

# CHAPTER 10

## BIOLOGICAL ASSESSMENT REPORTING REQUIREMENTS AND DATA MANAGEMENT

---

### Biological Data Reporting

Whenever biological data are collected, field measurements and comments must be reported for that station on that day. This information is used to characterize the conditions in the water body at the time of collection.

Table 10.1 outlines the required and recommended data requirements for biological assessments. **The requirements include both data collection and data evaluation components.**

**Table 10.1.** Summary of data requirements.

<b>Data Type</b>	<b>ALM</b>	<b>ALA</b>	<b>RWA</b>	<b>ALUAA</b>
Field multiprobe parameters	X	X	X	X
Diel (24-hour) measurements	X	X		X
Routine water chemistry samples		X		X
Flow measurement (in non-tidal streams) and observations	X	X	X	X
Fish survey	X	X	X	X
Benthic macroinvertebrate survey	X	X	X	X
Survey of stream physical habitat	X	X	X	X
Field notes (copied pages of field data logbook)	X	X	X	X
Latitude and longitude coordinates	X	X	X	X
Forms	X	X	X	X
Color photographs	X	X	X	X
Biological Data Summary Packet (AAs must also include a report following the ALUAA report outline in Appendix C)	X	X	X	X

X = Required

# Managing Biological Data

## *Data Handling*

Transcription of data into electronic format creates a high possibility of error. Each phase of data generation and handling must have routine independent checks made on 10 percent of the data. Data from biological samples must be rechecked after data entry to ensure correct transcription. The TCEQ will supply a standard format for submission of data. This format will be outlined in the *SWQM DMRG*. Collectors must ensure that they submit all data necessary to calculate multi-metric indices.

## *Contracting and Institutional Standards*

Data collectors will employ desktop QA methods to ensure identifications are correct. Those submitting biological data must check samples against known distributional information to determine if out-of-range organisms were identified. Primary sources include Hubbs et al. (1991) and Lee et al. (1980). The TCEQ will scrutinize all new citations and will require appropriate vouchers to ensure proper identification. If the out-of-range determinations prove incorrect upon review, then the TCEQ will review the collection for other similar species and those rechecked.

If a sample fails desktop QC checks and the error is uncorrectable, the data are invalid and the TCEQ will not accept them. Possible consequences of failing desktop QA include requiring resampling, more frequent QA visits, and the TCEQ withholding contractor payment.

## *Submitting Biological Data*

Submit data associated with a biological sampling event (for fish, macroinvertebrates, habitat, water chemistry, or field data) electronically according to standard procedures described in this guide and in the *SWQM DMRG*. This includes the sample and results electronic flat files, as well as digital photos and PDFs of other records resulting from the biological monitoring (scanned logbooks, field-data worksheets, forms, and other records that can be converted to electronic images). Detailed information on reporting biological data is located in the *SWQM DMRG*. Additionally, hard copies of the data must be submitted as prescribed in the Biological Data Summary Packet in Appendix C.