CMER Request

Proponent: RSAG	**Date**: 5/14/26
Contact: Joseph F. Murray, abies@olypen.com	**PM**: Alexander Prescott, alexander.prescott@dnr.wa.gov
Project Name/Issue: Extensive Riparian Status and Trends Monitoring Project - Riparian Vegetation and Stream Temperature Project (ExMo Project)	
Request: The ExMo project team has developed a preliminary budget for TFW Policy's consideration.	
Funding Source:	**Urgency**: High

Request Description:

The RSAG, CMER, and TFW Policy approved Extensive Riparian Status and Trends Monitoring Project Scoping Document contained only relative budget comparisons due to the complexity and uncertainty regarding detailed budget development. Since that time, the ExMo project team has furthered our understanding of the scope and cost of work necessary to meet the approved scoping alternative.

<u>This preliminary budget estimate should be interpreted broadly, as budgets will continue to be refined through study design completion and later project phases.</u>

More precise and detailed budgets will be provided in the forthcoming study design document. Attached to this request is a table outlining estimated annual costs of the core stream temperature and riparian project components (following the approach recommended from the scoping document) as well as the three add-ons described in the scoping document. For TFW Policy's benefit of better understanding the preliminary budget estimate, we have detailed some important assumptions below.

The project team would appreciate feedback from TFW Policy regarding the preliminary budget estimate in terms of it meeting their needs for budget planning purposes.

Assumptions

Core Project (Stream Temperature and Riparian Vegetation)**:**

- 1-5 basins sampled per year, recommended long term average of 3. Likely only one basin the first year to ramp up the effort. Initial development of the models is expected to be completed after the first five years. Once initial models are developed, field sampling efforts will be reduced for calibration and validation needs accordingly.
- The project team is conceptualizing three phases of implementation described below.
    - Start Up, years 1-2
        - Characterized by the relatively high activity across the board, specifically in developing field manuals and SOPs, high equipment purchasing, data management/database development, high lidar/orthophotography purchasing.
    - Establishing, years 3-5
        - Characterized by reductions in training material development, equipment purchasing, and database management activity.
    - Ongoing, years 6-26
        - Characterized by significant reductions of (or eliminations of some) field sampling (and associated activities), further reductions or eliminations in

equipment replacement, and reductions in lidar/orthophotography purchasing.

- Initial field work activity estimates:
    - Site reconnaissance and permitting- 2 weeks of fieldwork for reconnaissance per basin. 6-12 months timespan for permitting.
    - Stream Temperature fieldwork- 4 weeks per basin, 2-person team. 50-100 monitoring points per basin. Winds down after the first 5 years, but ongoing.
    - Riparian Vegetation fieldwork- 10 weeks per basin, 2-person team. 100 riparian vegetation plots per basin cluster. Winds down over time, expected to be largely completed after year 5.
    - eDNA- 2 weeks per basin, 2-person team.
- Jenelle Black will be the overall PI for the project, but each individual element (stream temperature, riparian vegetation, each add-on) will have their own PIs. Contractors will be doing the vast majority of fieldwork and analysis outside of add-ons 2 and 3.
- This will be a time and budget intensive project requiring a high level of work year-round from project managers, CMER scientists, project team members, and contractors.
- Whenever possible, basins selected for sampling will be aligned with recently collected DNR lidar for cost savings purposes.
    - When this is not possible, lidar and orthophotography will be contracted out. The frequency of lidar and orthophotography needs will be reduced after year 5.
- The current budget estimates that the project will run through 2056, the end of the current FPHCP.

Add-on 1 (Amphibian Presence/Absence)

- The opportunistic nature of this add-on means that there are basins that will be sampled as a part of the overall effort (stream temperature and riparian) that may not be relevant for amphibian assessment (e.g., well outside of known range for some focal amphibian species). Given this, Add-on 1 costs will fluctuate over time ranging from occurring in all to none of the basins sampled in a given year.
- Assumes 140 eDNA samples collected per basin per year across all relevant basins.

Add-on 2 (Quantifying Riparian Management)

- Assumes this add-on is limited to mining the DNR FPA database and use elevation-derived hydrography in GIS to associate timber harvest units since 2001 with shoreline lengths that must have RMZs or WMZs left as part of the FPA. Present the evolution of affected shorelines through the 25-year period beginning in 2003 to the implementation of new Type N buffer rules.
- Conducted primarily, if not entirely, by CMER/AMP staff. Low project specific budget needs.

Add-on 3 (Westside Type F Follow Up)

- Conducted primarily, if not entirely, by CMER/AMP staff. Low project specific budget needs.

Estimated Schedule:

- Study Design- concludes December 2027
- Prospective Six Questions- concludes January 2028
- Project Management Plan- concludes April 2028

- Solicitation/Contracting- concludes September 2028
- Site Reconnaissance and Permitting- concludes November 2029
- First Field Season- starts March 2030

The above draft schedule is only an early estimation. There are numerous potential sticking points that could delay subsequent steps along the way.

Budget Notes:

- Project budget does not account for the very significant activity and programmatic expense needed for CMER scientist(s) and the project manager.
- Assumed average annual inflation of 4%.
- Annual brief progress reports, 5-year summary reports.

