fragmentation in the PCCP coverage area determined that the Coon Creek watershed today is mostly an intact natural ecosystem in a relatively unfragmented landscape. Conserving the Coon Creek watershed ensures landscape-scale features such as aquatic habitat diversity, habitat connectivity, and relationships to hydrologic sources are protected. Placer County, having completed a landscape-level analysis of Coon Creek, now needs to collect reach-specific data, assess stream health, prioritize riparian and in-stream restoration sites, and establish a conservation data baseline to inform Plan implementation.

The PCCP has identified the presence of rare, threatened and endangered species that are known to occur or could occur within the Coon Creek Watershed, as well as contiguous oak woodland complexes, high quality wetlands, and potential threats or impacts to these species and their habitats. The Assessment will cover the entire watershed and will provide an opportunity to inform the PCCP conservation strategy regarding protection, preservation and restoration opportunities within the watershed. The results of this watershed assessment will clarify opportunities to replace lost function in other watersheds with enhanced or preserved functions within the Coon Creek watershed.

On October 7, 2014, Placer County entered into a contract with cbec eco engineering (cbec), who teamed with HT Harvey and Associates, to prepare the watershed assessment. The Scope of Work includes assessing existing hydrologic conditions, defining sub-reaches, characterizing geomorphic processes, water quality monitoring, hydrogeomorphic surveys, implementation of a California Rapid Assessment Method program, conducting salmonid surveys, assessing fish passage and identifying restoration goals and opportunities.

At this time, the Coon Creek Watershed Assessment is on schedule to be completed by Fall of 2016, consistent with the master Project Schedule included in the contract. Valuable information has already been gathered and the consultant team is now compiling the information into a technical memorandum. However, the project team has discovered that the need to generate more information on base flows throughout the watershed is more critical than assessing peak (stormwater) flows. This additional information is required because the existing baseline information is more lacking than originally anticipated. In addition, cbec has identified a need for additional fisheries surveys as well as minor revisions to the scope and methodology employed in the water quality and hydrology components. The revisions would allow the project teams to more comprehensively assess the condition of salmonids within the watershed and more appropriately direct resources in achieving the overall study objectives, primarily an assessment of the habitat and existing watershed conditions. These proposed modifications are outlined in the attached contract amendment (Attachment 2).

While the need for additional information to inform the assessment has been acknowledged by staff, funding to achieve this has been found in other tasks within the overall grant. For example, the County Aquatic Resources Program (Task 1) was completed ahead of time and under budget. In addition, the recent removal of three special status species from coverage in the PCCP (Task 3) results in funding that will not have to be spent on surveys for those species. Savings reflected by these modifications can be shifted to additional work on the CCWA with no net increase in the overall contract amount.

ENVIRONMENTAL IMPACT

Implementation of this contract is categorically exempt from the California Environmental Quality Act (CEQA) in accordance with Placer County Code Section 18.36.080 Class 6, Information Collection (CEQA Guidelines Section 153061 (b)(3)). The Coon Creek Watershed Assessment will only consist of data collection with identification of future restoration opportunities.

FISCAL IMPACT

The subject contract amendment is \$52,286. Funding for this contract will come from the Planning Services Division's Federal Cooperative Endangered Species Conservation Fund contract. There is no net County cost associated with this action.

