**Cooperative Watershed Management Program**

**QUARTERLEY PROJECT PERFORMANCE REPORT TEMPLATE**

**By Kenai Watershed Forum**

Provide the following report to the Project Manager within 30 days following the end of each reporting period

**Date: April 20, 2022**

**Reporting Period:** January 20, 2022 to April 30, 2022

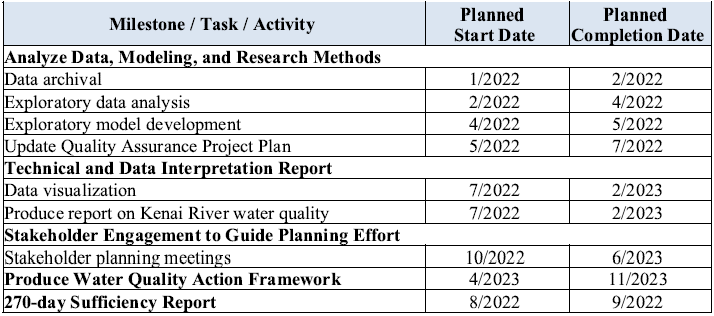
**Recipient:** Jessica Peters

**Project Name:** Kenai Water Quality Action Framework Development

**Assistance Agreement Number:** R22AP00057

1. **List the milestones scheduled to be completed in this reporting period as established by the financial assistance agreement.**

The scheduled milestones for this project are listed in the table below. Start date was January 20, 2022.

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1. **Is the project on schedule? Has the project met the expected milestones as established by the financial assistance agreement?** (If milestones were not met, please explain the reasons they were not met and potential solutions for addressing issues)

The project is on schedule, and is currently in the phase outlined as “Analyze Data, Modeling, and Research Methods.”

None of the individual milestones in this category are fully complete, but two of them are underway (“Data Archival” and “Update Quality Assurance Project Plan.”)

1. **What is the status of any milestones from the previous reporting period that were not met?**

This is the first reporting period for this project.

1. **Is the project on schedule to meet its expected completion date?** (If not, please address steps being taken to bring the project back on schedule.)

At the current level of progress, the project is on schedule to meet its expected completion date.

1. **Is the project proceeding in accordance with the original cost estimate?**

No budget abnormalities are reported for this progress period.

1. **Identify any other pertinent issues related to the status of the project.**

The staff for one position at Kenai Watershed Forum has changed since the grant award notification, but no resulting change in project schedule is foreseen. The principal investigator (Benjamin Meyer, Environmental Scientist) remains the project lead and is responsible for all aspects of the project pertaining to technical analysis of water quality data. This position accounts for 72% of the hours of this project (1560 hours). The Stream Watch Coordinator position budget accounts for 18% of the hours budgeted (400 hours), whose responsibilities will be carried out from late 2022 through later 2023. The remainder of the budgeted hours pertain to the Executive Director position (200 hours).

1. **Attachments (if applicable)**

All project work to date is documented in an online report format, accessible at <https://bit.ly/kwfwqx>. At present, the report is largely a blank template with the exception of “Appendix A: Data Review and Uplift.” This section is currently in progress, and outlines the process of preparing and reviewing water quality data in preparation for uplift to the EPA Water Quality Portal.

**Report Amendment May 20, 2022**

**Cooperative Watershed Management Program**

**QUARTERLY PROJECT PERFORMANCE REPORT - APPENDIX**

**By Kenai Watershed Forum**

**Date: May 24, 2022**

**Reporting Period:** January 20, 2022 to April 30, 2022

**Recipient:** Jessica Peters

**Project Name:** Kenai Water Quality Action Framework Development

**Assistance Agreement Number:** R22AP00057

Amendment on Timeline for BOR project, “Kenai River Water Quality Action Framework.”

This amendment is a follow up to the project quarterly performance report submitted by Kenai Watershed Forum (KWF) in April 2022. While the project is still in its early stages, some conditions have changed since the original submission of our proposed schedule. Overall project goals remain the same, but we provide this amendment to propose a modified schedule and the rationale for doing so.

From the proposal, the project aims to, “…curate and analyze [water quality] data, conduct stakeholder outreach and engagement, and to facilitate a planning process that will establish a water quality action framework to guide future management of the watershed.” All subsequent project steps will be founded on well curated data, the current task in which KWF is engaged.

*Challenge: Data Uplift*

At present there is a backlog of several years of data that must be “uplifted,” or housed in a permanent public data repository prior to applying it in analyses. These tasks are referred to in Task B1 of the project proposal. Currently data from 2000 – 2013 is uplifted, while data from 2014 – present is in the uplift process.