Preliminary Budget Estimate, Extensive Riparian Status and Trends Monitoring Project - Riparian Vegetation and Stream Temperature Project,
(Not Final Budget Estimate) 05/2026

Project Phase	Calendar Year	Temp/Veg, 1 Basin	Temp/Veg, 3 Basins	Temp/Veg, 5 Basins	Add-on 1 (assumes 2 basins)	Add-on 2	Add-on 3	5-year Reporting	**Total**
StudyDesign/P6Qs/PMP/ Contracting/Permitting	2026-29								
Pre-implementation	2029	**$250,000**							**$250,000**
Implementation Year 1	2030	**$699,400**	*$1,799,535*	*$2,899,670*	**$295,378**	**$-**	**$5,849**		**$1,000,627**
Implementation Year 2	2031	*$727,376*	**$1,871,516**	*$3,015,657*	**$307,193**	**$-**	**$6,083**		**$2,184,792**
Implementation Year 3	2032	*$628,041*	**$1,754,302**	*$2,880,562*	**$319,480**	**$-**	**$6,327**		**$2,080,109**
Implementation Year 4	2033	*$653,163*	**$1,824,474**	*$2,995,784*	**$332,260**	**$-**	**$6,580**		**$2,163,313**
Implementation Year 5	2034	*$679,289*	**$1,897,453**	*$3,115,616*	**$345,550**	**$-**	**$6,843**		**$2,249,845**
Implementation Year 6	2035	*$293,772*	**$756,206**	*$1,218,640*	**$359,372**	**$-**	**$7,117**	**$60,000**	**$1,182,694**
Implementation Year 7	2036	*$305,522*	**$786,454**	*$1,267,385*	**$373,747**	**$-**	**$7,401**		**$1,167,602**
Implementation Year 8	2037	*$317,743*	**$817,912**	*$1,318,081*	**$388,697**	**$-**	**$7,697**		**$1,214,306**
Implementation Year 9	2038	*$330,453*	**$850,628**	*$1,370,804*	**$404,245**	**$-**	**$8,005**		**$1,262,878**
Implementation Year 10	2039	*$343,671*	**$884,654**	*$1,425,636*	**$420,414**	**$-**	**$8,325**		**$1,313,393**
Implementation Year 11	2040	*$357,418*	**$920,040**	*$1,482,661*	**$437,231**	**$-**	**$8,658**	**$72,999**	**$1,438,928**
Implementation Year 12	2041	*$371,715*	**$956,841**	*$1,541,968*	**$454,720**	**$-**	**$9,005**		**$1,420,566**
Implementation Year 13	2042	*$386,583*	**$995,115**	*$1,603,647*	**$472,909**	**$-**	**$9,365**		**$1,477,389**
Implementation Year 14	2043	*$402,047*	**$1,034,920**	*$1,667,792*	**$491,825**	**$-**	**$9,740**		**$1,536,484**
Implementation Year 15	2044	*$418,129*	**$1,076,316**	*$1,734,504*	**$511,498**	**$-**	**$10,129**		**$1,597,944**
Implementation Year 16	2045	*$434,854*	**$1,119,369**	*$1,803,884*	**$531,958**	**$-**	**$10,534**	**$88,815**	**$1,750,676**
Implementation Year 17	2046	*$452,248*	**$1,164,144**	*$1,876,040*	**$553,237**	**$-**	**$10,956**		**$1,728,336**
Implementation Year 18	2047	*$470,338*	**$1,210,709**	*$1,951,081*	**$575,366**	**$-**	**$11,394**		**$1,797,469**
Implementation Year 19	2048	*$489,151*	**$1,259,138**	*$2,029,124*	**$598,381**	**$-**	**$11,850**		**$1,869,368**

Implementation Year 20	2049	*$508,717*	**$1,309,503**	*$2,110,289*	**$622,316**	**$-**	**$12,324**		**$1,944,143**
Implementation Year 21	2050	*$529,066*	**$1,361,884**	*$2,194,701*	**$647,209**	**$-**	**$12,817**	**$108,057**	**$2,129,965**
Implementation Year 22	2051	*$550,229*	**$1,416,359**	*$2,282,489*	**$673,097**	**$-**	**$13,329**		**$2,102,785**
Implementation Year 23	2052	*$572,238*	**$1,473,013**	*$2,373,789*	**$700,021**	**$-**	**$13,862**		**$2,186,896**
Implementation Year 24	2053	*$595,127*	**$1,531,934**	*$2,468,740*	**$728,022**	**$-**	**$14,417**		**$2,274,372**
Implementation Year 25	2054	*$618,932*	**$1,593,211**	*$2,567,490*	**$757,143**	**$-**	**$14,994**		**$2,365,347**
Implementation Year 26	2055	*$643,690*	**$1,656,940**	*$2,670,189*	**$787,428**	**$-**	**$15,593**	**$131,467**	**$2,591,428**
Final Report	2056							**$200,000**	**$200,000**
Column Totals		***$ 13,028,911***	***$ 33,322,567***	***$ 53,866,223***	**$ 13,088,696**	**$-**	**$ 259,192**	**$ 661,338**	**$46,481,659**