To: Brian Monnin, Engineering Project Manager – Stormwater
City of Camas, WA

April 3, 2026

CC: Scott Collins, Public Works Director, and Rob Charles, Utilities Manager, City of Camas, WA

From: Rob Annear, PhD, PE; Zoe Rodriguez del Rey, Annear Water Resources, LLC

Subject: Scope of Work for Lacamas, Round, and Fallen Leaf Lakes Management Plan and Lake Cyanobacteria Management Plan Implementation for Calendar Year 2026

Introduction

This memorandum presents the proposed scope of work and budget to support implementation of the Lacamas, Round, and Fallen Leaf Lakes Management Plan and Lake Cyanobacteria Management Plan (LCMP) for the City of Camas (City). The scope focuses on the services identified in the Request for Qualifications (RFQ), including project management, monitoring and field work, data management and reporting, lake treatment support, outreach, and grant assistance, to support effective and adaptive implementation of the LCMP. The total duration of this scope of work is eight months (May 1, 2026 through December 31, 2026).

Annear Water Resources, LLC (AWR) will serve as the prime consultant and will be supported by subconsultants Aquatic Insight, LLC, Aquatechnex, LLC, and Paradigm Strategic Communications, LLC.

Communication is a priority for this project, and AWR will maintain clear and consistent coordination with the City, including direct communication with the City's Project Manager, Brian Monnin, and timely transmittal of relevant information such as laboratory results and other project updates.

Scope of Work

The scope of work is organized into task areas that align with the services identified in the RFQ and support adaptive implementation of the LCMP. These task areas include Project Management, Monitoring and Field Work, Data Management and Reporting, Lacamas Lake Treatment, Outreach and Communication, Grant Funding, and FY 2027 Freshwater Algae Control Grant.

Task 1. Project Management

Objective

The objective of this task is to provide overall coordination, communication, and administrative support to ensure the project is executed efficiently, remains on schedule and within budget, and maintains clear and consistent communication with the City.

Activities

- Project administration will include coordination, scheduling, invoicing, and overall QA/QC to support efficient project implementation.
- Monthly project meetings will be conducted with the City to review progress and address key issues.

- Quarterly progress reports will be prepared to summarize project activities and progress.

Assumptions

- Monthly project meetings will be virtual.
- The first monthly meeting will be used as the project kick-off meeting.
- Quarterly progress reports will be in the form of a concise memo summarizing progress by task.
- Monthly invoices for work completed in the prior month will be prepared and submitted by AWR including compilation of all subconsultant, laboratory, and shipping costs.

Deliverables

- Meeting agendas, presentations (if needed), and notes.
- Quarterly progress report memo.

Task 2. Monitoring and Field Work

Objective

The objective of this task is to collect high quality, representative data to support implementation of the LCMP, inform treatment decisions, and improve understanding of watershed and in lake processes driving water quality conditions. Monitoring will be conducted in accordance with the 2025 Monitoring Plan or any subsequent updates approved by the City.

Activities

- Monitoring plan update will incorporate recommendations from the Lacamas, Round, and Fallen Leaf Lakes Monitoring Program 2024–2025 Monitoring Results report. This may include discontinuing monitoring of the Cove, composite sampling for phytoplankton monitoring, and other recommendations, as approved by the City.
- Baseline monitoring of lakes and creeks will be conducted to characterize existing water quality conditions, including:
    - Lacamas Lake LL1 – monitoring is biweekly from May through October and monthly November through December.
    - Round Lake RL1 – monthly monitoring.
    - Fallen Leaf Lake FLL1 – monthly monitoring.
    - Lacamas Creek LC-G - monitoring is biweekly from May through October and monthly November through December.
    - Lacamas Creek LC-UD, Dwyer Creek DC1, and Unnamed Creek UC1 – quarterly monitoring.
    - Summer storm event monitoring will be conducted to evaluate nutrient inputs and Lacamas Lake dynamics during summer (July-September) storm driven runoff events. Storm event sampling will be triggered when rainfall exceeds 0.25 inches in 24 hours.
        - Up to three summer storm events are anticipated.
        - Monitoring at Lacamas Lake LL1.
    - Algal bloom surveillance monitoring will be conducted during baseline monitoring to track bloom development and support timely treatment decision. This includes collection of phytoplankton sample if surface films, scums, or discoloration are observed.

- Thermistor chain and water level logger data will be downloaded and the instruments maintained, including calibration of water level logger to staff gauge, as needed, to support continuous temperature and hydrologic monitoring. This includes:
    - Lacamas Lake LL1 thermistor chain
    - Round Lake RL1 thermistor chain
    - Lacamas Creek LC-G HOMO MX2001 water level logger
- Targeted sonde profiling and sediment samples will be collected in Lacamas Lake to support focused investigations of lake stratification conditions and nutrient dynamics.
- Prepare and submit a Health and Safety Plan that includes protocols for decontamination and prevention of aquatic invasive species spread during field activities.

