EPA Puget Sound Financial and Ecosystem Accounting Tracking System (FEATS)

v. September 2012 for Lead Organization Subawardees

Photo by Rebecca Pirtle, Editor, Kingston Community News (Doe-Kag-Wats Estuary of the Suquamish Tribe)

PROJECT INFORMATION

1. Federal Grant Number	PA-00J912-01	***2a. Reporting Period Start Date:**	4/1/2018	***2b. Reporting Period End Date:**	9/30/2018

3. Subaward Organization (Name and complete address including zip code)

Name: Sauk-Suiattle Indian Tribe
Address 1: 5318 Chief Brown Lane
Address 2:
City: Darrington State: WA Zip Code: 98241-

4. Subaward Project Manager Contact Information

Name: Scott Morris
Phone: (360) 436-347 Ext:
Fax: (360) 436-647
Email: smorris@sauk-suiattle.com

5a. EPA Program

LO - Tribal

5b. Subaward Project Title and Contract No.

Sauk-Suiattle Restoration and Research / 15EPA PSP426

***6. Collaborating Organizations/Partners**

Washington Conservation Corps
U.S. Geological Survey
Skagit Fisheries Enhancement Group
Northwest Indian Fisheries Commission

Subawardee Submission Instructions:

LO fills in the white boxes. Subawardee fills in the yellow boxes (boxes with asterisks). Refer to guidance document for how to fill out the boxes. After filling out the yellow boxes, save and e-mail it to your LO Project Manager for approval. LO will roll up the information and submit to EPA for approval.

LO Project Manager: Dani Madrone
LO: Northwest Indian Fisheries Commission
Phone: 360.528.4318
email: dmadrone@nwifc.org

LO Program Coordinator:
LO:
Phone:
email:

EPA Project Officer: Lisa Chang

***7a. Name/Title of Person Submitting Report**	Scott Morris Water Quality Coordinator
***7b. Date Report Submitted**	10/31/2018

FUNDING/COST ANALYSIS

8a. Total Assistance Amount Awarded:	$112,200.00	**8b. Funding Year (Federal Fiscal Year Funds Appropriated)**	FY 2015 ---------- ---------- ----------	***9. Amount Spent To-Date:**	$112,200.00	***10. Amount Reimbursed To-Date:**	$68,644.00
11. Match Amount Required	$0.00	***12. Total Match Amount Spent and Documented To-Date:**	$0.00	***13. Have you experienced any cost overruns or high unit costs?**	No.		
***14. What issues or questions do you need the LO Project Manager to respond to?**	In scheduling the field work with USGS personnel, it became apparent for a variety of logistical and budget reasons that the redd scour project would be better to delay until 2017. That would also help cover the additional costs of the suspended sediment work in 2016, with plans to finish the field work in 2017.						

BUDGET UPDATE

	15a. APPROVED BUDGET			***15b. SPENT TO-DATE**		
	LO (EPA) Funds	MATCH	TOTAL	LO (EPA) Funds	MATCH	TOTAL
Personnel	$11,808.00	$0.00	$11,808.00	$12,413.50		$12,413.50
Fringe Benefits	$4,015.00	$0.00	$4,015.00	$4,364.70		$4,364.70
Travel	$0.00	$0.00	$ 0.00			$ 0.00
Equipment	$0.00	$0.00	$ 0.00			$ 0.00
Supplies	$145.00	$0.00	$ 145.00			$ 0.00
Contracts	$89,406.00	$0.00	$89,406.00	$88,340.00		$88,340.00
Other	$0.00	$0.00	$ 0.00			$ 0.00
TOTAL DIRECT CHARGES	$105,374.00	$0.00	$105,374.00			$ 0.00
Indirect Charges	$6,826.00	$0.00	$6,826.00	$7,081.80		$7,081.80
TOTAL	$112,200.00	$0.00	$112,200.00	$112,200.00		$112,200.00
***Explain Any Discrepancies:**	We did not end up needing the supplies budgeted, and contracts came in slightly underbudget, but this was offset by slightly higher salary, fringe and indirect costs than expected.					