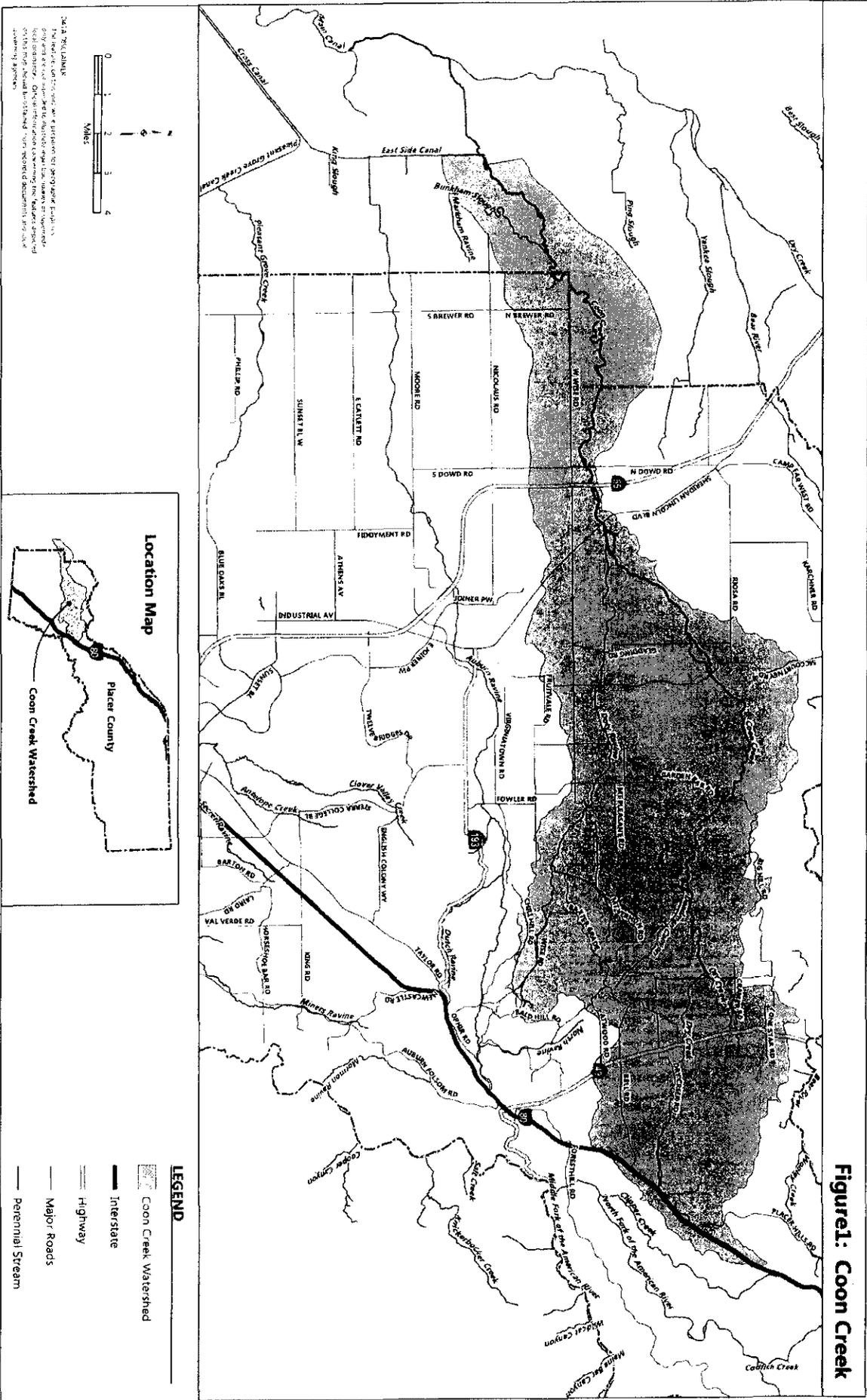
ATTACHMENTS

Attachment 1: Coon Creek Watershed Assessment Area

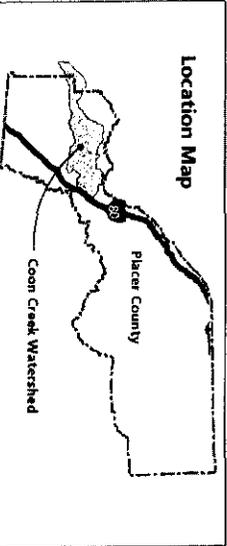
Attachment 2: Consultant Services Contract Amendment Proposal – cbec eco engineering

cc: Michael J. Johnson, CDRA Director
Desiree Belding, Placer County Purchasing
Chris Bowles, CBEC ECO Engineering
Gregg McKenzie, PCCP Administrator
Jen Byous, Planning Services Division

Figure 1: Coon Creek



DATE: 11/15/2014
 This map was prepared for the purpose of providing information only and is not intended to be used for any other purpose. The user assumes all responsibility for the use of this map. The user should consult with the appropriate agency for more information.