Assumptions

- Monitoring plan updates will be limited to recommendations in the 2024–2025 Monitoring Results report and will be incorporated into the existing 2025 Monitoring Plan.
- Lake and creek monitoring will include coordination, scheduling, equipment, deployment, sample collection, field data documentation, chain of custody (COC) procedures, and sample handling and shipment.
- Lake monitoring will be conducted using Aquatic Insight's boats.
- The City will communicate the location and nature of any surface films, scums, or discoloration if they are observed in between regularly scheduled baseline monitoring. It is anticipated that up to 10 phytoplankton samples may be collected during the summer during baseline or other scheduled monitoring events.
- Thermistor chain and water level logger data will be downloaded on a monthly basis during baseline monitoring events.
- Targeted sonde profiling and sediment sampling will be completed over a one-day period and may include up to five (5) sonde profiles and three (3) sediment cores at selected locations within Lacamas Lake.
- Laboratory coordination will be performed by the AWR team, including management of sample submittals and tracking of analytical results. Laboratory and shipping costs will be submitted on a monthly basis as part of AWR invoices. Unless otherwise agreed to by the City, IEH will be used for water quality and sediment analysis and Aquatic Analysts will be used for phytoplankton analysis.

Deliverables

- Field sheets
- COC forms
- Laboratory electronic data deliverables (EDDs), if applicable

Task 3. Data Management, Analysis and Reporting

Objective

The objective of Data Management and Reporting is to ensure that monitoring data are accurately managed, quality controlled, analyzed, and reported to support LCMP implementation, regulatory compliance, and informed decision making.

Activities

- An Excel database will be developed to maintain a structured database for storing, organizing, and analyzing monitoring data. This includes field, sonde profile, laboratory, phytoplankton, sediment, thermistor chain, and water level logger data.
- Data entry and QA/QC review will be conducted to ensure data are complete, accurate, and consistent with applicable quality assurance requirements. Data will be updated at least on a monthly basis to ensure up to date information and forwarded to the City's Project Manager.
- Data analysis, including preparation of graphs and tables, will be performed to evaluate water quality conditions, trends, and key drivers relevant to LCMP implementation. This includes field, sonde profile, laboratory, phytoplankton, thermistor chain, and water level logger data. Graphs and tables will be updated at least on a monthly basis to ensure up to date information is readily available.
- Annual Report preparation will summarize monitoring results, data interpretation, and key findings for the reporting year. The annual report will cover a twelve-month period. Comparisons with historical data may also be included in the Annual Report.
- Data submittal to Washington State Department of Ecology (Ecology) Environmental Information Management (EIM) will be completed, as needed, and in accordance with Ecology requirements.

Assumptions

- The Excel database will include data gathered for the 2024–2025 Monitoring Results report and collected in 2026, including data collected by the City prior to May. The database can be expanded in the future to include other historical data available to the City.
- A draft of the Excel database will be presented to the City for approval during a monthly project meeting.
- The Annual Report will undergo one round of review by the City with one set of consolidated comments.
- Data submittal to the Ecology EIM database is not currently required for baseline monitoring by the City; therefore, this effort is assumed to be minimal and will be completed only, as needed.

Deliverables

- Excel database for storage, organization, and analysis of monitoring data.
- Monthly email with updated data.
- Draft and final Annual Report incorporating City comments.
- EIM data submittal files (as needed).

Task 4. Lacamas Lake Treatment Planning and Coordination

Objective

The objective of the task is to support development, implementation, and documentation of lake treatment strategies and activities using a data driven and adaptive approach.

Activities

- Lacamas Lake treatment planning meeting(s) will be conducted with the City to review monitoring results, discuss treatment options, and define the upcoming treatment approach.
- Lacamas Lake Treatment Plan technical memo will be prepared to document recommended treatment approach, including treatment type, timing, and application parameters. This document will be used to guide the lake treatment applicator with the application parameters and required reporting.
- Pre-treatment and post-treatment monitoring will be conducted to evaluate lake conditions and comply with APAM General Permit monitoring requirements, as applicable.
- Lacamas Lake treatment coordination will be conducted to support scheduling, logistics, and implementation of treatment activities and will include required notifications to Ecology under the APAM General Permit.
- APAM General Permit notifications and reporting will be completed in accordance with Ecology requirements.
- Lacamas Lake treatment documentation will be prepared to summarize treatment implementation, monitoring results, and outcomes.

