

This Interstate Technology and Regulatory Council (ITRC) online documentation includes Fact Sheets, Subtopic Sheets, Checklists, Case Studies, Interactive Tools, and Supporting Documents prepared by the Environmental Data Management Best Practices (EDMBP) Team. Links within the online document help the reader locate interrelated topics. The web-based nature of this document lends itself to updating key information in this continually evolving subject.

The documents are designed specifically for state, tribal and federal environmental staff, as well as others (including stakeholders, project managers, and decision makers), to gain a working knowledge of best practices for environmental data management (EDM). The document was developed by a team of over 400 environmental practitioners drawn from state and federal government, academia, industry, environmental consulting, and public interest groups.

Lists of acronyms, glossary terms, and references cited in these materials are also available on this website.

Interactive Directory of Environmental Data Management Best Practices Team Work Products

The Interactive Directory below presents the relationship between work products prepared by the EDMBP team.

User Instructions for Interactive Directory: Click on the individual buttons within the graphical interactive directory to navigate to each work product shown in this interactive directory.

Environmental Data Management Best Practices

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[Overview of Guidance Documents](#)

Data Management Planning

[Overview](#)

Subtopic Areas

[Data Governance](#)

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[Data Access, Sharing, and Security](#)

[Data Storage, Documentation, and Discovery](#)

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Data Quality

Overview

Subtopic Areas

Using Data Quality Dimensions to Assess and Manage Data Quality

Considerations for Choosing an Analytical Laboratory

Analytical Data Quality Review: Verification, Validation, and Usability

Tutorial

Tutorial: Active Quality Control During Screening-level Assessments

Supplemental Resources

Data Quality Planning

Data Quality Review

Environmental Data Management Systems

White Paper

Field Data Collection

Overview

Defining Data Categories and Collection Methods

Field Data Collection Quality Assurance and Quality Control (QA/QC)

Field Data Collection Process Development Considerations

Field Data Collection Training Best Practices

Interactive Tool: Field Data Collection Decision Tree

Field Data Collection Training Development Checklist

Other Considerations for Field Data Collection

Data Exchange

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Valid Values

Electronic Data Deliverables and Data Exchange

Data Migration Best Practices

Supplemental Resources

Data Exchange and Valid Values

Traditional Ecological Knowledge (TEK)

Overview

Subtopic Areas

Acquiring
TEK

Using and
Consuming TEK

Managing
TEK Data

Geospatial Data

Overview

Management Subtopic

Organization Standards for Geospatial
Environmental Data Management

Data
Standards

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Metadata

Software

Collection Subtopic

Collection Consistency

Field Hardware

Communication, Visualization, and Dissemination Subtopic

Data Dissemination:
Web Format

Geospatial Visualization
of Environmental Data

Supplemental Resources

Geospatial Data

Public Communications and Stakeholder Engagement

White Paper

Supplemental Resources

Public Communications

Case Studies

Data Exchange Focus

Historical Data Migration: Filling Minnesota's Superfund Groundwater Data Accessibility Gap

USGS: Challenges with Secondary Use of Multi-source Water Quality Monitoring Data

Traditional Ecological Knowledge Focus

Collection and Application of Local Knowledge to Local Environmental Management in Duluth, Minnesota

Improving Coastal Resilience in Point Hope, Alaska

Integration of TEK to the Remediation of Abandoned Uranium Sites

Local Ecological Knowledge of Historic Anthrax in a Natural Gas Field

Rest in Peace? A Cautionary Tale of Failure to Consult with an Indigenous Community

Use of TEK to Support Revegetation at a Former Uranium Mill Site

Additional Information

[References](#)

[Acronyms](#)

[Glossary](#)

[Acknowledgements](#)

[Team Contacts](#)

Environmental Data Management Training

Environmental Data Management Best Practices Roundtables

The EDMBP Team developed three Roundtable training sessions to support the Guidance Document and case studies. These training sessions are complimentary to the guidance materials but cover different self-contained subjects.

- Data Management: Real Life Application of Data Management Planning and Field Data Collection Best Practices
- Data Exchange: Best Practices for Exchanging Environmental Data
- Data Quality: Best Practices for Achieving and Maintaining Quality within Environmental Data Management

Environmental Data Management Best Practices Overview Video

ITRC's Environmental Data Management Best Practices (EDMBP) Team developed an overview video detailing these guidance materials and clarifying how to best navigate this website.

Traditional Ecological Knowledge Podcast

The EDMBP Traditional Ecological Knowledge (TEK) Subgroup has published a full-length podcast introducing and

contextualizing this key type of ecological knowledge.

ITRC · Traditional Ecological Knowledge

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