

## Appendix 10: Options for Providing Data or Data Locations to EPA's Office of Pesticide Programs

There are several options for providing the data or data locations to EPA/OPP:

1. If the data are already in the new STORET database, then simply let OPP know where the dataset is located within the database.
2. If the data are in legacy versions of STORET, or in other data systems, then OPP would like to get the type of metadata and detailed data described in the following sections.

(n.b., As a point of reference, *The National Water Quality Monitoring Council*, a consortium of federal, tribal, state and local agencies, academia, and the private and public sector water supply industries, developed guidance on water quality data elements that enhance the evaluation and sharing of water quality data. The data elements identified below were derived from this guidance ([http://acwi.gov/methods/data\\_projects/index.html](http://acwi.gov/methods/data_projects/index.html), accessed 10/2/2006). In addition, detailed guidance on elements included in data quality standards may be found in the *Environmental Sampling, Analysis and Results (ESAR) Data Standard* issued by the Environmental Data Standards Council:  
<http://www.envdatastandards.net/content/article/detail/649?PHPSESSID=f4d35d5d72960a91284c065c6ed71f9a>)

### **Sample data must include at a minimum:**

- Bibliographic reference  
Data included in an EPA risk assessment need to be citable. The reference would ideally be for a report on the study in which the data were collected. If the bibliographic citation is a website, it should reference the page containing the data in question (not the general site for the database), and must identify the date the page was accessed. A database that is on the web containing data from multiple studies is acceptable, as long as a lead contact (i.e. study director or collecting organization) for the study that collected the specific data in question is provided.
- Sample collection date (and time, if available)
- Sample ID
- Location description (Water body name in National Hydrography Dataset, and location descriptor such as: latitude/longitude, FIPS code, water body & segment)
- Sample media (e.g. water, filtered water, bed sediment, tissue, etc.)
- Concentration detected and measurement units

### **Other important information that aid in interpreting monitoring data are:**

- What was the purpose of the study (i.e. study design rationale)? (a reconnaissance study, targeted to compounds of interest, TMDL plan, statistically designed)
- Analytical method
- Detection limit
- QA/QC for method & samples

- Time of sample (e.g. date, time, and duration (if a composite), or other relevant parameter (such as a flow weighted sample)
- Sample collection method (e.g. grab or composite)
- Toxicity benchmark, if available (e.g. state water quality criterion)

**Metadata (ancillary data) are needed when using the data quantitatively, such as**

- Land use, including cropping pattern, agriculture/urban, etc.
- Pesticide usage that could affect water quality at sampling location
- Did the sampling methodology & analytical methods go through a formal QA process
- Is the formal QA process documented (e.g. in a report or on a website address)
- For pesticides that adsorb to sediments: percent organic carbon, bulk density, etc.
- Relevant organism parameters (size or life stage)
- For some chemicals, environmental conditions may affect mobility and persistence (for example: temperature, pH, hardness, turbidity). If this is known to occur, information on the parameter would be helpful in interpreting the data.

OPP recognizes that raw data for all the parameters listed above may not be available in all monitoring studies, particularly for older studies, and that the types of water quality data collected might be different between monitoring programs. There is no need for states to create or reformat any data – OPP will attempt to use what is available, either qualitatively or quantitatively. In that spirit:

If the supporting data were collected in a monitoring program conducted by the states themselves, OPP would like to receive the detailed monitoring data and a copy of any report describing the purpose and design of the monitoring study, or internet web address leading to this information.

If the data were collected by an outside party, such as university researchers, then citations of published reports or copies of the reports themselves would provide the needed context. (Note, please do not submit NAWQA data if it was used as the basis of a 303(d) listing or identification of a water body of concern, instead please reference the specific NAWQA dataset.)

If any 303(d) listings or other water quality concerns for pesticides were based on watershed characteristics or expected pesticide use, and not actual pesticide detections in surface water, such information could help inform OPP's risk assessment, as well.

In summary, OPP is interested in seeing all available data for a specific water body of concern to a State. If a monitoring study is already contained within the new STORET all that is required is its location within the database. For monitoring studies not contained with the new STORET, please submit data, or provide database locations, with associated documentation or references, as described above.