Data Collection

Data collection performed appropriately and in conjunction with well organized data management, creates the basis for the majority of all organizational decision making and planning that the water provider/entity conducts. Data should be collected and stored in such a manner that it is safeguarded from damage or loss, accessible for inspection and evaluation, and utilized regularly to characterize trends and support management efforts. Management data is discussed in the BMP that follows.

Data collection can be segregated into four keys areas:

- Water flows and volumes including water production and treated; unmetered and metered unbilled water; customer water deliveries; and leaks.
- Costs (direct and indirect) for production, treatment and distribution of water (e.g., energy, chemicals); materials; labor for maintenance; staff costs (e.g., salaries, training, certifications, fringe); laboratory fees; repairs (labor and expenses); etc.
- Billings for retail and wholesale sales; and
- Infrastructure tracking all assets including pipe (diameter, location, age and materials); meters (age, size, totalized volume, maintenance records and location).

Best management practices exist for data collection with regards to each of these areas.

Collection of data is first and foremost an exercise in discipline, for data must be collected in a manner that is consistent and rigorous; meaning that whatever the data are that are being collected, they should be collected at nearly the same time and in the same way day to day, month to month, and year to year, to the extent practical. In addition, quality control procedures should be in place to test the data for accuracy and completeness. Data quality will be discussed in more detail below.



Resources

I > a Mapping and Organization

Data Collection for Small Water Systems (Department of Health, Washington State)