ECOSYSTEM GOALS ADDRESSED

16a. Primary Goal	Healthy Habitat
16b. Additional Goals	Healthy Species ---------- ---------- ---------- ---------- ----------

DIRECT THREATS ADDRESSED

17a. Primary Threat	Invasive Species - Terrestrial
17b. Secondary Threat(s)	Climate Change ---------- ----------

LINKAGES TO PUGET SOUND ACTION AGENDA (Version Adopted August 2012)

18a. Primary Strategic Initiative	**Tribal Habitat Priorities**

18b. Sub-Strategies Employed	**A.1 A.5 A.6 C.4 B.5 D.5**

18c. Near-Term Actions Supported	

LINKAGES TO EPA PUGET SOUND PERFORMANCE MEASURES

19. Measure(s)	Habitat Restored/Protected ---------- ----------

LINKAGES TO PUGET SOUND DASHBOARD INDICATORS

20a. Primary Indicator	Floodplains
20b. Secondary Indicators	Freshwater Quality Wild Chinook Salmon ----------

PROJECT LOCATION

21a. Latitude	48.311740	**21b. Longitude**	-121.544622
21c. Hydrologic Unit Code	17110006 - Sauk	----------	----------
21d. Action Area	Whidbey	----------	----------

MEASURES OF SUCCESS (Key Outputs)

*22a. Description (e.g., "shellfish beds reopened")	*22b. Unit (e.g., "acres")	*22c. Project Target ("number")	*22d. Project Measure To-Date ("number")
Area surveyed for knotweed in Sauk and Suiattle watersheds (knotweed summer only)	acres	4500	4500
Percentage of knotweed patches in survey area determined "dead" (ie: no resurgence)	percent	75	79
Total area of land cleared of knotweed since beginning of project	square feet	250000	264765
Calculate estimates for annual suspended sediment concentrations (SSC) for upper Suiattle + one sub-basin.	SSC	2	0
		0	0
Calculate a sediment rating curve to predict total daily bedload transport as a function of discharge.	rating curve	1	0

PROJECT MILESTONES

Instructions: In the tables below, please explain your progress toward meeting agreed outputs for the period, **reasons for slippages**, and any additional information including **reflections, lessons learned, and/or thoughtful analysis**. When appropriate, include analysis and information of **cost overruns or high unit costs**, and changes to work plan or budget not requiring prior approval from EPA. We encourage photo documentation - please attach to the report as a separate document.

23a. Subaward Work Plan Component/Task: Eradicate knotweed from the Sauk and Suiattle watersheds

23b. 2012 Action Agenda Near-Term Action(s) Supported:

***23c. Estimated Costs:**
Actual Costs to Date:
(If required to report – contact your Project Manager)

23d. Sub-Task No.	23e. Sub-Task Description (include due date)	*23f. Date of Status	*23g. Status	23h. Outputs/Deliverables	*23i. Remarks
1.1	GPS survey and treatment of knotweed in the Sauk River floodplain, by raft	9/30/16	COMPLETED	7 days of knotweed surveyed and treated from RM 15 to RM 0; field data	All of the lower Sauk River floodplain (River Miles 15 to 0) was surveyed and treated by our Washington Conservation Corps (WCC) crew in the summer of 2016. Weather and schedules did not present any obstacles this year.

1.2	Complete additional knotweed treatment	9/30/16	CANCELLED	3 days of additional knotweed treatment; field data	The crew finished early, such that these additional days were going to be used for sending the crew downstream on the Skagit River past the Sauk confluence to recon and assess the severity of the knotweed problem on the middle Skagit. The floods in Baton Rouge intervened and pulled our WCC crew away, cancelling this task for this season.
1.3	Spray knotweed in the Sauk River floodplain, by raft	9/30/16	COMPLETED	4 days spent spraying knotweed from RM 15 to RM 0; field data	All of the lower Sauk River floodplain (River Miles 15 to 0) was surveyed and treated by our Washington Conservation Corps (WCC) crew in the summer of 2016. Weather and schedules did not present any obstacles this year.
1.4	Conduct landowner outreach and spray knotweed in and near the Town of Darrington, by vehicle and foot	9/30/16	COMPLETED	10 days spent spraying and conducting outreach in Darrington; field data	All of the known patches in Darrington were sprayed, except a few where we don't yet have permission to access.
1.5	Conduct landowner outreach, GPS survey, and spray knotweed in the Sauk Prairie area, by vehicle and foot	9/30/16	COMPLETED	10 days spent spraying, conducting GPS survey, and conducting outreach in Sauk prairie area; field data	All known patches on Sauk Prairie were sprayed, except for those where we don't yet have permission to access.
1.6	Collaborate with SFEG, WCC, Snohomish County, and Skagit CWMA to review and assess previous field season and data	12/31/16	COMPLETED	Annual Skagit CWMA report detailing results (# of knotweed patches identified, # of acres sprayed, pesticide used, GIS data); Meeting minutes; field photos; data summaries	Field Coordinator Joe McConnaughy summarized the data and presented it to the Skagit Coordinated Weed Management Area working group on Oct. 26, 2016.