Assumptions

- Up to four (4) one-hour virtual meetings are included for annual treatment planning and coordination based on up to two treatments anticipated to occur in 2026.
- The Lacamas Lake Treatment Plan will be a concise technical memorandum documenting treatment timing, chemical dose, area of application, and associated monitoring requirements for each treatment.
- APAM General Permit reporting will include required notifications to Ecology prior to treatment and submittal of chemical dose and monitoring results via email, as required by the permit.
- Requirements for public notification of planned treatments will be done under Task 5, Communication and Outreach.
- Pre-treatment and post-treatment monitoring requirements under the permit will be satisfied during regularly scheduled baseline monitoring, with the exception of monitoring required the day after treatment. Monitoring required during treatment application will be conducted by the applicator as part of routine application activities. Requirements will be documented in the Lacamas Lake Treatment Plan.
- Laboratory cost estimates associated with the APAM General Permit monitoring assume full compliance with all monitoring requirements; however, approved modifications to monitoring allowed under the 2026 APAM General Permit may reduce these costs.
- Annual Lacamas Lake treatment documentation will be a concise memorandum building on the Treatment Plan(s) and will document implementation, any deviations from the planned approach, confirmed chemical doses, area of application, monitoring results, and outcomes.
- Lacamas Lake Treatment Plan(s) and Annual Documentation technical memos will each undergo one round of review by the City before being finalized.
- Costs for treatment application are not included in this scope and will be paid directly by the City.

Deliverables

- Meeting notes for treatment planning and coordination meetings.
- Lacamas Lake Treatment Plan technical memorandum(s).
- Pre-treatment and post-treatment monitoring data, including field data sheets, COCs, and laboratory results.
- APAM General Permit notification and reporting submittals.
- Annual Lacamas Lake Treatment technical memo.

Task 5. Outreach and Communication

Objective

The objective of this task is to support clear, consistent, and accessible communication of LCMP implementation activities, monitoring results, and treatment actions to City Council, stakeholders, and the public.

Activities

- Routine website updates will be completed to provide timely information to the public, including treatment notifications and posting of cyanobacteria advisories when issued by the County.
- Host two website planning meetings with City staff (e.g., Project Manager, Director of Communications, IT) to understand existing website challenges/needs, define long-term website goals, assess IT capacity, and confirm the Client's website hosting platform and brand assets.
    - One presentation, agenda, and notes will be created to support the meetings. Each meeting will be 90 minutes and held virtually.
- AWR will assess the current web presence and propose a new website architecture to meet the Client's stated goals.
- The Deliverable will be a wireframe (conceptual layout) of the proposed revised site delivered in PDF format.
- Create one presentation to City Council to summarize monitoring results, treatment activities, and key findings after the active cyanobacteria season (target is late fall each year). Copy edit and format presentation (up to 50 slides)
- One meeting with the Lacamas Watershed Council will be conducted to share project updates, monitoring results, and planned activities. Deliverables include a tailored presentation.

Assumptions

- Routine website updates will include content (text and visuals) and the City will implement the updates.
    - Client will supply any imagery or iconography used. Content for each update is up to 500 words. Assumes monthly updates during the cyanobacteria active season (June-September).
- The annual presentation to City Council will include staff report and presentation which will be finalized at minimum two weeks before the selected City Council meeting.
- The annual meeting with the Lacamas Watershed Council will use the same presentation developed for the City Council and is intended to strengthen coordination and information sharing related to activities planned by the City and monitoring activities conducted by the Watershed Council.
- Communications products assume no more than two rounds of Client review.

Task 6. Grant Funding Support

Objective

The objective of this task is to identify and secure external funding opportunities to support implementation of the LCMP and related lake management activities.

Activities

- Grant and funding opportunities will be tracked to identify relevant local, state, and federal funding sources that align with LCMP implementation needs.
    - Research grant funding opportunities.
    - Monthly updates on upcoming opportunities.
- One grant application will be developed in coordination with the City, including preparation of application materials, supporting documentation, and required forms. Potential funding opportunities will be evaluated and discussed with the City's Project Manager to select the most appropriate opportunity to pursue.

Assumptions

- Grant and funding opportunities will be tracked in a living spreadsheet that includes key information such as funding source, eligibility requirements, match requirements and timelines.
- For budgeting purposes, development of one grant application is assumed to require a level of effort comparable to preparation of an application for the Ecology Freshwater Algae Control Grant Program. If a funding opportunity is identified that requires a greater level of effort, this will be discussed with the City's Project Manager prior to proceeding.
- If funding opportunities are identified that require preparation of more than one application or a greater level of effort, this work will be discussed with the City and subject to approval.
- Grant application and associated materials will undergo one round of review by the City before being finalized.

Deliverables

- Living spreadsheet tracking grant and funding opportunities.
- Draft and final grant application package ready for submittal.

Task 7. FY 2027 Freshwater Algae Control Grant

Objective

The objective of this tasks is to conduct the work defined in the Tracking Phosphorus Loading to Support Lacamas Lake LCMP Implementation project, funded by the FY 2027 Freshwater Algae Control Grant Program, in accordance with the grant application and Ecology contract. This work will quantify external phosphorus sources and transport pathways to Lacamas Lake and evaluate how seasonal and storm driven inputs influence lake conditions to inform watershed nutrient reduction strategies, treatment strategies, and support implementation of the LCMP.

