



Accessing Data Standards

Data Standards on Internet:
www.epa.gov/datastandards

For a list of EPA-approved data standards, please visit:
www.epa.gov/datastandards

For More Information

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Data Standards Services

Working with National Environmental Information Exchange Network (Exchange Network, EN or NEIEN) partners and other Federal Agencies, the U. S. EPA develops collaborative, consensus-based data standards. These are submitted to the EPA Quality and Information Council and the EPA Chief Information Officer for approval and use within the EPA. The use of approved data standards ensures that data are consistently named, defined, and formatted to provide more meaningful and reliable data to users of environmental information.

EPA's Data Standards website at www.epa.gov/datastandards offers one stop shopping for data standards information. This site supports the Agency's Data Standards Program by recording and disseminating information about EPA's data standards, standards-setting processes, and implementation guidance. This site relates to the use of data standards within the Agency, but may be of use to Exchange Network and other partners. Data standards information specific to Exchange Network partners is located at www.exchangenetwork.net/standards.

Data standards facilitate reuse and integration of information by establishing agreed-upon terms, meanings, and formats for key pieces of information that are common across multiple information systems. Within the EPA System of Registries (SOR), the Data Element Registry Services (DERS) stores the specifications of each standard data element, and, in the future, will provide a mechanism for mapping the standard data elements to the data fields found in the most important EPA systems. Data standards may also include common lists of valid values or codes. Mapping between common, standard lists of values and system-specific values will also be done in DERS. This will allow users of EPA information to discover where Agency data are in conformance with standards.

Definitions

Data standards are agreed-upon definitions, formats, and procedural rules for commonly used data sets that are needed to reduce the complexity of data manipulation and to make the exchange and integration of data more efficient.



Previous Activities

Six of the Environmental Sampling, Analysis and Results data standards were revised in 2010. The revisions addressed the need for additional standardized data elements to cover toxicity test analyses and population or community biological assessments. The original needs were identified and solutions developed by the Advisory Committee on Water Information (ACWI). These changes are designed to allow for flexibility in implementation while simultaneously improving consistency in the exchange of environmental data across the United States.

EPA also created online training that is available on the Data Standards website. This training is available in separate modules to allow the user to take the training at a more manageable pace.

Current Activities

EPA is exploring ways to share information with other federal agencies through the implementation of the National Information Exchange Model (NIEM). NIEM is a federal-wide effort to facilitate the exchange of information across federal, state, and local organizations. EPA data standards could comprise an environmental subset within NIEM. Exchange Network data standards will be cross-walked with NIEM to determine commonality; likewise, system and dataset data dictionaries will be cross-walked with NIEM to show how those data elements map.

Future Activities

While EPA and the Exchange Network will continue to consider other data standards for development, the near-term focus will be utilizing DERS to determine conformance to existing data standards. DERS is a repository that holds the EPA data standards and NIEM standards and will hold EPA system data dictionaries. As a system or dataset data dictionary is loaded into DERS, the data elements of that data dictionary will be cross-walked with the data standard data elements.