23a. Subaward Work Plan Component/Task: Study sediment production from sub-basins of the Suiattle River

23b. 2012 Action Agenda Near-Term Action(s) Supported:

***23c. Estimated Costs:** **Actual Costs to Date:** **(If required to report – contact your Project Manager)**					
23d. Sub-Task No.	**23e. Sub-Task Description (include due date)**	***23f. Date of Status**	***23g. Status**	**23h. Outputs/Deliverables**	***23i. Remarks**
2.1	Develop a QAPP Addendum to update management, personnel, timelines, goals and protocols, as necessary.	4/30/16	COMPLETED	Updated QAPP, if applicable	Protocols, methods and equipment are still the same as the existing QAPP, only adjustments necessary would be changing the sites.
2.2	Set up monitoring equipment to measure suspended sediment and flow at one nonglacial-sourced sub-basin in the Suiattle River watershed during the winter storm and spring freshet season.	9/30/17	COMPLETED	Continuous turbidity and flow data.	In late September, a DTS-12 turbidimeter and pressure transducer were set up at Downey Creek, a nonglacial-sourced tributary of the Suiattle River. The equipment was began measuring Oct. 1, 2016, the beginning of the water year and continued through October 2017.
2.3	SSIT and USGS crews will conduct weekly field inspections to verify sensor measurements, calibrate and maintain the field sensors, with technical support from USGS.	9/30/17	COMPLETED	Field notes, audit logs.	This task began in late summer 2016 at the Boundary Bridge across the Suiattle River, where a DTS-12 and flow gage continued to record 15-minute time series data for the whole water year.
2.4	Set up monitoring equipment to measure suspended sediment and measure flow at one glacial-sourced sub-basin in the Suiattle River watershed during the summer season.	10/30/16	COMPLETED	Continuous turbidity data, plus at least three flow measurements (at installation, plus one calibration visit mid-summer and at retrieval.)	Instead of setting up on a single glaciated tributary, a site on the mainsteam Suiattle River was chosen downstream of most of the major tributaries carrying sediment off Glacier Peak. The site is near the Pacific Crest Trail. A DTS-12, pressure transducer and Isco automatic sampler were installed on May 12 and retrieved in early October, 2016, then repeated from May to October in 2017. The site is too remote and too inaccessible and too vulnerable to flooding and heavy snows to leave equipment through the winter and spring.
2.5	Develop a monitoring plan for four sites during Year 2, based on lessons learned in Year 1.	12/31/16	CANCELLED	Monitoring plan before the field season for Year 2 begins.	After assessing the sites in the field, USGS personnel decided

					two sites were sufficient for the study.

23a. Subaward Work Plan Component/Task: Develop estimates of coarse erosion rates along glacier termini on Glacier Peak

23b. 2012 Action Agenda Near-Term Action(s) Supported:

