



WHAT ARE DATA OF “KNOWN AND DOCUMENTED QUALITY”?

These are data that have been collected, validated, and reported according to documented, systematic quality assurance protocols. When the quality of data is known, it is possible to determine if the data can be used for a specific decision.¹

Fostering Data Integrity Through a Systematic Quality Assurance Program

The California Department of Fish and Wildlife’s (CDFW) Instream Flow Program (IFP) has adopted the goal of collecting data of known and documented quality. In order to achieve this goal, the CDFW IFP began work in 2012 with the Quality Assurance Team at the Moss Landing Marine Laboratories to develop a documented, systematic quality assurance (QA) program for instream flow data. The Quality Assurance Team has a long history of designing effective QA programs for large-scale applications such as the CalFED Mercury Program and the State Water Resources Control Board’s Surface Water Ambient Monitoring Program.



The absence of established quality assurance and quality control systems is problematic, as there are no mechanisms to assess if data were produced in a credible, comparable, coordinated, and scientifically-defensible manner. *When data are collected, validated, and reported in accordance with a documented, systematic QA program such as CDFW IFP’s, by definition these data are of known and documented quality.* The standardization provided by this QA program produces data of known and documented quality, and provides project managers the ability to easily explain and defend data.

Standardized procedures and other components of the CDFW IFP QA program are posted on the [CDFW IFP website](#) as they become available for use. These components foster comparability and usability of instream flow information collected across California, and ensure that the resulting data will be of known and documented quality.



¹U.S. Environmental Protection Agency, 2002. *Overview of the EPA Quality System for Environmental Data and Technology*, EPA/240/R-02/003, Office of Environmental Information



What are the Benefits of Known and Documented Data Quality?

The primary benefit of known and documented data quality is that it helps ensure the integrity of generated results. This is very important when reporting data that could be subjected to a legal challenge or questions regarding its suitability for current or future use. Data that have no related documentation may go unused regardless of the effort that went into their collection. If a dataset is questioned, information on how it was generated is critical for resolution.

Data of known and documented quality also have the potential to be useful beyond their original intended use. Establishment of regional or statewide trends requires the use of historical data, and historical data of known and documented quality can be fully evaluated to ensure it is of the type and quality needed to address future issues. This helps strengthen the conclusions that can be drawn from historical data, and makes those conclusions easier to defend if challenged.



In the Summer 2014 Program Update:

Frequently asked questions about CDFW IFP standard operating procedures (SOPs)