This project hosts data in the highest-level public repository for water quality data, the Environmental Protection Agency’s Water Quality Exchange (EPA WQX)1. The data uplift process involves extensive QA/QC checks and data formatting tasks, as outlined by the Quality Assurance Project Plan (QAPP). Throughout much of the twenty-two year history of the project, these tasks were executed by the Alaska Department of Environmental Conservation (ADEC) in support of the project. However in the period from 2014 – 2020 several key staff at both ADEC and KWF departed, resulting in an incomplete data pipeline from production to repository. Further state budget cuts in these years resulted in KWF being notified in 2022 that it will be the responsible party for data uplift processes in future years. In February 2021 when the proposal was submitted, some aspects of the above narrative were not yet clear.

*Solution: Develop Technical Capacity and New Partnerships*

In response to the shift in data management responsibilities for the Kenai River Baseline Water Quality Monitoring program, KWF is pursuing solutions from several avenues:

* *Modernizing data management.* KWF is in the process of implementing the same tools for data management as employed by larger agencies and organizations. In April 2022 KWF consulted with EPA WQX technical staff as well as Gold Systems, a software contractor that provides the Aquatic Water Quality Management System (AWQMS)2, a subscription product that facilitates data management and uplift to the WQX. KWF plans to transition to employing AWQMS for its own data management and QA/QC in 2023. Use of this platform consistently across multiple local organizations will allow for more sustainable transfer of knowledge for future practitioners.
* *Creating Reproducible Analysis Pipelines.* KWF is developing custom computer script applications to format water quality data and execute QA/QC processes in preparation for data uplift. The 2021 data processing is near complete and is described in detail in Appendix A of the draft online report at <https://bit.ly/kwfwqx>. Once prior years data are formatted as shown in section A.1.2, all subsequent QA/QC steps can be automatically executed for any years data, past or future.
* *Recruiting Partners for Assistance.* Community partnerships will remain key
* After discussions in late 2021, ADEC is providing assistance with data preparation for a portion of prior years data in need of uplift, specifically from 2017-2020. KWF will be responsible for any years outside this period. KWF is also currently in discussion with Gold Systems to potentially allow for its own subscription access to the AQWMS platform at a discounted rate under a partnership through ADEC.

KWF is able to pursue the solutions described above directly as a result of Bureau of Reclamation support. As we take on a larger role in management of our own data, we will employ tools that ensure long-term project sustainability. Support and momentum for our community-generated water quality program remains strong, as evidenced by a feature radio story3 on Alaska News Nightly from May 16, 2022. KWF has also posted a project description on its website4.

A proposed modified schedule is included on the following page. Thank you for your attention, and please do not hesitate to reach out with additional thoughts.

Sincerely,

Benjamin Meyer ([hydrology@kenaiwatershed.org](mailto:hydrology@kenaiwatershed.org))

***References***

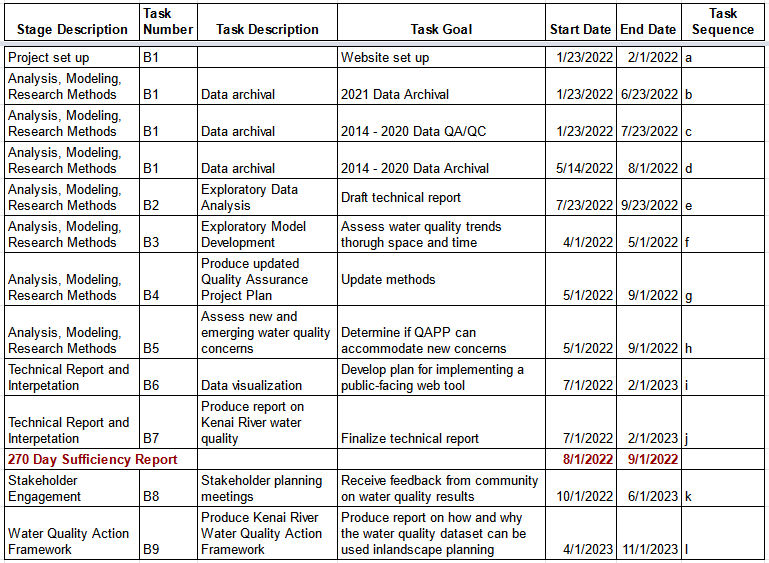
1. U.S. EPA. Water Quality Data Upload with WQX. https://www.epa.gov/waterdata/water-quality-data-upload-wqx (2020).

2. AWQMS - Ambient Water Quality Monitoring System. *AWQMS - Ambient Water Quality Monitoring System* https://www.awqms.com/.

3. Poux, S. Kenai River gets spring check-up. https://www.kdll.org/local-news/2022-05-16/river-monitoring (2022).

4. Meyer, B. The Kenai River Water Quality Action Framework. https://www.kenaiwatershed.org/water-research-news/the-kenai-river-water-quality-action-framework/ (2022).

***Proposed Revised Schedule***

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