**Project Information**

Project Name: Kenai River Baseline Water Quality Monitoring

Waterbody Name(s): Kenai River, No-Name Creek, Beaver Creek, Slikok Creek, Soldotna Creek, Moose River, Funny River, Killey River, Russian River, Juneau Creek

Assessment Unit ID(s): UNK

Project Manager: Benjamin Meyer

Data Conducting Organization: Kenai Watershed Forum

Data Collection Dates: 5/11/2021, 7/27/2021

**Data Evaluation Summary**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Review Step** | | **Responsible person** | **Name** | **Date Completed** |
| Pre-Database | Raw data review during field season | KWF Project Manager | Benjamin Meyer | September 2021 |
| Complete project and raw data review post field season | KWF Project Manager | Benjamin Meyer | June 2022 |
| Database Prep | Import configuration file review | DEC Project Manager |  |  |
| Database Import | Provisional AWQMS and data export review | DEC Project Manager |  |  |
| Corrected AWQMS and data export review\* | Secondary Reviewer |  |  |
| QA Review | QA Officer |  |  |
| Final review | Data Management Lead |  |  |

\*repeat review process until neither the project manager nor secondary reviewer finds any errors, then submit for QA and DML final review and project status change to final.

**Data Evaluation Checklist**

1. **Pre-Database​**

During the field season, review raw data files (EDDs, instrument records) as they are received. Document changes and corrections to methods as needed.

Once all data is received, review for overall project success and conduct a detailed evaluation of field notes, in-situ field, and analytical results. Filter and sort raw data files to answer the following questions for all results. Include notes in this checklist as well as a supporting excel file with calculations and summary tables for all QA calculations. Document all data that fails QA and provide justification for any rejected results.

**Overall Project Success**

1. Did the project follow the QAPP? **Yes**

Were there any deviations from the sampling plan? Y or **No**

*Notes: 2021 sampling plan was executed as intended.*

1. Was the data collected representative of environmental conditions? **Yes**

*Notes: Study design is intended to annually create two single-day snapshots across a wide geographical area of the Kenai River watershed.*

1. Are site names, dates, and times correct and as expected? **Yes**

*Notes: Despite providing pre-printed labels on all sample bottles, there were numerous mis-spellings and inconsistencies in the electronic data delivery (EDD) files received from the laboratories. The site name issues were corrected in post-season data review. For future years, we may consider providing a spreadsheet to the labs with all site names to encourage using these electronic entries directly.*

1. Is the dataset complete and did you receive the expected number of results? Y or N

Enter Completeness Goal from QAPP (%):

Enter Project Completeness (%):

Provide completeness calculation(s) and a summary table in supporting excel file. Include parameter information, number of expected samples, number of collected samples and overall percent completeness. Copy summary table here if applicable.

Notes:

* Look up definitions and provide calcs

1. Were field duplicates, blanks, and/or other QC samples collected as planned? **Y** or N

Field duplicates: Enter # required and # collected

Field blanks: Enter # required and # collected

Other: Enter # required and # collected

Notes:

1. Are the duplicate sample(s) RPD within range described in QAPP? Y or N

Enter RPD goal from QAPP(%):

Provide duplicate RPD calculations and a summary table in supporting excel file. Include parameters, site names, dates, results and RPD values. Copy summary table here if applicable.

Notes:

**In-situ field data and instruments:**

1. Were there any issues with instrument calibration? Y or N

Did the instrument perform as expected? Y or N

Notes:

* For 2021, temp only

1. Was instrument calibration performed according to the QAPP and instrument recommendations? Y or N

Were calibration logs or records kept? Y or N

Notes:

* Find instr. Cal logs

1. Was instrument verification during the field season performed according to the QAPP and instrument recommendations? Y or N

Were verification logs or records kept? Y or N

Notes:

* Not applicable because only one field day at a time

1. Do the instrument data files site IDs, time stamps and file names match? Y or N

Notes:

* No data files

1. Is any field data rejected and why? Y or N

Notes:

* tbd

1. Add any additional comments:

**Analytical laboratory reports and results:**

1. Do the laboratory reports provide results for all sites and parameters? Y or N

Notes:

1. Were the appropriate analytical methods used for all parameters? Y or N

Notes:

1. Do the laboratory reports match the COC and requested methods? Y or N

Are same methods used throughout? Y or N

Notes:

1. Are the number of samples on the laboratory reports the same as on the COC? Y or N

Notes:

1. Is a copy of the COC included with the laboratory reports? Y or N

Notes:

1. Were preservation, hold time and temperature requirements met? Y or N

Notes:

1. Are there any project specific concerns (e.g. total v. dissolved, MST, etc)? Y or N

Notes:

1. Was all supporting info provided in the laboratory report, such as reporting limits for all analyses and definitions? Y or N

Notes:

1. Were there any laboratory discrepancies, errors, data qualifiers, or QC failures (review laboratory duplicates, matrix spikes and blanks)? Y or N

Notes:

* Substantial task or?
* Notes
  + Summer 2021 Taurianen data does not contain a “blank” or “positive “ (tntc result)
  + Spring and summer TSS do not have external qc check standard or lab duplicate data
  + We will review Lab QA/QC data visually/manually

1. Is any laboratory data rejected and why? Y or N

Notes:

1. Add any additional comments:

If there are any data concerns, provide a copy of the pre-database review of this document and supporting data files to the QA Officer for review.

1. Was the QA Officer consulted for any data concerns?

Notes:

1. **Database Prep**

Add project to AWQMS database including QAPP and any supplemental data not part of import. Add monitoring locations to AWQMS database and associate monitoring locations with project. Develop import configuration file for Activities and Results. Copy raw data into import file and review for accuracy and completeness. Filter and sort import data file to review and correct any errors. Upload raw data in import file as “Provisional” status into AWQMS. Fix any import errors that arise. Repeat as necessary until all data is uploaded to AWQMS.

Complete: Y or N

Notes:

1. **Database**

The fields identified for review below are suggestions based on typical projects. Your particular project may include more or fewer fields that need to be reviewed. Please include notes for any additional fields reviewed for your projects.

The following review should be conducted first by the project manager and then repeated by a secondary reviewer. Go back and forth between reviewers until neither finds any errors. Once reviews are complete and no errors are found, submit to QA Officer for review.

In AWQMS:

1. Review project detail page.
   1. Is the project detail filled out? Y or N
   2. Are the correct monitoring locations associated with the project? Y or N
   3. Is the total number of results correct for the project? Y or N
   4. Are the QAPP and other supporting documents attached? Y or N

Notes:

1. Review monitoring locations. Create a map of the locations. Are they in the correct place? Y or N
   1. Is all metadata correct? Y or N

Notes:

Create a standard export of the project data to review data completeness and correctness:

1. Use sort, filter and pivot table tools to review all columns and values.
   1. Is the organization ID correct? Y or N
   2. Are the time zones consistent and correct (AKDT in summer)? Y or N
   3. Are all media types included? Media types appropriate to Characteristic? Y or N
   4. Are the latitude and longitude filled in correctly in a consistent format? Y or N

Notes:

1. For Activities:
   1. Check Sample Collection, Preparation and Preservation Methods, Thermal Preservative, Equipment ID, Activity Media. Is supporting information included and correct? Y or N
   2. Are all expected activity types present and are QC samples correctly identified? Y or N
   3. Is the Activity media subdivision filled in (if relevant)? Y or N
   4. For Water activity media, is the relative depth filled in? Y or N

Notes:

1. For Results:
   1. Is the number of results for each Characteristic correct? Y or N
   2. Do the range of result values make sense, are units correct? Y or N
   3. Are detection limits and laboratory qualifiers included for analytical results? Y or N

Notes:

1. Other fields reviewed as applicable to your project. Notes:
2. Make corrections as needed. Notes:

Submit to Data Management Lead for final review after QA Officer review is complete. Data Management Lead will confirm that all required steps are complete, attach final Data Evaluation Checklist, and change data status to final in AWQMS.

Notes:

1. Any other relevant information: