Checklist for the High frequency Groundwater-Quality Record Analyst

This is a suggested checklist to be used when analyzing a groundwater-quality record. Feel free to modify these guidelines in consultation with the project manager or section supervisor.

Site Name: _____ Site ID: _____

Parameter: _____ Year (water/calendar): _____

Worked by: _____ Date: _____ Analyzed by: _____ Date: _____

☐ With the project manager and/or the section supervisor, discuss the project's data-quality objectives and set time limits for analyzing the record. (Recommendations listed below)

Time limits: _____ minutes for the field sheets (≤10 minutes per record)
_____ minutes for checking shift tables and spreadsheets (≤20 minutes)
_____ minutes for the entire record (≤90 minutes)

Yes|No   If field sheets are to be checked, include the following in your analysis:
☐ Probes were calibrated properly.
☐ All appropriate information included.
☐ Any changes in procedure over the course of the year noted and justified

☐ Examine a graph of the raw and corrected data, including marks that coincide with site visits. Use the station analysis as a guide, and look for:
☐ Data gaps
☐ Spikes in the data that exceed the project's criteria for deletion
☐ Obvious probe failures
☐ Expected patterns in the data (annual, daily, and those due to site specific conditions)
☐ Shift implementation – look for the size of shifts by comparing raw and corrected data
☐ Discontinuities (step functions) in the raw data at site visits. If present at a level that exceeds the accuracy of the probe, suggest a solution to eliminate the discontinuity.

☐ Examine other plots of the data provided by the field personnel. If necessary, create additional plots of the data showing comparisons to other constituents at this site.
☐ Check for consistency in the data patterns. If inconsistencies are present, suggest an appropriate course of action to remove the inconsistency or explain its presence.

Yes|No   If correction processes are to be analyzed, include the following in your analysis:
☐ Transcription errors from field sheets to correction spreadsheets
☐ Transcription errors from correction spreadsheets to NWIS-TS fields
☐ Missing or inappropriate shifts, not noted in correction spreadsheet or station analysis?
☐ Shifts that do not cover the entire range of the data
☐ Approximate percentage of data analyzed (circle one): 10 20 30 40 50 60 70 80 90 all

☐ The record has been analyzed! Notify the field personnel if changes are needed to the record. Otherwise, the record can now be sent to the designated approver.

☐ In NWIS-TS, make sure data is put into "Analyzed" status before sending to approval.

Total time needed to analyze the record: _____ hours

☐ If the time exceeded the time limit established at the top of this checklist, meet with the project manager to determine how the process might be further streamlined.

☐ After completing this checklist, put it in the record's folder.

Analyst Comments:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____