***23c. Estimated Costs:**
Actual Costs to Date:
(If required to report – contact your Project Manager)

23d. Sub-Task No.	23e. Sub-Task Description (include due date)	*23f. Date of Status	*23g. Status	23h. Outputs/Deliverables	*23i. Remarks
3.1	Develop a Quality Assurance Project Plan (QAPP) addendum to update management, personnel, timelines, goals and protocols, as necessary.	8/30/16	CANCELLED	Updated QAPP.	USGS quality assurance methods and protocols were followed for this project, as established in a similar study along Tahoma Creek on Mt. Rainier. Unfortunately, the QAPP was not completed in time before the field work was scheduled, so this project has been cancelled.
3.2	Establish a temporary network of aerial targets using survey equipment near the glacier termini on the east side of Glacier Peak.	9/30/16	CANCELLED	Field notes, photos, GPS locations of targets.	A four-person team backpacked into the Glacier Peak Wilderness in early September 2016 for six days. Using high-resolution Trimble survey units, the team set up the network of GPS points and targets on Dusty Ridge, in the proglacial zone between Chocolate Creek and Dusty Creek, up to 7,000 feet elevation. Survey points and targets were also set up along the Suiattle River's confluences with Chocolate and Dusty Creek, as well as along the mainstem between those two creeks.
3.3	Take aerial photos from a helicopter of all targets established by ground crews.	9/30/16	CANCELLED	High-resolution photographs of various geologic features near the glacier termini on Glacier Peak.	On Sept. 11, 2016, Scott Anderson of USGS flew over the targets and shot the high-resolution photos necessary for the project. Photos came out well,

					and data processing began in late September.

23a. Subaward Work Plan Component/Task: Determine the scour rates for salmon redds along the Sauk River

23b. 2012 Action Agenda Near-Term Action(s) Supported:

***23c. Estimated Costs:**
Actual Costs to Date:
(If required to report – contact your Project Manager)

23d. Sub-Task No.	23e. Sub-Task Description (include due date)	*23f. Date of Status	*23g. Status	23h. Outputs/Deliverables	*23i. Remarks
4.1	Develop a Quality Assurance Project Plan (QAPP) addendum to update management, personnel, timelines, goals and protocols, as necessary.	3/31/17	CANCELLED	Updated QAPP.	This project was delayed until August of 2017, to capture scouring flows for the water year beginning Oct. 1, 2017. As noted below, this project was shifted to the FY16 proposal (see that FEATS.)
4.2	Install 20 accelerometer scour monitors (ASM) near one of two USGS gages on the Sauk River.	3/31/17	CANCELLED	Field notes, GPS results for site locations and deployment elevations, map.	Installation occurred during low flows of August 2017 as part of the FY16 proposal (see that FEATS.)
4.3	Retrieve 20 ASMs near one of two USGS gages on the Sauk River.	3/31/17	CANCELLED	Field notes, GPS results for site locations and retrieval elevations plus assessment of net change in elevations, map.	ASMs will be pulled during the low flows of August 2018 as part of the FY17 proposal (see that FEATS.)
4.4	Download data, prepare a preliminary, written summary.	3/31/17	CANCELLED	Preliminary written summary of provisional data.	Preliminary report subsequent to retrieval of ASMs as part of the FY17 proposal (see that FEATS.)

CHALLENGES AND SOLUTIONS (specific to reporting period)

*24a. Task No., Sub-Task No.	*24b. Challenge	*24c. Solution
4.1-4.4	As noted in Block 14, scheduling this task for summer 2016 proved difficult. USGS personnel were more available in summer 2017. Also, more funding was required for the sediment project this year than originally budgeted.	The redd scour project was pushed back until 2017, with the hope that the sediment project could use the redd scour funding from 2016 to cover the unbudgeted costs. The overall amount of money remains unchanged, and the intention is still to

		carry out both projects -- the redd scour project was included in the new 2017 grant proposal.

HIGHLIGHTS/LESSONS LEARNED/REFLECTIONS

***25.**

The big lesson learned is to get the QAPP done before any work commences. We lost our funding for the Glacier Peak project because of this mistake. I personally think it was too drastic a penalty in this case, because we followed established USGS quality assurance protocols, and the data will be published and used by outside agencies and researchers regardless of EPA's qualms. We will continue the project with separate funding and it will no longer be reported here.

The planning for this year's proposal was more involved than some years, because we were trying to anticipate project needs for the next five years, to keep in sync with the capacity-building grant. This led to the development of some good projects, most of which are inter-related or at least complementary in the subject matter and research questions being tackled (ie: suspended sediment and bedload estimates in the upper Suiattle, redd scour flow rates for the Sauk). The short timeframes that seem to always be involved in the development of these projects makes for mistakes such as this year's, in which we originally thought we would do the redd scour study in 2016, only to realize later that it made more sense to wait until 2017. I don't know what the lesson learned is on this. Try to open up more time in the work schedule for project planning and development. But this has proven difficult. Keeping existing projects on track, closing previous grants, managing contracts and keeping up with other responsibilities, these duties have not left a lot of extra planning time, in my experience.