TABLE OF CONTENTS

OVERVIEW

2.1 What is the purpose of this chapter? This chapter:

A. Describes the U.S. Fish and Wildlife Service's (Service) policies and procedures for developing, adopting, and maintaining Servicewide data standards;

B. Establishes an official location for these standards; and

C. Provides roles and responsibilities and a framework to help Service employees use data standards to promote efficient exchange of data both internally and externally.

2.2 What is the scope of this chapter? This chapter applies to:

A. Service employees, contractors, and volunteers who collect, create, distribute, or manage data for the Service;

B. Data the people in section 2.2A above create, distribute, or manage, in any medium or form, that are covered under an official Service data standard; and

C. Data standards proposed for Servicewide adoption.

2.3 What are the objectives of this chapter? Our objectives for adopting and using Servicewide data standards are to:

A. Provide a means to seamlessly exchange data, including through the use of open data standards where appropriate;

B. Make data more consistent, transparent, and easier to interpret and use; and

C. Create a basis for mutual understanding of Service data internally and externally.

2.4 What is the Service's policy on data standards?

A. Before developing a unique Service standard for a particular type or class of data, employees must determine whether Federal or Departmental law, regulation, or policy requires us to use an existing standard. In addition, employees must determine whether a voluntary consensus standard exists that meets the Service's requirement, in accordance with Office of Management and Budget (OMB) Circular A-119, Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities. In those cases, we must adopt the existing standard rather than create a new one.

B. Regardless of whether a program is proposing the adoption of an existing standard or development of a new one, they must follow the formal review and approval process for establishing data standards that this chapter describes.

C. All Servicewide data standards must be:

(1) Open to the extent possible;

(2) Reviewed and approved by the Service's Data Management Governance Board (Board) prior to development/adoption and implementation;

(3) Documented and managed by a designated Data Standard Steward; and

(4) Reviewed no less than once every 5 years to ensure that the standard is still meeting requirements.

D. Once officially in place, Servicewide data standards must be implemented across the Service (including in applicable information systems) in accordance with the Board-approved timeline and depreciation schedule (if applicable). The Data Standard Steward is responsible for assisting Service employees with implementing the standard.

E. The Board is responsible for maintaining a list of approved Servicewide data standards on a publicly available site.

2.5 What are the authorities for this chapter?

A. Federal Funding Accountability and Transparency Act of 2006, as amended (31 U.S.C. 6101, notes).

B. Geospatial Data Act of 2018 (43 U.S.C. Chapter 46, 2801-2811).

C. National Technology Transfer and Advancement Act of 1995 (Public Law 104-113).

D. OMB Circular A-119, Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities.

E. OMB Circular A-130, Managing Information as a Strategic Resource.

F. Open, Public, Electronic, and Necessary (OPEN) Government Data Act, Title II of the Foundations for Evidence-Based Policymaking Act of 2018 (Public Law 115-435).

2.6 What terms do you need to know to understand this chapter? Following are definitions of terms we use in the chapter. See 274 FW 1, Data Management for more, related definitions.

A. Data Standard. A formal document that contains the authoritative rules, technical criteria, methods, processes, and practices by which data are described, exchanged, and recorded (e.g., Federal Geographic Data Committee (FGDC) National Vegetation Classification Standard or the Content Standard for Digital Geospatial Metadata (CSDGM)).

B. Data Standard Steward. A Service employee (or group of employees) who oversees the management of a data standard. Data Standard Stewards are responsible for ensuring that data standards under their purview are accurate and updating them as needed.

C. Information System. A discrete set of resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information.

D. Information System Owner. The official responsible for the overall procurement, development, integration, modification, operation, maintenance, and retirement of an information system.

E. Open Data Standard. A data standard that it is readily available and that other agencies and the public can access without restrictions.

F. Voluntary Consensus Standard. A type of standard that specialist organizations (e.g., the International Organization for Standardization (ISO)) develop or adopt by using the process described in OMB Circular A-119.

RESPONSIBILITIES

2.7 Who is responsible for Service data standards? See Table 2-1.

Table 2-1: Responsibilities for Data Standards

These employees…	Are responsible for…
A. The Director	**(1)** Approving or declining to approve Servicewide policies; and **(2)** Ensuring the Service has the resources, structure, and policy in place so that the Regions and programs develop and comply with data standards as required by law, regulation, and policy.
B. Directorate members	**(1)** Ensuring program or Regional compliance with this policy; **(2)** Promoting the use of approved standards; **(3)** Ensuring the resources are available (including funding and staff) to implement Servicewide data standards within their program or Region; and

These employees…	Are responsible for…
	(4) Designating a Data Standard Steward for standards within their areas of responsibility, as applicable.
C. Data Management Governance Board (Board)	**(1)** Reviewing data standards for Servicewide adoption and implementation; **(2)** Forming working groups to develop Servicewide standards; **(3)** Developing, recommending, and overseeing the processes for adopting, modifying, and withdrawing data standards as this chapter describes; **(4)** Working with programs and Regions to identify and mitigate barriers to adoption of approved data standards; **(5)** Identifying resources and technical solutions needed for data standard implementation; and **(6)** Monitoring and evaluating Service data standards to ensure they comply with Federal law and regulation, as well as OMB and Departmental policies, directives, and guidelines.
D. Associate Chief Information Officer (ACIO) for the Service, i.e., the Assistant Director – Information Resources and Technology Management	**(1)** Ensuring the Service's information systems can adequately implement approved data standards and utilize open data standards to the extent possible; **(2)** Assisting information system owners with implementing data standards within information systems as they are built or modified; and **(3)** Monitoring information systems to ensure they are adequately implementing data standards.

E. Associate Chief Data Officer (ACDO)	**(1)** Ensuring all Service data standards have an appointed Data Standard Steward who has a thorough knowledge of the subject matter that the standards for which they are responsible describe;
	
	 (2) Reviewing proposed Servicewide data standards and changes to existing standards to assess impacts and resource needs and providing analysis to the Board;
	
	 (3) Assisting Data Standard Stewards with
	
	     (a) The review processes for adopting, modifying, and withdrawing data standards;
	
	     (b) Managing and maintaining adopted data standards; and
	
	     (c) Locating and sharing data standards;

These employees…	Are responsible for…
	(4) Coordinating Servicewide review of proposed data standards within the Data Tracking System (DTS);
	(5) Leading and coordinating the implementation of adopted data standards;
	(6) Identifying potential issues or needs associated with data standard implementation and communicating those needs to the Board; and
	(7) Establishing and maintaining the list of adopted and proposed Servicewide data standards.
F. Data Standard Steward	**(1)** Serving as a technical point of contact for a data standard;
	(2) Developing, maintaining, and documenting their data standard(s), including providing implementation and interpretation guidance;
	(3) Ensuring that no applicable data standards exist before creating or adopting new data standards;
	(4) Compiling and addressing comments received about proposed data standards and revisions to existing standards;
	(5) Reviewing data standards at least every 5 years to ensure they remain current and useful; and
	(6) Modifying data standards to ensure their usefulness, accuracy, and integrity.
G. Information System Owners	**(1)** Applying and implementing the appropriate data standards in information system design, development, modification, and improvement efforts for which they are responsible; and
	(2) Identifying data under their management for which official Servicewide standards may be necessary.
H. Managers/ Supervisors	Ensuring employees under their supervision use Servicewide data standards, if available, when collecting, creating, and distributing Service data.
I. Service Employees	**(1)** Following the policy and procedures in this chapter,
	(2) Applying and using the most current approved version of applicable data standards,
	(3) Bringing issues and needs associated with Service data standards to the attention of the appropriate Data Steward or Data Standard Steward, and

FISH AND WILDLIFE SERVICE
INFORMATION RESOURCES MANAGEMENT

Information Resources Management	Part 274 Data Resource Management
Chapter 2 Adopting, Developing, and Maintaining Data Standards	**274 FW 2**

These employees…	Are responsible for…
	(4) Maintaining awareness of updates to data standards associated with data they use or manage.

ADOPTING AND DEVELOPING DATA STANDARDS

2.8 How does the Service adopt an existing standard?

A. When an employee or group of employees determines that a Servicewide data standard is needed, they must first determine whether a standard already exists that could meet the need. Employees can use resources such as the Federal Enterprise Data Resources repository to search for existing standards, including voluntary consensus standards that may be adopted for Service use. Once an employee has found a standard that would meet the need, they should follow these steps:

(1) *Coordinate with other subject matter experts or Communities of Practice (COP), or both.* Whenever possible, contact other Service employees and COPs within the Service who have subject matter expertise with the type of data in question to discuss the standard. This will help identify any issues with the proposed standard as early as possible and determine if the Service could adopt the standard as is or potentially modify it through the process for establishing a new data standard described in section 2.9. This coordination can be informal.

(2) *Prepare a proposal for the Board.* To move forward with adopting an existing standard, the next step is to gather any applicable documentation and prepare a proposal for the Board that identifies:

    (a) Why the Service should adopt the standard;

    (b) The scope of the standard;

    (c) Why the standard should apply Servicewide;

    (d) Whether the standard is required by any law, regulation, or policy; and

    (e) A proposed depreciation schedule for any previously applicable standards.

(3) *Submit proposal to the Board.* Once the proposal is complete, you can submit it to the Board for consideration. When deciding whether to adopt the standard, the Board must consider the standard as is. If the Board decides to move forward with adopting the standard as is, the ACDO will work with the Board and the Directorate, as necessary, to identify and appoint a Data Standard Steward.

(4) *Submit for Servicewide review.* The ACDO must prepare a package containing the proposed standard, any associated documentation, and a memorandum to the Directorate from the Director to request review of the standard. After the Director signs the memo and it's distributed in DTS, programs and Regions will have 30 days to review and express any reasons why the Service should not adopt the standard. The goal of this review is to gain perspective on the standard's potential impact on the business and mission of the Service, and not to obtain editorial comments. The Data Standard Steward and ACDO should make that goal clear in the memorandum to the Directorate.

Changing the content of the standard would trigger the review process for a new standard that we describe in section 2.9.

(5) *Review feedback and finalize standard.* Once the review period ends, the Data Standard Steward must consider any objections to adopting the standard raised during the Servicewide review. If there are none, or if the Data Standard Steward decides to move forward anyway, he/she must provide the standard to the Board for its consideration and include any comments received and responses to those comments. The Board will make the final decision about whether to adopt the standard. Once adopted, the Data Standard Steward must ensure that the standard is listed on the Service's data standards website. The Board must send out a Servicewide announcement to communicate that the standard was officially adopted, along with the required implementation date.

B. If we are required to adopt a certain standard (e.g., by the Department or Federal law), the review process is largely the same, except it should begin with the Board creating a working group to discuss implementation. The ACDO must work with the Board and affected Directorate members to determine who the appropriate Data Standard Steward should be. The Data Standard Steward must ensure that there is still a Servicewide review period (see section 2.8A(4)), but its focus will be on getting feedback on planned implementation.

2.9 How does the Service establish new data standards or modify existing standards for Service use?

A. As required by section 2.4A, we must use an existing data standard whenever possible. If an employee or group of employees determine that there are no existing standards that meet the need of the Service, they may have to create a Service-specific standard or modify an existing standard for use within the Service.

B. Once an employee or group of employees has determined that a new (or newly modified) standard is required, they must follow these steps:

(1) *Form a proposal evaluation team.* Whether or not the employee is developing a new, Service-specific data standard or modifying an existing standard, the next step is to form a proposal evaluation team. The team should consist of between 2-6 people, all with subject matter expertise related to the type of data. To ensure the proposed standard reflects a broad diversity of perspectives from across the Service, employees should reach out to the appropriate group(s) or COPs associated with the data type when enlisting participants. Employees may contact the Board for assistance. Team members must develop a proposal that describes:

   (a) Why a new (or newly modified) standard is needed,

   (b) The scope of the standard, and

   (c) Why the standard should apply Servicewide.

(2) *Submit the proposal to the Board.* When complete, the proposal evaluation team submits the proposal to the Board for consideration. If the Board decides to move forward, they will establish a standards development working group to develop (or modify) the standard and write implementation

guidance. This working group should be made up of no more than 8-10 subject matter experts. The Board also must ensure that the lead Directorate member(s) assign an employee or group of employees to serve as the Data Standard Steward.

(3) *Prepare draft standard.* The standards development working group, under the direction of the Data Standard Steward, creates the draft standard and its implementation guidance. Standards should be developed in an open, transparent, and consensus-driven manner. To solicit input, the Data Standard Steward should develop an announcement about the working group and distribute it to all applicable groups and COPs. The group should maintain working drafts in a location that is accessible to all Service staff and have a process for accepting and resolving comments. Draft standards must include the following elements:

   (a) A title or name for the data standard that is easily understood;

   (b) A description of the standard, including the scope of conditions for when the standard is applicable;

   (c) The name and contact information of the Data Standard Steward;

   (d) Definitions of terms and phrases used in the standard;

   (e) The classification of the standard (e.g., technical specification, process standard, vocabulary standard, etc.);

   (f) The full body or description of the standard, including all associated requirements and implementation guidance;

   (g) A summary of changes if the new standard is replacing an existing standard; and

   (h) A proposed depreciation schedule for any previously applicable standards.

(4) *Submit for Servicewide review.* Once complete, the standards development working group must submit the draft standard and implementation guidance to the Board. The Board must review the draft standard and may request changes before it provides its endorsement. Once endorsed by the Board, the ACDO must prepare a package that includes the draft standard, implementation guidance, and a memorandum to the Directorate from the Director that requests review and comment. After the Director signs the memo and it's distributed in DTS, programs and Regions will have 30 days to review and provide comments.

(5) *Incorporate feedback and finalize standard.* When the review period is complete, the Data Standard Steward must reconvene the standards development working group to address the feedback received and finalize the standard and guidance. The Data Standard Steward then presents the revised standard for the Board's official approval. Once approved, the Data Standard Steward ensures the standard and implementation guidance are posted on the Service's approved data standards website. The Board is also responsible for sending out a communication to the Service through whatever means is most effective, with the required implementation date.

2.10 How does the Service revise and withdraw standards?

A. Data Standard Stewards are responsible for maintaining their data standards over time and ensuring they remain useful for the needs of the Service. This includes conducting a required periodic review at least every 5 years, and more often if necessary. Prior to conducting this review, the Data Standard Steward must notify users and any relevant COPs that the standard will be undergoing review and solicit their feedback. After collecting feedback, if the Data Standard Steward determines no changes (or only minor editorial changes) are required, they will propose to the Board that the standard be extended for another 5-year period. The Board will review and approve the request or ask for revision. If the Data Standard Steward or Board determines that the standard requires revision, the Data Standard Steward must:

(1) Compile all comments and feedback and make a proposal to the Board for consideration. If the Board agrees with the proposal, they may establish a working group to formalize the changes.

(2) When the working group finalizes the revised standard, they must present it to the Board for approval along with a summary of the changes. The Board may decide that a formal Directorate review through DTS is required. If so, after the Directorate review is completed and comments are incorporated, the Board decides whether to approve the revision.

(3) Once approved, the Data Standard Steward must ensure that the revised standard is posted on the Service's data standards site. The Data Standard Steward should also consider issuing an announcement to the appropriate users and COPs. The revised standard must include a date of implementation that allows for an appropriate amount of time for the previous version of the standard to depreciate.

B. If, when soliciting feedback about a standard, the consensus is that the standard is no longer useful or compatible with current needs, the Data Standard Steward must initiate the following process to withdraw the standard:

(1) The Data Standard Steward must compile feedback received, including objections, and make a formal proposal to the Board. The Board decides whether to move forward with withdrawing the standard. Depending on the standard, the Board may decide to require a formal, 30-day Directorate review through DTS to ensure all relevant stakeholders have a chance to comment before making their decision.

(2) Once the standard is officially withdrawn, the Data Standard Steward must ensure that its status is updated on the publicly accessible data standards website and moved to an archive where employees can access it in the future, if necessary. At this point the Data Standard Steward is no longer responsible for maintaining it.

/sgd/ Stephen Guertin
DEPUTY DIRECTOR

Date: April 22, 2021