



the journey to restore
America's Everglades

DATA USABILITY

Data Usability

"Data Quality Assessment is built on a fundamental premise: data quality is meaningful only when it relates to the intended use of the data. Data quality does not exist in a vacuum, a reviewer needs to know in what context a data set is to be used in order to establish a relevant yardstick for judging whether or not the data is acceptable"

US EPA, 2006a. Data Quality Assessment 1

Data Usability

Databases and management application tools such as DBHYDRO, MORPHO/CID and ERDP contain not only results but include metadata that can help determine the data usability

Data users are encouraged to look at all information relating to the data point of interest



Data Usability

Data Usability Questions:

Is the data good enough for my project?

New data:

- Did it meet my Data Quality Objectives?

Existing data:

- Did it meet method criteria?
- What if it didn't? Can I still use the data?
- How do I know what the data really means?
- Was there Low bias? High bias?

Data Usability

Data usability is evaluated with respect to the project questions to ensure that the opportunity for incorporating unacceptable and manageable error into the decision-making process is minimized to the extent possible

Example of Importance of Metadata

Study A Result = 10 mg/L

Study B Result = 10 mg/L

Study C Result = 20 U mg/L

QA evaluation of data with the use of
estimated uncertainty

Study A Result = 10 mg/L \pm 2 mg/L

Study B Result = 10 mg/L \pm 10 mg/L

Study C Result = 20 U mg/L

Example of Importance of Metadata

Making the right decision

Water Quality Criteria = 100 ug/L

Measurement = 86 ug/L

Are you making the right decision?

Yes, if analyte = 86 ± 10 ug/L (76-96 ug/L)

No, if analyte = 86 ± 20 ug/L (66-106 ug/L)

Data Usability

- If you have questions in interpreting data or need help in accessing data for your project needs the QAOT or the QAOs and the data validation section are available to assist you
- Ultimately though, the final decision in using the data is up to the data user
- Decisions should be based on the Project purpose, Data Quality Objectives and evaluated based on applicable qualifiers and supporting metadata

Questions? /Contacts

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Thank you!