- LEGEND**
- Coon Creek Watershed
 - Interstate
 - Highway
 - Major Roads
 - Perennial Stream

**FIRST AMENDMENT TO PLANNING SERVICES AGREEMENT
PROFESSIONAL CONSULTANT SERVICES – cbec eco engineering**

THIS FIRST AMENDMENT TO THE CONSULTANT SERVICES AGREEMENT is made and entered on this _____ day of _____, 2016 by and between the COUNTY OF PLACER, hereinafter referred to as COUNTY, and cbec eco engineering, hereinafter referred to as CONSULTANT.

WHEREAS, on October 7, 2014, COUNTY and CONSULTANT entered into a Contract whereby consulting services would be provided to the COUNTY; and

WHEREAS, the parties have agreed to additional services to be provided by Consultant under said contract and the compensation for those additional services.

NOW, THEREFORE, IT IS MUTUALLY AGREED by and among the parties as follows:

1. That section 1 of the original Contract shall be amended to provide for the additional services and compensation as follows:

The CONSULTANT agrees to perform the additional professional services as set forth in Exhibit "A" attached hereto and incorporated herein by reference, and the total compensation to be paid CONSULTANT for these additional services shall not exceed \$52,286.00 as set out in Exhibit "A".

2. The COUNTY agrees to pay to CONSULTANT \$451,998.00 as the sole compensation under the Contract and as amended by this First Amendment.

EXCEPT as specifically modified above, all of the remaining terms and conditions of the said Contract shall remain and continue in full force and effect.

COUNTY OF PLACER:

By: _____
David Boesch, County Executive Officer

Date: _____

CONSULTANT:

By: _____

Date: _____

By: _____

Date: _____

APPROVED AS TO FORM:

By: _____
County Counsel

Date: _____

APPROVED AS TO CONTENT:

By: _____
Michael J. Johnson, AICP
Agency Director

Date: _____



Hydrology • Hydraulics • Environmental Studies • Wetlands • Aquatic Ecology

MEMORANDUM

Date:	March 30, 2016
To:	Gerry Haas and Jen Byous, Placer County
From:	Jai Singh, cbec eco engineering
Project:	14-1024 – Coon Creek Watershed Assessment
Subject:	Coon Creek Watershed Assessment Contract Amendment

cbec eco engineering (cbec) and H.T. Harvey & Associates (HTH) propose a contract amendment for additional assessment of salmonid populations, habitat quality and rehabilitation opportunities as part of the Coon Creek Watershed Assessment. This contract amendment is proposed in light of information and preliminary findings from the first 18 months of the assessment. These additional efforts will allow the project team to more comprehensively assess the condition of salmonids within the watershed. It will also enable the project team to provide the County with a more robust opportunities assessment and a set of informational project sheets for basin-wide strategies and site-specific actions to improve habitat conditions for salmonids in the Coon Creek watershed.

Background and Overview

Between September 2014 and the present date, the cbec and HTH team has conducted field and desk-based studies to evaluate the physical processes, hydrology, water quality, and riparian and aquatic ecology of the Coon Creek watershed. Emphasis has been applied to evaluating salmonid habitat conditions and determining the presence of and utilization of the stream network by salmonids. Significant consideration has also been given to understanding impacts to salmonid habitat quality and causal mechanisms of watershed impairment and salmonid population declines.

During previous surveys in spring 2015, juvenile Chinook salmon were observed in all surveyed reaches in Coon Creek and Doty Ravine, indicating that these streams provide suitable spawning habitat for anadromous salmonids and suitable rearing habitat for juvenile Chinook salmon. We also observed juvenile *Oncorhynchus mykiss* in a few locations in the most upstream reaches of both streams, but did not believe that they represented the anadromous life history (e.g., steelhead). While we documented the distribution of salmonids, we were unable to evaluate migration timing because surveys were only conducted over four consecutive days when no apparent large-scale movement occurred. We conducted spot checks above the Garden Bar culvert on Doty Ravine and immediately downstream of Lower Hidden Falls on Coon Creek and found no Chinook salmon. However, our surveys followed a

winter with very little precipitation due to a severe drought, and passage above these potential barriers would require a significant discharge event. One additional important observation we made during these surveys was that nearly all flow in Doty Ravine was diverted out of the natural stream channel and into the unscreened Nevada Irrigation District South Canal diversion (NID diversion). We observed numerous juvenile Chinook salmon in the canal downstream of the NID diversion.