Activities

- Grant administration and management support will be provided to assist the City in meeting Ecology's requirements, including coordination, documentation, and reporting.
- A project monitoring plan will be developed to define monitoring locations, parameters, and event triggers to characterize external nutrient inputs and support Ecology compliant data collection.
- Phosphorus in Lower Lacamas Creek will be tracked through baseflow and storm event monitoring to evaluate spatial and seasonal variation in nutrient concentrations and loads.

- Storm event monitoring of tributaries and outfalls will be conducted to characterize phosphorus inputs from smaller inflows discharging directly to Lacamas Lake during storm conditions.
- Summer storm monitoring will be conducted to evaluate nutrient pulses from Lacamas Creek and associated lake response during periods of elevated cyanobacteria risk.
- Technical reporting and outreach will be conducted to compile, analyze, and synthesize results into a technical report and presentation, including presentation of findings to the Lacamas Watershed Council to support decision making and coordination with stakeholders.

Assumptions

- The City will serve as the grant recipient and will be responsible for overall grant administration and compliance with Ecology requirements. Support will be provided to the City in the form of assistance with preparing Quarterly Progress Reports, a Recipient Closeout Report, and a Project Outcome Summary Report.
- The level of effort and associated costs for this task are assumed to be consistent with those defined in the grant application and subsequent contract with Ecology.
- The Technical Report will undergo one round of review by the City and will be used as the required Project Outcome Summary Report.
- During the project kickoff meeting, Ecology invoicing and reimbursement requirements will be reviewed to ensure billing under this task aligns with grant requirements.

Deliverables

- Project Monitoring Plan.
- Monitoring datasets and EIM submittals.
- Draft and final Technical Report.
- Presentation materials for meeting with Lacamas Watershed Council.
- Quarterly progress reports

Scope of Work Schedule

Work under this scope shall commence on May 1, 2026. Activities described herein represent work for calendar year 2026 and will be completed by December 31, 2026. A detailed task-based schedule will be developed following contract execution and presented at the project kickoff meeting.

Budget

The estimated budget for this project is $205,100, including $47,000 allocated to Task 7, which is eligible for reimbursement through the FY 2027 Freshwater Algae Control Grant awarded by Ecology to the City. The resulting total direct cost to the City is $158,100. The budget by task is provided in the table below. Cost estimates are inclusive of labor, laboratory costs, and sample shipping.

A contingency of 5% $10,155, is included to address unforeseen work in support of the City; however, use of contingency funds will require prior written approval from the City.

The rates used are AWR Team established 2026 rates and will remain constant for the duration of the year. The budget estimate was developed with no markup on expenses, and no markup on subconsultant costs.

Task	Title	Cost
1	Project Management	$13,600
2	Monitoring and Field Work	$62,600
3	Data Management, Analysis, and Reporting	$20,100
4	Lacamas Lake Treatment Planning and Coordination	$17,600
5	Outreach and Communication	$31,200
6	Grant Funding Support	$13,000
	Subtotal for Task 1-6	**$158,100**
7	FY 2027 Freshwater Algae Control Grant	$47,000
	Total for Tasks 1-7	**$205,100**
	Contingency (5%)	$10,155
	Grand Total	**$215,255**

2026 Rate Schedule

Annear Water Resources

Labor Category	Name	Rate/Hour
Senior Principal	Robert Annear	$224.70
Principal	Zoe Rodriguez del Rey	$205.80
Senior Professional	Anurag Mishra	$180.70
Project Management Assistant		$142.40
Senior Staff Professional	Noah K. Benitez-Nelson	$125.90
Staff Professional		$110.00
Project Accountant	Alex Moore	$80.50

Direct Expenses	Cost
Subcontract Services	Cost
Specialized Computer Applications (per hour)	$ 24
Personal Automobile (per mile)	Current Gov't Rate

Aquatic Insight

Staff Title	Staff Name	Technical Hourly Rate	Fieldwork Hourly Rate	Travel Hourly Rate
Principal	Mark Rosenkranz	$195.00	$150.00	$90.00
Senior Scientist	Lizbeth Seebacher	$135.00	$100.00	$60.00
Technician		$105.00	$80.00	$45.00
Junior Field Staff	Cher Prazak	$95.00	$70.00	$45.00
Administration		$80.00	n/a	n/a

AquaTechnex

Labor Category	Name	Rate
Principal	Terry McNabb	$150.00
Support Staff		$125.00

Paradigm

Labor Category	Name	Rate
Principal	Jennifer Rogers	$240.00
Creative Lead	Nina Thoming	$200.00