Building on this information, we propose to conduct additional fish surveys in 2016 to determine one or more of the following (to be determined based on conversations with the County and within the project team):

1. The approximate timing of juvenile Chinook salmon (and juvenile steelhead, if present) emigration from Coon Creek in 2016 by documenting fish distribution in previously surveyed reaches
2. Assessing fish passage above assumed anadromous fish barriers
3. Conduct a fish survey downstream of the NID diversion to identify locations that present a high risk of fish mortality and determine if there is a route for fish entering the NID diversion to eventually reach a natural stream channel at a downstream location.

Other components of this amendment include additional water quality monitoring, fish passage barrier and surface water diversion assessments, and project sheet development. Temperature monitoring performed between November 2014 and December 2015 suggests that warm temperatures, particularly in the lower (western) reaches of Coon Creek and the East Side Canal may prevent successful juvenile emigration from the watershed during the late spring and early summer months, and may prohibit successful over-summering by salmonids. Collecting additional temperature data through the spring and summer of 2016 will expand this data set and provide data from a wetter year. It will also further inform temperature patterns within the watershed and their impacts on different components of salmonid life histories.

Further assessment of passage barriers and unscreened surface water diversions will provide important information on the degree to which certain features and infrastructure within the watershed serve as barriers or entrain emigrating juveniles. Barriers and diversions will be selected for further characterization and analysis using observations obtained during the fluvial audit and fish survey efforts that have been performed previously. These assessments will also identify potential modifications to the barriers and diversions that would lessen or eliminate their impact on salmonids. In order to further develop basin-level strategies and specific project site opportunities, a series of project sheets will be developed that will serve as stand-alone, visually-oriented communication tools as well as a component of the final report.

SCOPE OF SERVICES - TASK 6

The cbec and HTH team proposes to conduct a combination of the following assessment elements. The allocation of resources among assessment elements and the specific plans for each of assessment element will be determined following discussions with County staff. The level of effort for this overall task will be commensurate with the budget and hours allocated in the accompanying cost estimate.

1. **Additional fish surveys** to evaluate timing of juvenile emigration, passage above assumed barriers, and/or entrainment and fate of fish in the NID Doty South at Head Diversion canal. Survey methods will be the same as those used previously in the Spring of 2015.
2. **Additional water quality monitoring** focused on extending the temperature data record collected at 19 monitoring locations in the watershed until August 2016
3. **Fish passage barrier and diversion assessments** that provide more detailed characterization of the identified barriers and diversions, and a more rigorous assessment of opportunities for addressing fish passage or entrainment at each site
4. **Project sheet development** to summarize both basin-scale strategies and site-specific opportunities related to fish passage, habitat quality, and unscreened diversions. Project sheets will contain key site information, project/strategy descriptions, photos, maps and concept graphics.

Assumptions:

1. Level of effort on this task will be commensurate with allocated hours and associated budget from fee estimate.
2. Placer County will be responsible for securing access to field survey sites and for additional temperature sensor deployment (if required).
3. The number of project sheets developed will depend on the desired level of information, detail and concept development for each project opportunity or recommended strategy. Upon completing the first segment of the opportunities assessment, cbec will present a list of candidate strategies and project sites to the County, and a recommendation on the opportunities/strategies to be developed into sheets as well as an appropriate level of detail.

Deliverables:

1. Information and results generated as part of this effort will be analyzed and summarized in the draft and final copies of the Coon Creek Watershed Assessment report.
2. A draft set of project sheets will be provided to the County as part of the draft Coon Creek Watershed Assessment report. The final version of the project sheets will be submitted with the final report, both as a standalone product and a section of the report. Up to three (3) sets of printed sheets will be provided to the County.

General Assumptions and Costs

Our scope and budget assume that County will provide a Notice to Proceed, or similar authorization, by approximately early May, in order to complete Task 6.1 at the appropriate times. If authorization for this scope of work is not obtained until mid or late May, or later, cbec and H.T. Harvey & Associates will consult with the County to adjust the scope of services as appropriate. Timely access to field sites will be secured by the County. cbec and H. T. Harvey & Associates will assist the County with preparation of required notification as directed.

The total cost for the above scope of services is \$52,286. Cost allocations and the associated labor estimates are provided in the attached budget.

ESTIMATED PROJECT BUDGET SUMMARY

Coon Creek Watershed Assessment
 cbec Project #14-1024



H.T. HARVEY & ASSOCIATES
 Ecological Consultants

Task #	Task Description	Watershed Assessment Budget Amendment			Comments
		cbec	HT Harvey	Total	
6	Additional Salmonids and Opportunities Assessment	\$ 25,760	\$ 24,373	\$ 50,133	
	cbec Labor Fee	\$ 25,760		\$ 25,760	
	cbec Direct Expenses	\$ 203		\$ 203	Includes 8% administrative fee
	Subconsultants		\$ 24,373	\$ 24,373	Includes direct expenses for subconsultant
	Administrative Fee		\$ 1,950	\$ 1,950	8% administrative fee
	Total Project Budget	\$ 25,963	\$ 26,323	\$ 52,286	

Notes: This budget summary is for an amendment of \$52,286 to the project's base budget of \$399,712.

ESTIMATED LABOR FEES

Coon Creek Watershed Assessment
 cbec Project #14-1024



Task #	Description	President	Eco-Engineer II	Eco-Engineer I	Technician I	Field Assistant	Desktop Publishing	Subtotal Labor Hours Per Task	Subtotal Labor Fee Per Task - Watershed Assessment	Notes
6	Additional Salmonids and Opportunities Assessment	13	104	32	70			219	\$ 25,760	
	Project Total Hours and Labor Costs	13	104	32	70	0	0	219	\$ 25,760	



H. T. HARVEY & ASSOCIATES

Ecological Consultants

Project Name: Coon Creek Watershed Assessment, Amendment 1

Proposal Number: 3634-01

Date: March 17, 2016

Staff Time Estimates

Task	Public Review	Project Restoration Ecology	Project Planning	Project Implementation	Public Outreach	Project Restoration Ecology	Public Outreach	Quantitative Ecology	GIS/Map/ACS	Technical Editor	Support	HTH Cost by Task	HTH Direct Expenses (incl. 10% mark-up)	Total Project Cost
	\$ 221	\$ 221	\$ 184	\$ 119	\$ 119	\$ 108	\$ 103	\$ 82						
Task 6. Additional Salmonids and Opportunities Assessment	3	8	16	54	76	6	2	6	\$ 22,191	\$ 2,182	\$ 24,373			
Total Labor Hours	3	8	16	54	76	6	2	6	Total Costs	\$ 2,182	Total Cost			

CBEC ESTIMATED REIMBURSABLE EXPENSES

Coon Creek Watershed Assessment
 cbec Project #14-1024



Item Description	Watershed Assessment		Total Costs
	Base Quantity	Unit Cost	
Mileage	348 miles	0.54 /mile	\$ 187.92
		Subtotal Reimbursables	\$ 187.92
		Administrative Charge (8%)	\$ 15.03
		Total Reimbursables	\$ 202.95



Hydrology Planning Assessment Construction Remediation

MEMORANDUM

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Coon Creek Watershed Assessment
 cbec Project #14-1024



H.T. HARVEY & ASSOCIATES
 Ecological Consultants

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Coon Creek Watershed Assessment
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H. T. HARVEY & ASSOCIATES

Ecological Consultants

Project Name: Coon Creek Watershed Assessment, Amendment 1

Proposal Number: 3634-01

Date: March 17, 2016

Staff Time Estimates

Task	Chris Wilberg	Principal, Fish Ecology	Mark Weacher	Neil Nelson	Ken Jones	Coastal GIS	Technical Editor	Support	HTH Cost by Task	HTH Direct Expenses (Incl. 10% mark-up)	Total Project Cost
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Coon Creek Watershed Assessment
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